



ARCHITECTURAL EXPERIENCES  
**INNOVATION WITHIN HERITAGE**  
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**ARCHITECTURAL EXPERIENCES II** – Proceedings – The International Conference  
Architectural Experience 17-18/10/2024

The “Architectural Experiences” scientific journal represents a significant milestone, reflecting the maturity and cohesion of a consolidated research team supported by academic institutions committed to advancing the fields of architecture and design. This inaugural issue unites the full papers presented at the “Architectural Experience II – Innovation within Heritage” International Conference, aiming to disseminate high-quality research that bridges theory and practice. With contributions from academics and practitioners across borders and disciplines, the publication underscores the international and interdisciplinary character of the initiative. As the second edition of the conference, following its inaugural event in 2023, this volume attests to the continuity, consolidation, and growing prestige of a platform that fosters critical reflection, creative innovation, and academic dialogue in architectural and design research.

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**ARCHITECTURAL  
EXPERIENCES**  
Innovation within heritage

# PROCEEDINGS

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THE INTERNATIONAL CONFERENCE ARCHITECTURAL EXPERIENCE II  
**INNOVATION WITHIN HERITAGE**

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**17-18/10/2024**

COORDINATORS:  
Oana DIACONESCU  
Daniel N. ARMENCIU  
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## CONFERENCE PREMISES

The primary objective of this conference is to explore the multifaceted relationship between innovation and cultural heritage, highlighting the ways in which contemporary innovations can interact with, enhance, and transform our understanding and preservation of heritage. This conference aims to foster an interdisciplinary reflection on the dynamic interplay between past and future, conservation and transformation, memory and innovation.

The conference will delve into the economic and social dimensions of innovation in cultural heritage. This includes discussions on sustainable tourism, the economic impact of heritage sites, and the role of heritage in community development. We encourage submissions that investigate how heritage can drive economic growth and social cohesion, and how innovative approaches can make heritage more accessible and engaging for diverse audiences.

We also seek to examine how technological innovations (such as digital technologies and augmented reality) can be leveraged to conserve and enhance cultural assets. Additionally, we are interested in the role of big data and artificial intelligence in the cultural sector and how these tools can provide new insights and methods for heritage management. The conference will also address the development of new materials and techniques for restoration, exploring how advancements in science and technology can contribute to the preservation of historical artefacts and structures.

By bringing diverse perspectives together and fostering a dialogue between different fields, this conference aims to create a comprehensive understanding of how innovation can challenge and enrich our cultural heritage. Through this exploration, we hope to uncover new strategies for preserving and celebrating our shared heritage in an ever-evolving world.

We invite contributions that provide fresh insights and innovative solutions, and that demonstrate the significant impact of innovation on the preservation, interpretation, and appreciation of cultural heritage. Join us in this unique opportunity to explore the future of heritage through the lens of innovation.

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## SCIENTIFIC OVERVIEW

### INNOVATION AND ARCHITECTURAL EXPERIENCE IN FOCUS: UNVEILING THEIR MULTIPLE DIMENSIONS IN CULTURAL HERITAGE/

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**Abstract.** The second edition of the “Architecture Experience” conference, themed “Innovation within Heritage,” explores the intricate relationship between experience and innovation in the context of architectural heritage. This keynote reflects on how experience, interpreted as knowledge, fosters innovation by drawing lessons from historical precedents, pattern recognition, and past failures, exemplified through case studies such as adaptive reuse projects, dissonant heritage, and restoration practices. However, experience can also constrain creativity, reinforcing traditional norms and risk aversion. By balancing experience with fresh perspectives, innovation becomes a dynamic process that sustains heritage conservation while addressing contemporary challenges. Key themes include authenticity, adaptive reuse, community participation, and cultural sustainability, emphasizing the role of interdisciplinary dialogue and collaborative efforts. The conference fosters a deeper understanding of how experience and innovation intersect, offering a platform to envision new strategies for preserving cultural heritage while ensuring its relevance for the future.

**Introduction.** I would like to express my deepest and most heartfelt gratitude to all the dedicated and hardworking individuals who have contributed their time, effort, and expertise to the meticulous organization and execution of this second edition of the esteemed “Architecture Experience” conference, with the thought-provoking and timely theme of “Innovation within Heritage.” The selection of this captivating and relevant topic, in close collaboration with the esteemed Professor Diaconescu of the prestigious Ion Mincu University and the distinguished members of the highly competent scientific committee, as well as the invaluable involvement and support of the renowned Department of Architecture and Design at the renowned Polytechnic University, is truly an ideal and inspiring subject matter that will undoubtedly provide all the eager and engaged attendees with a truly valuable and enriching opportunity to share their wealth of knowledge, experience, and innovative insights in the dynamic and ever-evolving field of architectural heritage preservation and revitalization.

As a distinguished guest speaker, I am honored to address this esteemed audience gathered in this magnificent castle in Romania. In my keynote speech titled “Innovation and Experience,” I aim to share my reflections on the profound relationship between these two core themes of the conference, which explore architecture, experience, and innovation within the realm of heritage. It is my belief that experience and innovation share a symbiotic relationship, where experience can, in a sense, facilitate or drive innovation. However, the question I wish to pose to this distinguished

gathering is: what is the precise nature of the relationship between experience and innovation? While we may perceive a meaningful and identifiable connection between these concepts, the specific dynamics of this relationship warrant further exploration. As I have delved deeper into understanding the interplay between innovation and experience, I have encountered a range of hypothetical connections, or perhaps a single connection with distinct levels and characteristics. I hope that through our discourse today, we can collectively unravel the nuances of this relationship and gain a deeper understanding of how experience and innovation intersect and influence one another within the context of heritage and architecture.

**Experience as Knowledge.** The interpretation of experience is paramount, as it can be understood as a form of deep knowledge and insight into a particular field and its associated challenges and dynamics. This knowledge serves as a foundation for innovation, enabling the identification of genuine and relevant issues that require addressing, fostering an understanding of the limitations of existing solutions, and offering a holistic perspective on the operational context. To illustrate this concept, consider the work of the renowned Italian architect, Pietro Carlo Pellegrini, and his project on the adaptive reuse of an old kiln near Riccione, Italy, which exemplifies the notion of experience as knowledge. Pellegrini’s architectural design for the new volume added to the kiln was not solely based on personal preference or a perceived suitability for the context. Rather, it was deeply informed by previous studies on similar historical kilns. The existing structure’s ruins, constructed in layers of brickwork, served as an aesthetic and functional precedent, which Pellegrini studied not only for its aesthetic qualities but primarily as a model deeply connected to the genius loci of the area. Through this path of knowledge and understanding, Pellegrini arrived at a final design that is not dictated by personal preference but is instead shaped by historical premises and, most importantly, the cultural values embedded in the site.

The notion of experience as a form of knowledge can be further explored by considering alternative interpretations, such as the concept of *pattern recognition*. Over time, the accumulated experience can cultivate a kind of expert intuition, enabling individuals to discern emerging trends, connect seemingly disparate concepts, and anticipate potential obstacles or opportunities. This perspective diverges somewhat from the previous approach, as it provides professionals in fields like architecture, conservation, and heritage transformation the opportunity to move beyond mere observation and towards a more nuanced understanding and interpretation of architectural heritage. To exemplify this idea, a juxtaposition is presented by two images depicting buildings from two different historical periods, both located in Terni, a central Italian city. These buildings, although not far from each other, represent contrasting eras. On the one hand, Palazzo Spada, a 15th-century structure with a defensive character, almost resembling a fortress in the heart of the city, complete with corner towers. In one of these towers, a circular staircase with a delicately vaulted ceiling constructed using minimal masonry. Five centuries later, in the 1950s, the architect Mario Ridolfi applied the same technique to the ceiling of a stairwell in Terni’s Hotel Michelangelo. This new design, elliptical rather than circular, incorporates modern exposed concrete techniques, aligning with

the contemporary architectural language of Ridolfi's time. While not direct documentation indicating that Ridolfi intentionally referenced the Palazzo Spada has been found yet by this research, their studies in Terni suggest an implicit connection. It can be imagined the discussions and debates, Ridolfi must have had with workers and contractors on the Hotel Michelangelo project, persuading them that this design choice was valid—not just in terms of function or economy, but as a profound and intrinsic connection with history. It is this very relationship that gives us the chance to reflect more deeply on the role of experience in linking us with the past.

**Experience as Innovation.** The notion of experience as a form of knowledge, as discussed in the previous chapter, can be further explored through the research program I'm involved as one of the main coordinators: "Dissonant Heritage, War Conservation, and Communicating a Difficult Legacy," or Co.Co.WAR, funded by Italy's Ministry of Culture. This comprehensive project aims to understand the phenomenon of dissonant heritage, which is closely linked to conflict and the shifting perceptions of architectural legacies within communities. The research program "Dissonant Heritage, War Conservation, and Communicating a Difficult Legacy," or Co.Co.WAR. It is a collaborative effort involving three Italian universities: the Polytechnic University of Turin, the Alma Mater University of Bologna, and the Polytechnic University of Ancona. This comprehensive project aims to explore and establish a methodology for understanding dissonant heritage, systematically analyzing approximately two hundred case studies worldwide. The overarching objective is to identify the criteria and characteristics that define this phenomenon, evaluate its various manifestations, and elucidate the causes and impact of dissonance on heritage. The researchers hypothesize that dissonance is closely linked to conflict, both in terms of actual warfare and the broader context of misinterpretations surrounding architectural legacies that affect community perception. One area of particular interest includes architectural experiences, such as memorials in the Balkans, specifically those designed by Bogdan Bogdanovic during the latter half of the 20th century. The origin and purpose of these structures provide an opportunity to reflect on how perceptions of these buildings have shifted over time within the former Yugoslavia. While the physical structures may remain largely unchanged, the communities' views toward them aside from natural deterioration, have evolved significantly. This shift exemplifies the concept of "interpretive dissonance," where architectural experience extends beyond static structures to include the networked power of perception and community engagement.

The role of experience, particularly in the context of architectural restoration and heritage, is a critical yet complex aspect of innovation. Experience can be understood as a means of *learning from failures*, which is an integral part of the research and scholarly process. This notion is especially relevant in the realm of architectural restoration, where the history of the field has been marked by both successes and failures. The example of the restoration work led by Balanos and his team at the Acropolis in the early 20th century serves as a poignant illustration of the importance of learning from past mistakes. The decision to use reinforced concrete, a then-innovative technique, in an attempt to improve the quality and value of the Parthenon building, ultimately proved to be a failure. The reinforced concrete began

to deteriorate, with the steel reinforcements corroding and staining the original marble, causing more harm than good. This experience, however, has since been recognized as a valuable lesson, informing the development of the Venice and Athens Charters, which provide specific recommendations on the use of new materials and techniques in restoration projects. The Balanos case study underscores the notion that failure is an integral part of the innovation process, as it provides crucial insights into what does not work and why. This experience fosters the development of resilience and risk management skills, encouraging iterative approaches and continuous improvement. Furthermore, this lesson is not limited to the specific context of architectural restoration but rather applies to the broader scholarly and research endeavours, where the ability to learn from mistakes is essential for progress and innovation. Yet in reality, in a way, the entire 20th-century restoration culture should thank Balanos's intervention because it was an opportunity to learn from failure and to gain knowledge.

**Experience, a shared knowledge.** Experience can be *network power*. Experiential knowledge can be a source of network-based influence and authority. The present international conference provides a valuable and unique opportunity for scholars and researchers to gain novel and insightful perspectives, as well as establish meaningful connections with colleagues from related disciplines, thereby significantly broadening the scope and depth of our research through the enriching exchange of diverse viewpoints and experiences. As a dedicated scholar, I have found that the invaluable process of networking offers profound and transformative opportunities for interdisciplinary learning and collaboration, akin to the visionary and influential legacy of the renowned artist, writer, and social reformer, William Morris. In 1877, Morris founded the pioneering anti-restoration movement, not to endorse or promote specific preservation practices, but rather to passionately advocate against the widespread and problematic stylistic restorations that risked compromising the authenticity and historical integrity of significant structures. Paradoxically, this anti-restoration movement was also a profoundly pro-heritage initiative, championing the preservation and conservation of historical buildings and their authentic characteristics against the pervasive stylistic restoration practices that were prevalent in France and England during the 19th century. Morris's enduring legacy continues to resonate and influence our work, notably through the esteemed and influential Society for the Protection of Ancient Buildings (SPAB), which remains actively engaged in the ongoing efforts and initiatives within the archaeological park of Cerveteri near Rome. This remarkable archaeological site heavily relies on the indispensable engagement and collaboration of the local community for its thorough conservation and preservation efforts. Over recent years, this theme has been extensively studied in collaboration with a team, including architect Tommaso Vagnarelli, who completed a doctoral thesis on the subject. The team of dedicated researchers has been exploring innovative ways to collaborate with the local volunteer community, who have demonstrated a remarkable sense of attachment and commitment to preserving this culturally significant heritage site. The volunteer efforts of the community, often undertaken on weekends and in their free time, are vital to the ongoing conservation efforts, as the sheer scale of the park far exceeds the limited resources and manpower of the official archaeological administration. The



primary objective of this collaborative approach is not to simply impose academic knowledge upon the local stakeholders, but rather to provide guidance, equip them with the necessary tools and resources, and foster an open and constructive dialogue. For instance, the researchers have engaged in discussions with the community to explore effective ways of managing the encroaching vegetation that intertwines with the ancient Etruscan ruins, carefully considering potential solutions that strike a delicate balance between preserving the natural environment and conserving the fragile archaeological remains

**Experience; Facilitating or Constraining Innovation.** The notion of “experience” emerges as a complex and multifaceted concept in this context. Traditionally, experience has been viewed as advantageous, providing a foundation of knowledge and insights. However, paradoxically, it can also impede innovation by entrenching rigid thinking and fostering excessive caution. The phenomenon of “thinking outside the box” becomes constrained when experience prioritizes established norms over novel approaches. Consequently, the balance between experience and innovation is a critical consideration in modern research and international projects. Experience, while valuable in offering knowledge and insights, can paradoxically also serve as a barrier to innovation. In many fields, experience is revered as a foundation of expertise, providing essential lessons from past successes and failures. Yet, this accumulation of knowledge and established methods can sometimes solidify into a mindset that discourages novelty. When practitioners become entrenched in the familiar, they may default to habitual approaches, fostering a “we’ve always done it this way” mentality. This adherence to tradition, though comforting and often effective, can stifle the exploration of new methods that may initially appear unconventional but ultimately lead to valuable breakthroughs.

Experience may also breed caution or even risk aversion, especially in high-stakes fields where errors carry significant consequences. This caution, while protective, can curb the willingness to experiment with novel ideas that lie outside the conventional spectrum of what is “proven” or “safe.” The result can be a culture that values predictability over innovation, potentially missing opportunities for growth and advancement. Furthermore, experienced professionals may sometimes overlook solutions that do not align with their accumulated knowledge, dismissing them as too radical or incompatible with established methodologies. In the context of architectural heritage, the delicate balance between experience and innovation is particularly pronounced. Ironically, the strength of experience lies in its capacity to inform, yet this very strength can cloud the vision needed to see beyond entrenched practices. This dual nature of experience highlights the importance of balancing respect for the past with openness to new possibilities. Encouraging experienced practitioners to engage in interdisciplinary dialogues, reflect critically on their own routines, and remain curious can help mitigate the constraining influence of experience and foster a culture that values both wisdom and innovation.

The notion that experience can serve as both a facilitator and a challenge to established norms is a compelling one. Profound expertise can grant individuals the credibility to propose transformative changes and reveal inefficiencies within existing systems. This concept resonates with the

work of John Ruskin, a figure who, much like William Morris, challenged established norms. As a member of the International Centre FoRS - Focus on Ruskin Studies, established in Venice three years ago, I am involved in a project titled “Challenging Ruskin.” This initiative encourages a contemporary re-evaluation of Ruskin’s ideas, rather than a blind adherence to his teachings. The goal is to determine whether his ideas remain relevant and valuable in the present day. Ruskin, a staunch critic of conventional restoration practices, advocated for the preservation of authenticity without adding new chapters to the historical record. This approach, demonstrated in Gino Chierici’s early 20th-century project to maintain a ruin near Siena in a purely archaeological state, aligns with Ruskin’s ethos. While our work at Cerveteri does not directly replicate this model, it reflects a similar philosophy. Through our project with CTS Group, we aim to address the challenge of balancing the preservation of archaeological ruins with the surrounding vegetation, fostering a dialogue between nature and heritage that respects both elements as integral to the site’s character. This research has garnered significant interest and is progressing as an experimental approach, as documented in several recent publications. In another, more experimental initiative, we collaborate with CTS Restauri, a leader in restoration products, on an innovative solution to control vegetation without complete eradication. This ongoing, five-year experimental phase has led to the development of several promising products that are now commercially available. The aim is not to eliminate all vegetation but rather to slow its growth, maintaining a balanced coexistence with the archaeological structures. This approach exemplifies the goal of sustaining dialogue between nature and heritage, a paradigm that has not previously been attempted in restoration practice.

**Conclusion, Experience, Innovation and Heritage.** Analyzing the term “experience” reveals a multifaceted concept that encompasses diverse interpretations and meanings. This discourse identifies extensive flows of information that link experience to new challenges, heritage, and innovation. The inherent complexity suggests the possibility of incorporating these various elements into a cohesive, albeit challenging, model. In conclusion, the optimal foundation for innovation lies in the balance between experience and fresh thinking. This dynamic involves combining the wisdom of experience with the vitality of new perspectives, merging established skills with unconventional approaches, and balancing knowledge of the past with a vision for the future. This framework is particularly relevant to the realms of heritage, architecture, and the interconnection between innovation and experience in the context of cultural heritage. Furthermore, experience and innovation create a feedback loop, sustaining one another in a continuous cycle. Innovation fosters new experience, and it is through this new experience that we reach further innovations, promoting constant improvement and evolution. This theoretical framework also holds practical applications within architecture, conservation, and the field of innovation. Heritage offers the opportunity to expand our experience, and the more we learn and experience, the more we can advance heritage conservation strategies. However, the dialogue between innovation and heritage remains ongoing, with several open questions. One of the most complex issues is the notion of authenticity, which requires further exploration and discussion.

The concept of “authenticity” has gained significant attention in recent years, as scholars have observed that most international documents either advocate for its preservation or omit the term entirely. This ambiguity likely stems from a lack of consensus on a shared interpretation of the term. Moving beyond theoretical speculation, a critical question emerges: how can we innovate in conservation practices while preserving the authenticity of historical and cultural experiences? This is a complex issue, as the analysis of historical buildings involves understanding the past as a form of collective memory, while simultaneously demonstrating respect and sensitivity to the multifaceted contexts in which they exist, including historical, cultural, economic, and landscape-related factors. Another key term that warrants further discussion is “adaptive reuse.” We may inquire as to how we can draw inspiration from a building’s past in adapting it for contemporary use, while ensuring continuity in both historical integrity and modern functionality. This presents a dilemma, as there is a need for a new function to revitalize the building, yet an ethical obligation to preserve its historical essence. In this case, technology alone may not suffice to achieve an optimal balance within the dialogue between preservation and transformation.

Another critical aspect, which was previously mentioned, is the importance of community participation. In projects such as the research involving volunteers in Cheret, we must consider the role of community involvement in ensuring the sustainability and social relevance of cultural heritage conservation. As architects, how should we integrate the community into the participatory process or engage in dialogue as we design? Should we assess their perception of the environment and site even before beginning the design itself? This raises questions about the architect’s role in this context. Are we leaders of the design process, or merely participants in a more complex participatory dialogue? Finally, the concept of sustainability, one of the most intricate key terms, warrants further exploration. How can sustainable practices reduce environmental impact within cultural conservation while preserving the integrity of the site? It is important to emphasize that sustainability is of deep interest, as many of today’s presentations have addressed this topic—primarily focusing on thermal efficiency and the functional sustainability of buildings. This viewpoint typically regards buildings as machines, emphasizing energy, economy, and related aspects. However, it is proposed that we expand our view to include cultural sustainability, which, it is believed, is as significant as ecological or economic sustainability.

I earnestly hope that this inquiry can facilitate further discourse at the culmination of this fruitful day. Lastly, I would like to express my gratitude to all the attendees and the esteemed scientific committee for extending the invitation and providing me the platform to share my research and perspectives with this distinguished audience. Thank you kindly.

# COMPLEX MULTIFACTORIAL METHOD, PRECISE ANALYSIS OF HERITAGE SPECIMENS IN ARCHITECTURE/

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**Abstract.** Complex multifactorial analysis, the acronym C.M.A., is one of the scientific research methods used precisely because of its versatility in many fields. This is an adaptation and extrapolation, set up by me, of two previous research methods: general morphological analysis by Fritz Zwicky, a well-known astrophysicist, and morphological analysis by Bernard Duprat, a professor at Lyon Architecture University. Its versatility comes from the combination of several research methods, starting from the comparative specimen analysis (used in fields such as biology, zoology but also archaeology) up to complex mathematical models, including Boolean matrices (used predominantly in economic fields, of financial-banking analysis or astronomy). The novelty of the work consists in the application of C.M.A. in the theory and study of architecture. C.M.A. results are very precise because they use mathematical methods, and detailed and complex theories can be developed in any theoretical field in architecture based on them.

Multifactorial aspects and structure allow hypotheses from all fields of activity. For example, in the analysis of an architectural style, hypotheses can come from related subjects like history, theory, materials etc., but also different fields, such as sociology, psychology, medicine and so on. This very important aspect is what gives the novelty and complexity of the study.

At any stage of the C.M.A. research we would stop, the results can be remarkable, from the preparation of the specimen collection, to the validated hypotheses or the relationships between them for the most precise conclusions.

**Multifactorial analysis and the architectural theory.** What we call "architectural analysis" can take on many different meanings in architectural schools and criticism. Often, the term "analysis" is used, without any distinction, to denote any form of investigation, namely simple discussions or comments limited to the judgment of taste, far from a scientific rigour that could bring valid values or hypotheses to light. A description is not enough to phenomenologically characterize the artistic object and never aims to segment them to operate a morphological decomposition. Descriptive analyses, such as aesthetics, for example, do not consider the real structuring of the studied objects, nor the elements that compose them or the way they combine to form the whole, the harmony. The same thing happens with notions like "style" or "current", which often have generalizing and imprecise connotations. These ambiguities of language run counter to the objectivity that rigorous scientific research achieves. That's why we can't confuse description with analysis; they basically have different purposes. The aim of research is

not to criticize or deny but, on the contrary, to discover and understand the values of the respective field.

Apart from our way of understanding what we see, there are other factors that can disturb the perception of an object, like education and visual training with the everyday image. Michelis writes: "we see... because we foresee, we hear, because we first hear within ourselves and, in a word, we correct what appears as imperfect before our eyes... Our emotion is creative. On the occasion of the aesthetic experience we have from the opera, we re-create it according to the spirit and not according to its letter because, through the lines, we read the idea and do not limit ourselves in the least to the sensations that the immobile letters evoke" [1]. Also, Worringer named and studied the introopathy [2], a phenomenon in which man seeks himself in art, finding pleasure in what he already knows and is familiar with. This aspect profoundly influences the process of analyzing art and appreciating it.

Those are some facts that were taken into consideration and conducted for an analysis method whose results are as accurate as precise, beyond appreciation and comments, a method that was named "Complex Multifactorial Analysis", abbreviated C.M.A., who operate with mathematical tools. C.M.A. was set up in the doctoral thesis "Paradigms of minimalist style" to determine if minimalism is a style in itself and not a mannerism of modernism, as is often stated, determining its paradigms [3]. Thanks to his mathematical method of data processing, it was able to circumvent, using C.M.A., any ambiguity in obtaining information so that the conclusions of the doctoral thesis were precise and clear.

C.M.A. is based on the theories of general morphological analysis (acronym G.M.A) developed by Fritz Zwicky [4], astrophysicist, and applied in architecture by Bernard Duprat, professor at the National School of Architecture in Lyon. The process of inventorying, systematizing information and theorizing, used in various scientific fields, such as archaeology or biology, have proven each its own point of view, the final conclusions and hypotheses being pertinent and indisputable.

**C.M.A. protocols.** There are several steps in this method of research that were established and perfect in the research:

**1. Affirmation of the study theme and establishment of some preliminary working hypotheses.** The first stage consists of defining the purpose of the C.M.A., respectively, the study theme. In other words, what do we want to achieve with this analysis? The goals pursued by the C.M.A. can be varied, from the preparation of a specialized scientific documentation to the determinations of artistic style, all types of characteristics in any knowledge field. The exact definition of the purpose is very important for the study's results and will coordinate further steps, generating the research theme and, implicitly, the primary hypotheses based on what we know or what we think we already know about the chosen topic. The preliminary hypotheses are derived from what Professor Duprat calls "the state of knowledge" [5], what we already know about the subject in question. These first opinions-hypotheses are essential for the objectivity of the final result, as little as possible influenced by expectations. It is good to know that the state of knowledge helps us to establish the theme,



to start the study, but it can also lead us astray, being able to offer wrong further hypotheses, influenced by prejudices on the conclusions. In other words, the researcher could influence the research results due to his biases. However, a well-designed protocol manages to correct the inaccuracies and give the correct answers.

**2. Establishing a collection of objects of the same class and documentation.** C.M.A. works over a collection of specimens that include the most comprehensive totality of pieces (corresponding to the study objectives) that we estimate and select to validate the hypotheses. The collection is established in the first phase according to two criteria:

a. Specimens with the same nominal identity, conferred by their authors or by the specialized literature. Keep in mind that:

- The quality of the research depends on the rigorous choice of specimens from relevant information sources and as valuable as possible in the field in which they operate;

- It is important the margin of error that can intervene at this stage, which will have to be corrected during the analysis.

b. Selecting the specimens according to the hypotheses stated in the previous stage. At this point is important:

- The homogeneity of the collection is established by the common properties from the point of view of the initial assumptions.

- The collection should be large enough to be representative of the research topic.

If, for some reason, we decide to narrow the area of specimen selection, this fact will be mentioned in the research in its final results. The specimens will be placed in attribute tables that will contain all the defining elements of the collection in order to observe if there are certain influences or particularities, differences that could distinguish different currents; in short, all the details that will provide complex data in the research. As the study progresses, omissions of some details may bring inconsistencies in the working hypotheses, risking breaking the coherence. A number of other hypotheses may also come to light, which is natural after a more in-depth study of the collection.

The purpose of this stage is to draw up complete documentation for each specimen of the collection, which will constitute the study material. For a specimen to be registered in a research protocol, a complex documentation is necessary that includes all the studied elements. The analysis result's accuracy depends on the documentation's authenticity. The concretization of this phase is the preparation of documentary files for each specimen, which catalogs all the information. The multifactorial analysis is operated with the help of these files. After obtaining the documentation, it is necessary to order it accurately, in order to be used in the attribute tables. Because when we talk about a certain conformation and refer to a certain homologous segment, the sample brought and introduced into the table is in the form of an image: photos, drawings, concept sketches, etc.

This is not an innovative type of documentation; just as morphological study is not a new methodology. What is innovative is the manner in

which the information is processed. The documentary material on which the subject is studied may contain different fields of knowledge, such as: drawings, plans, facades, sections, authors' sketches, photographs of the buildings made by the researcher or taken from the bibliography, etc. Also, interviews about the studied subjects are taken from quality sources such as specialized magazines or documentaries; bibliographies and specialized monographs showing the creative process and artistic concepts, specialized criticism related to the selected elements of the collection and so on.

The results of the analysis depend exclusively on the quality of the documentary material, so that it will be selected with the most significant responsibility. It is preferable to state in the conclusions of the research that we did not have sufficient documentary material to research a specific hypothesis or theory rather than using dubious documentary material. A possible weakness is that the choice of documentation is made only according to preliminary hypotheses or conclusions we believe in from the beginning, which are subjective.

Once this documentation is collected, the researcher will intrinsically analyse, giving rise to a new set of hypotheses. Together with the preliminary ones generated by the "state of knowledge", these will constitute the complete set of hypotheses that must be validated by the C.M.A.

**3. Analysis of the specimen's collection.** After the collection has been established and its rigorous cataloguing, the actual analysis will begin, considering the research theme and preliminary hypotheses. The selective collection activities have already begun the research processes, and the perspectives will adapt accordingly. Only now will the researcher correctly intuit and be able to generate pertinent working hypotheses. The conclusions of a C.M.A. can have many ramifications: correlations between elements or between parts of the chosen specimens, complex analyses that determine styles and particularities, or it can simply be cataloguing in order to draw up a perfect database.

The analysis of a collection of specimens in C.M.A. comprises two parts:

a. Morphological analysis studies the forms, their structure and composition, as well as the attributes of these forms: proportions, composition, colours, textures, etc. Morphological analysis constitutes the basis of research in architecture, mainly when we determine or study styles, because their invariants are determined not only by the forms but also by their structure. It is not a new method used in the theory and history of architecture and the arts, being used mainly for the rigour with which it classifies, compares and catalogues documentation from wide areas. Epistemologically, morphological analysis scientifically defines the object as a whole. Morphological decomposition is the disassembly of the components of an object that is considered a stable structure formed by sub-elements. After the theory of Professor Duprat [6], in the specimen tables, the following will be operated:

MORPHOLOGICAL DE COMPOSITION »» COMPARATIVE ANALYSIS BETWEEN ELEMENTS OF THE SAME TYPE »» DISCUSSING AND ANALYZING ANTICIPATED RESULTS

This analysis studies not only the decomposed parts but also their com-

positional relationship. A simple analysis of these forms, be it of theory or the aesthetics of architecture, does not have the power of C.M.A. accuracy to state at the scientific research level, such as defining conclusions for the subject studied. The two approaches of decomposition and comparison support each other. The result is obtained by comparing specimens, seen as structures, appropriately chosen and decomposed according to their specific properties. The comparison can only be made by examining element by element decomposed with care, in sufficiently obvious and comparable segments, taken from each of the specimens. When we use the term “comparison”, it refers not only to the shape but also to its attributes. The results of this step must be interpreted later with the help of logical operations and calculations.

b. Multifactorial analysis is the research of related information, according to any criterion that contributes to accurate and complex results, criteria corresponding to the research goals. Morphological analysis protocols are extrapolated to non-morphic domains. By categories of information, we can extract and highlight, in the case of architectural study, characteristics such as: colours, amount of light, costs, materials, site, functions, personality of beneficiaries or architects, social categories, psychology or sociology, practically from any related domain of interest. The complexity of the study consists not only in the rigour of the decomposition and classification but also in how these comparisons are interpreted. Each entity is treated interdependently of the others, and its identity emerges by analogy. This is followed by the discussion and analysis of the anticipated results, which consider the state of previous knowledge, the preliminary hypotheses, and the theoretical result of the effort so far. Perhaps only a few of the first hypotheses remain, and as a result of complex analyses, the researcher can generate the main hypotheses that will form the basis of theoretical conclusions on the topic.

#### 4. Working with hypotheses

##### a. Establishing the hypotheses

The classic definition of a hypothesis is that it is a supposition that is provisionally based on observations and serves to explain some phenomena but which cannot be verified so thoroughly by experience or experiment as to form a theory. The purpose of a hypothesis is to make valid and meaningful predictions about phenomena that have not yet been demonstrated. The only relevant test of the validity of a hypothesis is to compare its predictions with empirical experience. Two concurrent and contradictory hypotheses cannot be supported and predicted, and a deliberation must be made to eliminate the weaker hypothesis and retain the stronger one. The hypothesis is rejected if its predictions are contradicted. According to the stages in which they are generated, there are:

1. Preliminary hypotheses with which the analysis starts
2. Hypotheses taken during the analysis
3. Hypotheses resulting after researching the entire collection

##### b. Table of hypotheses validation

After establishing the hypotheses, the information will be grouped into

ordering tables to verify how each specimen validates the respective hypothesis. The table will contain complete information for the research, from the name of the author and the project in the collection, the location of the site and function, quantitative and qualitative characteristics. The conclusions of these tables consist of detecting the validated hypotheses, respectively, depending on the number of specimens: unvalidated, weak, medium, and strong. The unvalidated hypotheses will be eliminated from the following stages, and the weak ones, if only verified by a few specimens, will also be eliminated.

##### c. Formation of sets of elements that validate each hypothesis.

Each hypothesis has a sum of specimens that validate it and will be transformed into a set of elements to which an acronym will be given.

##### d. Boolean matrix

The relationships between the sets of specimens corresponding to the hypotheses cannot be obtained by trial or empirical observation; instead, they can be obtained by entering them into a Boolean matrix that can accurately determine the above information. This solution is suitable in cases where the hypotheses, especially the specimens, are in large numbers, so establishing these relationships becomes impossible without a computer tool. These will perform calculations that will study the following types of relationships:

COMMON ELEMENTS - the sets of specimens have common properties, and which are they

DISJUNCTION - which sets are disjoint, meaning they have no element in common

BELONGING - what sets contain or belong to other sets

CONGRUENCE - which sets have the same properties

##### e. Analyzing the given sets from the point of view of the element contained and the relationship between them.

Let's take an example and apply the method to it. It is about a small collection of ten constructions by Alberto Campo Baeza, which are chosen to see how a few hypotheses are validated. In the table below, we'll find the data collected from the previous tables of data for every specimen. The pictures are only informative but not representative or enough to determine the validity. The hypotheses are:

I1- use of rough materials: concrete

I2- simple, prismatic volumetric composition

I3- lack of decorations

I4- presence of stereotomic tectonic dialogue

I5- existence of a podium

I6- contrast effect in the visual dialogue with the surrounding environment

Let's analyze the given sets:

I1: (L1, L2, L9)

I2: (L1, L2, L3, L4, L5, L6, L7, L8, L9, L10)

I3: (L1, L2, L3, L4, L5, L6, L7, L8, L9, L10)

I4: (L1, L2, L9)

I5: ( L1, L2, L6, L9)

I6: (L1, L4, L5, L6, L7, L8, L9, L10)

At first glance, it can be observed that hypotheses I2 and I3 are very powerful, having all the specimens included. That makes them specific for the collection and characteristics that define it. Also, they are identical or congruent. This means that all the specimens that present I2 (simple, prismatic volumetric composition also have I3 (lack of decorations). The same conclusions for I1 and I4 are congruent: all the collection specimens with rough materials (concrete), also present a tectonic composition.

**C.M.A. conclusions.** From interpreting the relations in the Boolean matrices, the architectural theories can be subtracted with specific and exact conclusions. A relational scheme will be drawn up to understand exactly the type of relations between the sets of specimens that respect the same characteristics. The conclusions of this scheme are interesting, considering that they belong to a field of knowledge of architectural theory, the information being obtained on mathematics. This aspect is what makes the use of C.M.A. in the analysis of style unique, for example.

It will be exemplified by commenting on a few relations in the example above.

#### 1. Hypothesis Validation:

I1 and I4 are validated by the same specimens (L1, L2, L9). This suggests that these two hypotheses, while perhaps worded differently, fundamentally address the same architectural characteristic. The same evidence supports them.

I2 and I3 are validated by a broader set of specimens (all L1-L10). This indicates that hypotheses about simple and prismatic composition and lack of decorations are more general or encompass a wider range of architectural styles or implementations. All the available evidence validates them. Again, do not forget those rules are applied only to this collection.

I5 is validated by L1, L2, L6, and L9. This hypothesis shares some validating specimens with I1 and I4 (L1, L2, L9) but also has a unique validator (L6). This suggests I5 (existence of a podium) might be related to I1 (simple compositions) and I4 (tectonic dialogue) but also addresses a distinct aspect.

I6 is validated by L1, L4, L5, L6, L7, L8, L9, and L10. This hypothesis is validated by a diverse set of specimens. It overlaps with the validating sets of I2/I3 (L4, L5, L6, L7, L8, L10), I5 (L6, L9), and I1/I4 (L1, L9). This suggests that I6 (visual contrast with surroundings) might be a higher-level or composite hypothesis related to several others.

#### 2. Hypothesis Specificity:

I1 and I4 are more specific hypotheses. Only a small subset of the specimens validates them. They likely address very particular architectural

characteristics: rough materials and tectonic dialogue.

I2 and I3 are more general hypotheses. All the specimens validate them, suggesting they describe more common or fundamental characteristics.

I5 and I6 have intermediate specificity. They are validated by a moderate number of specimens, indicating that podium or contrast effects are neither overly specific nor entirely general.

#### 3. Relationships between Hypotheses:

I1/I4 are related to I5. They share validating specimens, suggesting some overlap in their descriptions of characteristics.

I1/I4 and I5 are related to I6. Again, shared validating specimens suggest a relationship. I6 (contrast effect) seems to be a more encompassing hypothesis.

I2/I3 are related to I6. They also share several validating specimens.

#### 4. Specimen Analysis:

L1, L2, and L9 are key validating specimens. They validate a large number of hypotheses, suggesting they represent architectures that exhibit several important characteristics.

L6 is a particularly interesting specimen. It uniquely validates I5 (podium), suggesting it has a specific characteristic that is not captured by the other hypotheses as strongly.

The table of relationships allows us to understand which hypotheses are essentially the same, which are more general or specific, and how they relate to each other based on the architectural specimens that support them. This analysis can be used to refine the hypotheses, identify key architectural characteristics, and understand the relationships between different architectural styles or implementations.

The analysis will examine each reaction between the sets in this way, determining the characteristics of the collection or invalid hypotheses. It will also mathematically determine the hypotheses that are less valid but strong enough to become characteristics of the collection. After the number of specimens that validate the same hypotheses, we can make subcollections of objects that can determine, for example, influences in an architectural style, by geographical region, culture, trend sets, etc. Also, precise determination and conclusions can establish precise style invariants and abbreviations, as well as the appurtenance of buildings of style or artistic current.

C.M.A. can be utilised in any of its stages. One can create excellent documentation for any subject and also compile a precise collection for any research by using the initial protocols for making documentation sheets, tables, and charts. The study of Boolean relations establishes the exact characteristics of specimens, as well as the excluded ones and the correspondence between them.

Here is how, by detaching ourselves from simple observation and the methods of aesthetic appreciation, with the help of this mathematical way of analysis, the theoretical parameters for describing the studied collection will be obtained in the smallest details. Starting from structuralist thinking, the final conclusions are obtained through a phenomenological interpretation of the creation process, thanks to variables from all fields of knowl-

edge and interest for research. The corroboration of the results of each field involved, makes the conclusions complex and objective, eliminating as much as possible the relativity of the judgment of taste. The innovation and usefulness of C.M.A. lies in the fact that we can adapt these protocols to the purpose of our research. Any of the stages will be useful for an in-depth study.

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Tables.

TABLE 1 - Hypotheses validation.

TABLE2 - Boolean relationships.

Figures.

FIGURE 1 - steps in this method of research that were established and perfect in the research;

FIGURE 2 - hypothesis levels.;FIGURE 3 - L1- Caja General De Ahorros, Granada, Source: [https://commons.wikimedia.org/wiki/File:Edificio\\_CajaGranada.jpg](https://commons.wikimedia.org/wiki/File:Edificio_CajaGranada.jpg)

FIGURE 4 - L2- BIT Center, Source: <https://www.flickr.com/photos/campobaeza/>

FIGURE 5 - L9 - Villa De Blas Source: <https://www.campobaeza.com/blas-house/>

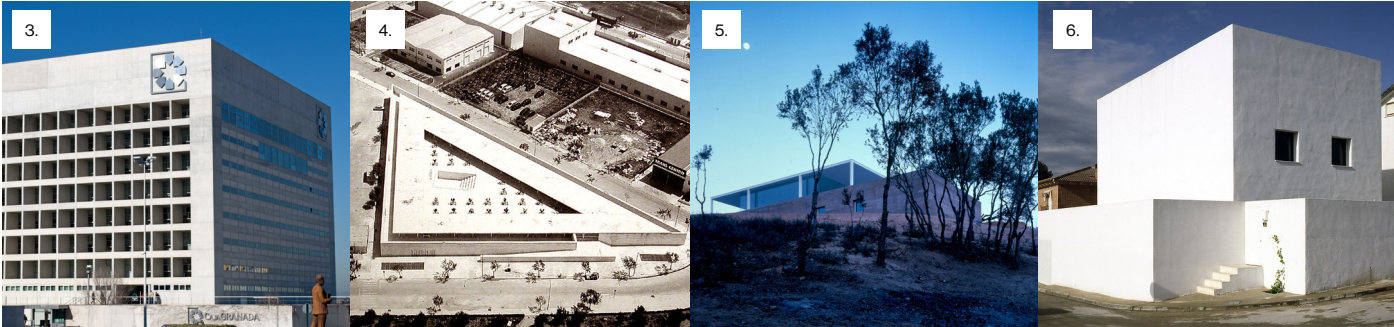
FIGURE 6 - L6 - GARCIA MARCOS HOUSE, Source: <https://www.flickr.com/photos/campobaeza/>

Table 1, Hypotheses validation

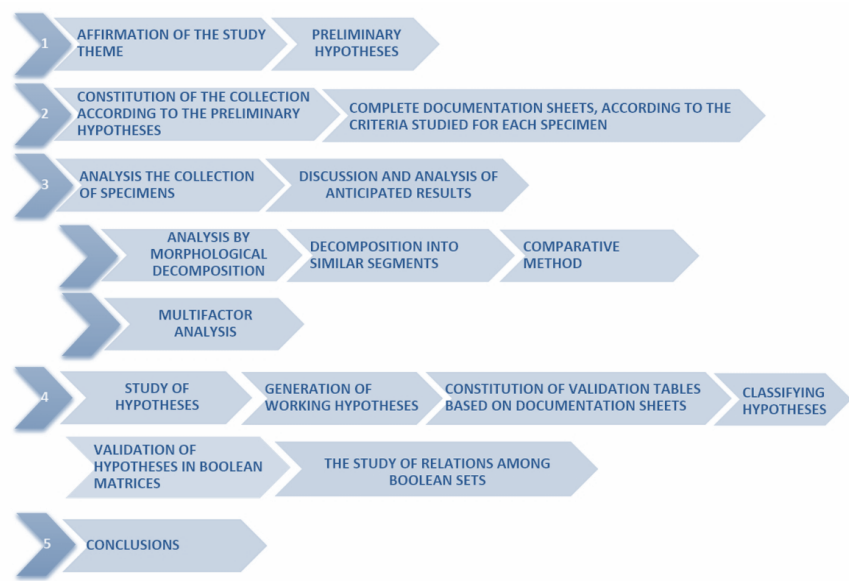
Ln/ SPECIMENS	Hypothesis					
	I1	I2	I3	I4	I5	I6
L1/ CAJA GENERAL DE AHORROS, GRANADA	•	•	•	•	•	•
L2 SEDIUL BIT		•	•	•	•	
L3 DRAGO PUBLIC SCHOOL, CADIZ		•	•			•
L4 GASPAR VILLA		•	•			•
L5 TUREGANO HOUSE		•	•			•
L6 GARCIA MARCOS HOUSE		•	•		•	•
L7 BENETON CHILDERN HOUSE		•	•			•
L8 GUERRERO HOUSE		•	•			•
L9 VILLA DE BLAS	•	•	•	•	•	•
L10 ASENCIO HOUSE		•	•			

Table 2, Boolean relationships

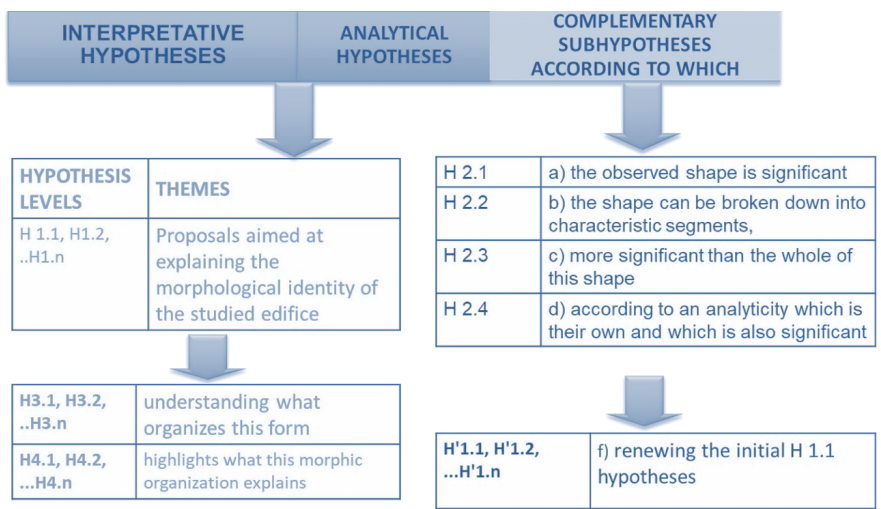
RELATIONSHIP	DESCRIPTION	SETS INVOLVED
Subset ( $\subseteq$ )	I1 is a subset of I2 and I3. I4 is a subset of I2 and I3.	$I1 \subseteq I2, I1 \subseteq I3,$ $I4 \subseteq I2, I4 \subseteq I3$
Not Subset ( $\not\subseteq$ )	I1 is not a subset of I5. I4 is not a subset of I5. I5 is not a subset of I2 and I3. I6 is not a subset of I2 and I3.	$I1 \not\subseteq I5, I4 \not\subseteq I5,$ $I5 \not\subseteq I2, I5 \not\subseteq I3,$ $I6 \not\subseteq I2, I6 \not\subseteq I3$
Equality ( $=$ )	I1 and I4 are equal. I2 and I3 are equal.	$I1 = I4, I2 = I3$
Intersection ( $\cap$ )	$I1 \cap I2 = I1 = I4; I1 \cap I3 = I1 = I4; I1 \cap I5 = I1 = I4; I1 \cap I6 = \{L1, L9\}; I2 \cap I3 = I2 = I3; I2 \cap I5 = I5; I2 \cap I6 = I6; I3 \cap I5 = I5; I3 \cap I6 = I6; I4 \cap I5 = I1 = I4; I4 \cap I6 = \{L1, L9\}; I5 \cap I6 = \{L1, L6, L9\}$	$I1...I6$
Union ( $\cup$ )	$I1 \cup I2 = I2 = I3; I1 \cup I5 = I5; I1 \cup I6 = \{L1, L2, L4, L5, L6, L7, L8, L9, L10\}; I2 \cup I5 = I2 = I3; I2 \cup I6 = I2 = I3; I3 \cup I5 = I2 = I3; I3 \cup I6 = I2 = I3; I4 \cup I5 = I5; I4 \cup I6 = \{L1, L2, L4, L5, L6, L7, L8, L9, L10\}; I5 \cup I6 = \{L1, L2, L4, L5, L6, L7, L8, L9, L10\}$	$I1...I6$



1.



2.





## AMPHITHEATRE OF AREZZO. PROPOSALS FOR INTERVENTION RESULTED FROM THE TEACHING COLLABORATION BETWEEN THE UPV AND UNIFI/

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**Abstract.** This article presents the results of the teaching collaboration between the 2nd level University Master's in Architectural Heritage Preservation of the UPV and the 2nd level University Master's in Enhancement of Cultural Heritage of UNIFI during the academic year 2023-24. The collaboration consisted of carrying out a conservation project for the Amphitheatre of Arezzo so that the UPV students could develop the intervention part, and the UNIFI students would be in charge of the valorisation part of the monument. The complex of the Roman Amphitheatre of Arezzo, whose elements are characterised by an Outstanding Universal Value [1], presents a series of circumstances that make it particularly interesting from different points of view: the conservation of the ruins, the relationship with the monastery built on its remains, or its concealment in a block of the urban fabric of the city, are some of the aspects that are proposed to be resolved in the projects developed. The results show a variety of solutions of great interest that nourish the potential of both institutions and highlight the value of this type of international teaching collaboration.

**Introduction.** This paper presents the results of a 2nd level University master's teaching collaboration between the Universitat Politècnica de València and the Università degli Studi di Firenze during the 23-24 academic year (in accordance with the Cultural and Scientific Cooperation Agreement between UPV and UNIFI, operating since 2015) within the framework of the intervention on architectural heritage. The main objective of this collaboration was to improve the student's learning experience and the quality of the results.

Teaching in the heritage intervention field reflects the complexity involved in carrying out an intervention project on a historic building. The current awareness of historical heritage values requires an exhaustive knowledge of the monument to be intervened on to offer a respectful response to the pre-existence. To do this, it is necessary to carry out an in-depth multidisciplinary study that covers the different values present in the building [2] [3]. This issue is very difficult to replicate in the teaching environment for many reasons, such as the tools available, the profile of the students and the limited time available. This reality requires a simplification that allows for decision-making in the classroom.

On the other hand, this awareness of historical values often means that the transformations that must necessarily be made when intervening in the

existing situation are not easy for some actors involved in the process to assimilate. However, in the teaching field, reducing these actors allows for greater freedom in decision-making, which in turn translates into a greater capacity for transformation.

The present teaching collaboration seeks to qualify these two factors: knowledge of the property and freedom of transformation, to make students aware of the complexity involved in any intervention on heritage and, simultaneously, to obtain results closer to reality.

First, the case study chosen is that of the Amphitheatre of Arezzo, a subject on which there is already some historical and graphic information. The students can take this information as background studies to work on for the elaboration of the project. Moreover, the chosen theme has characteristics that make it particularly attractive for the project, such as its various transformations over time and the need to enhance its value and connection with the city.

Secondly, the collaboration between the two universities is not casual; rather, they seek to complement each other's knowledge. On the one hand, the UPV works on the project from the point of view of architectural intervention, and on the other hand, UNIFI works on the project from the point of view of monument management. On the other hand, the different approaches to heritage action in each country - more proactive in Spain and more conservationist in Italy - enrich the reflection by having different points of view of the teachers involved.

**Methodology.** The methodology employed seeks to generate interaction between the courses at both universities to take advantage of the values in the abovementioned complementary characteristics. To this end, it was decided, on the one hand, to establish mixed working groups with students from Valencia and Florence and, on the other hand, to hold a series of periodic face-to-face and virtual meetings. Although the times of the two master's degrees are different, both in terms of time and duration, the calendar is coordinated to facilitate the interactions mentioned above. This means that the meetings are adapted to the days Florence has available, and the calendar is organised in phases to facilitate coordination.

The course is therefore organised into four distinct phases, each lasting around one month: analysis, ideation, preliminary project and project. There are three meetings: a first online meeting (8th March 2024) to introduce both universities and students, a second face-to-face meeting (23rd-25th March 2024) to get to know the place of work and hold a workshop to share the analysis and reflection of possible proposals in each of the groups, and a third online meeting to present the results (28th June 2024). It should be noted that UNIFI's extensive calendar means that its students are still in the process of defining their management proposals at the time of publication of this contribution. In addition to these meetings, several other meetings were held between the teachers to define the details of the different aspects of the collaboration.

**The Case Study: The Amphitheatre of Arezzo.** The amphitheatre of Arezzo was built in the second century AD, between 117 and 138 AD, as can be deduced from an analysis of the materiality of the existing ruins [4], in the South-West area of the city, beyond the Castro creek. The amphitheatre

measured 121.40 per 92 meters, of which the arena occupied 71.90 per 42.70 meters, dimensions slightly smaller than those of the Colosseum in Rome. 22 meters high, it consisted of two orders served by two ambulatory and a third ring delimiting the arena, with a total thickness of 24.7 meters.

After the fall of the Roman Empire, the complex was abandoned and became a quarry for the construction of other buildings in the city. In the 14th century, it was decided to build an Olivetan monastery (the Olivetan order was established in 1319 in Arezzo under the rule of San Benedetto) on the ruins of the southern hemicycle of the amphitheatre, which would be completed over several centuries [5]. The monastery has two floors and is characterised by a seventeenth-century double loggia overlooking the amphitheatre arena. The ambulatory on which the structure is grafted is almost completely unchanged. Active for around four centuries (until the 19th), the monastery suffered extensive damage following the bombings of the Second World War.

At the beginning of the 20th century, it was decided to convert the monastery into a national archaeological museum to house the elements in the area around Arezzo.

From at least the first half of the 14th century, when it became the property of the Olivetans, a fruitful relationship with the vegetal component is documented; they used the arena area as a vegetable garden, a use that lasted until the excavations of the early twentieth century [4]. With the opening of the Museum, the area between via Margheritone, via Crispi and the amphitheatre was used as an archaeological garden, whose features recalled those of the well-known archaeological parks of the capital of Italy. Over time, the garden was transformed into a public park and separated from the amphitheatre; unfortunately, the lack of careful maintenance of the tree species, as well as the herbaceous ones, has compromised its appearance. The installation of gates and railings for safety reasons has also affected its relationship with the ruin.

The objectives proposed in the course seek to cover the different needs detected in the case study. Firstly, it is proposed to conserve and enhance the ruins of the amphitheatre, as well as the National Museum 'Gaio Cilnio Mecenate' (former monastery of San Bernardo) and other elements of interest present in the complex. Secondly, a proposal is requested for activities associated with the monumental complex for its revitalisation, considering concepts of compatibility with the values of the monument. Among the new uses, it is proposed to contemplate the creation of an interpretation centre for the amphitheatre. Thirdly, the design of internal routes and connections between the ruins and the museum is requested, as well as external connections between the urban environment and the amphitheatre, resolving the appropriate accessibility for the proposed new uses. Fourthly and finally, it is requested that the urban and landscape value be analysed to recover the amphitheatre and the park as a space for the city.

### **Analysis and Ideation.**

The analysis phase is carried out independently in both institutions. At the UPV, it was decided to organise the analysis into four different aspects: firstly, an analysis of the urban environment, taking into account its historical evolution, its current state and the different routes; secondly, an anal-

ysis of the plot under study, taking into account the different construction phases of the amphitheatre and the convent, the evolution of the uses of the monument, representation of the geometry of the elements, as well as their material configuration and state of conservation; thirdly, an analysis of the landscape, social and valuation of the monument; and fourthly and lastly, the construction of a scale model was requested, which will allow us to understand the volumetric ensemble and at the same time serve as working material during the project process.

To carry out this analysis, a series of expert groups are set up, with one member from each group, so that at the end of this phase, all the groups have participated in all the topics analysed.

On the other hand, it is worth mentioning that this analysis has been carried out based on material provided by UNIFI consisting of maps in CAD format, plans from the Tuscan cadastre, CAD surveys of the ruins of the amphitheatre and the museum, aerial photos from 1954 and 2024, the results of research into the restoration of the monument, as well as various books on the history and composition of the complex. Among the latter, the book *L'Anfiteatro d'Arezzo* by the Istituto Tecnico Statale per Geometria di Arezzo [6], in which, with the collaboration of students from the '84 to '87 courses, they carried out very interesting surveys of the remains of the monument, as well as a reconstructive hypothesis which has served as the basis for many of the works carried out.

Following the documentation analysis, a visit to the site (made possible thanks to the availability of the director of the National Archaeological Museum Gaio Cilnio Mecenate, Dr. Maria Gatto) and a joint workshop between the two universities were made to set up the mixed working groups and reflect on the conclusions obtained. Issues such as the lack of visibility of the amphitheatre from the city, the connection of the ruins with the museum, and the lack of a proposal for the enhancement of the monument or the treatment of the adjoining park emerged as issues to be worked on in the project.

In the ideation phase, these questions were considered when elaborating on each group's proposals. In this way, each group reflected on the aspects that seemed most important to them. Thus, for example, Group 1 emphasised the route around the ruins; Group 2 analysed the different strategies to follow according to the different circumstances; Group 3 worked on social and urban interaction; Group 4 suggested the building of a new interpretation centre; Group 5 focused on understanding the geometry of the amphitheatre; and Group 6 proposed the idea of turning the complex into a garden open to the public.

**The masterplan.** The observations that have emerged in the masterplan are the result of a multidisciplinary study aimed at drafting a conscious and responsible project. In fact, if awareness is determined by the knowledge of the cultural asset, the responsible dimension, which is specific to the project, is instead realised in the ability to systematise the different components (by era, function, language, etc.) of the asset itself. This consists in recalibrating the relationship between the parts and triggering a continuous dialogue between what has been and what is. In a responsible project, the "text" that comes from the past must be preserved and enhanced by

contemporary interventions, while it's important to improve the reading of the past's tracks [7].

The idea behind the masterplan is to transform the current archaeological complex (amphitheatre and museum) into an accessible cultural centre integrated into the city.

The open areas of the monumental complex (garden and amphitheatre) will, in fact, be accessible during the day; a choice that will involve, first of all, the reconfiguration of the accesses to the arena from via Margaritone and via Crispi and the removal of the gate that separates the amphitheatre from the current park. In this new spatial configuration, the arena will fulfil the role of a public square, from which the new entrance to the museum can be reached. The latter can also be reached from a third gate that will be opened on via Guadagnoli, allowing a more direct connection with the Medici bastion and the Sandro Pertini park.

The new entrance to the museum will be housed inside a newly built building; the museum tours will be organised inside it, and they will be divided between permanent and temporary exhibitions (newly created). The permanent exhibition will begin inside the ambulatories, which will be integrated into the museum itinerary and transformed into exhibition spaces. Once the visit to the ambulatories is complete, a new vertical connecting volume will lead visitors to the second floor of the monastery, from where they can continue the exhibition itinerary.

The new museographic reconfiguration will also include a room dedicated to the monastery of San Bernardo, in which the history of the building and the life that was led inside will be told.

On the first floor, visitors will be able to access the renovated bookshop and the new spaces for educational workshops.

The museum itinerary will end in the "brand new cloister", rebuilt in its original proportions and architectural layout based on historical plans.

**Proposals.** Once the main lines of action had been established, each group proceeded to the detailed development of the different intervention proposals, trying to respond to the needs raised in the analysis. Of the six groups, it should be noted that there were two (group 1 and group 5) that were unable to attend the site visit and, therefore, did not form a group with the UNIFI students. This is, to some extent, reflected in the results obtained.

**Group 1: Walking through the ruins.** Group 1 focuses on walking around the ruins to allow visits and facilitate accessibility and connection with the city. To this end, it was proposed to build a wooden walkway that follows the route of the amphitheatre's ambulatory, to a certain extent recomposing the original path and, at the same time, allowing a connection with the first level of the museum and providing a view of the complex from an elevated point that allows a better understanding of the ruins. Along this walkway, a series of vertical connecting elements, rooms and pavilions appear, giving the route functional content.

On the one hand, the project focuses on touring the ruins, connecting with the museum and generating a small reception space; however, issues such as the reorganisation of the museum, the re-functionalisation of the

existing ruins spaces or the configuration of the exterior spaces are left unresolved, perhaps due to the lack of collaboration with the UNIFI students. On the other hand, the designed elements are formalised so that they take on excessive prominence, detracting from the importance of the remains of the amphitheatre.

**Group 2: Reconstructing a Fragment.** Group 2 focuses on the idea of the restoration of fragments of ceramic elements as a concept to be transferred to the field of architecture and make the amphitheatre visible again. To this end, they propose recomposing a fragment of the amphitheatre through a new light and reversible architecture related to the pre-existing one through brick to establish a material connection. On the other hand, they carried out an in-depth study of the different activities that the complex should house to give it a new life. In this way, the new element seeks to restore the presence of the amphitheatre in the city and, at the same time, serve as an access, reception and activity centre for the interpretation of the amphitheatre and the museum.

The proposal is proactive, seeking solutions to reactivate the archaeological site, resolving its needs and restoring its place in the city. A critical point is the possible impact the structure could have on the ruins and the transformation of the ruinous image of part of the pre-existing element.

**Group 3: Fragments. In the Arena of History.** Group 3 focuses on proposing a modular system capable of being combined to generate different elements to resolve the various needs present in the project. These include, on the one hand, the design of furniture and signage elements in the urban environment to bring the presence of the amphitheatre closer to the rest of the city and, on the other hand, the configuration of a recreation of a fragment of the amphitheatre, evoking the scale and geometry of the disappeared monument. Also noteworthy is the work carried out with the zoning of the architectural program in the spaces of the museum and the Roman remains.

As in the previous exercise, the work to restore the monument's presence in the city is valued, in this case, materialised with a lightweight system that seeks to enhance the evocation in a successful balance between the materialised and the suggested. The critical point in this case is the reduced functionality obtained, as they are open spaces apart from the obvious interaction with the ruins.

**Group 4: Interpretation Centre.** Group 4 focuses its efforts on creating an interpretation centre for the amphitheatre, which would provide a better understanding of the monument's history and serve as an access element to the museum. To this end, building a semi-buried volume on the slope in the southern part of the amphitheatre is proposed, creating a connection with Via Antonio Guadagnoli. The aim is to minimise the intervention on the ruin, which only includes a walkway in front of the new intervention, to contemplate the complex from a certain height, leaving the rest as an archaeological park. The criticism of the proposal focuses on connecting the new element with the pre-existing museum via a staircase that is not well integrated into the complex.



**Group 5: Reclaiming public space.** Group 5's proposal seeks an overall solution for the complex, placing the historic remains at the centre of the project. To this end, the first proposal is to lower the interior level of the block to the level of the amphitheatre, creating a large square with a loggia to house commercial and cultural activities, as well as a cafeteria. Secondly, an ephemeral system is designed over the ruins to allow the protection and visitation of the remains. Thirdly, an in-depth study of the horizontal and vertical routes was carried out to connect the different levels of the amphitheatre and the museum, defining the uses of each of the spaces. The result is excellent work that can deal with each and every one of the aspects present in the project in a logical and totally feasible manner.

**Group 6: Archaeological Park.** The proposal of Group 6 presents the complex as an archaeological park open to the city. To this end, it is proposed, on the one hand, to respect the vegetation and the character of the existing landscaped park as much as possible, and on the other hand, to create an outer ring parallel to the amphitheatre, as an element capable of resolving the circulation, accesses and spaces of use necessary to house the amphitheatre's interpretation centre. This proposal shows great sensitivity towards the pre-existence and manages to resolve all the needs clearly and respectfully with the amphitheatre ruins.

**Conclusions.** This paper shows the interesting results of the collaboration between the UPV and UNIFI. We consider that the collaboration has been very fruitful for both teachers and students, as it has allowed us to broaden our perspective, covering issues of both intervention and heritage management, as well as combining innovative and conservative criteria. As aspects for improvement, there is a need to reinforce interaction in future collaborations, trying to carry out more joint classes.

To this end, for the 2024-2025 academic year, it has been planned to experiment with a different formula, which involves the creation of two intensive and in-person workshops, lasting 5 days each one, to be held one in Spain and one in Italy.

As regards UNIFI, the workshop will focus on the early medieval fortified settlement of Monsummano Alto (Pistoia), will be aimed at preparing guidelines for the refunctionalisation and revitalisation of the castle, which is currently in a state of abandonment. This topic is of crucial importance for Italy, given the huge number of minor historical settlements present in the rural territory of the peninsula and the risk of depopulation due to the never-ending phenomenon of urbanisation.

Regarding the workshop in UPV, it will focus on the Islamic castle of Corbera, aimed at the refunctionalisation and revitalisation of the monument, that has started to be protected. Therefore, both study cases are closely connected, and we foresee that the results will be fruitful for both courses.

According to the coordinators of the two universities, the workshop formula, which will allow students to earn an equivalent number of university credits (ECTS) at both institutions, should facilitate the adjustment of the calendars of both institutions, making them coincide in time in order to make collaboration between professors and students easier.

In conclusion, we can deduce from the results presented in this paper that

this type of international collaboration greatly enriches student learning and opens the door to future interdisciplinary and international collaborations.

**Notes.** The UNIFI 2nd level University master's started on 10th January 2024 and ends on 30th April 2025, the 8 hours of lessons are concentrated on Fridays, while the UPV 2nd level University master's started on 13th February 2024 and ended on 28th June 2024

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## Figures.

FIGURE 1 – Pictures of the visit to the amphitheatre and the workshop in Florence.

FIGURE 2 – Left: picture of the amphitheatre in the 19th century. Right: picture of the amphitheatre today.

FIGURE 3. A. The amphitheatre with the landscaping of the ruins and the functional proposals for the central space of the arena; B. The reconfiguration of the connection margin between the amphitheatre and the city; C. The "Bastione Santo Spirito" Park as an access threshold (credits Sara Contino).

FIGURE 4 - Images of the project carried out by Group 1, made up of UPV students: Mónica Alejandra Pombo Santos, Sergio Andrés Puentes Ordoñez, Víctor Pérez Aldea and María Camila Rivera Morales.

FIGURE 5 - Images of the project carried out by group 2, comprised of UPV students: Andrea Chávez, Milena Foretich, Arturo Cevallos and Mike Hincapié. With the collaboration of UNIFI students: Chiara Secchi and Giorgia Cameddia.

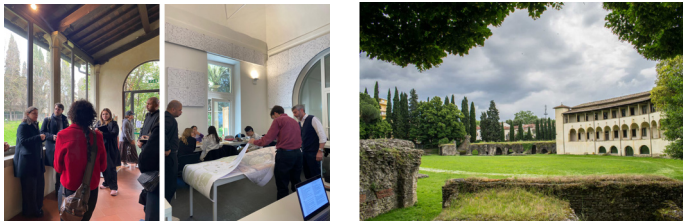
FIGURE 6 - Images of the project carried out by group 3, comprised of UPV students: Angela Anchante Bautista, María Patricia Martínez Romero, Daniel Eduardo Reyes Visbal, Ana Gabriela Serranos and Fan Ye. With the collaboration of UNIFI students: María Garofalo, Caterina Rossi and Monica Viti.

FIGURE 7 - Images of the project carried out by group 4, comprised of UPV students: Allan Vinicius Souza, Angi Ramirez, Estefanie Rojas and Mayara Dutra. With the collaboration of UNIFI students: Elisa Roatta and Francesca Giuntini.

FIGURE 8 - Images of the project carried out by group 5, formed by the student Lluís Candel Galán.

FIGURE 9 - Images of the project carried out by group 6, formed by student Patricio Aravena Escobar. With the collaboration of UNIFI students: Viola Avossa, Sara Contino and Valentina De Giorgi.

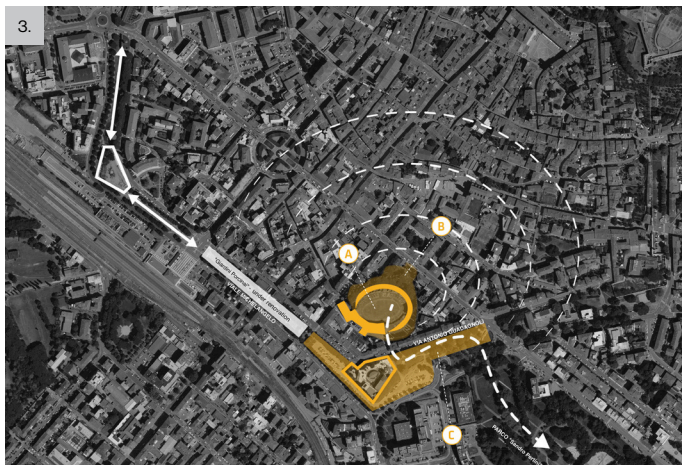
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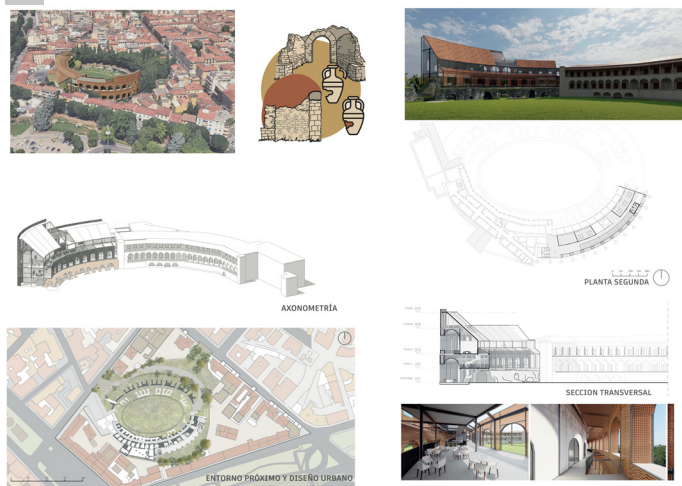
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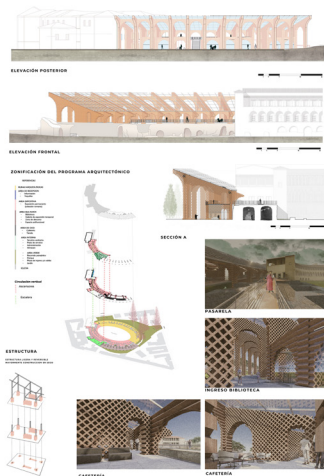
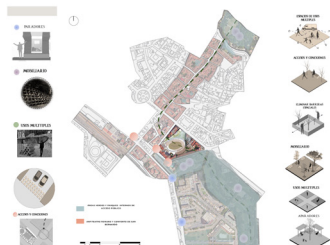
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FRAGMENTO

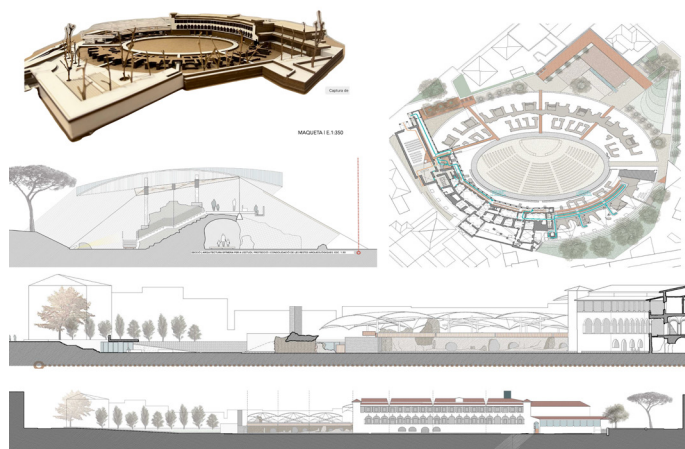
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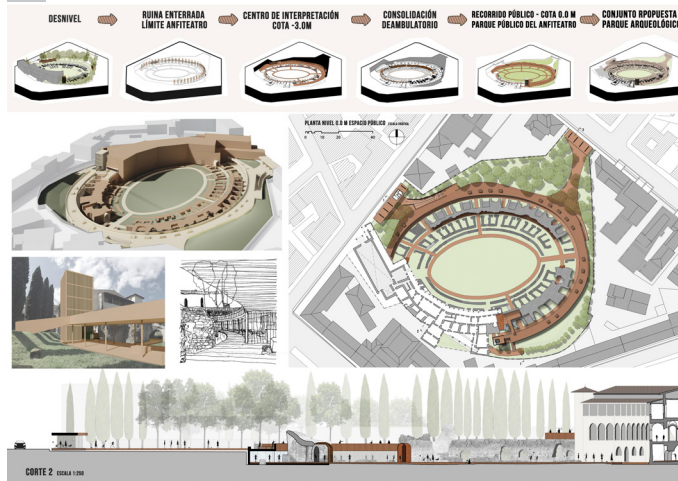
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## FROM THE DARKNESS OF THE UNDERGROUND TO THE HEAVENLY LIGHT. A PROJECT FOR THE ACROPOLIS OF ATHENS/

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**Abstract.** The essay intends to address the theme of interdisciplinarity and the “intersection” of knowledge by examining a competition and research experience involving the Acropolis of Athens. The unequivocal contribution that the Greek experience makes to the world of architectural forms can be described in the balanced link that holds together the propensity for “convexity” – manifested by the properly architectural dimension found in the “world above” and here restored by the sculptural modelling of volumes in space – with the most ancient forms of the earth – the “world below” – that is, the “concave” dimension excavated and carved in solid matter, which is proposed as nourishment for architecture that in turn holds the aspirations of human life. But when an architecture loses its function, its form and even its material, when stasis crystallises what remains by regressing architecture into archaeology, how can man rediscover in that inert matter the human reasons and values still intimately belonging to our time? The Call of the *Piranesi Prix de Rome e d’Athènes*, organised by the *Accademia Adrianea di Architettura e Archeologia onlus* in 2022, is taken as an opportunity to reflect on possible ways to put these ancient relationships back into tension, to hold archaeology and nature together again through the addition of a new formal configuration that aspires to celebrate, in the past as now, the myth and beauty of this extraordinary place.

**Introduction.** Archaic culture, it is well known, recognises in the space that nature constructs within the mass of the earth the possibility of a transition from natural to anthropic form, to be dedicated not to the transient of the human condition but to the eternal faces of the deities. Thus, this profound “osmosis” – between the forms of the architecture of the city of Athens and those of the land – would seem to be intimately linked to its mythical origin, namely the foundation of the city by Cecrope. In the eulogy to the Attic landscape offered by Dimitris Pikionis – through the well-known drawings belonging to the Attica series – it is indeed possible to trace a first attempt, on the part of modern man, to re-read the now-lost connections between the monuments of the Acropolis and the adjacent Philopappus Hill. At the same time, however, as the author himself eloquently confesses in the painting, who calls for a necessary and immediate return to the founding condition of the Athenian landscape, denouncing the laceration and betrayal caused by the most recent urban expansion. In the drawings of the Greek architect, we glimpse a few characters populating the scene in the foreground while, from the background, the forms of physical geography are revealed, which, together with the ancient monuments, not only represent the landscape but make it “manifest”, still belonging to a community that recognises its value. In particular, the founding relationship mentioned earlier, that which the forms of geography interweave with the forms of architecture, can be traced back to the pres-

ence, in many of these drawings, of the serpent: a sacred animal linked to Cecrope, the first mythical king of Athens, as well as the materialisation of the figure born from the earth, who emerged from the deep and arid soils of Attica to guide the city towards its most prosperous destiny.

**Reflecting on stones.** Following the route travelled by Pausanias [1] in the 2nd century A.D., one arrives in Athens from the sea, hence from Piraeus. Nevertheless, it is the Acropolis that has always captured the attention of architects and scholars because of the “mysterious” organisation of its architectural space [2]. Indeed, the extraordinary hill of the Acropolis offers itself as a plateau for the summit construction of the most important monument for the Athenians, the Parthenon (Temple of the Virgin), bathed in the light of Homer, which also irradiates the multiple architectural artefacts that populate the monumental hill, also guardians of the profound sense that guides, through form, the action of man intent on changing the face of the world. A rich world, the one rendered by the forms of classical architecture, sensitively grateful to its eponymous goddess - Athena - ready from the outset to support her mortal constituents [3] even accepting their anxieties and frailties as such. It is perhaps no coincidence that the Greek goddess of wisdom and strategy in battle or, in other words, of the art of governing, would build with «*Noús kái daimónia*», intelligence and sensible reasoning» [4] a “dense plot” [5] of institutional and social relations that would guide citizens in solving the intricate problems inscribed in the “meshes” of everyday life. A life profoundly marked by numerous religious and cultic practices, in which it is possible to discern the breadth of the Greek gaze, now turned to the metaphysical world where the divinities dwell, now instead directed towards more empirical and factual values.

The protopolis [6], to use Plutarch’s term, was born from the political and administrative union of several villages and communities, previously isolated and scattered in the arid landscape that, despite everything, welcomed, favourably or even hostilely, its inhabitants. Reunited under the light of the legend of Theseus, the mythical cadence innervated the urban space with the well-known phenomenon often referred to as “synecism” (literally “union of houses” [7]). From a strictly urban point of view, the “wheel-shaped city” – as described by Herodotus when describing the pre-Persian walls – pursued a pattern of radial development, inscribed within the new walls erected by Themistocles, which were larger and more powerful than the previous ones, and which in a concentric pattern around the Acropolis encompassed both the Athens of the origins (on the banks of the river Ilisos) and the subsequent urban modifications of the classical and later periods. It was precisely the development, not always coherent [8], of the city over the course of time that contributed to strengthening the role of the Acropolis, elevating it to “part of the city” – to use an expression used by Leo von Klenze on the occasion of the urban project for modern Athens – a permanent compositional pole for the entire area, as Cesare Brandi felt in more recent times: «[...] from Piraeus, going up to Athens, nothing changes, the houses never stop: only the traffic becomes more intense, and the buildings, little by little, grow one storey higher. At a certain moment we are inside Athens, without knowing how, when, at what point we entered it, and where we left the suburbs. But one thing is known, and it has never

been out of sight, it has not been absent for an instant: the Acropolis» [9].

Sometimes “tampered” with by the continuous transformations carried out from the beginning of the 19th century to the present day, this extraordinary monumental elevation (Figure 1) continues to nourish and guide any artistic form produced by Western thought, attracting us with a seductive yet “elusive glow” [10], capable of ‘making the whole building sway’ and shaking even the most relaxed of human souls.

Although veiled by multiple treacherous interventions, it is still possible today to peer into that ‘hidden’ order that holds together and governs the positioning of the elements on the sacred rock. Therefore, as demonstrated by the studies of Konstantinos Doxiadis [11], perhaps that sense of secrecy, that “mysterious” order underlying those stones is, if anything, exacerbated by our lack of aptitude to know how to “see” the rules, arrangements and distribution of forms in space capable of producing, as Karl Bötticher lucidly notes, “complete clarity of consciousness”.

**Impose order on stones.** The plasticity of the rocky space of the Acropolis, once characterised by carvings and substructures that identified singular points observed by “obligatory” gazes, is to be reaffirmed through the interpretative action of the project, which finds in the space of the fill, in correspondence with the southern portion of the Pelasgian wall, certain compositional modalities that reveal the way in which man has inhabited this extraordinary place over time. Precisely in correspondence with the “Persian rubble”, it is possible to recognise, on the one hand, the relationship between the substructure and the natural form of the plateau while, on the other, the different strata that in succession demonstrate the different formative events of the Acropolis itself. In this place rich in history, it was imagined to carry out an excavation operation to reach the rocky substratum and the archaeological remains of the previous retaining walls (Figure 2). In this way, a hollow space is generated whose shape is not random but draws its rules from the presence of the Parthenon towering above it, determining a place of shade where one can admire the magnificent presence of the stereobate.

By contrasting the concretion of the Parthenon with the tectonic elementarism of the new “museum/shelter” (Figure 3), a hypostyle hall is determined, punctuated by a theory of stiloï, concluding with an uncovered patio half the size of the cell of the temple consecrated to the goddess. The grammar and canonical syntax of the peristasis of Iktinos become the chosen references for the definition and positioning of the elements of the composition, which take on metrics, geometries, alignments and dimensions precisely from the critical reading of the monument that faces it: indicated as a precise formal field to which the form, consciously, refers.

To describe the project for the new Acropolis Museum in detail, we would like to refer to two combinatorial and archetypal compositional logics – the covered boundary and the excavation – from which we derive the necessary conditions to return to Mother Earth and, at the same time define a partial closure/exclusion to the outside world.

The principle of delimitation is identified in the ability to construct a place where it is possible to take in a broader reality, the archaeological one, i.e. it represents the place where the human experience of dwelling takes

place. In this case, the spatial configuration is intentionally called upon to detect human beings’ actions and forms when they dwell: delimiting and covering. In this way, the formal and material properties of the elements that delimit the space allow the recognition of the symbolic value they carry, announcing the space in front of the stereobate that can thus be revealed. Thus, the partial and controlled delimitation of the ground, which works dialectically with the roof punctuated by columns (Figure 4), allows the definition of an absolute scene in which a system of relations is shown which, yes, holds the space but does not bind the continuity between exterior and interior. In these terms, the delimitation of space appears to be an elementary but necessary condition for the re-sacralisation of the archaeological site, thus determining a kind of “cosmogony” [12]. As for the second compositional technique – excavation – it is configured as the subtraction of the Tellus Mater, as a fundamental condition for “freeing” the ground and preparing it to receive the compositional elements with which the formal and typological structure is attested. The possibility of defining, at that point, a space of concave nature is by no means accidental. The limestone boulder on which the forms of human life have taken root through architecture already contains formal properties in itself, internal spaces of the cavity that are predisposed to continuous interpretation by the architecture itself. As Martin Heidegger argues, «space, to make space as space, requires man» [13], and this concept is particularly apt in describing the bond that holds space and social equality together, tormentingly sought after in the homeland as well as in the rest of the Greek world. In this way, man has regained not only a relationship with light, declared by the convexity of architecture, but also with darkness, the womb of the Earth from which everything is born and takes shape. This possibility of form, intimately linked to the ancient sense of inhabiting the earth, wants to be interpreted and re-proposed in the project, subordinating the delimitation, as it is believed to be able to hold and at the same time show the essence of things while evoking, in the penumbra, the telluric dimension of the same earth that gave rise to the myth and architectural forms (Figure 5). The interventions proposed for the sod in front of the Parthenon can therefore be traced back to this primordial dimension of “formativity” – excavation, delimitation and modelling of the ground [14] – which is still enduring and capable of generating new architectural forms that aspire to theatricalise the archaeological fortress and to value the ancient testimonies that animate it on the summit (Figure 6).

In conclusion, the chthonic space, obtained by excavation and delimitation, allows the tactile presence of the Parthenon’s foundations to be exalted by gaining, subsequently the top of the tableaux lit by the sun and “played” by the columns «still standing [offered] to the wind [like] the strings of an invisible lyre» [15] whose “sound” stretches out into the surrounding landscape, now perhaps only heard by the escaped gods, now perhaps also felt by the new civilisation, to suggest, once again, form and measure to the dwelling of its citizens.

**Conclusions.** The architectural project for ancient “heritage” [16] offers the possibility of experiencing and investigating not only the spatial dimension, but also, and above all, the temporal dimension, by simultaneously pouring a documentary value and a morphological significance into

ancient remains. The attribution of a morphological value to the forms of the past inevitably leads the project for archaeology within a point of view where it is necessary to identify questions of a general order relating to architecture so that the latter is not exhausted in its technical dimension but is capable of unfolding and commenting on the theories of “formativity” that have presided over the construction of form. One of the central questions within this point of view is the possibility of bringing the fragments of history into tension by introducing a new urban compositional principle capable of making ruined architecture “react”.

When, however, this ambition is motivated mostly by mere empirical emergencies, then the risk is to fall into an impasse that overwhelms the cardinal objectives of the practice of architecture: that is, to ensure a modern, civil and democratic instrumentation through which to understand, preserve, re-elaborate and carry forward the discourse on form, not abdicating to a generalist idea of archaeology – a concept that seems to convey today’s strategic choices instead – so that the transfer of these forms to contemporaneity is fully realised. However, the methodological significance attributed to the project is not aimed at providing irrefutable and defining answers, if anything, on the contrary, it poses the right questions aimed at unveiling and understanding ancient places: what is the need and the value, that an intervention technique has to orientate the knowledge and transformative action of the project? What is the relationship between this general modality and its articulation with respect to the complexity and richness that the territory offers each time? In the specific case, briefly described, the re-attribution of meaning aspires to be produced by means of a “synthetic” hypothesis capable of orienting the project in its dual role – of knowledge and transformation – in a relationship that does not question these terms in a merely separate manner, but is capable of indissolubly linking them by nourishing, with the project, a relationship of a circular nature. In other words, with this contribution we would like to try to support the hypothesis in which the relationship between knowledge and project is not at all of a consequential nature, but rather circular, where knowledge feeds the project and the latter collaborates to make it intelligible to a vast public, in fact telling of the very circularity of knowledge: «knowledge is only memory, never true immediacy. [...] But immediacy is at the origin of memory and presides over knowledge» [17].

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2. T. Wiegand, Die archaische Poros-Architektur der Acropolis zu Athen, Leipzig 1904.
3. Athena, perhaps as a gift of thanks to women for the vows they had received, instilled the art of weaving in women. As Homer states «[...] women are weavers of

cloths; to them Athena gave in the highest degree to do beautiful works and to have a wise mind». Omero, Odissea, VII, pp. 103-111.

4. J. Hillman, *Figure del mito* (Adelphi, Milano, 2014), p. 63.
5. «mistress of the art of weaving - following Hillman again - Athena's art [is revealed in] the systematic interweaving of all the threads; and just as her person is a combination of reason and necessity, her combinatorial art produces a compact fabric». Ivi, p. 55.
6. F. Turato, *La crisi della città e l'ideologia del selvaggio nell'Atene del V sec. a.C.* (Edizioni dell'ateneo e Bizzarri, Roma, 1979), p. 31.
7. The expression synoikismòs (synecism) refers to “higher” values of both an exquisitely topographical and juridical nature, in that all the natives of the extensive territory covered by Attica now represented a community of “cohabitants” “united” in the city-state of Athens. See A. J. Toynbee, *Il mondo ellenico* (Giulio Einaudi editore, Torino, 1967), pp. 42-51.
8. As Paul Valéry warns: «No less than some who will visit it in the future, those who have recently returned there will not have been able to avoid noticing how the appearance of the Acropolis has changed considerably compared to what could be admired only a few decades ago. Even if the works undertaken since the second half of the 1970s to preserve the monuments and make them more accessible are pervasive, even if they are conducted at a moderately sustained pace, it is inevitable to note that the peculiarity of the events of which they are the bearer does not make them substantially different from those that have marked the Acropolis' past, but rather the most recent, neither unprecedented nor definitive, chapter in its history, yet another demonstration that history while 'justifying anything, teaches absolutely nothing'». P. Valéry, *Sguardi sul mondo attuale* (Adelphi, Milano, 1994), p. 36.
9. C. Brandi, *Viaggio nella Grecia antica* (Bompiani, Firenze-Milano, 2007), p. 30.
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11. C. A. Doxiadis, *Architectural Space in Ancient Greece*, (The MIT Press, Cambridge, 1972), pp. 29-38.
12. M. Eliade, *Il Sacro e il profano* (Bollati e Boringhieri, Torino, 1976), pp. 26-28.
13. M. Heidegger, *Corpo e spazio, osservazioni su arte-scultura-spazio* (Il Melangolo, Genova, 2000), p. 37.
14. The actions of “covering” and “limiting” can be understood as cornerstones for architectural design. As Ludwig Hilberseimer points out, architecture «[...] constitutes a problem of space (and that) we cannot experience a space without limits” because architecture “[...] is situated in space and at the same time encloses it to itself». L. Hilberseimer, *Mies van der Rohe* (Theobald, Chicago, 1956), trad. it. A. Monestiroli (a cura di), *Mies van der Rohe* (CLUP, Milano, 1984), p. 45.
15. M. Heidegger, op. cit., 1997, p. 49.
16. R. Capozzi, F. Costanzo, F. Defilippis, F. Visconti (eds), *Patrimonio e progetto di architettura* (Quodlibet, Macerata, 2021).
17. G. Colli, *Filosofia dell'espressione* (Adelphi, Milano, 1969), p. 35.

## Figures.

FIGURE 1 - Planimetry of the Acropolis of Athens and its surroundings

FIGURE 2 - Planivolumetry of the plateau. In red the design solution, in black the ancient monuments.

FIGURE 3 - From top to bottom: Excerpt of the plateau plan highlighting the structure of the new museum (in red); Cross-sections of the new museum against the background of the ancient monuments (in black)

FIGURE 4 - Perspective view from the east of the Perserschutt (“Persian rubble”)

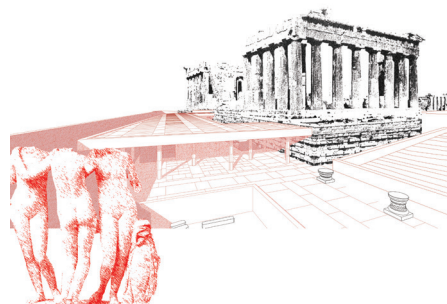
FIGURE 5 - Perspective view of the southern portion of the Pelasgian wall

FIGURE 6 - Perspective view from the courtyard of the new museum.

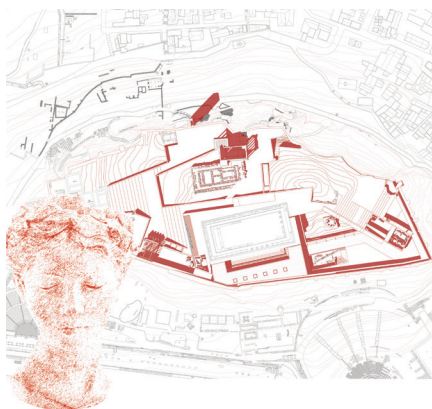




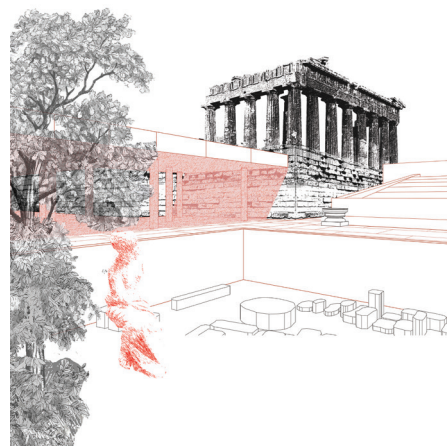
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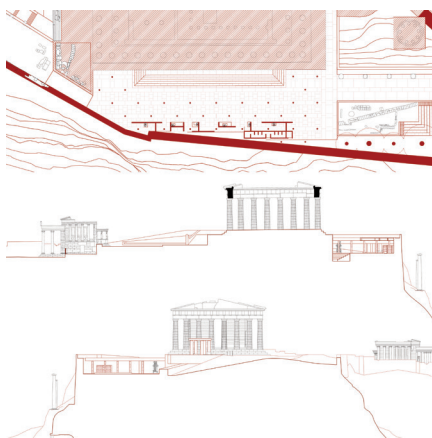
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2.



5.



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6.

## DECARBONIZING HISTORICAL BUILDINGS: OBJECTIVES AND CONSTRAINTS/

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**Abstract.** The need to decarbonize the European construction sector clashes with a building stock in many cities dating back a few centuries, with variable energy performance. This raises the question of how much to focus on embodied carbon, the choice of materials, or operational carbon, hence energy efficiency. The Italian National Energy and Climate Change Plan proposes the progressive electrification of the building sector as the primary decarbonization measure, replacing heating systems with heat pumps. This prediction raises several questions. Non-monumental historic buildings are often subjected to landscape restrictions or present typological and decorative characteristics that do not allow insulation interventions, such as reducing energy consumption significantly and, therefore, related CO<sub>2</sub> emissions. Furthermore, the need to replace and centralize the systems raises the problem of positioning the external units and heat distribution. The paper defines issues and opportunities through considerations and graphical schemes.

**Introduction.** The European Council, in 2020, established an objective for the EU to reduce net emissions by at least 55% by 2030 compared to 1990 levels. Subsequently, in 2021, it entered the European Climate Law (Regulation (EU) 2021/1119). This law harmonizes the EU target for 2030, establishes the binding objective of climate neutrality in the Union by 2050, and establishes a framework for advancing the pursuit of the global adaptation goal. The legislative package, known as Fit for 55, includes a series of proposals to reform directives and regulations relating to ETS (Emission Trading Scheme), ESR (Effort Sharing Regulation), LULUCF (Land Use, Land Use Change and Forestry), energy efficiency, and renewable energy for Member States. In the civil sector, measures have been adopted to accelerate the efficiency of existing buildings to reduce emissions by 2030 compared to 2005 levels and promote an increase in energy savings in final consumption. This process is supported by the diffusion of deep redevelopment interventions and the implementation of high-performance technologies, such as heat pumps and building automation and control systems (BACS Building Automation and Control System). This is leading Member States to define reduction policies, which, for the civil sector, imply the progressive electrification of systems, assuming that electricity production will increase from renewable sources; otherwise, the game will not work.

The reduction of energy consumption in existing buildings involves redevelopment works that modify the transmittance of the opaque walls (thermal insulation) or fixtures (replacement), with the possible adoption of

screening systems if not existing (to reduce the load of summer heating), or which see the replacement of the heating system (oil, gas). Decarbonization objectives are associated with energy consumption reduction, mainly from fossil sources, and are connected to the need to implement climate change mitigation strategies. It, therefore, seems that the decarbonization objectives may coincide in the building sector as regards operational energy and, thus, the reduction of CO<sub>2</sub> emissions in the operational phase, with the electrification of the systems aimed at heating, cooling, and dehumidifying homes and offices (and, in some situations, also provide the correct air exchange) with no emissions at a local level.

**Issue: abandoning natural gas in end-uses.** It should be noted that in many European cities, and in particular in Italy, the existing building stock is vast, and demolition and reconstruction practices are rarely pursued, both for economic-environmental reasons but above all because the majority of this heritage is owned, e.g., by families that own their home. Therefore, issues related to the economic management of the operations come into play, which cannot be medium-long term (payback), as well as psychologically and affective, about one's living space (from the house to the neighborhood, to the city). We face the enormous effort of redeveloping buildings built from the Middle Ages to the 1980s, with different constrictive characteristics and energy performances. The buildings from the 1950s to the 1970s usually present the worst construction characteristics. However, due to their prevalent morphological simplicity, they are well suited to extensive redevelopment works from the outside (thermal insulation, systems). Massive buildings with better behavior, however, often carry constraints linked to belonging to areas of landscape value, or they are characterized by decorative devices that limit their modifiability. Regarding listed buildings, Article 3bis, in Legislative Decree No. 192/2005, establishes that cultural assets are exempt from the obligation of energy certification when compliance with the requirements would lead to an unacceptable alteration of their historical-artistic character. The authority responsible for issuing the authorization evaluates the presence of a "substantial alteration." Therefore, the possibility of installing mechanical, thermal, and electrical systems that help improve the functionality and energy performance of the building during its use is not entirely excluded.

According to Regulation (EU) 2018/1999 on the governance of the Energy Union and Climate Action, Italy has released two key documents: the "National Integrated Plan for Energy and Climate" (PNIEC) in 2020 and the "Italian Long-Term Strategy on Greenhouse Gas Emissions Reduction" in 2021 (MISE, MATTM & MIT, 2020).

The PNIEC outlines binding objectives for 2030 across five intervention areas: decarbonization, efficiency, energy security, development of the internal energy market, research, innovation, and competitiveness. Meanwhile, the long-term strategy extends to 2050, aligning with European targets for climate neutrality. Key goals include:

1. Achieving a 40% reduction in energy demand by 2030, particularly in private mobility and the civil sector.
2. Transitioning towards renewables to cover 85-90% of final consumption and significant electrification (50%) of end uses and hydrogen production.



3. Enhancing CO<sub>2</sub> absorption capacity through sustainable management of green and forested areas, restoration of degraded lands, and reforestation efforts.

**Strategies: decarbonization as electrification of thermal plants.** The strategies for this purpose can be different, depending on the building's architectural value and the bearable variations without being defined as "impacts." Nesticò et al. [1] highlight the average compatibility of different energy requalification solutions on existing buildings, especially historical ones.

Camieletto et al. [2] illustrate and evaluate some solutions through modeling with Energy Plus for a historic building intended for university use to reduce energy consumption. Contrary to what one might think, some solutions do not involve almost any modification to the building: modification of the on and off points of the heating systems and adoption of programmable intelligent thermostats are low-cost solutions that allow an immediate reduction in energy consumption. The possibility of isolating the opaque parts of the envelope is excluded, and the replacement of only one part of the fixtures is assumed. In any case, a geothermal probe heat pump is considered.

Following the PNIEC, the progressive replacement of heating systems with heat pump systems would lead to better conditions of summer comfort with a consequent increase in electricity consumption since only a part of the population today has cooling systems. In this hypothesis, they could instead benefit from them, in theory, everyone. Leaving aside the question of the availability of electricity in the face of a substantial increase in consumption, it is a question of understanding what the margins of applicability are in existing buildings, for systems that need to be outdoors, if they use the atmosphere to heat exchange or in contact with the ground if the conditions exist for the installation of a geothermal system. Furthermore, perhaps equally complex is the question of understanding how to distribute the heat in systems previously mainly made up of radiators fed by more than 60°C water and, therefore, not always precisely suitable for operation with heat pumps.

We can face different hypotheses. While including a new heat pump system may not be a problem in single- or two-family buildings, we are interested in whether it can happen in urban areas in multi-story buildings. The most frequently used systems use atmosphere air as a source, using air to distribute the heat when air exchange is also requested or fluid to reach radiant plates or fan coils.

The methane gas network has developed in Italy since 1946, starting with predominantly industrial use and becoming the primary source in Italian kitchens for cooking food (<https://proxigas.it/chi-siamo/storia/>). In the 70s of the twentieth century, gas began to replace diesel for heating buildings. Networks were developed to reduce the use of diesel in heating systems to supply less polluting natural gas in most of the national territory, pushing apartment owners to eliminate centralized systems and replace them with autonomous gas systems. Remember that 80% of the population lives in homes they own in Italy. Therefore, the first solution, represented in 'Figure n. 1', is somewhat dystopian and is already seen in famous images

of some eastern cities - see 'Figure n.2' -, in which each owner equips their home with a single air conditioning system. This solution is inapplicable in all areas with a landscape restriction - e.g., in Portofino Park, to give an internationally known example, it is forbidden to install air conditioning systems with exposed external units - and obviously in buildings with a monumental restriction. There is some concession if the external units are hidden, at the risk of reducing their efficiency due to obstacles in the thermal exchange.

The second hypothesis is the creation of a centralized system. Again, this requires ventilated spaces for the external exchange unit, usually the roof (Figure n.3), a space on the ground open to the outside (Figure n.4), or even an intermediate floor open to the outside. Once again, problems of landscape and architectural constraints make these hypotheses complex.

Reasoning away from usual solutions, the constraints that allow us to use heating systems in all situations in which we are limited by architectural characteristics or unknown constraints of landscape and monumental interest must be identified: they must be systems powered by electricity, they must not be visible to the external, possibly they must be centralized systems. There are cases of building redevelopment with the replacement of systems in which heat pump systems with geothermal probes have been used (Figure n.5).

In [3], Cabeza et al. make a long list of cases of historic buildings, even prestigious ones, that have been energetically requalified; rarely does the main work consist of the insulation of the walls, and only in some cases is it limited to working on the intrados roofing and the floor at ground level if the flooring can be modified or removed and reassembled. Among these, whenever possible, an air-to-air heat pump system was adopted more frequently because it had less impact than air-to-water with radiators, radiant floors, or radiant plates. Emmi et al. [4] compare different approaches to replacing heating systems for two historic museum buildings in Venice and Florence through simulations with the TRSYS software. They vary the hours of operation (only during use or throughout the day) using geothermal heat pump systems, compared to a heat pump that uses the atmosphere for heat exchange and to the gas heating and chiller cooling system. Beyond the consumption related to the number of hours, it is clear that the geothermal heat pump is much more efficient, even considering the possible cooling of the ground in 10 years due to a very low cooling requirement compared to the heating requirement.

Some see a solution for the reduction of operational carbon emissions in the activation of smart communities. This solution involves installing thermal systems (heat pumps) and renewable energy production systems (solar thermal, solar photovoltaic) not on all buildings but only on those that can absorb the visual impact, functioning as service providers. Suppose this hypothesis solves problems related to the lack of space, in the case of activation in historical centers or their proximity, the question changes. If the recognized value is linked to a set of elements (landscape constraints "overall beauty" as defined in Italy), for the value to be preserved, the energy community (de São José 2021) [5] should be expanded to incorporate small parts of the historic center and large parts of the adjacent fabric, thus

creating a functional tessellation that does not compromise the view of the center itself. Speaking of visual impact—a cultural concept, therefore subjective and changeable—it is necessary to decide whether it is the vision of the systems that create it—and for this purpose, the possible points of view are studied—or whether even the mere presence can define it (Figure n.6). Given that we are in the era of aerial photos, a point of view no longer exists because everything is always visible.

The above considerations raise the question of whether, in addition to heat pump systems, other electricity-powered systems can be a solution easier to apply in historic buildings. The solution obviously cannot be electric resistance plates (radiant) that were used and are still used, because they are inefficient. The new generations of far infrared radiant plates seem a possible alternative, although not as efficient as a heat pump. However, these systems have a very variable efficiency. Bédard [6] tested numerous systems, both gas and electricity sources, and verified a variation from 39% to 85% depending on the type of system.

Since these systems heat objects (and people) and not the air (which is consequently heated by the objects), they determine immediate comfort conditions when facing them at close range. At the same time, they require time to have uniform comfort if you want to reduce the maximum absorption of the panels to adapt to domestic systems and non-excessive power supplies. It is, therefore, a question of changing the approach to heating the home, taking advantage of programmability and differentiated temperatures during the day. If the comparison with heat pump systems is a losing one - also because the latter can also be used for cooling - the comparison with gas systems widely used today places them as a more than valid alternative and consistent with decarbonization objectives.

**Conclusion.** The objectives of carbonization of the building sector are closely linked to reducing energy consumption from non-renewable sources. The electrification of air conditioning systems and the consequent abandonment of gas systems seems to be a solution since electricity can be produced from renewable sources. Specific energy performance improvements should be studied in historic buildings, protected or otherwise characterized by identifying elements. Alternatives to adopting air heat pumps, such as geothermal heat pumps or far infrared radiant panels, should be evaluated. Finally, the possibility of activating energy communities should be evaluated to avoid intervening directly on the buildings of interest, installing the systems on neighboring buildings that can receive such technical elements without excessive visual impacts.

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### Figures.

FIGURE 1 – Building with individual external air conditioning units for each apartment. Image by P. Sabbion.

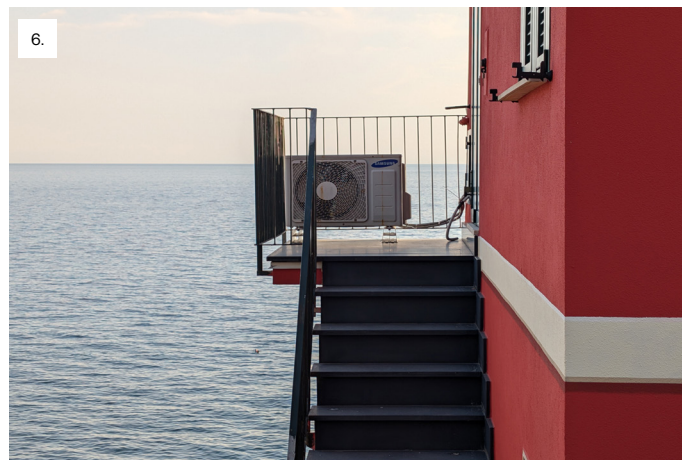
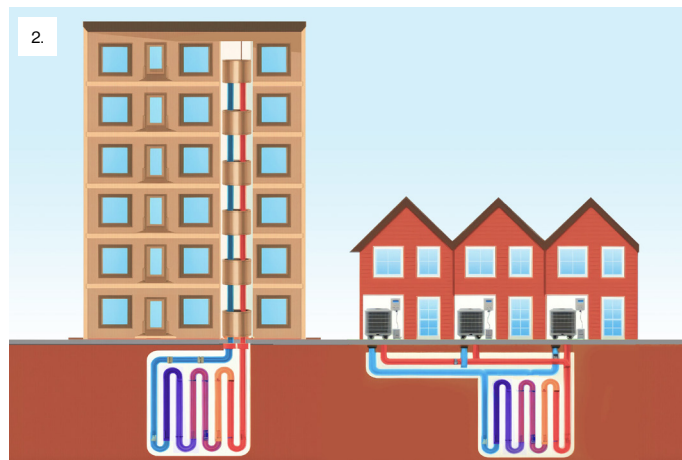
FIGURE 2 – Dense urban residential buildings in Hong Kong. Photo by Brian Sugden.

FIGURE 3 – Air Conditioning units on the ground. Photo by P. Sabbion.

FIGURE 4 – Scheme of heat pump systems. Image reworked from the University of Leeds, [leeds.ac.uk/policy-Leeds](https://leeds.ac.uk/policy-Leeds).

FIGURE 5: Air Conditioning units on the roof of a historical building in Genova, 2024. Photo by P. Sabbion.

FIGURE 6 – Single Air Conditioning unit on a historical building, Genova. Photo by P. Sabbion.





## A BOX-IN-A-BOX: BUILDING THE FUTURE INSIDE THE PAST. FRANCA STAGI IN MODENA/

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**Abstract.** The architect Franca Stagi (Modena, 1937-2008) collaborated for more than twenty years with Cesare Leonardi producing residential and public projects and successful industrial design objects. After the division of the studio in 1983, Stagi becomes the reference architect for Modena and she dedicates herself to the recovery and re-functionalization of the large historical buildings of the city center, to the design of greenery, to urban plans and to the construction of new places for the community. In the historic center of Modena, one can remember the projects for the University of Modena and Reggio Emilia, one of Stagi's main clients, such as the restoration of Foro Boario, the cattle market (1989-2002) which became the seat of the Faculty of Economics, the reuse of the Sant'Eufemia convent (1994-1995) intended for the humanities faculties, and the recovery of the extensive San Paolo and San Geminiano cloisters (2005-07), which today houses the Faculty of Law, a library, restaurants, a kindergarden and a music school. The quality, quantity and size of her works produced an ongoing project in synergy with associations, citizens, and with local authorities, in particular with the first female mayor of the city, Alfonsina Rinaldi.

The paper highlights the method adopted by Stagi when operating inside the large container buildings that represented the history of Modena, capital of the small but glorious Duchy of Este. After a careful restoration, which tells the story of the building at different historical thresholds, the new functions are built inside the monument as independent boxes, in order to establish a respectful dialogue between past and present.

The article aims to reconstruct the precious vision that Franca Stagi had for the city and its territory, expressed through structural projects punctuated by specific interventions designed in detail, without ever losing an overall view. This vision represents at the same time a geographical and historical perspective, which takes into account the peculiarities of a place and its past, without giving up on transforming it in order to give it a future.

**Introduction.** The article concerns the production of a prolific but almost unknown Italian architect, Franca Stagi (Modena, 1937-2008) and try to define her design method. She was active for forty years, starting from the early 1960s, and her career can be divided in two phases. The first one is in collaboration with the architect Cesare Leonardi (Modena, 1935-2021), and produced industrial design works (Figure 0), housing, sports centers, architectural competitions and numerous public parks. In 1982, they published *L'architettura degli alberi* (The Architecture of Trees) [1], aimed at the design of green areas. After the separation from Leonardi in 1983 [2], in the second phase of her career, Stagi focuses on the restoration and reuse of the architectural heritage, dedicating much of her activity to the redesign of the city center of Modena. Working on existing buildings, Franca Stagi

always maintains an attitude of respect towards the ancient: her project is contemporary and does not seek mimesis, but its subordinate independence.

After a long period of oblivion, in 2012 the city dedicated to Franca Stagi a small exhibition of her drawings inside the Poletti Civic Library of Art and Architecture, followed in 2018 by a video documentary, a congress and an exhibition held inside the Faculty of Economics at the Foro Boario, building for which the architect undertook an important restoration and reuse project, therefore selected as a case study to be presented in the center of this article. Both exhibitions were accompanied by an exhibition booklet: these are the only published research works dedicated exclusively to Franca Stagi [3]. This research work begins to fill this critical void and to give back to Stagi the place she deserves in the history of the methods of investigation and intervention on the built heritage.

**Foro Boario, from the cattle market to the university.** The General Master Plan of Modena of 1958 provides for an expansion of the city on the zoning model, but preserving a linear system of parks surrounding the historic center [4]. The subsequent Master Plans depict a city in which the Modern has struggled to take root, and perhaps for this very reason so focused, as the nearby city of Bologna, on the conservation and reuse of the building heritage, activities for which it develops a refined model of diagnostic and intervention, applied in the selected case study.

The Foro Boario, the cattle market of Modena, was commissioned in 1833 by Duke Francesco IV d'Este, lord of the city, to the court architect Francesco Vandelli (Modena, 1795-1856), in order to provide livestock traders with a suitable place for their activities. The majestic character of the classical architecture aims to reaffirm the duke's authority in the city, while its urban layout proposes a long elevation (over 250 meters long and 19 meters wide) following the path of the city walls. The site was once occupied by the fortified citadel, and it presented a parade ground nowadays converted into a huge green space. In some paintings of the time, the building is depicted in its original state, with the colors of the period and the open arches at the ground floor to shelter the livestock. Over the years the building changed function, maintaining its public character as a container for services: it was used as a military barracks, then it housed the Fire Brigade and the Red Cross and this led to the closing of the arches on the ground floor and the insertion of partition walls and false ceilings [5].

The volume is divided into a central atrium with three bays on twin columns, surmounted by a toothed tympanum with a clock, and into two long wings supported by 17 smaller arches on simple pillars and concluded by higher and more compact heads. (Figure 1)

At the end of the 1980s, the University of Modena decided to move the Faculty of Economics into the Foro Boario building, which is located on the edge of the historic center, starting a successful process of redevelopment of an urban area characterized by degradation.

The pictures (Figure 2) depict the long wings at the first floor of the Foro Boario. The picture above shows the beginning of the project state, after the removal of the additions such as a ceiling hiding the wooden trusses and some internal walls added over the years. The rediscovered volume

shows the appearance of a three-nave cathedral with a long series of arches supporting the structure. The building thus restored appears as a box ready to accommodate new functions, as the balconies shown in the picture below (Figure 2), leading to the professors' studios, with a respectful mechanism called "box-in-a-box system".

### **Tools: the "box in a box" system and the "stitching" of spaces.**

The "box in a box" system aims to build Chinese boxes inside the ancient volume. These new blocks must be structurally independent from the container, which is thus preserved and almost untouched, except punctually in the joints. The existing is continuous and made of heavy materials resisting by mass (bricks, stone); the new instead is built with light materials (metal, wood) and rests on point-like structures, so as to touch the ground and walls as little as possible.

The professors' studios are designed as suspended and transparent spaces, set between the windows in a game of interlocking in which the volumes of the new project float inside the solid case of the historic building. The galleries leading to the studios, detached from the façade (Figure 2, below), are suspended like the bridges of an ocean liner, or like the mobile scaffolding of a big factory. The interior design transforms these cultural institutions from ivory towers to democratic and accessible factories, a part of the city that can be crossed and enjoyed by citizens.

Historic buildings often grow in phases, because they result from annexations and partitions. This formal discontinuity can be an obstacle, and it's the reason why Stagi pays most attention in the construction of the paths, in order to connect the different parts of the volume. (Figure 3) The insertion of stairs and elevators as vertical connections, and the "stitching" of the volumes through the opening of horizontal passages allow the building to be "held together" on a functional level, looking at the paths of the users and their comfort while using the spaces.

The library of Economics is located on the ground floor, inside the volume defined by the arches, that once were open to allow the transit and rest of the cattle. Considering some exterior picture of the façade before the restoration, one can see how the fornx were unevenly filled, generating a disorder in the elevations. Stagi's restauration punctuates the facade with equal windows, functional for the lighting and ventilation of the library, and at the same time aimed at restoring the rhythm of the original openings. Inside, close to the façade, book shelves separate the reading tables, while in the center there is a spine of bookshelves on two levels, to increase the storage capacity of the shelves and to multiply the points of view.

**Much ado about the project.** Some people proposed to reopen the fornx, and this topic was much debated in the city, with banners hanging from the town hall and satirical cartoons published in the main city newspapers [6]. This quarrel shows an extreme position towards the restoration of a large historic building: the desire to bring it back to the original form, even if it makes the building unsuitable for new uses. Therefore, this choice would represent a deadly process of museification of the building.

The restauration and reuse project of the Foro Boario is due to two women: the architect Franca Stagi and the first female mayor of Modena, the PCI militant, then member of Parliament, Alfonsina Rinaldi (born 1947). In

some rare photos, one can observe the architect Franca Stagi while showing the state of the works to a delegation led by the mayor, who during her mandate promoted important improvements to the quality of the building heritage and mobility. The complicit faces of the two women testify to how powerful the virtuous union of architecture and politics can be, in a modern and inclusive dimension, for the first time all-female.

From the first phases of the project and during the whole construction process, Foro Boario is the object of unexpected media attention and sparks the city debate, for example on the question of color, which Stagi transforms from the neoclassical dark pink and yellow to the white of the new city [7]. During those years, entire columns are dedicated daily to the numerous restoration sites in the city, calling into question architects, associations such as Italia Nostra, journalists or ordinary citizens. The conservative attitude seems to prevail, aimed by a reactionary political opposition. Until the "Lady" intervenes to defend what the press calls "her jewels", which means her construction sites, and silences everyone by claiming the autonomy of her technicians and the trust that politics must grant them: "the solution must be technical-scientific and not political" [8]. The clashes decrease, and the construction sites multiply, often under the direction of Franca Stagi.

**Franca Stagi and Modena: a lifelong project.** Franca Stagi has dedicated much of her professional career to the recovery and reuse of the main buildings in the historic center of Modena. Below is a brief presentation of her main works, for which the same considerations expressed for the Foro Boario can be reworked.

The Collegio San Carlo (with Cesare Leonardi 1977; subsequent interventions by Franca Stagi 1992-2007) is a XVII century complex which occupies a large block in the very centre of the city, including the university college, a library, rooms, classrooms and a canteen; the theatre and the church [9]. There she intervened on several occasions for over thirty years producing a great formal synthesis and poetical solutions, from the mediated brutalism of the library to the light metal staircase blocks that connect the various levels, exploiting and recovering waste spaces such as light shafts in state of decay. (Figure 4)

After the separation from Leonardi, Stagi worked at the Palazzo dei Musei (1986-1999), covering and connecting the courtyards with a high-tech glass, thus creating a volume used both to house the Roman lapidary and to reorganize the distribution [10]. The project inserted a lift and emergency stairs in order to make the upper floors of the vast complex more accessible and to make the system of interior paths clearer.

The redesign of the former Convent of Sant'Eufemia (1994-98), an XI century complex which became a barracks under Napoleon the 1st and later a prison, allows Franca Stagi to house in the city center the Faculty of Humanities of the University of Modena and Reggio Emilia. (Figure 5) The redesign of the cloisters pays attention to connecting these open spaces, once divided, to build a pleasant inner circulation in the greenery. The careful choice of tree species reflects the experiences gained in the first phase of Stagi's career, with *L'architettura degli alberi* (The Architecture of Trees) [1].

Her works also include the restoration of the Synagogue (1995-97) [11] and the Municipal Theater (1995-98), a temple of opera nowadays dedicated to the great singers Mirella Freni and Luciano Pavarotti, both born in Modena.

Her last work occupy her until her death: it was the redevelopment of the adjacent Complexes of San Gemignano and San Paolo (project 2005-07, works 2010-2014), transformed into a multifunctional center, hosting the headquarters and library of the Faculty of Law, and public services such as a kindergarten, a nursery, a family center, a reading room, a music school and an exhibition space. In this project, especially in the layout of the Law Library, one can see an even more mature application of the box-in-a-box system already used at the Foro Boario. Inside the restored box of the convent there are double-height reading spaces flanked by mezzanine volumes to store books in free access.

**Conclusion.** Franca Stagi has long remained in the shadow of her more famous male colleague or perhaps she was forgotten because restoration was considered by a certain narrative of architecture as a handmaiden of the project. Her work silently stands the test of time and this is perhaps a distinctive characteristic of Franca Stagi, a shy and tireless professional who considered the project as a service to the community [12]. The techniques she uses are indicative of an aesthetic taste that aims to recover the purity of the original volumes without forgetting the needs of the present. Her architecture is made to be lived, discovered, adapted, as the university students in her buildings do every day.

The research aims to return this minor but significant story of virtuous practices that I hope the reader can now consider significant and worthy of being known.

**Acknowledgements.** I would like to thank all the staff of the Poletti Civic Library of Art and Architecture of Modena [13] for their precious support, and in particular Debora Dameri, Gabriella Roganti and Jessica Pagani. I would also like to thank the Leonardi Archives of Modena, in particular Andrea Cavani, and the Modena institutions dedicated to research on built heritage, in particular the Urban History Office of the Department of Culture, formerly directed by Catia Mazzeri and Vanni Bulgarelli and now entrusted to Silvia Sitton.

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## Figures.

FIGURE 0 – Franca Stagi on the prototype of the Dondolo seat, [1965-66]. Photo Cesare Leonardi. Archivio Leonardi, Modena.

FIGURE 1 – Franca Stagi, restoration and reuse project of the Foro Boario, technical drawings of the final project, September 1994. From the bottom: ground floor, first floor, second floor; elevations and sections. Details of the tables. (Poletti Civic Library of Art and Architecture, Modena – Franca Stagi Archive, hereinafter BPMP).

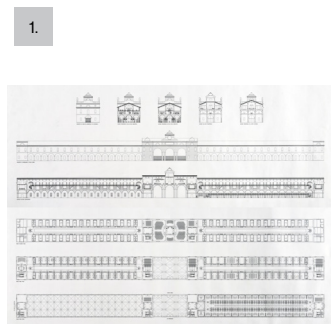
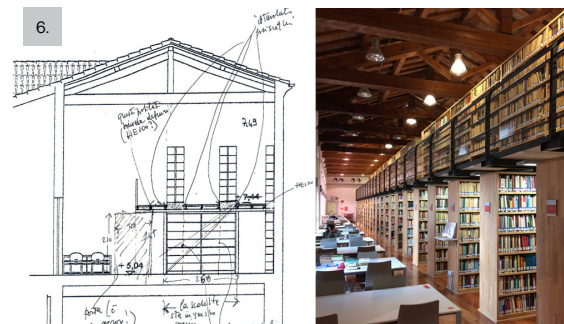
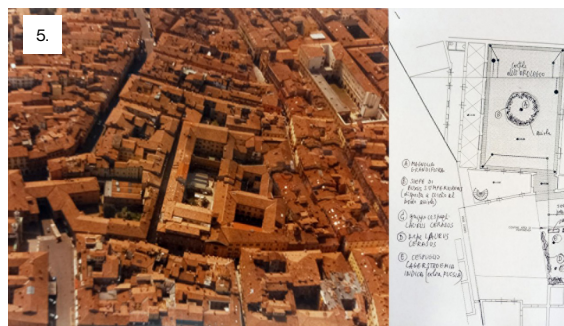
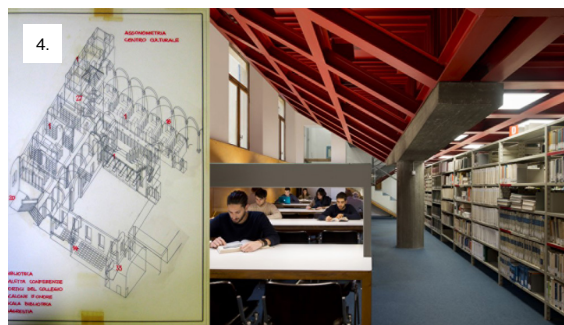
FIGURE 2 – Foro Boario, first floor, interior of the lateral wings. Top: view of the construction site after the demolition of the intermediate floor and the recovery of the original volume, 1989. Bottom: Stagi's project completed with the long galleries leading to the studios, 1992 (BPMP).

FIGURE 3 – Foro Boario, first floor, one of the spiral staircases leading to the suspended galleries. Design, structure and completion in 1992 (BPMP).

FIGURE 4 – Collegio San Carlo (college, school, library, theatre, church), XVII century; reatauration by Franca Stagi and Cesare Leonardi 1977; subsequent restorations by Franca Stagi 1992-2007. Axonometry and view of the library

FIGURE 5 – Former Convent of Sant'Eufemia, 11th century, with significant 19th century renovations. Franca Stagi's restoration and reuse project transformed it into the Faculty of Humanities in 1994-98. Aerial view and sketch of the connection system between the courtyards and their planting (BPMP).

FIGURE 6 – San Gemignano and San Paolo complex, XII century, heavy renovations in the 19th century. Restoration and reuse project by Franca Stagi with Politecnica, 2005-07, works 2010-2014. Sketch of the section on the library (BPMP) and view of the interior of the Law library.



# ARCHITECTURAL COMPOSITION AS AN ACKNOWLEDGEMENT TOOL FOR ARCHAEOLOGY; THE CASE OF PAESTUM ARCHAEOLOGICAL PARK/

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**Abstract.** Archaeological sites serve as dynamic spaces that narrate stories across time, using their fragmented structures to reveal hidden histories and evoke lost environments. These ruins, far from being static remnants, invite reinterpretation and imaginative engagement. By exploring their spatial arrangements, we can uncover layers of architectural composition that offer insights into both their historical form and their current fragmented state. This dual perspective allows for reconstructions that envision their past completeness and an appreciation of their present condition as cultural artifacts.

Ruins, in their incompleteness, become catalysts for imagination, bridging the tangible and intangible aspects of history. The act of reconstructing spaces from fragments is inherently selective and interpretive, requiring deliberate choices that shape how these sites are perceived and experienced. This process transforms ruins into legible compositions that communicate a coherent narrative, blending past and present into an evolving dialogue. By reimagining these spaces, architects and designers can work on heritage while creating immersive experiences that transcend temporal boundaries, offering a richer understanding of history and its connection to contemporary design.

This paper investigates how architectural composition defines the spatiality of archaeological parks, focusing on the interplay between archaeology and architecture. It draws on a didactic experience of Master thesis at the University of Naples Federico II (Master of Science in Architecture and Heritage, 2024–2025, with supervision of Professors Federica Visconti and Renato Capozzi) that explores these themes through a study of Paestum archaeological park.

**Introduction.** Archaeological sites possess a unique ability to tell stories spanning different eras, with their spatial arrangements uncovering hidden histories and bringing lost environments to life. These ancient ruins are not static remnants of the past; rather, they are dynamic fragments that invite reinterpretation. The study of archaeological sites allows us to uncover layers of architectural composition that, when carefully examined and understood, offer multiple “translations” of history. By visualizing these spaces as they might have once appeared and appreciating their current fragmented states, we can access both the physical and conceptual richness of these places across time.

There is an opportunity to view these ruins through a dual lens. On one hand, they present a “possible form”—a reconstruction or an imagined

completion that fills in the missing parts of the structure and brings the past into sharper focus. On the other, there is an interpretive approach that considers these spaces as they stand now, honoring their fragmented nature and understanding them as artifacts of cultural memory. The remains of walls, columns, and foundations offer glimpses into the architectural language of bygone societies, inviting contemporary designers and architects to engage in a dialogue between the past and the future.

In this light, ruins become more than just historical artifacts; they serve as catalysts for the imagination. These fragments, in their incompleteness, allow us to reconstruct not only the physical structures but also the intangible experiences of ancient inhabitants, weaving together narratives that reflect both history and modern understanding. By engaging in this imaginative process, architectural composition transforms into a powerful narrative tool, bridging time and providing an enriched spatial experience that respects the heritage of the site working with the creativity of contemporary design.

The reproduction of spaces from fragments is an inherently selective and interpretive act, shaped by choices about which elements to emphasize, which to reconstruct, and which to leave as they are. This process of recomposing spaces from remnants requires a deliberate decision-making approach, where architects and designers carefully select aspects of the past to bring forward, creating a coherent narrative from incomplete pieces. These choices not only affect how we perceive the ruins but also transform them into legible compositions, bridging gaps in history and inviting viewers to experience the site as an interconnected whole.

The static nature of ruins, traditionally seen as unchanging remnants, can be reconsidered as part of a living composition that reveals movement and transformation over time. By reshaping these fragments within new spatial compositions, architects can communicate the history of the place in ways that are more accessible and communicative. This approach gives new life to the ruins, presenting them not as relics frozen in time but as part of an evolving dialogue between past and present.

As the philosopher Georg Simmel observed [1], the unique quality of ruins lies in their ability to collapse temporalities, allowing us to experience multiple eras within a single space. Simmel argued that ruins prompt us to “contemplate the past in the way in which they are present in the past,” suggesting that these fragments inherently carry layers of temporal meaning. They invite us to dwell in a moment that is at once present and historical, a space where time becomes fluid and where the past is not something distant but something alive within the present. This temporal ambiguity enhances our understanding of ruins, making them powerful tools for evoking memory, imagination, and a deeper spatial awareness that transcends linear time.

**Reinterpreting Ruins: The Role of Type in Reconstruction and Architectural Design.** For understanding the shape proposed for ruins in their new reconstruction, the “type” needs to be considered. As stated by Vittorio Gregotti [2], the type can be associated with “order the experience according to schemes that allows its operability”. In this sense the study of type allows us to have critical \_ analytical moment that results in generation of different forms and alternatives open to reinterpretation.



The archaeological ruins are somehow repository of the ancient order, it is possible to restore the sense of a space reduced to the state of ruin, reconstructing its ancient order through configuration of typological characteristics and forms reduced to primary required elements.

Studying the type can result in reductions that results in reducing diversity and result in identification of relationships. The essence of studying type can be seen inside the work of Giorgio Grassi on the castle of Abbiategrosso[3]. In this project the monument in the state of ruin was reconstructed to its constituent elements with generalization of type and in fact new project was delivered in physical continuity with the existing. This type was also closely related to the urban role of the castle essential to reflect the meaning to overall design for the ancient city.

To emphasize the importance of expressing spatial qualities within archaeological parks, architects can utilize contemporary architectural volumes that redefine the experiential conditions of ancient ruins. Notable examples include the work of Luigi Franciosini [4], the Faragola Archaeological Park project in Italy [5] and Darío Álvarez's intervention at the Roman Villa of El Vergel [6]. Each of these projects demonstrates how modern architectural interventions can thoughtfully engage with and reinterpret historical sites, creating dialogues between past and present while preserving the integrity and cultural significance of the ruins.

**Preservation Through Reconstruction: Case Studies in Reconstruction.** The archaeological site of Faragola, near Ausculum in Apulia, lies within an agricultural landscape and contains rooms with intricately designed mosaic floors and opus sectile panels. These elements, though remarkably preserved, are fragile, making them challenging to move. Following the intentional fire in September 2017, the Higher Institute for Conservation and Restoration, in collaboration with the Superintendence for Archaeological Heritage of Puglia and the University of Foggia, deemed it essential to preserve these features in situ. Consequently, they recommended covering the site to enhance microclimatic conditions and improve rainwater drainage.

This conservation strategy is closely linked to optimizing the site's accessibility and appreciation, aiming to convey both the material and spatial dimensions of the architectural system. Emphasis was placed on showcasing not only the decorative and constructive aspects of the complex but also its spatial qualities to reflect the original functions and social context of the site within its broader territorial landscape.

The project's structural envelope closely follows the layout of the original wall networks, completing the archaeological complex while respecting its spatial relationships. However, due to limited dimensional data on the original heights of various sections, a precise reconstruction was not feasible. Instead, the project aimed for a volumetric-spatial configuration that conveys the proportional and hierarchical relationships of spaces, highlighting primary and secondary areas and their functions.

To compensate for missing visual markers within the space, the project identified key spatial elements through partial volumetric completions of the original walls. These reconstructed wall sections not only fulfill structural requirements but also enhance spatial orientation and percep-

tion, revealing the distinct identities and relationships of various areas. For instance, the backdrop of the "Cenatio" area[7], with its apse-like termination, provides structural support for beams while also creating a visual focal point for the richly detailed S[tibadium][8]. In the Faragola project, the intervention transcends its role as mere shelter, serving instead as a means for reconstructing and interpreting the spatiality of spaces—now reduced to fragments—through the lens of architectural composition.

The second example of using architectural reconstruction to showcase the spatial conditions of archaeological ruins is The Roman Villa of El Vergel. Here, pavilion structures not only protect the remains but also "complete" the ruins, enhancing visitor understanding by partially reconstructing the room's original spatial qualities. A double façade recreates the interior and exterior faces of the ancient Roman wall, including its original thickness: the outer face is formed by a corrugated, micro-perforated sheet matching the surrounding fence, while the inner face consists of a continuous U-glass wall. Between these layers lies a steel structure anchored on modular precast concrete elements that rest on the original wall's foundations. The space's soft lighting and abstract forms create a thoughtful distance between the contemporary intervention and the Roman remains, inviting visitors to perceive these fragments as they were: enclosed rooms. This design allows visitors to transition from exterior to interior spaces without losing awareness of the villa's placement within the landscape.

**The case study of Paestum archaeological park: Interpreting Spatial Configurations through fragmented nature.** Paestum Archaeological Park, founded in the 6th century BCE during the height of Magna Graecia, stands as an exceptional example of ancient Greek and Roman urban planning, known for its remarkably preserved Doric temples and extensive classical ruins. This UNESCO World Heritage site provides invaluable insight into ancient architectural and cultural practices, featuring three monumental temples dedicated to Hera and Athena, which are among the best-preserved Greek temples worldwide. The distinctive character of this archaeological park arises not only from these monumental temples but also from the fragments of ruins that reveal the city's grid layout and the remains of Roman houses, offering a holistic view of ancient civic life.

Among the fragments of the Paestum archaeological park rests the ruins of "House with Pool" which shows how the wealthy inhabitants owned large, sumptuous residences like this villa which covers a wide area, ca, 2,800 sqm, in an "insula" located in the southern area of the city.

This house is characterized by the presence of a double atrium and a peristyle, in the center of which there is a large swimming pool, fed by three large water chutes open on the short northern side. A colonnade surrounded the garden and the pool. The proximity of this house to the Roman forum suggests the importance of this residence.

Torelli [9] in his essay dedicated to the Roman Paestum states: "The architectural dominance of the characteristic, immense peristyle, containing the vast swimming pool accessible through a slide, dates back to the late first century A.D." Excavations carried out between 2017 and 2019 have shown that the house with a swimming pool backs onto pre-existing structures attributable to the Greek Poseidonia of the Hellenistic age.

Today, the majestic grandeur of this residence is no longer fully perceptible on site due to its fragmented state. The surviving ruins fail to convey the spatial organization, coherence, and original interconnectedness of the spaces as they once existed. This fragmented condition can sometimes lead to misinterpretations. For example, the current visibility between the temples, the forum, and the other residences from within the house's courtyards does not accurately reflect the original ancient layout. This view of the forum and temples from within the house is only possible due to the absence of enclosing structures that once obstructed this line of sight.

The first step to propose the composition for this space is to understand the conditions. As discussed by Renato Capozzi, "A project that aspires to respond adequately to a theme must first of all know the monument in depth," listen to its lesson," trying to reconstitute its lost unity, through precise formal choices." [10].

The defining feature of the house with the pool lies in its expansive typological layout, prominently characterized by a series of courtyards, including a spacious pool area. As shown in Figure 3 – through using the method of RedBlue plan proposed by Uwe Schröder in the book *Pardie* [11] – the current state of the ruins gives the impression that all areas are open, external spaces. The absence of volumetric structures obscures the spatial composition, leading to misinterpretations of boundaries, the character of the space, dimensions, and spatial arrangement.

Figure 4 presents, a reconstruction hypothesis through the same method, highlighting that spaces surrounding the courtyards in a Roman house were, in fact, enclosed with clearly defined boundaries. These areas were connected internally, opening toward the courtyards, which acted as linking elements among the different sections of a Roman home.

Understanding this typology reveals the necessity of re-establishing volumes to illustrate the spatial composition effectively, ensuring that the ruins convey an accurate narrative to visitors.

Roman culture has long embraced the sacred symbolism embedded within atriums and peristyles, architectural features that introduce light and air into dense, enclosed spaces through zenithal openings, thereby establishing a visual and spatial connection to the sky.

The conceptual roots of these open-space designs in Roman and Greek domestic architecture demonstrate a shared function: to facilitate natural lighting, ventilation, and rainwater collection. However, each culture employed distinct methods to achieve this aim, resulting in differing spatial organizations and relationships between open and enclosed areas. According to Faustel De Coulanges [12], "with the Greek, the square that formed the house was divided in two: the courtyard and the house. While in Roman time, the arrangement was different but in core the same: the hearth was always arranged in the middle of the fence, but the construction rise around it on the four sides to close it in the middle of a small courtyard."

As a reflex, the Hellenistic culture has transmitted to the Romans the sacred value of the space of the void. This important knowledge cannot be delivered without physically implying the closed areas to visitors to better emphasize on voids as courtyards in Roman house.

**Conclusion.** The ruins, even if condemned by time to a condition that makes them come to us in the form of partial, interrupted, and fragmented structures, are arranged as "virtually" and semantically open works capable of offering enriched spatial narratives through a thoughtful museographic approach, enhancing the visitor's experience, and understanding. The way in which the spatial organization of essential elements are perceived in the hypothesis for the Roman house with pool, is effectively using the same orders, conditions, and principles for the space as suggested during the past. As discussed by Giorgio Grassi in his book *Leon Battista Alberti and Roman Architecture* [13], the way Renaissance architects devoted themselves not to directly replicate the forms of Roman architecture, but rather the principles, rules, and conditions of that architecture, inspired them to use the same approach—not imitating the unrepeatable forms of Roman architecture, but working on an idea that allowed "Abstraction" in order to reconfigure the conditions. The same process was considered while the configuration of the "Essential elements," mainly in the form of boundaries, were suggested in the Roman house with pool in Paestum Archaeological Park.

In this approach, the spatial organization, hierarchical significance of various areas within a Roman house, and the proportions and volumes are abstracted and reinterpreted. Through the composition of distinct volumetric walls, the design seeks to delineate enclosed internal spaces with clearly defined boundaries, which then transition seamlessly into the open courtyard areas, which are external spaces in character with a defined boundary.

In conclusion, the fragmented nature of ruins offers a unique opportunity to bridge the past and the present through thoughtful reconstruction and reinterpretation. These remnants serve as dynamic, open works that invite engagement, imagination, and dialogue. By carefully adding elements that enhance their spatial coherence and narrative clarity, architects and designers can respect historical integrity while creating immersive experiences that resonate with contemporary audiences. The case studies discussed highlight the importance of reconstructing essential spatial elements to convey accurate narratives, preserving the essence of historical spaces while enhancing visitor understanding. By focusing on typological principles rather than replicating specific forms, this approach ensures that reconstructed spaces honor their historical significance while allowing their stories to be more vividly and comprehensively experienced.

As pointed out by Renato Capozzi, "The architectural analytical activity is essentially focused on the forms of which the monument is made and from here for their progressive interpretation. The formal observation prepares and 'founds' the project that makes use of the compositional techniques and procedures to introduce recognizable and adequate forms responding to those that exist." [14]. This perspective is critical to the design approach, as it emphasizes the importance of recognizing the inherent forms of the ruins and the necessity of reinterpreting them thoughtfully in a manner that remains true to their original compositional essence, in abstraction and limited to essential elements.

Ultimately, the act of reimagining ruins transforms them from static

remnants into evolving cultural artifacts, enabling a deeper appreciation of their role in shaping architectural heritage and fostering a connection across temporal boundaries.

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We would like to thank Professor Federica Visconti and Professor Renato Capozzi for their help and guidance through the thesis.

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2. V. Gregotti, *Il territorio dell'architettura* (Feltrinelli, Milan, 1966), p. 145.
3. Giorgio Grassi's project for the Castle of Abbiategrosso focused on the restoration and adaptive reuse of the historical structure, blending modern interventions with the castle's original medieval elements. The design aimed to highlight the architectural integrity of the site while providing a functional space for contemporary use, respecting its cultural heritage.
4. Luigi Franciosini, is a distinguished Italian architect and professor in University Roma Tre, known for his innovative approach to architectural design and his contributions to architectural theory. As a faculty member in Italy, he has influenced a new generation of architects through both his academic work and practical projects.
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6. M. Antoniciello, *Il paesaggio e le forme antiche dell'abitare*, Doctoral thesis, Doctoral Program in Risk and Sustainability in Civil, Building, and Environmental Engineering Systems, XXXII (2016-2019).
7. A *Cenatio* is a term from ancient Roman architecture that refers to the dining room or banquet hall, typically found in Roman villas or wealthy households. It was the space where the family and guests gathered for meals, often featuring elaborate decorations, and sometimes located near the center of the home for easy access. The *cenatio* was an important space for socializing and entertaining in Roman culture.
8. A *stibadium* (or *stibadium*) was a type of Roman dining couch or semicircular couch used in the ancient Roman *triclinium* (dining room). It allowed guests to recline during meals, which was the customary dining posture in Roman society. The *stibadium* typically formed part of the arrangement in the *triclinium*, where diners would lie on couches around a central table, creating a more relaxed and social atmosphere during banquets and feasts. It was often elaborately decorated, with cushions and fine textiles.
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## Figures.

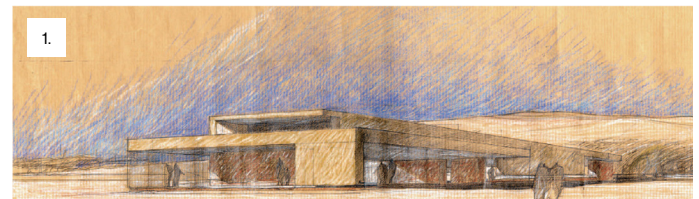
FIGURE 1- The Faragola project by Luigi Franciosini, representing volumetric-spatial configuration of the proposal. Figure 2 - The Roman Villa of El Vergel, showing the aim of project at manifesting spatial conditions of space through volumes and thickness of the wall.

FIGURE 3- Analysis of House with Pool, Actual state, showing spaces with character of externality through red/blue plan analysis.

FIGURE 4- Analysis of hypothesis of reconstruction of House with Pool, showing spaces with character of internality and externality reconstruction through red/blue plan analysis.

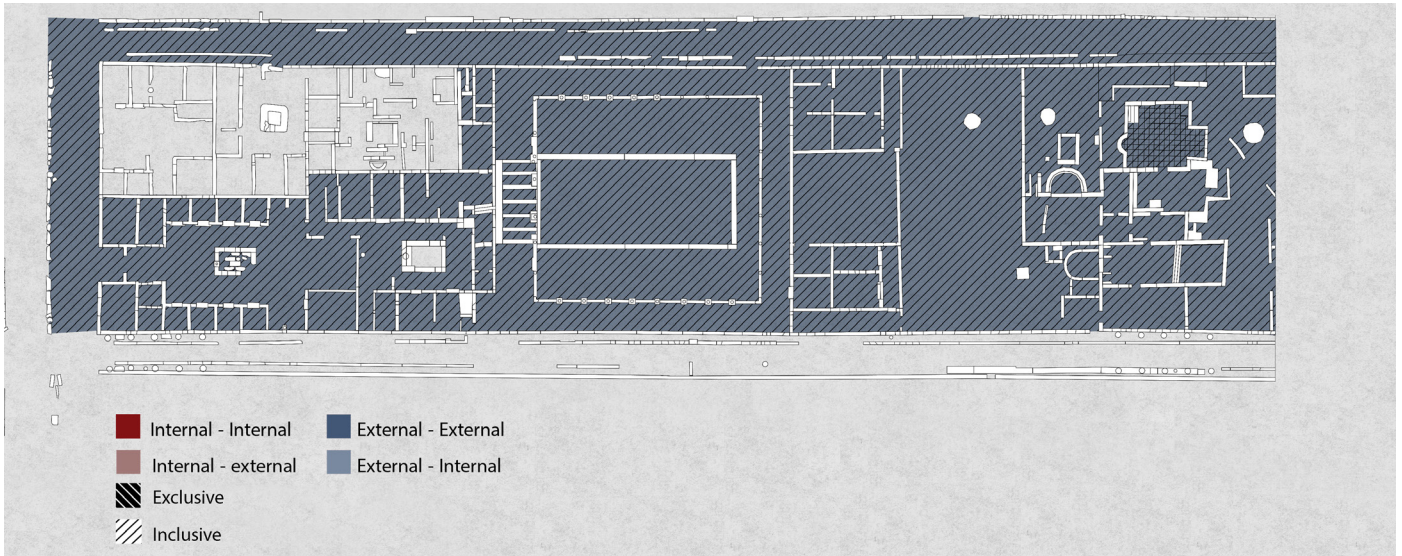
FIGURE 5- Proposed plan of Roman house with pool, with reconstruction of essential elements in volumetric approach.

FIGURE 6- Proposed section of Roman house with pool, with reconstruction of essential elements in volumetric approach.

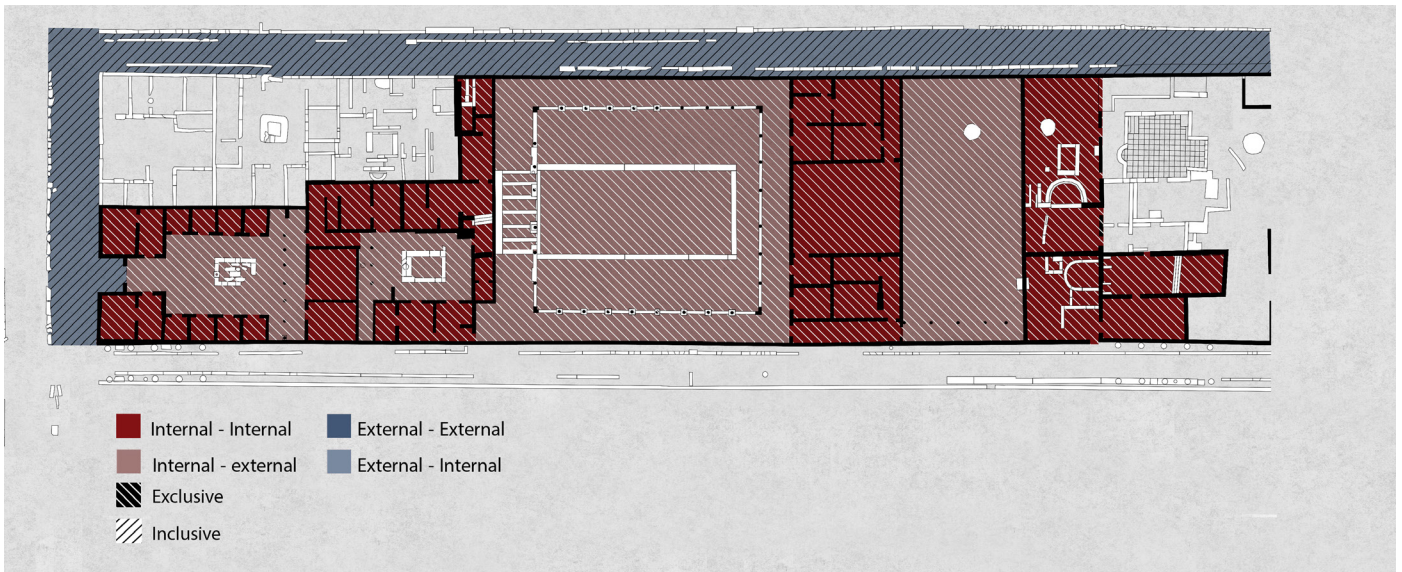




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## TYPES OF INTERVENTIONS ON HISTORICAL MONUMENTS, APPROACHED IN THE CONTEXT OF THEIR CONCEPTUAL AND CONTENT PRECISION/

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**Abstract.** The current investigation focuses on a particular type of buildings – existing properties, unclassified and classified as historical monuments, with an emphasis on the latter. From the perspective of protecting and enhancing their heritage component, of respecting quality requirements in construction, the issue of intervention works on this type of edifices is analyzed. At all stages of an intervention, starting with the beginning of the design, a single linguistic code becomes necessary as support for the exchange of information, cooperation, communication at the level of the teams of specialists and related stakeholders. Interventions involve a complex activity with multi-, inter- and transdisciplinary participation, where often routine gives way to innovative approaches or high skills prerequisites, and where uncertainties – especially in the early stages of design – are much more numerous and extensive than in the case of projects for new buildings or on existing unclassified buildings. Here, the architect's missions and their relevance are configured *sui generis*, considering the specific character of the project, the type of interventions aimed for, the limitations, conditions and alternative measures imposed by the requirements of preserving the cultural attributes. From the perspective of the defining notes of a specialized language, in this paper, we analyzed the terms that define the variety of interventions on existing buildings and which are materialized in their definitions and classifications. We studied the extent to which, through the definitions and classifications assigned, the various types of interventions included in the specific legislation of immovable cultural heritage and that of civil buildings in general, in other documents and specialized studies, comply with these demands, the difficulties encountered and their nature, possible complementary alternatives with a remedial role. The paper concludes by suggesting potential areas of improvements on this topic and with proposals for future investigations.

**The specialized language, a tool of professional communication.** Contemporary reality depicts a completely new world, in which technological development, artificial intelligence with implications in all sectors of life experience a revolutionary change and unprecedented evolutionary rhythms. Sciences located at the frontiers of knowledge approach phenomena and obtain cross-border exploitable results with profound changes in the conditions and manner of carrying out human activities, and implicitly this requires complementary adequate communication.

At this time we are talking about: unity in science as an expression of the relationship between novelty and tradition, between continuity and discontinuity; about a unification of the minds of the planet in order to ex-

plain world phenomena, unification of sciences on linguistic bases by moving from mundane to scientific and vice-versa towards the popular spread of science; about the democratization of science in the sense of access of the general public to the products, benefits of science. At the same time, we are witnessing: the increased need for specialists on the international labour market and, implicitly, the need for efficient communication; integration into science, with the meaning of bringing together, producing and collectively capitalizing on the results of highly specialized science; rapid technical progress, implicitly with sophisticated languages of use; secularization of science – communication of its results outside the specialized world (determinologization – use of terms from specialized language that have entered everyday use with diminished scientific density, accessible to the general public); frequent enrichment of specialized native languages (terminologization) and modification of the semantic content of terms [1]. In these conditions, the study of terminologies, professional languages, and terms from specialized lexicon are intensified.

Specialized (professional) lexicon refers to the (specialized) terms used in communication in a field or sector of activity (specialized vocabulary), as illustrated in Figure 1. A specialized language is the instrument of communication where the activity is carried out with the help of language, specialized words from a field of study, and other resources of the language; is language in action, a code used by a small group of speakers who aim to ensure the most efficient, least ambiguous communication possible, both with reference to the interlocutors but especially to the recipients and to the proposed purpose, a standardized, specialized communication, carried out unequivocally in a specific field of activity governed by professional criteria [2]. The basic function of specialized language is the referential one – of knowledge, language being thus a foundation of specialized knowledge, of scientific and professional progress in a certain field of study and practice.

Among the priority themes is also that of finding common characteristics, establishing an interfering/correlated specialized lexicon, a current and interesting problem especially for widely circulated languages in which inter- and transnational communication is frequently studied and communicated, for the languages specific to the field of artificial intelligence, those of codifying in a globalist science.

**Basic components in the study of terminology – the term as a symbiosis between concept and definition.**

**The term, the basic component of specialized language.** The term is a lexical-semantic unit, that is, a word to which a meaning has been assigned, a meaning independent of the various induced variations, thus becoming a specialized word. It names a notion/concept (this defined as the basic unit of thought) and it is used in a specific context with a certain meaning [2]. At the same time, the term is a linguistic sign that presents the name of some knowledge in a field of activity; it is a unit of knowledge with a stable informational content. Terms are located in the area of preparation of a theoretical or practical-applicative approach, guiding, directing and establishing the scope of the entire analysis process.

Thus, as a linguistic sign, the term is made up of a name – through a word or set of words seen as the material envelope of a notion plus a notion or

notional content – which is called a concept. The definition of the term entails the relationship between it and the word – concept/notion-object. Given that today there is no longer a radical break between scientific and public knowledge, there is a tendency to talk about expert concepts as parts of a specialized terminology and ordinary concepts, beyond the highly specialized area. Specialized terms, generically called technical terms, are among the most mobile elements of the lexicon, given the current dynamic changes in science. Terms systematize information, order it, classify it so that it can later be exploited.

The term represents a symbiosis, a combination between a logical form and a linguistic one. The word is the one that defines it, preserves it, transmits it. Depending on the specialization category, terms can be general, specific, interdisciplinary and depending on the structure they can be simple, complex, composite [2,3].

As lexical-semantic units, terms have clearly specified delimitations, being in different relationships with each other: of crossing, of ordering, of concordance, opposition, contrariety, contradiction.

As basic units of thought, the concepts/notions associated with specialized languages are defined by their content, by similar, common aspects, properties. Thus, they should be characterized by clarity, completeness, precision, topicality, relevance with respect to the circumscribed, interpreted, evaluated facts [5].

In the analysis of specialized terms there are several criteria of which we mention: monoreferentiality, denotative function, referential precision, transparency, consistency, conciseness, redundancy, derivability.

**The definition, means and form of explanation of terms.** The definition constitutes a bridge between the concept and the designated term, delimits a concept from other concepts, is a means of understanding and operating with concepts. The quality of a terminological activity is, to a large extent, given by the quality of the definitions and its precursor by the identification of the relationship between the defined concept and other related, generic concepts. The purpose of the definition and its destination are of significant importance.

A good definition gives the term the assurance of the above-mentioned criteria: stability, to which is added membership in a terminological field, invariable value in a certain professional and linguistic community – stability correlated with norming in expert communities or with codification by standardized norms, imposed by specialized bodies [6].

Several types of definitions can be used according to several criteria: nominal, lexical, explanatory or stipulative, descriptive, contextual, real definitions. For all, the rules of creation are the same: to express the essential and common properties for all objects in the defined class; to avoid circularity, the definition should be clear and precise, express objective aspects, be characteristic, consistent – not contradict other definitions regarding the same term from the same angle, pertain to the audience to which it is addressed. In certain situations, definitions can be replaced by descriptions, comparisons, characterizations; they can also be supplemented by illustrations, additional notes.

**Remarks regarding the terminological status of interventions on existing unclassified and classified buildings as historical monuments.** A brief analysis of the state of the specialized terminology related to interventions on existing buildings, unclassified or classified as a historical monuments simultaneously highlights several aspects that entail each other: the complexity and difficulty of the topic addressed; the short time since the concern for solving this problem gained greater visibility for specialists [7]; the practical and theoretical significance of the implications regarding the solutions offered to the concrete problems raised by the topic regarding the way of conceptual specification, of definition for each type of intervention [8,9].

As a global assessment, for Romania, we can say that the specialized language related to interventions on existing buildings does not meet the specific standard requirements mentioned in the paper and that such a goal is not easy to achieve. This increasingly determines practitioners, including architects, as users of specialized languages to get directly involved in the process of their analysis and elaboration, to identify alternative solutions, although it is not the express task of their activity [10].

An important aspect that requires analysis refers to the close connection between the terms that name types of interventions and those found in everyday language. Thus, the vast majority of the lexicon of interventions includes words with this origin. The consequence is that, due to their empirical nature, the respective terms lose what would theoretically define their scientific value: they are defined by a great semantic variety, by the local sociocultural imprint and influences, have a low level of abstraction/precision and potential for use with a general meaning. For this reason, the respective terms are prone during their use to the risk of ambiguity, generation of confusion, slippage of meaning, to imprecise use with variable meanings, making communication, specialized analyses and all the consequences that arise from this difficult (as exemplified by practice, in Figure 2). The difficulties are amplified when we talk about constructions that are to be protected on the line of their identity, which determines a high level of professional analysis, complementary skills for this purpose at all stages when the meaning of the terms becomes important for decisions.

Generally speaking, from the analyses regarding the terminological treatment found in the Romanian legislation in the field of construction, that of the protection of historical monuments [10], from the analyses of specialists interested in the codification of cultural heritage [11,12], of working groups for the analysis of the respective problems [13], from our own observations [14] a series of critical aspects can be revealed that should require greater attention. Regarding the terms about interventions, it is found that some are unclear, generating confusion at the level of design and execution. For example, the term research as a form of intervention in the heritage legislation; then, the term public utility is poorly understood by the way it is presented in the context, which is why we speak of equivocation; confusions between the term dismantling works and intervention works; the concept of destruction with reference to cultural heritage is used in a restrictive sense, without taking into account the specific differences implied by this term in the case of historical monuments; confusions based on the conceptual lack of differentiation between the term dismantling



and that of restoration or intervention which may in turn involve works to dismantle harmful, unnecessary components; substitution of terms with the implications that arise from this, for example modernization instead of rehabilitation; the existence of the same concept included in several laws but defined differently, as is the case of repair works, etc.

As a compensatory aspect of the deficiencies regarding the concepts in the field of cultural heritage, specialists, researchers and practitioners in the field have made proposals for the development of glossaries, the transfer of internationally validated terms, codification efforts, revision of definitions. But these suggestions, although welcome, are not immediately at hand for several reasons. For example, achieving linguistic equivalences in the case of concrete terms such as those we are referring to is not an easy activity to implement in practice. On the other hand, creating glossaries presumes the ability to provide good definitions. There are very few initiatives for defining terms in this field and their quality is not always satisfactory. As such, we can encounter definitions that are too narrow in relation to the types of interventions, such as that of destruction in the context of historical monuments; definitions that are too broad in which the mentions made to define a type of intervention also include other operations as if they were an integrating category of them – such as conservation which also includes repair operations, etc. or the case of the term modification works; definitions by negation; incomplete listings of types of interventions but presented as if the lists were exhaustive; tautological, circular definitions, for example: “Modification works - Intervention works (...) having as effect the modification of...” [16]; definitions in the form of descriptions that do not include typical, characteristic features but only insignificant aspects.

All these aspects offer a wide field of involvement for interdisciplinary working groups in which specialists knowledgeable in the field of cultural heritage and architecture must necessarily be included.

**The classification, a constructive operation of forming classes of objects integrated into a term.** Classification, along with the definition of terms, is an operation of forming classes, integrating objects of the same kind. This involves establishing the similarities and differences between the classified objects, and in this way it appears as one of the fundamental activities that make an activity intelligible [3]. In fact, it involves a process of ordering a variety of objects, phenomena, activities.

The terms integrated into any terminology do not remain isolated but interact symbiotically, thus taking place the systematization of information, its ordering, its classification so as to be adequately exploited. Through this, communication between specialists becomes possible, the thinking of the interlocutors is oriented towards the same aspects, the knowledge acquired in a field is crystallized and even transformed under the influence of new acquisitions.

The components of a classification are the universe of the classification, in our case, the intervention works on existing constructions, the classification criterion and the resulting classes. To these is added the purpose of classification. As a rule for establishing classes, we mention: the precision of the criterion – it must be formulated in such a way as to unambiguously determine any element – it must not be vague, insignificant; the rule of complete-

ness in classification – all objects included in the universe of classification must be distributed in the formed classes and an element must not appear in more than one class (implicitly, several aspects arise from the failure to comply with this criterion). Another rule – that of uniformity or the rule of homogeneity – states that the similarities between the elements of a class must be more important than the differences between them.

As types of classification related to the issue of interventions, we mention conventional classification, when the classification criterion is an artificial one and whose utility results from the pragmatic ordering of the domain according to needs. This is also the case for classifying interventions based on existing constructions. Another is ordinal classification, when objects are distributed in a class, measured and ordered from lower to higher, establishing a hierarchical relationship. Then, the cardinal classification divides the elements into classes without pursuing a qualitative relationship between them, and, finally, the dichotomous classification.

The classifications of interventions on existing buildings, both unclassified and classified as historical monuments, are determined by various purposes. In this sense, we mention the proposed classification carried out under the initiative of the Romanian Order of Architects [17], aiming at quantifying the costs of such works. In recent years, interventions on historical monument buildings have been subject to several classifications, based on numerous criteria – the extent to which the intervention affects the historical substance of the building; the extent of the work carried out on the buildings; the extent to which certain components are harmful to the historical monument and can be decommissioned, etc. We also encounter a cardinal classification, in fact, an incomplete list of terms [18,19].

The classification of interventions on historical monument buildings and also on unclassified ones is of theoretical and practical importance. But to this end, we believe that the respective definition and classification operations should be prepared correctly from the perspective of the purpose for which the classification is initiated, the classification criteria, and other aspects complementary to them.

**Conclusion.** The specialized language, the terms that define different interventions on historical monuments, as well as the criteria for their classification reveal numerous vulnerabilities, imperfections highlighted by valid scientific reports, by the Preliminary Theses of the Cultural Heritage Code, by the opinions of specialists expressed on the occasion of various scientific events.

The words in the specialized lexicon that refer to interventions on existing constructions, including historical monuments, are overwhelmingly part of everyday language. They are empirical concepts, based on experience, and their own meanings are not sufficiently restricted, particularized when used as specialized terms, nor can they be too restricted compared to their broad meaning. For this reason, extensive descriptions with many insignificant aspects are resorted to, and the definitions are often too broad or too narrow, or present many interferences with other types of interventions and their definitions. Under these conditions, natural language has a much greater say on specialized vocabulary than in the case of highly specialized terms.

Since we are talking about terms with widespread use in everyday language,

difficult to define from a strictly scientific point of view, a series of procedures such as: characterization, comparison, differentiation, indication and description may prove to be useful, the latter being the most frequent procedure as a starting point in science, with the mention of avoiding inclusion and secondary features.

It is recommended to consider when analyzing a term not only what it communicates in its abstraction, with its isolated meaning, but also in its situational and contextual individualization of its meaning associated with sociocultural patterns, natural language and the multitude and variety of contexts.

Correlated to this state of affairs, a major role falls to specialists involved in various activities integrated into the conception of the architectural project and execution, and the management of the intervention work. The formation of professional skills, of the specialized thinking style in this type of analysis requires a longer approach, where we believe that undergraduate, master's and doctoral studies can play a decisive role in what constitutes basic skills in this sense, skills with generic potential. Investigating the appropriate ways and means for the formation of the aforementioned professional skills can constitute a consistent research topic, of course with multidisciplinary participation.

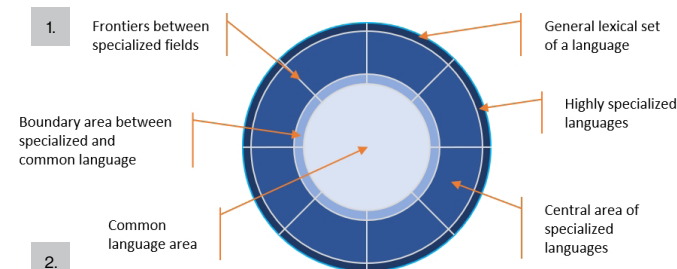
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## Figures.

FIGURE 1 – The connection between general and specialized language. (in [3], adapted from [4]).

FIGURE 2 – Incorrect intervention on a historic building with cultural attributes. (a) Before the intervention (Photo: © Dincolo de Fatade, 2012); (b) After the "rehabilitation" of the façade (Photo: © Rezistentă Urbana, 2014) [15].



## THE APPROVAL OF THE MINISTRY OF CULTURE, A MEANS OF PRESERVING THE HERITAGE ATTRIBUTES IN THE PROCESS OF INTERVENTION ON HISTORICAL MONUMENTS/

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**Abstract.** The paper analyses the issue of the approval/consent, documents issued by the Ministry of Culture through its specialized departments and decentralized public services, in the context of carrying out intervention works on historical monuments, implicitly of protecting the heritage component. Constituting a filter with official, legal value, guaranteeing that under the conditions of respecting the rigors stipulated by the matter of the technical documentation that was the basis for substantiating the fulfilment of its legal requirements, then the quality of the works carried out should simultaneously respond to the requirements of preserving the authenticity of the built heritage and those of increasing the lifespan of the building and/or adapting it to its current functional requirements. The study analyses the significance of the approval issued by the Ministry of Culture for intervention works on historical monuments, the multifactorial determinants that contribute to the approval decision, the supporting specialized documentation, the main barriers that can distort or alter its issue, some proposals and future lines of study that could contribute to its efficiency.

### **References regarding interventions on heritage buildings.**

In Romania, the attention paid to the protection of cultural heritage, in particular immovable cultural heritage, as a non-renewable national identity resource has gradually acquired an increasingly pronounced character in recent years. The efforts to connect to international experiences acquired over a longer period, when national policies in our country attempted to erase any trace of the past by demolishing buildings of great architectural and historical value, refer to the knowledge and implementation of theories and practices experimented at European level.

A separate chapter is the protection of heritage buildings, their rehabilitation from the perspective of preserving the heritage component in an authentic and unaltered form, simultaneously with conferring it value in contemporaneity, as a socially useful edifice. As a result, the issue of interventions on historical monument buildings falls within the broader context of concerns regarding the protection of the heritage component of this type of old constructions and, at the same time, their current valuation, in the context of sustainability and, at the same time, preservation of national identity [1]. The buildings we are referring to constitute unique resources, consequently, the activities the focus on their conservation and current use, activities integrated into the broader category of interventions, require from the specialists' part high-level professional skills, thorough knowledge of what differentiates and particularizes the intervention project on such a construction, compared to the project of creating a new construction [2];

it requires creativity, capacity for systemic understanding of the construction and adequate cooperation between the design and execution teams in order to correctly and as compatible as possible achieve the conjunction, the harmonization between the initial design of the building and the final result of the interventions that are intended to be carried out.

In fact, interventions on historical monuments may constitute a cause of public utility and they may be carried out only in accordance with the norms established for this category of heritage – on the basis of and with the approval of the Ministry of Culture [3], which is the central authority empowered and responsible for protecting cultural heritage. The corresponding approval is requested from the beneficiary through the urban planning certificate, as an information document regarding the approvals and documents necessary for obtaining the building permit.

The approval, as an act granted by the ministry through its specialized departments that convey such tasks or its decentralized services, theoretically constitutes a filter and guarantor of the fact that, under the conditions of compliance with the approved technical documentation, the works proposed for implementation will not affect the authenticity, the cultural value of the building, as such they are preserved.

The topic proposed for analysis is the result of attitudes expressed by representatives of professional bodies, regarding the current implications of the approval both with regard to the protection of the heritage component and with regard to the recipients of the approval, the existence of controversies regarding some recent administrative measures related to the topic discussed, observations and conclusive findings found in the specialized international and local literature, and my personal observations found as a member of various specialized scientific commissions on the protection of immovable cultural heritage, as a researcher and specialist with skills in the field of the protection of immovable cultural heritage – architecture and civil engineering.

In general, obtaining this act involves a complex, laborious and highly important approach related to the quality of the works to be carried out. This fact is also highlighted in specialized works, documents that address the issue of the conservation and/or reuse of built heritage [4,5], of interventions on such buildings, on the occasion of various scientific or public debates having this topic. This is also the case of the analyses in the content of the Preliminary Theses of the Cultural Heritage Code [6] or of the Report of the Presidential Commission for Built Heritage, Historical and Natural Sites [7]. Thus, the approval regarding the type of interventions analysed is supported and at the same time has not only professional but also political/social implications. An example in this sense refers to the actors issuing the approval, to who manages the process – the central authority with tasks of protecting cultural heritage, directly or through its decentralized services – or whether the transfer of attributes should be made to the county, local public administrations by assimilating the approval tasks. Although this idea is at the basis of the principle of decentralization, most specialized opinions agree that this would not lead to organizational and administrative efficiency, but, on the contrary, we could talk about disjointed actions, about decisions taken in relation to heritage problems by unknowledgeable

persons, people not specialized in the field; about the generation of conflicts of interest – all of which infer a poor quality administrative model, with undesirable effects on multiple levels.

The involvement of the political factor at the administrative level in the approval process regarding interventions on historical monuments could disrupt the meaning of actions to protect and enhance the heritage – as a result of conditioning financing resources or excessive actions on modernizing buildings at the expense of their protection [6]. The combination of public pressure to stop the accelerated degradation process of immovable cultural heritage and the interest of the political environment determines the public administration to respond through actions focused more on the mercantile interest of investments, which constitutes a serious threat to the integrity and authenticity of immovable cultural heritage [8].

The aim of the present research is to contribute to the optimization of the approach and the defining parameters of the future solutions regarding the approval granted by the Ministry of Culture for the implementation of intervention works on historical monument buildings.

The objective of the paper is to analyse the current status of granting the approval to which we refer, from the perspective of the guarantor of protecting the cultural heritage attributes of the building being intervened on but also from the perspective of the applicant for approval: steps taken towards optimizing management, the type of documentation subject to evaluation; expert evaluators; approval circuit; the current mechanism for granting the approval/consent by the ministry or its decentralized services, as an administrative act for intervention works on historical monuments.

In the same context, we recall the large space allocated in the Preliminary Theses of the draft Romanian Cultural Heritage Code and the subsequent report on immovable cultural heritage [9] to the issues of the approval of the Ministry of Culture regarding works intended to protect the historical character of these buildings so that the principle of authenticity can be respected, the one that defines protection in terms of preservation and possibility of transmission to future generations of the cultural resource in its authentic and unaltered form.

### **Approval of interventions on historical monuments, current realities and attitudes.**

The approval of interventions on historical monument buildings engages the interest of a plurality of factors, starting with the professional, cultural-administrative, economic, political, social stakeholders. In this perspective, knowledge of the concrete way of carrying out the approval activity, of the intentions to improve the main existing problems and of some steps that could be initiated in the near future presents beneficial professional implications in relation to the protection of historical monuments, through the potential consequences of the various works carried out on them – as illustrated in Figure 1.

### **Arguments in favour of optimizing the approval process and the content of the approval.**

Regarding the issuance of the approval by the Ministry of Culture for interventions on historical monuments as an administrative act, there are currently ongoing complaints about situations such as: the excessive length of time required to obtain the paper, so that the validity of some of the components integrated into the technical docu-

mentation does not expire – which implies resuming the development process, unjustified financial expenses, waste of human resources and time. It was also criticized that the approval circuit is much too extensive, which attracts, in addition to the excessive time required for gaining the approval, other undesirable consequences, with the proposal to restrict it and reduce the links involved in this circuit. As for the documentation required by the approval act, it was sometimes criticized for being too complex, which makes it difficult to obtain the permit but also overly complicates the steps taken for this purpose.

Among other problematic aspects, the specialized professional communication is also mentioned as being sometimes deficient during the approval circuit. Similarly, a critical highlighted aspect concerns the problem of language, of the specialized terminology regarding the typology of intervention works, terminology indispensable for interdisciplinary communication but also for international communication, also useful in the context of the need to apply European heritage management instruments, to capitalize on foreign experiences in the specialty, to correctly access documentation and transfer good practice conservation examples.

A particular critical aspect refers to the crisis of specialized personnel involved in the approval circuit, both from a quantitative and qualitative point of view, to the underprovided professional skills of some of them.

Associated with these problems, other difficulties were identified related to aspects such as the material support of the approval activities; the non-unitary, non-integrated nature of the main and secondary legislation relating to the protection of immovable cultural heritage, to the non-integrated nature of the legislation on built heritage with the legislation in the field of civil construction [10], despite the fact that the provisions contained in [11] stipulate this imperative. In addition, it is certain that the excessive speed of change of the legislative framework has had a harmful effect both in administrative measures but especially in terms of practical consequences. On the other hand, it is assessed that some law provisions present aspects that are inapplicable or difficult to impose in practice, such as those relating to sanctions in the event of cultural heritage destruction.

As for the citizen's attitude towards the issue of cultural heritage, it was previously assessed as not being sufficiently effective, proving insufficient awareness of the importance and necessity of its protection [12].

Last but not least, an objective reality is the polarization among the Romanian public of contradictory interests regarding cultural heritage, in the sense that at one pole are those interested and convinced of the need to protect immovable cultural heritage, historical monuments in particular, and at the other pole, those interested in its potential demise and the use of land and buildings for commercial, speculative purposes. An expression of this state of affairs is also the current excessive number of normative and regulatory derogations, but also the various unorthodox ways of legalizing intervention actions, at the least harmful, on such properties.

### **Recent steps towards optimizing the approval of interventions.**

In the last years, a series of measures have been taken to rationalize and streamline the process of issuing and obtaining the approval for carrying out intervention works on historical monuments, at the level of the Min-



istry of Culture and its decentralized services. Among these, we mention: the decentralization of some types of approvals, in the sense that they could and can continue to be issued at the territorial level by personnel with competence in this regard, based on legally established approval documentation; the simplification of approval documentation so that it is more adapted to the requirements, namely to the type of works for which the approval is requested; the issuance of consents as a substitute for the approval [13] – an act with a reduced, more simplified documentation basis, relating to the execution of works considered to be less complex and which, through the action taken, could affect the historical monument to a lesser extent compared to other types of works.

At the same time, at the level of legislation relating to the protection of immovable cultural heritage, we are talking about several types of works, namely works that slightly affect the historical substance, where it is not necessary to consult the specialized commissions of the ministry [14]; about micro-works or standard works in the field of communication network infrastructure; about the implementation of works aimed at dismantling some buildings that are considered harmful or without cultural value; works that modify the substance or appearance of historical monuments, a situation in which higher specialization and competence expertise is required [3].

Likewise, in relation to the desire to facilitate the document's process, we mention the reduction of the involvement in the approval process of the scientific commissions with an advisory role, without juridical personality, that operate under the Ministry of Culture, respectively under the county directorates for culture, namely the National Commission of Historical Monuments and the zonal commissions of historical monuments. Thus, some of the types of works that required consultation of the commissions can be issued directly by the central or local public authority responsible for protecting cultural heritage and most of the technical documentation regarding interventions on historical monuments can be analysed at the regional level, and only in some cases, of greater importance, at the national level. At the same time, the attributions and tasks of the national commission can be transferred to the zonal commissions for fulfilment, in order to streamline and optimize the approval circuit, which in the future will be entirely performed by the stakeholders through a centralized digital database interface, organized at the level of Ministry of Culture.

**Conclusion.** The approval/consent issued by the authority empowered to protect cultural heritage, the Ministry of Culture, through its institutions and decentralized public services, has multifactorial determinants. These are of a professional, scientific, cultural, social, political, economic, administrative, moral, educational nature and, at the same time, exert a multidirectional influence in the same way, so its significance must be viewed in the same light.

This state of affairs makes the validity of the approval sensitive, vulnerable and we can see that the problems specific to the approval of interventions on historical monuments have not yet been completely overcome, even if objectively speaking, sustained efforts are being made, in the combined interest of preserving the authenticity of the buildings but also of responding

to the needs of the beneficiaries, whoever they may be. The controversies that these documents generate are often based on contradictory motivations, interests that range from professional, professional ethics, to objective, organizational, legislative, material etc., ending with interests that are among the most dangerous. Moreover, some of the prevailing problems continue to generate new problems.

However, referring to the professional component that determines the quality of the approval we are discussing herein, in this case too, there is much room for improvement. One of the aspects refers to the specialized language – namely, its precision, clarity, semantic consensus, especially when it is legal language or for an interdisciplinary field, such as that of construction interventions. In such cases, avoiding confusion is absolutely necessary. For example, we are talking about “demolition works” and “intervention works”, the latter which may also involve partial demolition works. This state of affairs often generates controversies regarding the nature of the approvals, favourable in one sense or another, as well as the nature of the authorizations, of the various conditions. With reference to historical buildings, such an error can easily lead to the phenomenon of delisting cultural properties, when the construction loses its authenticity and consequently even to the prospect of issuance of a demolition permit, a practice embraced by some harmful real estate developers. In this context, it is worth remembering that the approval for the demolition of harmful or culturally valueless structures within a heritage building requires the elaboration of a justification study regarding the evaluation of the cultural resource of the property. Regarding this aspect, there may be currently a series of problems, such as the absence of rules/norms for drafting this type of documentation; or, quite rightly, they can be generated on the one hand by the person who does the expertise, having a specialized training such as in architecture or, perhaps, in other related fields, the evaluation each time having a subjective character. On the other hand, there is the much-discussed issue of authenticity, especially in relation to world heritage. Specifically, this concept is not defined in our specialized literature, which is why each specialist refers to something else.

The issue related to the traits of the specialists involved in the process of approving cultural heritage interventions at an administrative level is a real one, a fact that is felt later, starting from the moment the urban planning certificate is issued, when the types of approvals and possible derogations from the norms are listed.

As for the concerns of decentralizing responsibilities regarding the approval process, in our opinion, this should have a beneficial effect, however, it was started prior to the preparation of the conditions for this type of activity: we are considering the training of specialists, both professional and attitudinal-moral, the ability to deal with interests at the local level, with clear, stable legislation, and so on.

Finally, the matter of legislation, corroborated with the training of specialists in the field of approval, is one of the most important. For example, the simple identification of a type of intervention in a category of works such as they are defined is not sufficient to automatically grant a certain type of approval, with the certainty that it will not in any way affect the heritage

value of the construction. All these points presented become an argument in favour of the need for continuous investigation of the aspects related to the approval of intervention works for cultural heritage properties and its inherent implications.

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## Figures.

FIGURE 1 – “Nanu Muscel” house – a historical monument after approved renovation and strengthening interventions and the construction of a new extension office building (source: <https://observatornews.ro>, accessed on: 20.11.2024).





## LIGHTING DESIGN FOR RUINS - CANTACUZINO DOMAIN AS AN EXPERIMENTAL STUDY/

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**Abstract.** This article presents a unique exploration of architectural lighting for ruins and landscape, inspired by a workshop conducted at the Cantacuzino Domain in Floresti, Prahova. The workshop is focused on illuminating the ruins of the palace, the water tower, and a fragment of the historic park, involving UAUIM students and the local community. The lighting design workshop was part of a general approach for the revitalization of the domain, including the preservation and enhancement of its cultural heritage. By using innovative lighting techniques, the project aimed to highlight the historical significance and aesthetic value of the ruins, creating a captivating visual experience that would attract visitors and foster a deeper appreciation for the site. The involvement of UAUIM students provided an educational opportunity, allowing them to apply theoretical knowledge in a practical setting and engage with the local community. This collaboration not only enriched the students learning experience but also fostered a sense of ownership and pride within the community regarding their local heritage. Through hands-on experimentation and collaboration, participants had the opportunity to engage directly with the physical space of the palace ruins and the tower, exploring how light can transform and redefine their essence. For the architectural and landscape lighting, aspects of light pollution were also addressed to raise awareness about dark sky and how light can affect the fauna. The workshop emphasized the importance of protecting the cultural heritage, as well as the wildlife, by paying more attention to how we interact with our environment through lighting design. Overall, the initiative demonstrated how thoughtful architectural lighting can transform historic ruins into vibrant cultural landmarks, blending the past with contemporary lighting technology to create spaces that are both visually striking and historically resonant.

**Historical and Present Context.** The Cantacuzino Domain in Florești was created at the beginning of the 20th century by Gheorghe Grigore Cantacuzino, known as “The Nabob,” due to his immense wealth. Inspired by French elegance and luxury, Cantacuzino sought to build a complex that could rival the grandest aristocratic residences of the time [1]. Spanning approximately 150 hectares, the park was designed in a romantic style, featuring winding paths, artificial lakes, canals, bridges, and carefully selected trees.

The palace designed by architect Ion D. Berindey was constructed between 1911 and 1916. Inspired by the Petit Trianon at Versailles, the building was intended to be a symbol of refinement and modernity. However, it

remained unfinished due to the death of Gheorghe Cantacuzino and the outbreak of World War I.

A remarkable feature of the domain, is the stone water tower, used for garden irrigation and represented a technological innovation for its time. Currently, the tower is undergoing restoration. This initiative aims to preserve the historical and architectural integrity of the structure while giving it a new purpose that enhances its accessibility and appeal. Once completed, the tower will provide visitors with a panoramic view of the Cantacuzino Domain and its surrounding landscape, further enriching the cultural and touristic experience of the site.

Although the domain suffered neglect following nationalization, the park remains an important cultural and historical asset. Efforts are currently underway by the domain's new owners and organizations such as the Cantacuzino Florești Foundation. The foundation, established in 2013, aims to develop cultural programs and projects that encourage the integration of the Cantacuzino Domain from Florești, into the regional and national circuit. Its primary goal is to promote the built and landscaped heritage of Florești to all categories of the public, to conserve and restore the structures and landscapes of the former aristocratic estate, as well as to organize cultural and sports events designed to draw attention to the domain and its components.

The foundation has carried out activities not only on the Cantacuzino Domain but also in schools and highschools in Florești and neighbour towns, engaging in numerous educational and cultural projects. It has organized workshops and creative activities for youth and adults, established partnerships with higher education institutions, and hosted practical sessions for architecture students, landscape designers, and young artists. Starting in 2019, the Cantacuzino Florești Foundation has periodically organized interdisciplinary workshops dedicated to cultural heritage. Over 150 students, young professionals, and active specialists in fields such as architecture, archaeology, landscape design, and visual arts have participated in these activities, alongside members of the local community.

In 2024, as part of the Architecture Summer School, we initiated a lighting design workshop, to visualize what it would mean to highlight the heritage of the Cantacuzino Domain during the evening hours, both for a normal (permanent) lighting and for an occasional lighting (various special events). For this lighting design workshop we invited two renowned specialists: lighting designer Sarah Ambrozic and Dan Vătăjelu, the president of the Romanian Lighting Association (ARI). Their expertise provided valuable insights into the practical aspects of a lighting workshop, enriching the experience for all participants.

**The Architectural Lighting Workshop.** The Architecture Summer School started with a historical overview of the Cantacuzino Domain, during a site visit for on-the-ground analysis of the ruins, landscape, roads and paths. The visit allowed us to understand the site's current condition, the beauty of its ruin's imperfection and how natural and architectural elements create the context for our work. In this phase, the participants experienced some lighting effects, with the technology provided by ARI and Zumtobel: different light sources and fixtures, color filters, and control

systems. We launched a few questions inspired by Derek Philips [2]: Should the ruin be lit at night? What is the relationship with the daylight appearance? What is the effect of/on the location? Can we use color light?

We took time to get to know each other, learning about everyone's background and identifying the unique skills each person could contribute to form strong teams for the upcoming lighting design challenges.

The following day began with a theoretical introduction to outdoor architectural lighting design [3]. This open talk session included, principles and case studies, the concept of glare, light or luminous pollution and discussions about dark sky, sustainable technologies and lighting practices. We talked about how Dark Sky Organization try to restore the nighttime environment and to protect communities from the harmful effects of light pollution over wildlife, human health, energy waste or over the view of the universe. Talking about solutions such as shielded lighting, low-intensity fixtures, and promoting warm light rather than blue-emitting LEDs helped the students realize how simple changes could make a difference.

The design brief required participants to develop two lighting proposals to the key elements of the Cantacuzino Domain: one for regular lighting and another for occasional lighting, using RGB technology.

Organized in two teams, the students designed multiple lighting scenes, exploring creative lighting solutions, concepts, and lighting layers. They all agreed to propose a classic and elegant lighting solution for the ruins, with fixtures placed outside the ruins, ensuring that the existing facades and the surrounding nature would not be disturbed. They used warm white light for normal lighting system, with contrasts only in cool white, highlighting architectural features, shapes, textures, details. This approach resulted in a softer, more classical appearance, allowing the ruins to be appreciated both day and night, in harmony with the surrounding landscape. For occasional lighting, several concepts were proposed in connection with special events held on the domain. These proposals incorporated the use of RGB colored lighting for all the architectural and landscape objects. The use of colored light introduced a festive character, but also prompted discussions on its appropriateness for various architectural elements and settings. This divergence of opinions enriched the creative process, highlighting the subjective nature of light perception and its impact on the ambiance of the space.

After the initial design ideas were developed and presented to the tutors, in the evening the students together with the volunteers from the community moved to the experimentation phase, where each team tested a normal and an occasional lighting solution for the ruins (Figure 1), the water tower (Figure 2) and an historic tree (Figure 3).

This practical experimentation enabled participants to rapidly observe the materialization of their ideas and to understand the impact of different lighting techniques, including the use of color and directional filters.

The next phase was a critical review of the lighting proposals, followed by group discussions and conclusions on the effectiveness and creativity of their designs. The final session was to refine and improve the lighting designs based on feedback and analysis, allowing participants to adjust and enhance their concepts. This iterative phase is essential in any design

process, as it allows for the application of new insights, ensuring the best possible outcome.

In the second phase, the design increased in complexity, transitioning from the study of façades to the architectural object as a 3D form in its context (trees, the former water pool and the nymphaeum). The students proposed a phased approach to nighttime lighting with two lighting scenes, gradually reducing the illumination level throughout the night. They experimented some artistic aspects, such as the silhouette effect for one of the monumental tree (Figure 4). This lighting technique is achieved by placing a strong light source behind the subject (in our case the tree), making it appear completely dark or only outlined, with its details becoming hard to distinguish. The result is a distinct shape / silhouette that stands out against the illuminated background.

Some details of the ruins became visible only illuminated with upwards effects, with ascendent lighting, otherwise they are overlooked during the day. This technique emphasizes the textures and architectural details by casting shadows and creating depth, which are particularly effective for the uneven surfaces like ruins. Details are important, so the students dedicated time to observe and experimenting with various lighting effects, in order to determine which would best highlight the ornaments and unique decorative elements (Figure 5). They explored shadows, which are significant as light itself, in creating depth and contrast, enhancing the visibility of decorations and architectural elements.

One of the objectives was to avoid disturbing the nature on this site. The lighting strategy was designed to be unobtrusive, with the lights positioned so that they illuminated only the architectural elements, leaving the natural vegetation and wildlife undisturbed. By using discreet, low-impact lighting, the design ensured that the ruins would be visible and appreciated by visitors, while maintaining the tranquility and authenticity of the natural environment around them. The lighting design also adhered to sustainable practices, using energy-efficient fixtures and minimizing light pollution. The contrast between warm and cool white light not only helped to create visual interest but also contributed to a sense of balance and harmony between the man-made and natural elements of the site. This approach ensured that the lighting enhanced the cultural and aesthetic value of the ruins, while also respecting the need for environmental preservation.

Overall, the final proposal balanced modern lighting techniques with a deep respect for the history and ecology of the site, creating an elegant and sustainable solution that showcases the beauty of the Cantacuzino Domain without overwhelming its natural and historical elements.

**Light Painting/Writing .** Late during one of the last nights of the lighting design workshop, participants had a bonus activity, coordinated by Dan Vătăjelu: a special light painting session dedicated to the Cantacuzino Domain (Figure 6). Light painting is a form of art consisting of moving a light source while taking a long-exposure photo. Just as Picasso referred to his work as “light drawings”, we can similarly speak of “light writing”. Both concepts involve using light as a medium to create visual forms, whether in abstract shapes, drawings, or even written messages. Creating some words in our workshop added a personal and expressive element to the activity.

The vibrant colors of the illuminated letters spelling “Cantacuzino” in front of the historic ruins created a striking contrast between the new and the old, achieving a unique balance between creativity and reverence for the location.

Lighting design often requires late-night work, so it’s important to maintain enthusiasm and not overlook the value of having fun while we work.

**Conclusion.** Experimentation can be the first step in scientific approach, it allows to test hypotheses/designs and observe outcomes. Lighting design for ruins combines creativity with technical skill to enhance the architectural features while preserving the historical and atmospheric essence of the site. It’s about finding a balance between illuminating key elements, such as details, textures, and structures, without disrupting the ambiance of the ruin.

The summer school held at the Cantacuzino Estate in Florești was a first experiment with architect students, together with professionals in the field of lighting design. Participants moved from theory to experimentation, gaining a better understanding of the theoretical concepts presented: floodlighting to illuminate large areas, grazing to emphasize textures, spotlights and accent lighting for details, color temperature (3000K warm white - 7000K cool white) as well as colored light using blue, green and magenta color filters. They experimented contrasts, both in terms of light color and intensity (general lighting - accent lighting, directional filters, etc.). Thanks to the ability to quickly test the proposed effects on field and then study them on photos, we were able to draw conclusions and make further adjustments, including increasing the complexity of the solutions.

Current LED technology offers a wide range of possibilities for expression in lighting, which is why the involvement of architects and designers in this field is essential. Low-power, durable LED lights are often used for energy-efficiency and their ability to offer various color temperatures. It’s also important to think about where the lights are placed: ground-level lighting, uplighting, or using lights hidden behind architectural features. The goal is to highlight the beauty of the ruin while maintaining its aged and authentic appearance, and the integrity of the structure.

This workshop was the first dedicated to the field, focusing on the architectural and artistic aspect. The next step could be a collaboration with the technical specialists in the field—installation engineers, technologists, and company representatives—to undertake a design exercise within a multidisciplinary team.

The summer school on the Cantacuzino domain offered an architectural approach for illuminating this special heritage ruins with sensitivity and creativity. It establishes a foundation for future advancements in heritage lighting, making it a valuable addition to the discourse in architectural lighting. While original in its focus, its contribution lies in addressing the challenges of blending historical preservation with contemporary lighting technologies, developing experimental designs that balance functionality, aesthetics, and sustainability.

The positive feedback from students, their participation in international competitions, and the inclusion of their work in notable events and

publications demonstrate the success of the initiative. Efforts to feature the Cantacuzino Domaine on the global map of architectural ruins underline the importance of preserving heritage and ensuring its continued relevance in both academic and cultural contexts.

In the end, the main objectives were achieved: to raise awareness about the Cantacuzino Domain and its ruins, and to develop a tourist circuit, including after sunset, by designing an appropriate architectural lighting. The project had also an important educational value, hoping to shape a new generation of lighting professionals.

The owner, the foundation, the community, and the students expressed a shared desire to continue exploring the impact of light on the Cantacuzino Domain. The proposal for the next Summer School is to create a James Turrell-inspired experience, embracing his philosophy: “Light is not so much something that reveals, as it is itself the revelation”. [4]

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**Figures.** Photography Credits: Gheorghe Mihai - U.A.U.I.M., F.A.I., Furniture Design  
FIGURE 1 - Little Trianon Palace in Florești – the main façade, warm white lighting proposal.

FIGURE 2 - The Water Tower - normal and occasional color lighting.

FIGURE 3 - The monumental three in the park.

FIGURE 4 - Lighting design of the ruins and a tree, with silhouette effect.

FIGURE 5 - The ruin details, visible with ascendent artificial lighting.

FIGURE 6 - Light painting/writing session in front of the ruins.

1.



2.







5.



6.





## THE INTERPRETATION OF THE SITE AS A DEPOSITORY OF ACTIVE MEMORY THE LESSON OF A MASTER AND SOME APPLIED DESIGN EXPERIENCES/

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**Abstract.** Thinking about the adaptive reuse of heritage buildings and sites, the importance of the figure of the “father” of the Porto School, Fernando Távora, emerges, both in terms of theoretical thinking and in terms of design experimentation. In his thinking, the search for consonance between forms and circumstance should be practiced through knowledge of the contemporary context, of different geographical realities and of the past, with the aim of recognizing the relationship between forms and life. The continuity of the space is an important value to be developed; space is in “permanent transformation”, therefore the design of the new should continue, seeking to innovate. The paper begins by identifying Távora’s attitude in the field of rehabilitation, based on the principle of reciprocity, and proceeds to illustrate a sequence of interventions on the built environment carried out by the TA Lab section (composed by Sara Riboldi and Carlotta Torricelli) of the Torricelli Associati architectural practice over the last fifteen years, all dedicated to the theme of heritage reconversion. Through these experiences, the principle of the imagination of the new is affirmed in the continuous confrontation with the reality of the present and with history as an active matter of design, through a conscious process of rewriting that defines new relationships between site and theme, between artifice and nature.

**Introduction.** The paper aims to identify a specific attitude in the field of rehabilitation, which is rooted on what we use to define as “the principle of reciprocity”.

The work of the Portuguese Master Fernando Távora (Porto, 1923 - Matosinhos, 2005) is key to clarify the interpretation of the idea of transformation in architecture as a necessary and continuous process. This short manuscript starts by illustrating practice of coexistence between new and old experimented by the Portuguese architect and then continues by illustrating some reconversion design experience and a sequence of interventions on the built environment carried out by the TA Lab architectural practice (composed by Carlotta Torricelli and Sara Riboldi) over the last fifteen years.

For every architect, references to the Masters are fundamental, especially to root their practise in the field of a tradition and to verify their own poetics. We take the opportunity of this conference to reflect on the role that Fernando Távora’s work and thought have played in our way of teaching and transmitting architectural action and in our way of designing in relation to the existing heritage.

Particularly the paper focuses on three concepts:

- the sense of history as active design material;

- the continuity of space, in permanent transformation;

- continuing by innovating.

These concepts lead us, more generally, to reflect on the relationship between architecture and time and the notion of heritage. We use the words of the Italian art historian Tomaso Montanari to emphasise the topicality of this reflection on the theme of time and the possibility of affirming its value as an antagonistic thought to current culture:

«And that is exactly what it is: every fragment of what we call cultural heritage testifies, with the power of matter, that another time really existed. And that our present, which devours everything and dominates everything, is therefore not an absolute: it is only one of many presents. It is, it is easy to understand, a subversive testimony, because it unveils from the foundations the annihilating power of a present that, more than ever before, repudiates history, and therefore cannot give birth to a different future. [...]

Yes, because that other time lives within our time, that other world is an integral part of the world we live in: there is no dimensional leap, there is continuity. It is all here, now.» [1]

**Time according to Fernando Távora: in permanent coming.** In his book *Da Organização do Espaço* [2], Fernando Távora tackles the conformity between old and new in architecture, overturning the problem of time over the reality of space, through the search for coherence with the place, as depository of memory: «it seems that a fundamental characteristic of organized space can be deduced: its continuity. Space is continuous, cannot be organized with a partial view, does not accept limitations in its organization. And in the same way that continuity forms space, both are so closely linked that one is negative from the other, and vice versa, so they cannot separate; the visually seized shapes, thus, maintain close relationships – harmonic and inharmonic – but evident in any case [...]

Everything is important in space organization – shapes themselves, the relationship between them, the space that limits them. And this truth that results from space being continuous has been largely forgotten. [...]

Nonetheless, because space is continuous and time is one of its dimensions, it is also irreversible; that is, given the constant march of time and all that it entails and means, an organized space can never be what it once was, hence the fact that space is in permanent coming» [3]

The book was published in Porto in 1962 and was written as a contest exam for teaching at the Escola Superior de Belas-Artes do Porto (ESBAP). The context in which it is written, therefore, is necessarily specific, yet the author uses the academic circumstance to bring to synthesis a series of reflections on which he also focused during his travels and experiences abroad. As an invited member of the ODAM (Organização dos Arquitectos Modernos), he was among the Portuguese architects who took part in the CIAM (International Congresses of Modern Architecture) in 1951, in 1953, in 1956 and in 1959. The peripheral condition from which he observes the architectural debate allows Távora to cross-fertilise the teachings of the various masters of the Modern Movement. At the same time, he has the opportunity to get to know the critical attitude of those figures who, in the post-war period, questioned functionalist dogmatism, reconnecting the

threads of the memory of places. In this context, memory means that form of dynamic knowledge, thanks to which the coherence of the constructive act is substantiated not in a self-referential way, but through the relationship with the circumstantial elements.

Furthermore, in 1960, a scholarship from the Calouste Gulbenkian Foundation in Lisbon gave Távora the opportunity to undertake a four months journey around the world, visiting United States, Mexico, Japan, Thailand, Pakistan, Lebanon, Egypt and Greece.

At the time of this book's writing, Távora has already realized a number of important architectural works that have found their way into both national and international contexts, albeit on the limited occasions allowed by a country oppressed by dictatorship (Estado Novo that lasted from 1933 to 1974, which followed the military coup in 1926). It is worth mentioning the project experience of the Quinta da Conceição Municipal Park in Leça de Palmeira (Matosinhos, 1956), which can be read as a diachronic and polysemic rewriting of an itinerary in the material and immaterial memory of a place.

From the two main characteristics of space – continuity and irreversibility – derives two key concepts in the Távora's thinking. On the one hand, the idea that the organization of space is a collective work, the result of collaboration between all men – understood both in a “horizontal” sense, between contemporaries, and in a “vertical” sense, between men of different epochs animated by a common feeling. On the other hand, the great responsibility that architects have, since, by trade, they have a greater involvement in the management of the problem. Indeed, they must be aware that the space they are going to organize is conditioned by circumstance, but in turn will be conditioned by future transformations. This is why the act of organizing space carries within itself an important pedagogical role.

«For organized space to be harmonious, we said, participation must be transformed into collaboration, and of both horizontality and verticality, there are magnificent examples from the past.

Let us cite, regarding vertical collaboration, which means as mutual continuity, understanding and mutual respect, one space organized over centuries, as St. Mark's Square in Venice, Italy». » [3]

This idea of a collaboration between different generations to the construction of a heritage which represent the permanent memory of a community is clearly expressed by the Italian architect Ernesto Nathan Rogers.

It is necessary to recall in this regard the influence of the Italian debate on the training of Portuguese architects in those years. The writings of Bruno Zevi are well known in Portugal, and are among the fundamental study texts, as is the thinking of Ernesto Nathan Rogers, whom Távora had the opportunity to meet in 1951 in Venice (on the occasion of the International Congress of Artists promoted by UNESCO, where he also attended a lecture by Zevi) and with whom there are many affinities. [4]

Another point of contact between the thoughts of these two architects and intellectuals is the fact that for Rogers, too, talking about the theme of introducing the new into the old means both reasoning in relation to monumental emergencies and to the historical building fabric, as well as to

a landscape, since it represents the intrinsic value of the place.

More generally, the two share the idea of history as a concept that is not static, fixed, but dynamic, constantly becoming. In 1958, Rogers wrote:

«Considering that history has never been definable in a static system and that it has always been resolved in a succession of mutations that have gradually transformed one present into another present, it is logical to conclude that not only can we not impede the expressions of contemporary society, but that we must be able to affirm our temporal presence with our natural settlement into space.

By drawing the maximum energy from everything that surrounds us, we will favour the creative process of our works, which, in addition to not negatively conditioning the existing, will strengthen it by building a bridge between the past and the future: the future depends in part on us, just as we depend in part on the past: tradition is this perpetual flowing and being modern and consciously feeling that we are participating, as active elements, in this process». [5]

**It is always architecture.** When we look at the realized work by Távora, particularly the ones dedicated to reconversion of existing building with a domestic purpose, we can understand and see applied two other main concepts: circumstance and empathy.

«I am interested that the work appears at the end with a certain density; if it has no density, architecture is like a bird feather. So I like to intervene in existing buildings; but not in the sense of restoration or conservation, but with a broader vision: the architect vision. All projects are, in fact, conservation.

If there is an opening, we conserve the opening; and if there is a building, we conserve the building: it is always architecture». [6]

The project for the House in Rua Nova (Casa na Rua Egas Moniz, n.º 11) in Guimarães (1983-85), ‘Figure 1’, responds to the municipality's request to save the building - a valuable 17th / 18th century bourgeois residence, possibly dating back to medieval times - in a serious state of degradation. The idea was to make this reconversion work a pilot project for the approach to the local residential heritage.

This architectural design is part of a larger scale reflection that concerns the entire historic centre; it aims to establish a paradigm for work on the preservation of typological characteristics and the use of traditional building techniques: the granite load-bearing masonry structure on the basement floor is progressively lightened as it rises to the upper floors, through the use of a timber-framed structure, with lighter masonry fillings (taipa). The idea is to generate “a showcase of solutions and good practices that citizens could get to know in situ”.

«The inscription of the Historic Center of Guimarães in the UNESCO World Heritage list (2001) was strongly determined by the policies of urban rehabilitation conducted by the Local Technical Office (GTL) under the advice of the architect Fernando Távora. This is an exemplary experience in Portugal of intervention in old nuclei, namely for the maintenance of the resident population, the renewal of public space, the respect for

the urban cadastre and the recovery of traditional building materials and technologies, using local labour. In this way, a unity is preserved not only constructive but also social, spatial and environmental». [7]

Távora's respect for the relationship between structural design and space conformation is absolute. In this project, it is evident how it is possible to work in continuity with building techniques, without the need to superimpose redundant technological systems, but obtaining the necessary requirements for contemporary use. At the same time, the relationship between spatial configuration and traditional typological articulation (the plot is long and narrow and the building develops in length, stretching out from the street, interspersed between other dwellings, the vertical distribution is central) is confirmed as the most appropriate, as the most logical, even in contemporary times.

To show the layering of different times in a single place is therefore to show the density that substantiates architecture as a collective work. For this reason, Távora decided to create a sequence of circular windows on the internal surface of the walls, for the observation of the traditional constructive systems.

**Applied Design Experiences.** The continuous exchange between theoretical reflection and practical experimentation gives rise to the design experiences described in this section, conducted from 2009 until the present time.

In the work on the existing heritage, the principle of the imagination of the new is affirmed through the search for original forms, taking note of the opposition between old and new through a conscious process of rewriting that defines new relationships between site and theme, between artifice and nature.

**Tuscany.** The territory in which the Church of Saint Peter in Tuscany stands is an ancient soil. Sacredness is in the place, topography is the matrix. The visual and symbolic relationships are made up of distant landmarks and cross-references. The geological characteristics of this area of Tuscany are translated into the monomateriality of the built landscape, where the tuff, with its different colour gradations, gives shape to the different needs of dwelling.

Here there is no need for new landmarks.

There is a need to descend into the depths of stratification, to understand lost relationships and connections, to follow the diachronic narrative, thanks to a new sequence that orients the traveller's gaze and actions.

The plateau from which the Church, the former Bishop's Palace and the defence Towers are detached is a void that imposes silence, suspending time. The wide grassy clearing is the negative of the monument's strength. It asks to be left free.

The project 'Figure 2' is articulated in distinct parts, held together by the design that guides the emotional journey of the users. The new parts work together with the existing monumental complex to define the different atmospheres necessary for the pilgrim on his itinerary. With this understanding, and aware of the vast heritage of studies and research conducted around this place and its architecture, we have worked in continuity with

the tradition of precision and patience that has defined the face of these monuments and that characterises the work of the institutions responsible for their preservation.

The project works on the idea of sustainability as the recovery of ancient and traditional lighting and ventilation techniques, by modelling the interior space from the section. The innovative choice lies in the construction technique conceived for the aboveground elements of the project: the structures located within the sacred enclosure consist of lightweight metal frames, supporting a continuous brick shell, characterised by its textile/material quality.

The project strategy is developed through a sequence of operations, which define as many attitudes that the design takes towards the existing heritage.

As in a work of rewriting, it proceeds by elementary actions, starting from the gap in the existing perimeter, which is maintained as the only point of access to the sacred enclosure: Dialoguing, Edging, Framing, Emptying, Contemplating, Connecting, Winding, Elevating.

**Peccioli.** The redevelopment project of the former Villa Susinno farm building provides an opportunity to reconfigure a key point in the municipal urban system, opening up a new view of the surrounding rural landscape of Peccioli (Pisa).

The design of the urban section of Legoli defines a sequence of panoramic views, into which the new project is grafted, through the reinterpretation of the topography of the land.

The design of the open space 'Figure 3' is defined through the modelling of the terrain of the Villa Susinno's garden: thanks to the difference in levels in the area, an open-air theatre is created, with its services inscribed within a volume that is grafted into the retaining wall of the land. The lower level of the garden is converted into teaching orchards.

The project works in the tension between inside and outside to guarantee a complete fluidity of the paths; the public space of the new square enters the building and shapes the access system. The architectural transformation project starts from the idea of substantially maintaining the morphological characteristics of the main building, aimed at enhancing the identity of the historical building heritage (despite the modifications that have taken place over the years) and its inclusion in the surrounding architectural environment.

From a compositional point of view, the choice is to emphasize the baseline of the first floor, extending it to the western end. A new exhibition terrace acts as a counter-field to the existing one, defining the two external poles of the Exhibition System. The new Civic Library is located in the annex, redefined through a continuous roof that emphasizes the building's longitudinal development. Starting from the preservation of the existing structure, the project works in section, through the insertion of a new system of internal mezzanines.

**Three rural heritage interventions.** Finally we present a sequence of three works for private commissions, in Piedmont, Italy, where we had the opportunity to tackle the theme of reconversion, but also the one of

the continuation through additions, looking for the missing words in an already written text, by listening to the place, always pursuing a dialogue between the existing and the new.

In the axonometric drawings, you can clearly identify the existing situation and recognize the operations of grafting, addition, subtraction, continuation, that we have performed on the existing buildings and open spaces.

In the first project, 'Figure 4', the farm house is located right outside the historical town center of Moncalvo, in the district of Asti. Here the landscape of the countryside is characterized by the presence of vineyards and hazelnut groves. The existing building is the sole construction which stands upon the highest part of the site, alongside the road and it is formed by the union of a two-story with a three-story one. With time, the building, originally dedicated to agricultural purposes, has been gradually modified towards a mainly residential use, except for a few parts, still connected to farming activities.

The intervention is arranged to obtain the complete renovation of the rural house and its property in order to transform it into a country estate. The work aims to conserve and safeguard the valuable elements of the building, while completely restoring some parts, which have been made unreadable by the succession of transformations that have occurred over time.

The new design of the building plan reorganizes its disposition, underlining the interrelation between the internal spaces and the surrounding countryside. Working with the existing typology, the project transforms the original layout of the rooms readapting them to modern living needs.

Here, the landscaping is achieved by the repartition of the slope among different levels connected: the upper level acts as the house's courtyard creating an expansion of the ground floor space; the middle level is built on a new stone platform, from which the swimming pool is carved into.

In the second project in Moncalvo, 'Figure 5', the typology of the building under intervention is similar to the previous one (in-line building placed parallel to the access road, developed on the east-west axis), but the dimensions and complexity are reduced.

Here, there are no additions or subtractions to the volume of the main building; the design action consists in a rewriting of the interior spaces and in the recovery of the original character of façades. In this case, the project works on a new narrative entirely developed within the external spaces, through the addition of pavilions and a sequence of terracing and parterres in the garden.

The last project is still in Piedmont, but in a mountainous area, with different traditional rural building typologies.

In this case, the project, 'Figure 6' works based on two significant additions: a large new roof for the wine cellar and processing areas (following the local typology called "pendis"), and the insertion of a new distribution system (staircase and corridor) between the existing building and the mountain, intended as an autonomous and visibly new element.

**Conclusion.** Throughout his professional career, Távora designed the refurbishment of numerous country houses, adapting uses and spaces to

the new requirements without undermining their strong identity in the landscape and their historical and architectural values. Of all these works, the most significant for the meaning we want to give to this writing is the one for his family home. It is the decades-long work developed almost entirely through site work and supported by reduced drawing work in the atelier. The work is accompanied by an extraordinary text, a kind of love dialogue between two lovers (the architect and the house):

«We've known each other for a long time...

But I only got to know it better when together we began the romance of its - and ours - transformation.

I had to touch it and touching it was an act of love, long and slow, persistent and cautious, with doubts and certainties, it was a winding and flexible process, not a drawing board project, it was the method of a passionate man and not one of a cold technocrat, it was a gesture drawing more than a drawing on paper.

So, these were ten years of many long gestures and some paper, not much, ten years carefully fixing and deciding the transformations that both it and I were lovingly accepting.

So our lives crossed each other. And today it is still there in its space and in its time, and its design is also there, writing and remembering the story of our romance.

We'd known each other for a long time. But now we know each other better and we are both different» [7]

And this is the precise expression of the concept of reciprocity that we try to embrace in our work.

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## Figures.

FIGURE 1 – Fernando Távora, Casa na Rua Egas Moniz, n.º 113 / Casa da Rua Nova, Guimarães: Charcoal drawing of the elevation towards the road c.1940, photo of the side towards the internal courtyard, photo of one of the internal windows and longitudinal section PT/FIMS/FT/0249-pd0001, October 1985 © Fundação Marques da Silva, Arquivo Fernando Távora.

FIGURE 2 – A Tale Of Suspended Time. International Design Competition\_2024. PILGRIMS HEAVEN, Tuscania

TA lab\_Carlotta Torricelli, Sara Riboldi, with Benedetta Badiali, Jacopo Basilico, Matteo Mornata. Finalist Mention.

FIGURE 3 – Valorization of the Historical Centre of Legoli, Renovation of the Former Villa Susinno Farmhouse and Outbuildings, in Peccioli (Pisa). International Design Competition\_2021.

TA lab\_Carlotta Torricelli, Sara Riboldi, with Benedetta Badiali e Diletta Gianfranceschi

FIGURE 4 – Conversion and Expansion of a Rural House in Moncalvo (AT). Private Commission\_2011/2015

Buffer Zone of the Unesco World Heritage: Vineyard Landscape of Piedmont: Langhe-Roero and Monferrato

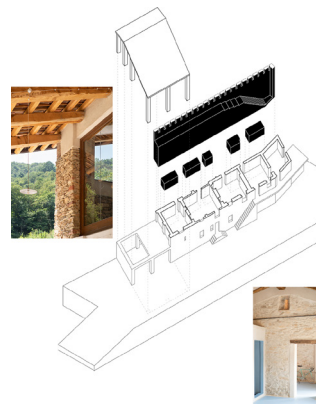
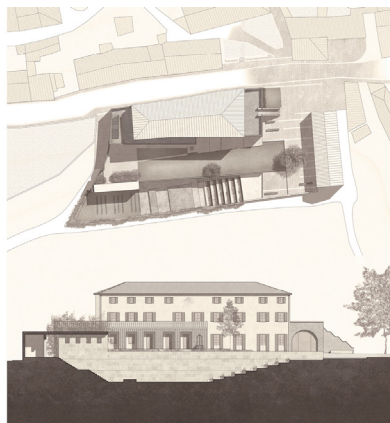
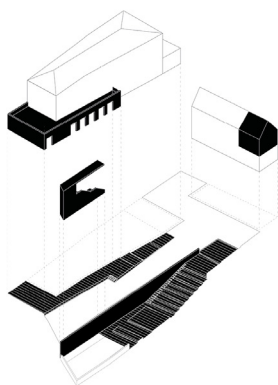
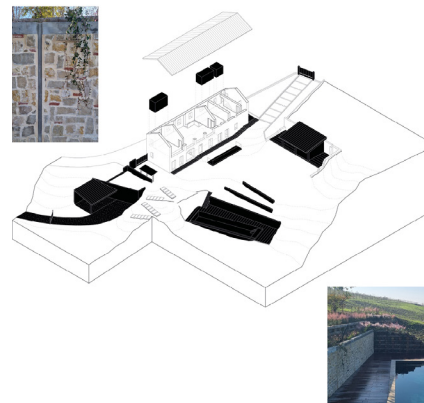
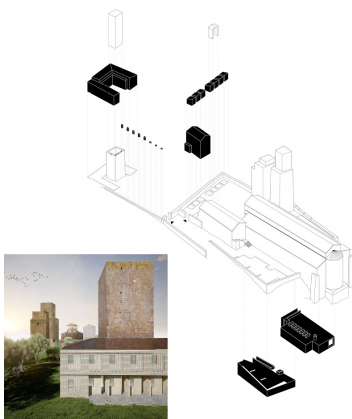
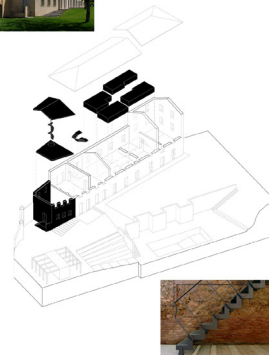
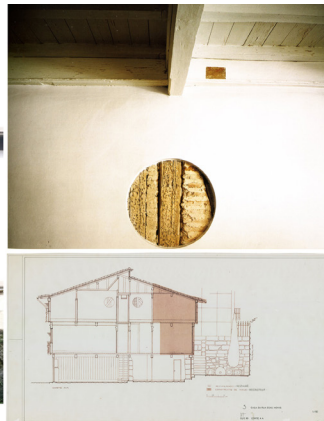
TA lab\_Carlotta Torricelli, Sara Riboldi, with Carla Scotti Viganò and Federica Granata. Ph. Stefano Topuntoli.

FIGURE 5 – Conversion and Expansion of a Rural House in Moncalvo (AT). Private Commission\_2022/2024

Buffer Zone of the Unesco World Heritage: Vineyard Landscape of Piedmont: Langhe-Roero and Monferrato. TA lab\_Carlotta Torricelli, Sara Riboldi, with Diletta Gianfranceschi, Marianna Golfetto. Sculpture: C&C Studio - Abbado - Albertelli. Ph. Sara Riboldi

FIGURE 6 – Rustico in Val Bronda. Conversion Project for a Rural House and Wine Cellar in Pagno (Cn). Private Commission\_2020/23. TA lab\_Carlotta Torricelli, Sara Riboldi, with Diletta Gianfranceschi, Benedetta Badiali, Ph. Luca Caselli.





# THE METAMORPHOSIS OF TWENTIETH CENTURY “GOOD DESIGN” TO (INHERENTLY GOOD) INDUSTRIAL DESIGN IN THE TWENTY-FIRST CENTURY/

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**Abstract.** Industrial Design in the contemporary era stems from the vast heritage of the twentieth century; enormous amounts of investigation have been done during this period in order to better define what industrial design actually entails and how it can be better fit to cater the needs of a fast-changing society. It was then, at an almost amorphous, embryonic stage, when schools like Bauhaus tried to implement means of unifying this emerging domain into a rational practice. During the following decades, designers strived to implement appropriate standardizations, given how the main catalyst of these efforts was the ubiquitous need for high quality objects for the masses. These efforts led to one of the main ideological pillars of the late twentieth century legacy – the idea of ‘good design’ – which eventually became almost a blueprint in the practice of design.

This article dares ask the question: How relevant is it today?

The new century dawned with its own new set of challenges for designers: new types of products and new needs of new generations. These provide the grounds for redefining what Industrial Design ought to implement in its practices, which can entail the metamorphosis of the ‘good design’ heritage into a broader, more natural approach organically implemented in the design process.

As such, this article proposes to both explore whether or not the ‘good’ denominator for contemporary Industrial Design is still needed, and also expose its current challenges as distinctive from the ones of the twentieth century. One consideration can be how Industrial Design, given its legacy, is now mature enough for it to no longer need the ‘good’ denominator – perhaps it has become ‘inherently good’. Moreover, perhaps ‘bad design’ is nowadays a symptom of a disease which exceeds the boundaries of Design, and reaches into societal, economic and cultural scopes, thus alleviating the need for separate denominations.

**Introduction.** Industrial Design emerged as a rational practice more than a century ago, after arduous disputes about what modernity entails in fields such as architecture and design. Furthermore, industrial design has been subject to vast amounts of research around the ‘good’ denominator: what is good design, how can it be attained and how can one create the blueprints to ensure the continuation of this practice throughout the decades and be universally implemented. The twentieth century design heritage can be defined by the efforts and results achieved in this sense. Formal unity, parts cohesion, ergonomics, durability and usability are among the main factors which have been discovered to influence ‘good design’ most. Past

century designers have constructed a plethora of intellectual pillars which led to solid standards, shaping the foundation of industrial design today.

However, the twenty-first century has been met with unprecedented challenges which questioned both traditional societal values and industrial design approaches. New types of user-product relationships raised ethical and manufacturing dilemmas as products have become so intertwined with different facets of contemporary living that distinction between necessity and cult is blurred. We are confronted with a shift in product public perception; maintaining normality now implies a certain degree of adherence to popular products, and deviation from said normality can have deeper implications for the consumer. In other words, industrial design has become nowadays highly complex and design thinking is paramount to include in its process broader views in regards to societal movements and reforms, which is, in some sense, incompatible with the aforementioned blueprints of the twentieth century.

This article proposes the removal of ‘bad’ and ‘good’ denominators for industrial design as an intellectualised endeavour, deeming it necessary to stray away from twentieth century dogmas and tenets – design is nowadays an evolved phenomenon that has naturally implemented the legacy ‘good’ practices to its venture up to a certain point, after which these have to be reconsidered.

However, in order to define what these past-century characteristics entail and how they manifest today, the need to unfold certain aspects from design’s history is crucial in understanding the current context; this will be done by emphasizing distinctive traits from design’s overall trajectory which certain authors and designers deemed to imply good design practices. This will eventually lead to a somewhat cohesive understanding of how design’s legacy ultimately morphed design into how it manifests in today’s era and how through heritage vast amounts of innovation were realized towards ‘inherently good’ industrial design.

**Meanings and Heritage of Good Design Practices Throughout the Twentieth Century.** The dawn of the ‘machine age’, during the middle to late stages of industrialization in Europe and Northern America, raised ethical and moral questions which hinted at a disjointed view among designers about whether or not machines were a detriment for the applied arts or, rather, an ingenious tool meant to aid the processes of design, manufacture and distribution. One could argue machines, on one hand, broke the socio-economic barriers for the emerging middle-class market, and destroyed true craftsmanship on the other. Even at this embryonic stage of industrial design, the ‘good’ denominator is contested by opposing views of what design should actually be about.

Through machines, manufacturers were able to output products at an unprecedented rate – thousands of products were made in the same time and at the same cost as was the production of only one high-quality object only a few decades before [1], but the target audience for these products was a public eager to accept mediocrity for such commodities. Although William Morris (1834-1896), the standing figure for the Arts & Crafts movement, declared he didn’t want “[...] art for a few, any more than education for a few, or freedom for a few” [2] he also stood against the unappealing, machine-made objects, and proceeded to make furniture reserved for only the few who could afford the masterfully hand-crafted furnishings. But while Morris and his disciples disregarded the “evil” machinery, it was architects and designers such as John D. Sedding (1837-1891), Lewis F. Day (1845-1910), Hermann Muthesius (1861-1927), Frank Lloyd Wright (1869-1959) or as Karl Schmidt (1873-1948), amongst

others, who countered the anti-machinery dogma. They saw the potential of the new age and declared how it was up to designers, not the machines, to produce quality products.

The end of the nineteenth century is met with discourses about the removal of ornaments and movements towards form simplifying. Some of William Morris's contemporaries express the need of revoking needless decoration and state the importance of form; architect Louis Sullivan's (1856-1918) often-quoted dictum – "form follows function" – is a testimony of the early onset of twentieth century Modernism. The manifesto for the purification of form will eventually become the leitmotif of modern design, though still subjected to intermediary steps until reaching a stable status quo during early to mid-twentieth century. Early modernity represents the transient period towards the rational movement which will eventually engulf design as a practice.

So far, it is hard to determine the precise boundaries of what 'good design' means. 'Good' could very well entail attentive handiwork but at the same time mean designing for industrially mass-produced goods. 'Good' can be the clean lines of Henri van de Velde's (1863-1924) 'Uccle' chairs of 1894 or the 1910 Typenmotel furniture of German modernists. It was only within a unified practice that 'good design' became a quantifiable denominator, albeit subjected to the socio-economic and political frame of the early decades of the twentieth century. The First World War (1914-1918) stimulated more radical approaches to design, which dealt with social meanings of a new age dominated more than ever by machines and new technologies.

'Good design', up until late 1920s, was reflected in the academic reform nascent of the Weimar School – Bauhaus (first opened in 1919). Bauhaus designers advocated for the use of industrial materials, mechanised industrial production and fulfilment of needs through modern housing units, furnishing and appliance models, but in a manner which committed to a less elitist attitude and, through industrial design, focus on genuine public needs. It was during this time Sullivan's "form follows function" reigned supreme, as seen in furniture pieces such as Marcel Breuer's 1925 "Wasilly" chair, Ludwig Mies van der Rohe 1927 "MR" armchair, 1929 "Brno" or "Barcelona" chairs or in the works of German artist Marianne Brandt; in all of these examples design was to be considered 'good' by formal means and through the lens of the respective social framework they were created in.

The interwar period has also witnessed design innovation outside the German Modernist movement; Scandinavia would rise in the industrial design scene as an unmatched force of creativity and subtle sophistication. Northern European designers took an original approach by "steering a middle ground between standardization and efficiency on the one hand and psychological dimensions of modern living on the other" [3]. Warm tones and soft, natural materials are the epicentre of Scandinavian furnishings, creating a sense of closeness and simple familiarity between user and product. They approached design by having standardisation and industrial production intertwine with individuality and the perpetuations of crafts, which subsumed their unique outlook on design. This synthesis of Modernism was expressed in furniture and objects by designers such as Alvar Aalto (1898-1976), Gunnar Asplund (1885-1940), Kaare Klint (1888-1954) or Bruno Mathsson (1907-1988) just to name a few.

'Good design' is expressed in Europe both in bent steel tubes and locally sourced plywood; 'good design' is sincere and also philosophical, made through craft tradition and by industrial mechanical production; it takes into consideration the needs of both the individual, and the mass population through standardisation. These concepts, binary at their emergence, further develop the framework for contemporary advancements in design theory and practice as a unified endeavour.

While Europe was preoccupied with sincerity and means of closing the psychological gaps between modernity, user and products, during the 1930s, in the USA, 'good design' encompassed shell styling of everyday objects, automobiles and trains. Raymond Loewy, Henry Dreyfuss or Norman Bel Geddes were among the revolutionary designers who started the practice of "design consultancy". Having noticed how

aesthetically unappealing most of American appliances, cars and commonly used products were [4], Raymond Loewy and his peers took it upon themselves to add a new dimension through a process known as streamlining. Although business was met with unprecedented sales, streamlining was at its core a superfluous subsidiary of the design practice, but it marked the beginning of a much broader design venture and was a pivotal moment in the discourse of what 'good' design means (or even if it can be considered "industrial designing").

Mid-Century Modernism was a post-war revival of optimism and design centred around the domestic home, on quality products and long-lasting furnishings for a generation who strayed away from past trauma generated by the Second World War. New materials and means of production were entering civil industries and designers challenged modernity with a new set of values. Mid-Century Modern is commonly regarded as being a staple for 'good design', though sociologist Herbert Gans considered mid-century furniture "a treasure trove of progressive upper middle-class culture" [5], thus excluding more universal values.

The 1950s and 60s are dominated by space and atomic iconography and biomorphic (or "vital") shapes revolving around the relatively new domain of ergonomics. Dichotomy was governing all aspects of life and transpired into design as well, which further advanced the discourse about design and its role in society.

**Good/Bad Design Dialectic and Contemporary Challenges.** The Utility Furniture Advisory Committee, in the UK, was instituted during mid-century to provide standardised items at controlled prices which were hoped to influence popular taste "towards good construction in simple, agreeable designs" [6]. One of their designers – Edwin Clinch – described the furniture as being pure and good. In 1944, the Council of Industrial Design was founded in London to promote the same 'good design' ideas on a national level and consequently sponsored a series of exhibitions – "Britain can Make It" 1946, "Enterprise Scotland" 1947, "Design at Work" 1948 – to gain popular support. Gordon Russell, director of the Council from 1947 to 1960, in writing the exhibition catalogue for "Design at Work", questioned what good design meant and stated principles such as functionality, materials and purpose as rigid characteristics for the denomination [7]. George Nelson, on the other hand, argues that the design process is integrated in the principle of appropriateness and offers harsh criticism of excessively narrow concepts of 'functional' design; the so-called 'good design', as judged by aesthetic standards like those promoted by Edgar Kaufmann Jr., director of MoMA's department of industrial design in 1940, who used the idea of 'good design' as a "weapon against 'styling'" [8] as curator at the Philadelphia Museum of Art, Kathryn B. Hiesinger, put it. Eliot Noyes saw 'good design' as a matter of selective aesthetic preference and Edgar Kaufmann Jr. disregarded commercial success as an indicator for good design, enhancing once again purpose and usability [8].

The 1960s Pluralism showcased how not one single approach to design was to be considered best. Postmodernism came with its new set of philosophies regarding what industrial design meant and renegaded against stereotypical views. Social movements and reforms pushed forward new directions, challenging the governing views about designers' role in society. Postmodernism and the 1970s continued the broad approach in design, but also marked the onset of the famous "10 Principles for Good Design" by designer Dieter Rams, which instilled a certain degree of narrowness to the practice by abiding it to a blueprint-like formula, which continues the twentieth century trend of linear considerations for what makes a design 'good'.

From the digital era of the 1980s emerged new types of products and relationships between user and product. The heightened sense of approachability made technology a natural part of life. The advent of digital devices has come along with a new type of design: user-interfaces/user-experiences, which again raises questions on qualitative denominations of the overall product: although both parts function as a singular entity, good industrial designs can have bad interface designs. Moreso, some authors argue how the very basis of what is meant by 'good design' has to "be placed within



the invented (artificial) logic of the total economy” and how “quality itself becomes a rematerialized ethical value” [9].

In today’s age, products have reached an apex of sophistication, but the societal, economic and political landscapes make differentiating ‘good’ from ‘bad’ design a complex task. Today’s industrial design scene faces new and unprecedented challenges stemming from various directions: highly competitive global markets, sustainability reforms and ethical dilemmas. Designers are faced with social movements and environmental concerns which evolve from one generation to another, demanding a broader approach within the practice, which is incompatible with twentieth century ‘good design’ formulae.

From a technological standpoint, advancements in the field generate a need for consistent reiterations which in turn lead to a strong sense (artificial or not) of obsolescence among the consumers, which in turn generate vast amounts of electronic waste, no matter how ‘good’ the products are. However, ‘planned obsolescence’ is currently being actively fought against [10], although maintaining the social status quo through popular ‘flagship’ products make it difficult to combat. The process through which designers and engineers went through to create these devices and the materials themselves (increasingly more durable glass types, aluminium frames, scratch resistant plastics) can all be deemed by traditional quantifications as being ‘good’, whereas the business model leans toward a bad denominator.

Drawing a parallel to classic Darwinism, industrial design has to adapt. Even Dieter Rams’ ten principles, although still considered valid, have to be incorporated with a certain degree of restraint, so that contemporary views of, for instance, sincerity, feminism or racial and gender equality, can be inserted into the equation. Raising awareness on including female anthropometrics in her 2021 book, “Das Patriarchat der Dinge: Warum die Welt Frauen Nicht Passt”, Rebekka Endler highlights the governing masculine-oriented measurements of everyday objects, which pose – for example in the automobile industry – life-threatening consequences for women [11].

‘Good’ design narrows the intrinsically meaning of such a vast, multilateral endeavour, as is industrial design and, as contemporary researchers note, “giving form to socially compelling future visions is a specific way for designers to contribute to social justice movements.” [12].

**Conclusion.** ‘Good’ industrial design is highly contextual as we’ve come to conclude from the first part of this paper; Victor Margolin states how designers “have not worked with a set of principles and rules that have prescribed the scope of their work.”, rather they have invented the subject matter of their profession “as they have gone along.” [13]. Design is also a phenomenon which is inherently depended on external factors and context, meaning its permeability is key to its survival. Hence, adapting to new and current challenges is paramount.

Product semantics has greatly changed since the twentieth century. A new vocabulary emerged once the relationship between the public and products metamorphosed into something beyond simple usage. Products are intertwined with increasingly more aspects of our lives, ranging from social status, establishing gender and race equilibrium and equality of opportunity. They have become companions, assistants, objects of comfort and they encompass how we navigate the world in a much more holistic way.

Design has reached a level of maturity which, throughout the long heritage left behind by twentieth century designers, deems it unnecessary to apply qualitative denominators. Industrial design is, by definition, a process in of itself, a phenomenon which starts with a basic, fundamental need; industrial design products represent one of the last steps of the whole endeavour and, as a consequence, are affected by a series of ulterior interventions by distinctive overshadowing economic forces. Thus, one should distance industrial design as a practice from the engulfing overall business umbrella, which can blur the purity within the core practice. Furthermore, if industrial design as an act of conception does not follow a series of fundamental

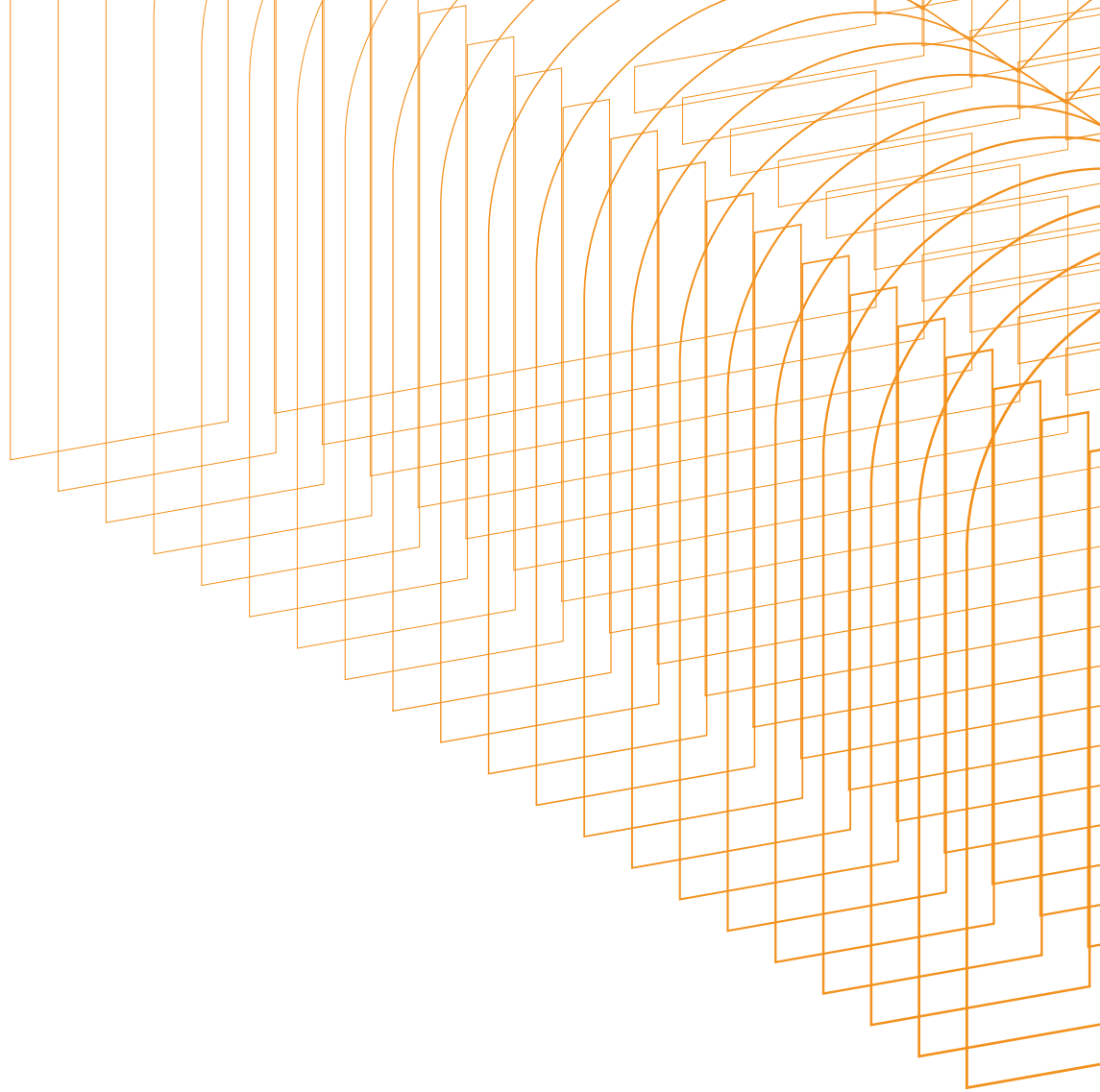
intellectualised steps, the process itself enters a different realm of creation, and strays away from design thinking in the academic sense. This is how one can explain the presence of bad products on the market – cheaply made, imitations or mass-produced inferior objects that are not the first-hand result of design thinking – within an endeavour with such a rich history.

Innovation builds upon the shoulders of history; although twentieth century ‘good design’ dogmas become increasingly more obsolete, they represent the fundamental steps towards an inherently good design practice which tackles humanistic issues.

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## LESSINIA'S CONTRADE. A DESIGN CHALLENGE BETWEEN HERITAGE AND TRANSFORMATION/

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**Abstract.** Lessinia's contrade embody an exemplary manifestation of a distinctive way of organizing anthropic space in mountain areas. Featuring stone slabs of impressive size, considering the handwork extraction techniques, the everyday architecture epitomized in traditional contrade has given life to unique built environments and the configuration of open spaces that today form an important local heritage. What is happening to this historical legacy, both from architectural and landscape perspectives is the starting point of this research, which aims to explore paths of sustainable development able to identify cultural values for contemporary society, admitting the alteration of built heritage as a possible approach to redeem abandonment or seasonal use. In this context, it is important to reflect on how an architectural heritage connected to a fragile territorial palimpsest can once again be integrated into innovative systems capable of redefining the role of resources and the built environment as new models of sustainable development. The contribution, part of the in-progress research project "Future Ruralities" based on archival documentation, participant observation, and design strategies' formulations, details the ongoing dynamics and lays the foundation for a transformation scenario aware of historical heritage's importance but sensitive to economics and environmental conditions. It proposes a shift in perspective, from viewing the historical traces as datum to interpreting them as the historical source, thus understood not as fact but as an ever-changing being.

**The architecture of Lessinia's contrade.** The geology of the area fundamentally shapes Lessinia architecture, which stands as one of the most ingenious and creative examples of vernacular architecture. The mountainous region north of Verona is endowed by nature with a distinct type of stone with unique structural properties: the "Scaglia Rossa Veneta," also known as "Pietra di Prun." This stone is found in thin, stratified layers, separated by thin layers of clay, making them historically easy to split and immediately ready for use [1]. As observed on different occasions, the layered geology underground has often found a strong relationship, in many cases direct, with human work, settling modalities, and superficial environment [2]. Due to excellent mechanical properties, these slabs have been used for various purposes both in the construction works of buildings, from structural members to furniture like benches, washbasins, and fireplaces, and in shaping open spaces, such as in party walls, yards' pavements, and canopies for shelters. The most evident and characteristic element of Lessinia's architecture is the heavy roof made of thick stone slabs laid side by side. These slabs, in order to prevent rainwater from seeping inside, were specifically crafted with grooves and protected at

the joints by other slabs called quintane in the local dialect. This unique way to arrange space, with strong geometric accents inherited from the layered nature of local stone, and physically built, represents an intriguing compendium of rational architectural solutions that maximize the use of locally sourced materials. Some of the most representative buildings and contrade of Lessinia's architecture have been patiently surveyed, mainly by Tullio Pasotto, Vincenzo Pavan [3], and Paolo Righetti [4]. This perspective on Lessinia's rural heritage posits in continuity with the ethnographic research by Pagano [5] on spontaneous buildings in Italy. Pagano's investigation went beyond merely cataloging the evolution of certain house types. His bold hypothesis aimed to show that certain modern architectural approaches were directly inherited from the clever application of new technologies to age-old challenges, with solutions already partially documented in rural architecture [6]. Anticipating Rudofsky's findings [7], Pagano brought to light how untrained builders historically organized their environments, adopting rational and efficient passive design solutions that, in contemporary practice, are often replaced by complex technological systems. Also in Lessinia, these components were part of an anonymous architectural alphabet that, leveraging on centuries of technological wisdom and inductive cleverness, gave life not only to humble yet beautiful buildings but also and mostly to urban nuclei permeated by morphological and typological invariants: the contrade. Here, amidst these architectures that go beyond the finiteness of singular buildings to encompass clusters of houses, barns, stables, shelters, dividing walls, and other stoned elements in strong harmony with surrounding open spaces, lay the foundations of the heritage dimension of Lessinia's built environment. Lessinia's contrade are hamlets usually made of five or six houses, sometimes organized in one or two rows when the slope is accentuated, while, when nestled on flatter land, they form courtyards or clusters semi-closed by arched gates. These small settlements have served as permanent outposts immersed in the vast highlands of Lessinia. The presence of small towers, basically slightly taller buildings, witness a defensive role for these ensembles, which, nonetheless, were intimately tied to the surrounding open space for hay cultivation, walled vegetable gardens and orchards, and pastures delimited by stone slabs. Indeed, each family living in a contrada's house also owned, and this marks a distinct aspect compared to traditional alpine collective properties, some fields precisely marked on the soil. Eugenio Turri, who used Lessinia's territory to test his geographical investigation methods in the 1960s, used these words to express the fundamental role played by contrade: "The contrada represents the characteristic form of settlement in Lessinia (...) Eliminating the 'contrada' is like eliminating the landscape itself, distorting it, stripping it of those values that its study and understanding have revealed to us, and that makes Lessinia admired by those who have seen it." He went beyond the recognition of contrade's pivotal role, suggesting that also future types of settlements should have been conceived with analogous logics: "therefore, new settlements should be developed according to the criteria inspired by the 'contrada' (...) Each new 'contrada' should be established as a small unit discreetly distributed within the area..." [8]. Turri's auspice has to be framed in its historical context, a time of profound but not fully aware societal changes that nonetheless had already understood the aesthetic and historical values of this

peculiar type of settlement, its architectural characters, and landscape and environmental meanings in Lessinia.

**The example of Contrada Provalo, Sant'Anna d'Alfaedo (Verona).** Contrada Provalo rests on the gentle ridge extending from Mount Corno d'Aquilio, located between the Vajo della Marciora and the Vajo dei Falconi. FIGURE 1. Provalo is centrally located in a strip of pastureland that stretches toward the plains. This strategic position, advantageous for access to pastures, water supply, and timber, did not shield it from the harsh winds. These conditions led early builders to cluster the houses as closely as possible to create sheltered spaces. The two identifiable linear building arrangements form open courtyards skillfully paved with stone and connected at various levels by a network of stairways and retaining walls. In a central area, there was one of the few communal spaces: the place where cow's milk was collected and transformed into cheese, butter, and other dairy products. The facades of Provalo's houses reveal a timeline of interventions and transformations on buildings that likely date back to at least the mid-1800s, although historical maps reference the toponym "Provalo" as far back as the 1700s. In the map by Gregorio Piccoli and Adriano Cristofoli of 1746, the toponym Provalo appears for the first time, represented as a row of houses and a singular volume in the back according to a disposition that may fit with the current situation. From today's satellite map the traces of the ancient road directly connecting contrada Provalo and contrada Stefani are still visible and get interesting architectural density as this ancient path penetrates the heart of contrada Provalo. The map shows in a very effective way the strategic position of Provalo, in the center of the gentle ridge that rises between the two small valleys, surrounded by pastures and well exposed toward the south. By enlarging the view, it is possible to recognize that Provalo was the crossroad between two important routes: one north-south oriented leading to the prosperous Vallene contrada, located below Mount Corno Mozzo, still well visible, and another linking east-west oriented linking with the Barozze site. FIGURE 2. The same information is present in the Austria-Hungarian Imperial Cadastre. Provalo, as part of the municipality of Cona, is located at the border with the municipality of Vallene and very close to that of Erbezzo. This condition suggests that Provalo, positioned in the center of the beautiful ridge, enjoyed a position sought after and contested by the three administrations. The attachment to the cadastral map shows contrada Provalo in a more detailed way, recording all the properties within buildings and in the patchwork of fields. The buildings, here reported in plan, confirm the presence of the rows of houses flanking the ancient routes toward Stefani and Vallene. FIGURE 2. These historical cartographies not only record the presence of Provalo but also suggest its prominent role in exploiting vegetal resources and connecting ancient routes. A significant change took place during World War I when the backbone of today's infrastructural system was built for military purposes. The new road bordering Provalo reshaped the relationships with Stefani, de facto cutting the ancient direct path and giving a subaltern role to the ancient route towards Vallene. It also determined the position for recent constructions, such as the stable realized in 1978 with the support of statal subsidies, a building mirroring the crisis that, since the second post-war period, heavily hit breeding and zootechnical activities. This building, realized with a low budget to host

a large number of cows, resulted in dysfunctional architectural solutions, with uncomfortable entrances for animals and hay on opposite sides, and morphologically incoherent with the traditional development of contrada's architecture. As visible comparing the picture Turri took in the 1960s with a contemporary photo taken recently, this stable significantly altered the perception and spatial features of the contrada. The choice of placing traditional stone slabs on the canopy maintained only a material continuity with the surrounding artifacts, introducing, on the other side, a disharmonic morphological, typological, and aesthetic element in the hamlet.

FIGURE 3.

As in the past, today, the stone is the absolute protagonist, employed in a variety of ingenious ways: from the heavy roofs of buildings to both interior and exterior paving to the sturdy door and window frames, and in the masonry itself, reinforced with lime mortar that reused local aggregates. The corners of the buildings, finely rounded with stone blocks shaped specifically for this purpose, likely served to prevent livestock from damaging the structures. Today, these and other solutions bear witness to a thoughtful approach to construction, practically focused on solving everyday challenges while preserving a decorous, proportionate, and harmonious aesthetic in the building structures. This constructive coherence and harmony fade as one encounters the multi-story houses built in recent decades according to standards entirely disconnected from the customs of the old contrada inhabitants. However, a simple comparison between the satellite views taken over the last decades shows that the contrada and its open spaces have basically maintained their morphological features. Buildings, pavements, property walls, fields, woods, roads, the water pond, and other anthropic elements have endured over the last years. Considering that only three people permanently inhabit the hamlet, this observation can be regarded as evidence of a broken social pact between people, institutions, places, and, ultimately, architecture creating and hosting them. This situation of fragility covers not only socioeconomic aspects but also physical ones, placing this architectural inheritance in an emergency condition.

**Lessinia's heritage: an urgent contemporary question.** On the afternoon of July 3, 2021, the stones covering an ancient giassara (a traditional partially underground ice-making building) collapsed, causing two children playing in the pastures near a malga in Lessinia to fall [9]. This tragic event deeply shocked public opinion and added a dark shade to the debate about the region's architecture, landscape, and environmental heritage. To let these architectural legacies have a role in the present and future development of the region, it seems crucial to ignite a reflection that needs to question disciplinary dogmas to find points of encounter with real development dynamics. In particular, it is not enough to recognize these delicate structures' unique character and value to preserve them from destruction and modification passively. The present situation indicates that the mere protection applied by regulatory measures, planning codes, and heritage constraints discourage inhabitants from investing in their properties to trigger new income opportunities. The tourist industry, which for a certain period appeared as the solution to unpredictable social transformations, needs to be repositioned in a more sustainable and balanced framework, as put forward in the last Program of LAG Baldo-Lessinia (Local Agency

of Development) F.U.T.U.R.A. [10], which has shifted attention to local communities and permanent inhabitation. In the past decades, tourism has benefited from too much trust, unfolding through two main dynamics. One is known as “hit and run tourism,” an increasing trend of visitors drawn to the area’s scenic beauty and healthier environments. These consumers enjoy natural and cultural resources without providing significant economic stimuli for shrinking local communities. This phenomenon has led some observers to label these visitors’ actions as “Lessinia’s aggression,” highlighting the negative impact on fragile ecosystems and the careless exploitation of the territory. The other factor has deeper roots in structural socioeconomic changes. Over the last few decades, the traditional triad of houses, stables, and barns has progressively been replaced by holiday units, a peculiar phenomenon related to local tourism. While most people have moved to the closest urban centers near Verona, many have retained or purchased buildings, converting them into second homes for weekends or seasonal occupations. This shift has led to a gradual erosion of the bond between residents and the organization of the productive landscape, which had been nurtured for centuries through the efforts of farmers in subsistence economies. The impossibility of recovering past socioeconomic models should not be translated into a blind trust in external stimuli such as tourist ones. Conversely, new development opportunities should leverage inner human and geographical capital, exploring transformation modalities of buildings and hamlets that meet the expectations, or even go beyond, of those people, couples, and families considering moving out from cities. In regard to this, the built heritage impressed in buildings and open spaces of contrade need to find an active role in the definition of new habitation modes, opening to formal and material changes according to societal needs, as has always occurred in the past. In this context, it is important to reflect on how an architectural heritage connected to a fragile territorial palimpsest can once again be integrated into positive systems capable of redefining the role of resources and the built environment as new models of sustainable development.

### **Towards a new interpretation of Lessinia’s architectural heritage.**

Provalo, as per the other contrade, has historically infrastructured the territory, forming ecological patchworks and networks adherent to anthropological customs. In parallel with societal transformations, many contrade have progressively lost their socioeconomic values, rapidly shifting from productive entities to second home sites. Only seasonally occupied, many contrade suffered underutilization and lack of maintenance, even becoming dangerous places for people. Inhabited by only three people, Provalo presents various design opportunities ranging from preservation to transformation and even demolition and reconstruction; actions that require careful balancing but at the same time offer essential cues for innovation and critical reinterpretation of the legacy of the built environment. Building on the built is the necessary interpretation key to conceiving design actions that redeem the poor yet intelligent technological and compositional solutions of traditional architecture in Lessinia, studying its inherent typological schemes, tectonics strategies, and formal languages to find a route of adaptation and modification that meets contemporary needs. The approach passes through a profound understanding of the architecture of Lessinia’s contrade as unitarian semantic units featured

by clear spatial and construction principles, and it is open to productive reinterpretation of them, including possible alterations. In the editorial of Area magazine issue 166 [11], Vincenzo Latina reflects on the role of the architect as a translator of architectural texts and preexisting structures. The architect introduces new interventions within these structures, creating a palimpsest where the old and the new coexist in a delicate balance of adaptation and difference. This notion suggests that the process of rewriting an architectural—or literary—text involves an act of translation, requiring interpretation, adaptation, and reconstruction. In Italian, the word *tradurre* (to translate) derives from the Latin *traducere*, combining *trans* (across, beyond) and *ducere* (to lead), which conveys the idea of passing down or delivering meaning. However, its etymological connection to *trudere* (to convey, deliver) links it to two other key terms: *tradizione* (tradition) and *tradimento* (betrayal). Latina identifies these as the three “T’s” central to the concept of reuse (2019). According to him, reconstruction involves translation and transcription, moving from the preexisting to the contemporary. The balance between *tradimento* (betrayal) and *traduzione* (translation) shapes urban forms, as architects reinterpret cities and landscapes through acts of re-reading and re-use. This process mirrors the work of literary translators, who renew original texts through creative adaptation, making them accessible and relevant to new audiences. Latina further notes that *tradizione*, *traduzione*, and *tradimento* resonate with the English term trading, understood as negotiation. This concept of trading provides a valuable framework for examining the iterative processes of his research. Here, the trading of inherited architectural and cultural assets—conceptually close to the idea of heritage—is seen as both an essential practice and a source of risk. Heritage’s intrinsic vulnerability demands critical attention and negotiation to ensure its meaningful integration into contemporary society while acknowledging its fragility from both theoretical and practical perspectives. This scenario is relevant considering the structural changes affecting our society, from climate change to demographic shifts, and in light of the main public funding development guidelines, as expressed by the LAG local development agency.

The research “Future Ruralities” carried out by the authors finds in contrada Provalo a first application case to test possible scenarios for existing architectural heritage. The authors believe that its experience should go beyond temporary extractivist touristic modalities and embrace a more stable and long-lasting dimension to effectively prolong the life of a fragile building tradition. While the market is already shaking the stagnation of last years, with privates investing in abandoned dwelling units on sale, this is also the most fruitful moment to open a reflection on architectural and landscape design and the contribution these disciplines can bring to broader and more complex actions to invert depopulation and abandonment. FIGURE 4. With these auspices, the authors have boosted in 2024 an intense dialogue between different actors active on the territory, such as local administrations, development agencies, cultural associations, and private citizens. In parallel, they are carrying out design studios in the School of Architecture Urban Planning Construction Engineering of the Politecnico di Milano against the backdrop of which preliminary design hypotheses are feeding a growing sense of confidence and cross-disciplinary debate. Contrada Provalo, in the municipality of Sant’Anna d’Alfaedo, is a singular



example mirroring a widespread system across the Lessinia plateau. Its inherent heritage dimension must be framed in a broader context that accepts different types of actions on buildings and settlements, searching for innovative regeneration processes pragmatically rooted in the populace's dynamics. This means that not all buildings can be treated in the same way; some can be protected and reinforced, but some uses, or market demands require spaces that can not be obtained from the mere preservation of rural heritage. How to transform them is the question of this research's architectural experience on heritage, which, in the authors' opinion needs to start from a profound disciplinary understanding of the architectural characters as a knowledge open to possible transformation as part of a laic contemporary discourse on architectural heritage. FIGURE 5, FIGURE 6. Indeed, rural heritage consists of forms, materials, and natural-cultural relationships that embody the purpose of settlement creation and contain the foundational elements for building places of greater spatial quality. The preservation of culture and, as in the case of Lessinia, environmental heritage passes through transformation on the existing able to meet contemporary needs as always happened in the past [12]. Maurizio De Vita has described the rural landscape as an "open work," capable of linking territory and its fragments through a temporal and evolving dimension that highlights its main identity characteristics [13]. De Vita's perspective embraces a multidisciplinary research approach that ideally connects with Carlo Cattaneo's view of human civilization, where land serves as a repository of human effort, and "men must build their fields just like their cities" [14]. The interest in minor heritage, such as those impressed on Lessinia's territory, goes beyond mere documentation to ignite a more profound reflection on disciplinary tools of architectural and landscape design to reinvent a design tradition. We use "reinvent", taking the Latin meaning of the word *invento*, which is to find or uncover something and to arrive at some place. Reinventing, in this framework, means removing the layer of opacity that obscures the meaningful truth to discover, through contemporary reinterpretation, new possibilities for the contemporary habitation of Lessinia. In this sense, the applied research on contrada Provalo serves as a reference, as its innovative scenarios provide valuable insights into other hamlets and rural landscapes within a broader context.

**Attributions.** Conceptualization and investigation G.S. and G.C.; Validation G.C.; Original draft preparation G.S.; Figures G.S.; Review & editing G.C.; Supervision G.S. and G.C. All authors have read and agreed to the published version of the manuscript.

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## Figures.

FIGURE 1 - Contrada Provalo is located on the gentle ridge extending from Mount Corno d'Aquilio between the Vajo della Marciora and the Vajo dei Falconi. Right: photo of Provalo's minor architectural heritage taken from the main road built during WWI. Source: regional technical cartography, ri-elaborated by Gerardo Semprebbon and photo by Gerardo Semprebbon.

FIGURE 2 - Top. Gregorio Piccoli and Adriano Cristofoli map of 1746. Source: Archivio di Stato di Verona, position: Prefettura\_179. Bottom. Provalo in the Austrian land registry released in 1847 on the base of previous surveys. Left: composite by the authors; right: detail on contrada Provalo. Source: Archivio di Stato di Verona, position: Cona\_294-05.

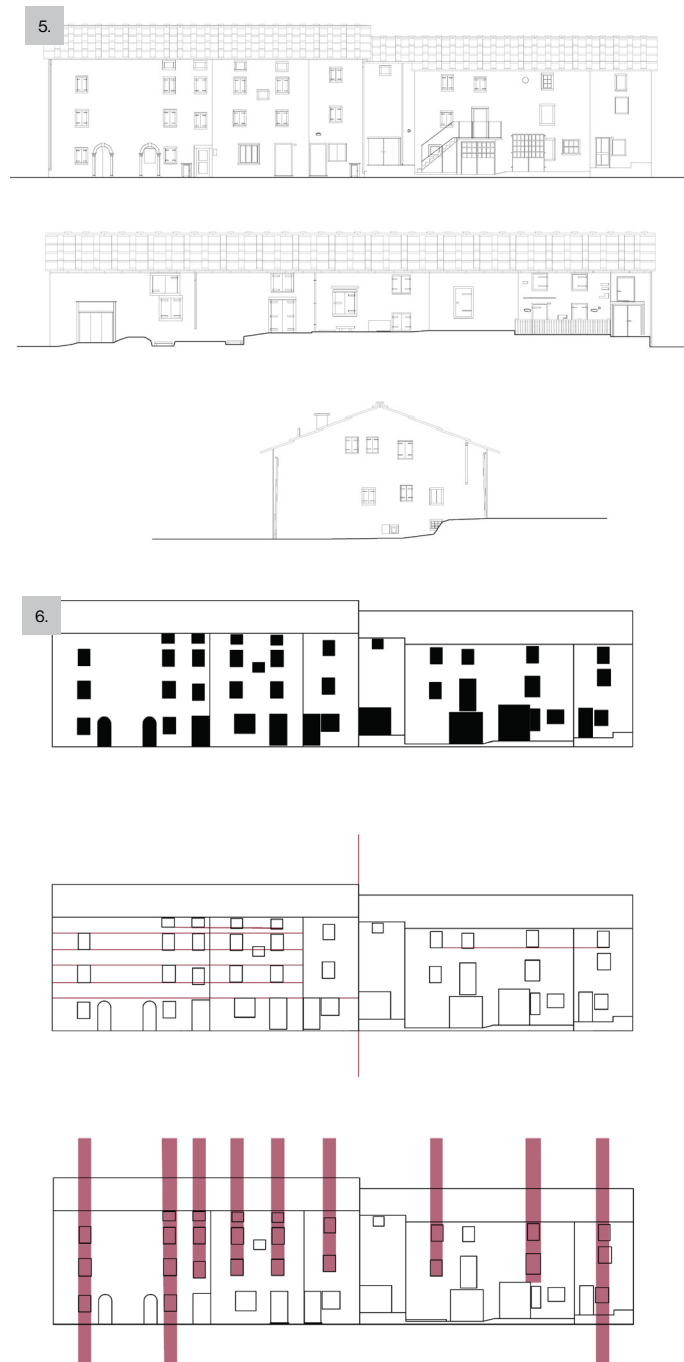
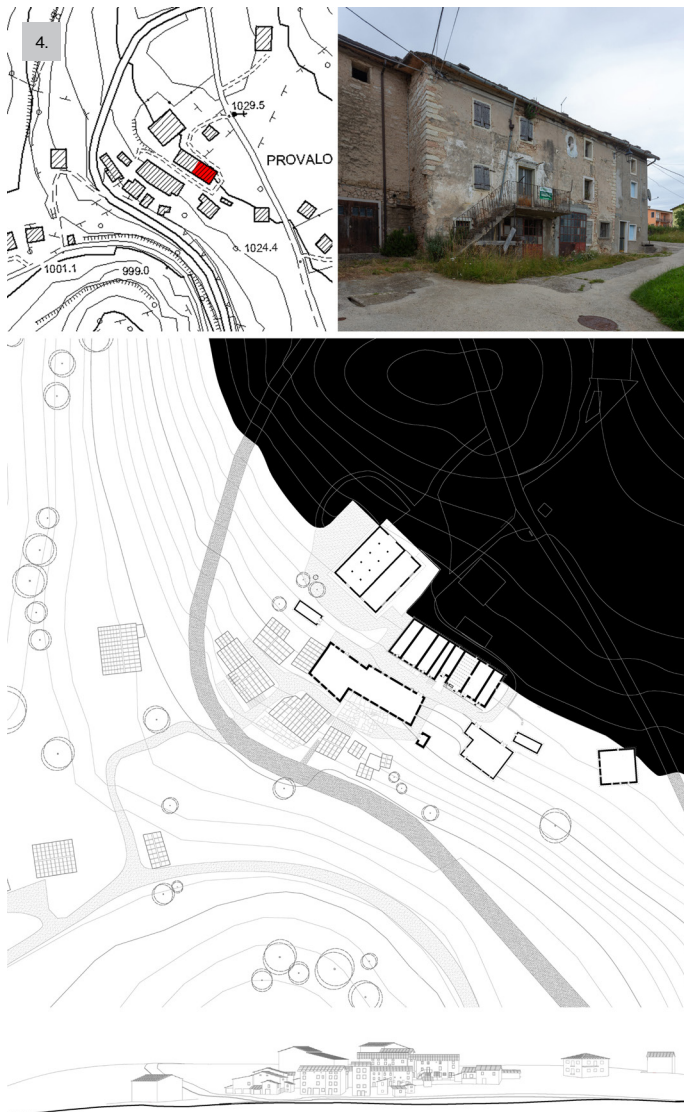
FIGURE 3 - Comparison between Contrada Provalo as photographed by Eugenio Turri in the 1960s and in 2024. Source: Ri-elaboration by Gerardo Semprebbon with the picture on the top taken from E. Turri, *La Lessinia* (Cierre Edizioni, Verona, 2007, 2nd ed., 1st ed 1969, Edizioni di Vita Veronese).

FIGURE 4 - Top. Identification of the portion of building with dwelling units on sell object of architectural interventions to test practical modes for heritage revitalization. Source: images edited and taken by Gerardo Semprebbon. Bottom. The ground floor plan and elevation of the building object of architectural interventions in the context of Contrada Provalo reveals the great impact of stone cultivation techniques on local vernacular building culture, evident in the massiveness of roofs and windows' frames. Source: the Architectural Design Studio 3 "Projects for Future Ruralities" held by Prof. Gerardo Semprebbon and Prof. Giulia Cazzaniga, drawing by Isabella Perozzo Defferrari, Juan Manuel Suspes Quintana, Yeraly Yerzhanuly.

FIGURE 5 - Detailed drawings on the three elevations of the building object of architectural interventions. Source: the Architectural Design Studio 3 "Projects for Future Ruralities" held by Prof. Gerardo Semprebbon and Prof. Giulia Cazzaniga, drawing by Isabella Perozzo Defferrari, Juan Manuel Suspes Quintana, Yeraly Yerzhanuly.

FIGURE 6 - Interpretative drawings on the main elevation of the building object of architectural interventions. Source: the Architectural Design Studio 3 "Projects for Future Ruralities" held by Prof. Gerardo Semprebbon and Prof. Giulia Cazzaniga, drawing by Isabella Perozzo Defferrari, Juan Manuel Suspes Quintana, Yeraly Yerzhanuly.







## PRESERVING ARCHITECTURAL HERITAGE AND SUSTAINABLE DEVELOPMENT IN TANZANIA. UNIVERSITY RESEARCH AND SOUTH-SOUTH COOPERATION/

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**Abstract.** Tanzania faces significant challenges and opportunities within its urban and rural landscapes. A prevalent issue is the existence of numerous abandoned buildings constructed from both local materials and reinforced concrete. These structures pose aesthetic and environmental problems but offer potential for urban and rural regeneration and sustainability through circular economy principles.

International studies involving universities and research centers from Africa, Italy, and China have focused on sustainable design and historical-architectural conservation in Tanzania. Extensive observations of various architectural interventions across the Tanzanian region have revealed a landscape marked by underutilization and hybrid technologies, presenting both vernacular and contemporary features. Numerous historically valuable buildings in urban and peri-urban areas could undergo revitalization to reclaim cultural and territorial heritage.

In particular, Dar es Salaam faces a critical challenge: balancing rapid economic development with architectural preservation. The government's strategy of constructing skyscrapers in the city center threatens the unique character of early 20th-century low-rise, mixed-use buildings. Observations and documentation of this transformation express concern over the loss of traditional Swahili houses and early post-independence structures, a disappearing architectural marvel. Despite ongoing demolitions, the potential for preservation remains. The Dar es Salaam Centre for Architectural Heritage (DARCH) aims to safeguard endangered structures through research and conservation efforts. This research, developed since 2008 through several architectural projects in the territory and, since 2018, thanks to the collaboration between the University of Brescia (IT) and the RUCU of Iringa (TZ), also promotes the exchange of skills through education and the use of relevant advanced technologies, such as the laboratories of the Teaching Museum ZUMAA and the ZIBS Zhejiang University of Hangzhou, China.

A comprehensive approach to regenerating abandoned buildings, involving collaboration among international entities, architects, local authorities, and communities, necessitates detailed structural analysis, stakeholder engagement, and the use of local, sustainable materials. This strategy mitigates environmental impact, promotes local skills and resources, fosters a resilient and sustainable built environment, and enhances the cultural

heritage of these places alongside their strategic economic contribution linked to tourism.

**Introduction.** The intersection of architectural heritage conservation and sustainable development has gained increasing significance in contemporary research, particularly in the Global South [1].

Tanzania, with its rich historical and cultural heritage, has emerged as a focal point in this discourse. Since 2008, the research presented here has employed a bottom-up approach, emphasizing the integration of local knowledge, materials, and techniques into conservation practices. This strategy aligns with the broader objective of fostering sustainable development that respects and utilizes cultural and architectural resources.

The grassroots methodology, developed through extensive fieldwork, laid the foundation for a robust inter-university collaboration between the University of Brescia in Italy and Ruaha Catholic University (RUCU) in Iringa, Tanzania. This partnership has since evolved, integrating a diverse range of stakeholders, including governmental agencies, local communities, and international institutions. Together, they have established an interdisciplinary framework for addressing the multifaceted challenges associated with heritage conservation amidst rapid urbanization.

The research underscores how the principles of tropical modernism, adaptive reuse, and international cooperation can converge to create sustainable and inclusive futures for Tanzanian communities. Moreover, it highlights the potential of South-South cooperation as a transformative tool for leveraging both local and global resources in promoting resilience, innovation, and cultural preservation.

**Challenges and Opportunities in Tanzania.** Tanzania's architectural heritage reflects a rich interplay of diverse historical influences, encompassing Swahili coastal architecture, colonial-era edifices, and post-independence modernist structures. These typologies collectively narrate the socio-cultural and historical evolution of the nation. However, this heritage is under increasing threat from rapid urbanization, economic pressures, and a deficiency in preservation frameworks. The demolition of emblematic buildings along Dar es Salaam's Samora Avenue exemplifies the precariousness of urban architectural heritage, as urban landscapes face relentless transformation. The loss of typologies such as Swahili vernacular houses, Indian merchant buildings, and early modernist structures underscores the pressing need for theoretical and practical solutions to their preservation.

### Key challenges

#### 1. Urbanization and Economic Pressures

The accelerated pace of urban growth in cities such as Dar es Salaam exerts immense pressure on historical urban fabrics. The prioritization of high-density residential or commercial developments, often driven by short-term economic imperatives, has resulted in the displacement or demolition of culturally significant structures. These dynamics mirror global trends in urban centers, where economic growth frequently takes precedence over architectural preservation.



## 2. Cultural Disconnect and Public Perception

A substantial proportion of local communities perceives historic buildings as obsolete or misaligned with contemporary functional requirements. This disconnect erodes the collective cultural identity and diminishes opportunities for utilizing heritage as a didactic resource or a catalyst for cultural tourism. Theoretical discourse in conservation highlights that the valuation of heritage often depends on its integration into present-day societal and economic narratives.

## 3. Resource Constraints and Expertise Gaps

Conservation initiatives in Tanzania are hindered by a dearth of financial resources, technical expertise, and access to modern technologies for documentation and restoration. Theoretical models emphasize the importance of institutional capacity-building and transdisciplinary approaches to address such systemic challenges. These issues are particularly pronounced in rural contexts, where recognition and formal documentation of heritage assets are often inadequate.

## 4. Vulnerability of Vernacular Typologies

As noted by Annika Seifert [2], the disappearance of vernacular architectural forms [3]—such as traditional Swahili houses and structures emblematic of the Indian Ocean trading heritage—reflects a broader pattern of material and cultural erosion (Figure 1) [4]. These typologies, which often employ sustainable materials like coral stone, thatch, and timber, offer invaluable insights into ecological design practices that are increasingly marginalized in contemporary urban development. FIGURE 1.

**Emerging Opportunities.** Despite the challenges, significant opportunities exist to integrate heritage conservation into sustainable development agendas:

### 1. Adaptive Reuse of Historic Structures

Adaptive reuse is a critical intervention that aligns with both preservation and modernization. Historic structures, such as former colonial administrative buildings, can be reimagined as educational institutions, cultural centers, or community hubs. By preserving architectural integrity while introducing contemporary functionalities, adaptive reuse fosters the dual objectives of heritage preservation and urban resilience. FIGURE 2.

### 2. Valorization of Traditional Materials and Techniques

Vernacular construction techniques and materials, deeply rooted in Tanzania's architectural traditions, offer significant ecological and economic advantages. The use of coral stone, timber, and other locally sourced materials aligns with contemporary paradigms of environmental sustainability. Theoretical frameworks emphasize the role of such practices in reducing environmental footprints while reinforcing cultural continuity. FIGURE 3.

### 3. Community Engagement in Conservation Efforts

The active involvement of local communities is integral to the success of conservation initiatives. Participatory models, which prioritize local knowledge and stakeholder engagement, ensure that interventions are culturally resonant and sustainable. By fostering a sense of ownership, community-driven conservation can act as a powerful mechanism for

social cohesion and cultural resilience.

## 4. Global Parallels and Knowledge Exchange

The challenges faced by Tanzania resonate with those of other rapidly urbanizing cities, such as Singapore, Istanbul, and Kuala Lumpur, where heritage conservation is similarly in tension with economic development. Comparative studies underscore the importance of global knowledge exchange in devising contextually relevant conservation strategies.

**Towards Sustainable Conservation Practices.** By framing architectural heritage as a resource rather than a liability, this discourse illuminates pathways for integrating cultural preservation with socio-economic and environmental sustainability. The theoretical foundations of sustainable conservation emphasize its multifaceted contributions: preserving the cultural fabric, fostering environmental stewardship, and enhancing socio-economic resilience. The Tanzanian context, with its diverse typologies and unique challenges, provides fertile ground for exploring innovative and inclusive approaches to heritage conservation that reconcile the demands of modernity with the imperatives of cultural continuity.

## The Role of the Dar es Salaam Center for Architectural Heritage (DARCH)

The Dar es Salaam Center for Architectural Heritage (DARCH) is a cornerstone institution in Tanzania's conservation landscape. Established through a collaborative initiative, DARCH adopts a multidisciplinary approach to addressing the challenges of heritage preservation within the context of urbanization.

### Core Activities of DARCH

#### 1. Documentation and Archiving:

DARCH has been pivotal in conducting detailed surveys and creating comprehensive digital archives of endangered buildings. This ensures that their historical and architectural significance is preserved for future generations.

#### 2. Education and Awareness:

Through workshops, exhibitions, and community programs, DARCH promotes public understanding of architectural heritage. Its efforts target a wide range of stakeholders, from students to policymakers, highlighting the role of heritage in shaping national identity.

#### 3. Policy Advocacy:

The center collaborates with local and national government agencies to advocate for policies that integrate heritage conservation into urban development plans, balancing preservation with modernization.

### Capacity-Building Initiatives

A significant aspect of DARCH's mission is capacity-building. The center organizes training programs focused on traditional construction methods, advanced digital documentation techniques, and sustainable design. By equipping Tanzanian professionals with these skills, DARCH not only addresses local conservation needs but also fosters employment and economic development.

DARCH exemplifies how architectural heritage can serve as a catalyst for innovation, education, and community engagement, offering a model for holistic sustainable development [5].

### International Collaboration and South-South Cooperation

International partnerships have been central to advancing architectural heritage conservation in Tanzania. The collaboration between the University of Brescia and RUCU exemplifies the potential of interdisciplinary and cross-border initiatives to foster innovation and address complex challenges.

### Engagement with Zhejiang University

In 2017 and 2019, the research extended to include Zhejiang University in Hangzhou, China. This collaboration is aimed at including Tanzanian studies in Chinese research and development processes, hoping to encourage the use of advanced technologies such as 3D modeling and digital reconstruction into Tanzanian heritage conservation projects. These methodologies have proven invaluable in documenting and preserving historical sites where physical restoration is constrained by resource limitations.

The Zhejiang University Museum of Art and Archaeology (ZUMAA) served as a model for integrating research with practical conservation. ZUMAA's cutting-edge laboratories inspired similar initiatives tailored to Tanzania's local needs, emphasizing the potential for global knowledge exchange.

### The ZIBS China Africa Center

The establishment of the ZIBS China Africa Center further illustrates the transformative potential of South-South cooperation. The center promotes cultural exchange, academic research, and economic partnerships between China and Africa, fostering mutual understanding and innovation.

- **Cultural Exchange:** Through exhibitions, language programs, and festivals, the center celebrates the diversity of African and Chinese traditions, promoting cross-cultural appreciation.
- **Economic Integration:** Training programs and market access initiatives have enabled Tanzanian entrepreneurs to engage with Chinese markets, facilitating trade and investment.

These initiatives underscore the importance of transcending geographical boundaries to address shared challenges, enriching both conservation efforts and socio-economic development [6].

**Case Study: Projects of Ruaha Catholic University (RUCU).** The projects developed at RUCU exemplify the research's application of sustainability, inclusivity, and cultural preservation.

The initiatives at RUCU embody the synergy of sustainability, inclusivity, and cultural preservation, resulting from collaborative research efforts between RUCU and the University of Brescia. Formalized in 2019 through a Memorandum of Understanding (MoU), the partnership facilitated the identification and regeneration of significant structures within the campus. This collaboration led to the development of two distinct yet complementary projects: the International Disability Center (IDC) and the Science Park. Both initiatives aim to repurpose existing buildings, fostering an

inclusive and sustainable built environment.

### International Disability Center (IDC)

The IDC exemplifies a regenerative approach to underutilized structures, transforming a building with a central courtyard—a feature characteristic of Hehe architecture—into a model facility for accessibility and inclusion. The center integrates modern architectural elements while respecting its historical form, creating a space that caters to the diverse needs of the university community. Designed to serve as an international benchmark for accessibility, the IDC employs inclusive principles, such as barrier-free circulation, tactile paving, and ergonomic adaptations, ensuring usability for individuals with disabilities. By addressing both functional and symbolic roles, the IDC demonstrates how architecture can promote equality and social cohesion [7].

### Science Park

Science Park, another landmark initiative, breathes new life into an incomplete reinforced concrete skeleton within the RUCU campus. Previously in a state of neglect, this structure now houses a dynamic facility featuring multi-level scientific laboratories, a medical training center, and classrooms dedicated to medical fields such as obstetrics. The project's phased approach—allocating specific functions to individual floors—ensures the efficient use of resources, allowing gradual completion aligned with available funding. The adaptive reuse of this skeletal framework underscores the importance of sustainable construction and the potential for previously abandoned spaces to serve vital community purposes.

Both projects reflect a shared commitment to sustainability and innovation, employing locally sourced materials and eco-friendly construction methods. The integration of these principles not only preserves the cultural integrity of the campus but also fosters community engagement, setting a precedent for future interventions in Tanzania and beyond.

**Tropical Modernism and Sustainability: Contemporary Relevance.** The principles of tropical modernism, developed during the mid-20th century, are more relevant than ever in addressing contemporary global challenges such as climate change, rapid urbanization, and resource scarcity. These architectural strategies, deeply rooted in contextual responsiveness, offer lessons on creating environmentally sustainable, socially inclusive, and economically viable built environments.

Tropical modernism, as applied in Tanzania, prioritizes harmony between architecture and the natural environment. Key design features such as shaded verandas, wide eaves, elevated foundations, and natural ventilation systems demonstrate a deep understanding of local climatic conditions. These elements reduce reliance on energy-intensive technologies, such as air conditioning, by making use of passive cooling and natural light. This approach is particularly significant in the face of global climate change, as it minimizes carbon footprints and promotes resilience to extreme weather events.

The architectural works of Anthony Almeida and Beda Amuli, both prominent figures in Tanzanian tropical modernism, provide a rich legacy for contemporary reinterpretation. Almeida's designs for public buildings,

which incorporate locally available materials and prioritize functionality, exemplify how modernist principles can be adapted to specific cultural and environmental contexts. Similarly, Amuli's contributions, including residential and institutional projects, demonstrate how modernism can harmonize with vernacular traditions to create architecture that is both innovative and rooted in local identity [8].

Today, these principles are being revisited and expanded upon through research and education. For instance, the incorporation of renewable energy systems such as solar panels into tropical modernist designs adds a layer of technological innovation while maintaining their sustainable ethos. Water management techniques, including rainwater harvesting and gray water recycling, further align with the principles of environmental stewardship. These strategies are particularly vital in Tanzania, where access to clean water and energy remains a challenge in both urban and rural areas.

Cultural sustainability also plays a pivotal role in ensuring the continued relevance of tropical modernism. By preserving the architectural language and building traditions of tropical modernist structures, communities maintain a tangible connection to their history while adapting to the demands of modern life. Educational initiatives at institutions like RUCU integrate these principles into architectural curricula, equipping future architects with the knowledge and skills necessary to apply tropical modernism in innovative ways. This approach not only ensures the legacy of tropical modernism but also encourages its evolution in response to contemporary needs.

Moreover, tropical modernism offers valuable insights into inclusive design, particularly in creating built environments that accommodate diverse user needs. For instance, by combining its inherent adaptability with universal design principles, architects can create spaces that are not only environmentally sustainable but also socially equitable. This dual emphasis on sustainability and inclusivity underscores the enduring relevance of tropical modernism in addressing the interconnected challenges of the 21st century [9].

In the broader context of global architectural discourse, tropical modernism serves as a counterpoint to homogenized international styles, which often neglect local conditions and cultural specificities. By embracing tropical modernist principles, Tanzanian architecture asserts its identity on the global stage while offering solutions that are intrinsically tied to local realities. This approach contributes to the ongoing dialogue about the role of regionalism in creating a sustainable future, demonstrating how locally inspired strategies can address global challenges [10].

Through a combination of tradition, innovation, and contextual sensitivity, tropical modernism remains a vital framework for architects and planners. It serves as a reminder that sustainable development is not a universal formula but a process that must be adapted to the unique characteristics of each region. By drawing from this rich architectural heritage, Tanzania continues to lead by example, showcasing the potential of tropical modernism to inspire solutions that are as practical as they are profound.

**Conclusions.** Tanzania's cultural and architectural heritage embodies the collective memory and identity of its communities, offering a profound

resource for shaping sustainable futures. From Swahili coastal architecture to mid-century modernist designs, these structures are not just relics of history but living artifacts that narrate the interplay of culture, environment, and socio-economic dynamics. In preserving these assets, sustainable conservation practices serve as a cornerstone for fostering resilience and inclusivity while addressing contemporary challenges.

The theoretical framework of sustainable conservation hinges on a holistic understanding of heritage, encompassing environmental, cultural, and socio-economic dimensions. This approach advocates for practices that minimize environmental impact while enhancing the cultural and economic vitality of local communities. In Tanzania, where urbanization and resource limitations present significant obstacles, adopting strategies such as adaptive reuse, local material integration, and community-centered design becomes imperative. These methods not only safeguard historical assets but also create opportunities for education, employment, and innovation, reinforcing the socio-economic fabric.

Cultural preservation, as demonstrated in the initiatives discussed, transcends the act of protecting buildings; it entails fostering a sense of ownership and pride within communities [11]. This involves active participation in conservation projects, ensuring that interventions align with local traditions, needs, and aspirations. For instance, the adaptive reuse projects at RUCU exemplify how inclusive design principles and sustainable practices can transform underutilized spaces into vibrant centers of learning and accessibility.

Environmental sustainability is another critical pillar, emphasizing resource efficiency and ecological balance. Practices such as using locally available materials, employing traditional construction techniques, and integrating renewable energy systems not only reduce the carbon footprint but also resonate with the principles of tropical modernism. This architectural approach, deeply rooted in the Tanzanian context, provides a blueprint for creating structures that harmonize with the natural environment while addressing modern needs [12].

Lastly, the nexus between cultural heritage and socio-economic resilience cannot be overlooked. Preserving architectural heritage can catalyze tourism, generate employment, and inspire local industries, contributing to economic diversification. Moreover, fostering partnerships—such as those between RUCU, the University of Brescia, and Zhejiang University—demonstrates the transformative potential of interdisciplinary and international collaboration in creating replicable models for conservation and development.

As Tanzania navigates the pressures of globalization and urban growth, its architectural heritage offers a pathway for achieving sustainable development goals [13]. By embedding principles of cultural preservation, environmental stewardship, and social equity into conservation practices, these initiatives not only honor the past but also pave the way for a resilient and inclusive future. The integration of research, education, and community engagement ensures that these efforts remain dynamic, adaptive, and impactful across generations. In doing so, the Tanzanian experience serves as a compelling model for other regions grappling with similar challenges.

es, underscoring the universal value of heritage as a driver of sustainable progress.

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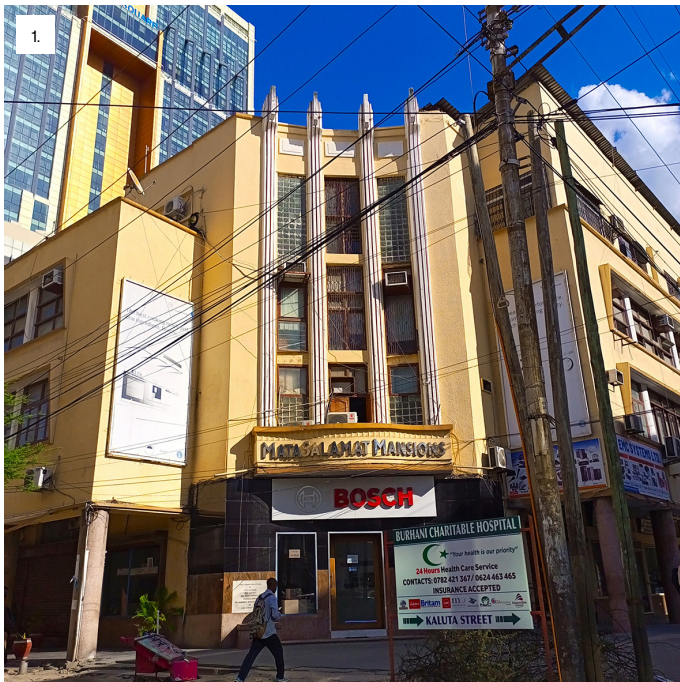
**Figures.**

FIGURE 1 - Matasalamat Mansion, 1948. Samora Avenue, Dar es Salaam (TZ).

FIGURE 2 - Administrative offices in Dar es Salaam and Moshi (TZ).

FIGURE 3 - Zaramo House, Kijiji cha Makumbusho, Dar es Salaam (TZ).





# PATTERN SCENARIOS FOR NON-PERMANENT EXHIBITION TOURISM OF WATER-ENVIRONMENTAL ART IN WATER-RELATED HERITAGE SITES: THE SOUTH HOLLAND WATERDRIEHOEK AS AN EXAMPLE/

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**Abstract.** Hosting non-permanent art exhibitions in various built heritage sites is increasingly becoming a popular form of heritage tourism. Around the world, practices combining art curation with integrated management and adaptive reuse of heritage are emerging. This paper aims to synthesize the existing methods and experiences of this form of heritage tourism, and explores a potential pattern for its application to water-related heritage sites, which have received increasing attention in recent decades. It proposes the concept of water-environmental art as the core of this pattern, aligning it with water-related heritage and complementing the existing environmental art types within heritage-art projects. Using the Waterdriehoek area in South Holland as a case study for this pattern, the paper discusses the spatial structure of non-permanent art exhibitions in water-related heritage sites and examines the interaction and curatorial potential between water-environmental art and different types of water-related built heritage. Additionally, it provides a framework for applying the discussed pattern to other water-related heritage sites.

**Introduction.** Since the time when cultural heritage sites have received attention and development, there have been many avenues and directions for the development of large heritage areas. With the development of the heritage study, the traditional concept of ‘preservation’ has shown conservative limitations for the future development of these properties, and ‘significance-based management[1]’ above ‘preservation’ will be more comprehensive and more effective to the concerns of the times. It is not the intention of this study to discuss the innovative understanding of heritage and related concepts in terms of definitions or theories, but rather to delve into only those parts of it that are relevant to tourism economics, to explore a viable strategy for the conservation and management of heritage.

The tourism discussions in this study are placed under the framework of heritage tourism. According to the Encyclopedia of Archaeology, ‘Heritage tourism consists of visits to places that embody the past and/or to places related to intangible heritage manifestations[2]’. Heritage tourism was founded and popularized because it is considered to have many benefits in three areas: economic, social, and environmental[3]. Another related concept is MICE (Meetings, Incentives, Conferences and Exhibitions) tourism. Due to its non-permanent duration, when MICE tourism uses heritage sites as destinations, it will make it possible to share the use of heritage areas with local communities in a more balanced and equitable way.

A special type of heritage-MICE tourism is the fusion of built heritage with the arts, which can be called “Art Tourism”. Existing Art Tourism shows widespread presence, firstly reflects its utilitarian role as a promising form of heritage tourism: ‘Artistic initiatives and interventions create new interest in historical destinations that might have otherwise been overlooked, forgotten or underfunded[4]’. And in the more essential sense of heritage management, the ‘central idea which underpins contemporary art commissioning in heritage sites is that the art will somehow offer a new way of thinking about the site and its contents[5]’.

Heritage tourism has always been controversial, as there has always been a tension between economic development and the preservation of the many attributes of heritage sites[6]. MICE tourism’s short-term traffic during the event period may also can have negative impacts on communities, infrastructure, markets and the environment at heritage sites with limited capacity. So how to innovatively make the heritage MICE Tourism work to its advantage while minimizing the negative impacts is a key question. A small questionnaire survey conducted by the authors of this study among arts and tourism practitioners and heritage site residents revealed that among all possible development intensity scenarios of Art Tourism, cyclical non-permanent arts activities have gained more recognition for minimizing the disadvantages of heritage MICE tourism. This prompted this study to use case studies of cyclical non-permanent arts activities in heritage areas as a basis for innovative exploration of heritage MICE tourism.

This study hopes to go a step further by attempting to introduce the practice of Art Tourism into a discussion of a growing interest in water heritage. Water heritage ‘includes maritime cultural landscapes, canals, harbors, and waterfronts as well as local knowledge and skills and regional traditions in water engineering[7]’, compared to other terrestrial cultural heritage types, relevant research is emerging and academic attention on innovative tourism development is even more scarce. The Netherlands is a water heritage powerhouse, the elements of the infrastructure for water management—dikes, river forelands, polders, locks, and drawbridges—are icons of Dutch historical identity[8]. The core case study of this study, Waterdriehoek, is a typical water heritage region in the Netherlands with almost all kinds of water heritage present. Finding a way to combine Art Tourism and water heritage in Waterdriehoek is exemplary for all water heritage areas.

**Case Studies of Cyclical Non-permanent Arts Activities in Heritage Areas.** Cyclical non-permanent arts activities in Art Tourism normally refer to annual, biennial, or triennial art exhibitions of various scales established worldwide. Following an initial analysis of many such art tourism projects, with a particular focus on those centered around built heritage or closely related to water environments, their spatial organization and overall planning can generally be categorized into four types.

## 2.1 Path-centered organizational pattern

Path-centered organizational patterns represent the type with the lowest spatial complexity among the four identified types.

A typical example of this pattern is the Shanghai Urban Space Art Season 2019 (Figure 1(a)). Curated by the renowned Japanese curator Fram Kitakawa, this festival took place in the Yangpu Riverside old factory area

in Shanghai. The exhibition space was a 5.5-kilometer-long waterfront strip of public space, encompassing both renovated and yet-to-be-renovated industrial heritage buildings[9]. The curators planned a clear visitation path for a comprehensive experience of the art festival. There were four public ferry docks along the route, the exhibition area could be accessed from ten main roads. Along the official visitation path, there were 11 large public space artworks by invited artists, and 9 planned art display points.

Similar single-line organizational patterns are actually utilized widely. Some activities feature a closed-loop exhibition path, and another variation is to feature a main exhibition path with several branches. FIGURE 1.

## 2.2 Scattered organizational pattern

In contrast to the path-centered patterns suitable for small or medium-sized art tourism, the scattered organizational pattern is appropriate for large-scale, non-concentrated art tourism. The most exemplary case of this spatial organization type is the Setouchi Triennial, also created by Fram Kitakawa.

Held once every three years, the Setouchi Triennial uses the islands of the Seto Inland Sea as its stage. Activities directly cover 14 islands and coastal areas of the Seto Inland Sea, making it an extensive art tourism event without a fixed center (Figure 1(b)). Among the numerous island exhibition areas, Naoshima Island serves as the festival's core, Uno Port on the southern coast is the main hub for water transportation. In the eastern half of the Triennial, 15 three-season ferry routes connect various islands. In contrast, the western half, consisting of seven exhibition areas with smaller-scale art developments[10].

A common feature across different island exhibition areas is the concentration of several art zones within the island, these art zones are mostly located along the coastline. Each island customizes its exhibition strategies and thematic focus based on its unique heritage and attracted art resources. Islands with industrial heritage often prioritize artistic development of these sites while utilizing distinctive small traditional houses as individual exhibition venues.

## 2.3 'Core + Scatter': dualistic organizational pattern

The third organizational pattern can be called the dualistic organizational pattern. The most historically significant and influential example of this pattern is the Venice Biennale (Figure 1(c)).

In the past decade, alternating architecture and art biennales in Venice have centered around two main exhibition areas: the Arsenale and Giardini. Outside these two main areas, the entire city of Venice and its lagoon serve as auxiliary scattered exhibition sites, scattered exhibitions are held in different historical buildings across the city, with locations changing annually.

From the perspective of event planning, the two main exhibition areas are the core of the Venice Biennale. On the other hand, the Biennale draws international visitors specifically to Venice at certain times of the year, but Venice has abundant tourist resources and visitor traffic even without the Biennale. Thus, the choice of a core plus scattered layout for the Biennale

leverages Venice's extensive citywide tourist resources, making the scattered exhibitions part of the broader tourist experience.

## 2.4 'Region + Path + Scatter': composite organizational pattern

Among the four types, the organizational pattern with the highest spatial complexity is the composite organizational pattern. This pattern encompasses elements from the regional, path-centered, and scattered levels, constructing a multi-layered framework for the entire art event. A prime example of this organizational pattern is the Echigo-Tsumari Art Triennial, which firstly brought fame to its curator, Fram Kitakawa.

The Echigo-Tsumari Art Triennial, established in 2000, is an art event centered on land art, held in the Echigo-Tsumari region of Niigata Prefecture, Japan. This region has a low urbanization rate, with 98% of its area consisting of farmland and forests[11]. Due to the lack of reliable art tourism resources and the region's disadvantageous socio-economic conditions, Kitakawa's art project aims to integrate art with social development.

The entire Echigo-Tsumari region is bisected by a river into two halves, aligned with a rail line and its six train stations (Figure 1(d)). The art festival has designated four specific development areas for comprehensive coordination between communities, rural areas, artists, and the tourism industry. Beyond these designated areas, the region is dotted with large art museums or tourist facilities, exhibition sites repurposed from heritage buildings, and land art installations scattered throughout the fields and forests. During each exhibition period, the festival provides several themed tour routes, but the festival also encourages visitors to freely explore one or more villages[12].

## 2.5 Conclusion

Overall, the path-centered organizational pattern is currently the most common spatial organization method for various small to medium-sized cyclical non-permanent arts activities. FIGURE 2. Its characteristic feature is a singular exhibition route with all art installations and heritage-based activity spaces aligned along this route. This form is particularly suitable for small, linear waterfront spaces, specific urban sections, or art tourism relying on pre-existing circulation spaces.

The scattered pattern is characterized by decentralization. Within a vast area, different exhibition zones of varying sizes and densities are distributed across the region, connected by a public transportation network designed to be as convenient as possible to meet the needs of art development and visitor flow. This model is more suitable for large art tourism zones, especially where there are multiple unconnected potential heritage sites within the region.

The dualistic organizational pattern features a few concentrated core exhibition areas as the focal points of the art tourism activities, supplemented by a broader distribution of numerous independent art sites. This expands the exhibition's impact and coverage while fully utilizing high-quality tourism resources across a larger area. This organizational method is ideal for regions with rich tourism resources and large-scale art exhibitions.

The composite pattern is notable for its ability to establish a compre-



hensive art tourism system, balancing local industrial development with external tourism experiences and demonstrating strong integration capabilities for tourism resources. This model is suitable for regions with strong local characteristics, significant resource potential but low integration, and where art tourism is needed as a catalyst for social development in large areas.

**Water-related Heritage Character and Arts Tourism Potential in the Waterdriehoek Area.** Waterdriehoek locates in the southern part of the Netherlands, it is a unique heritage area that is home to the Biesbosch National park, Drechtsteden town cluster and Kinderdijk World Heritage complexes (Figure 3)[13]. From Kinderdijk to Zwijndrecht, from Dordrecht to Gorinchem, centuries of development have shaped a layered and complex built heritage landscape[14]. Waterdriehoek's tangible and intangible habitat-related heritages can be divided into four categories: 1. the seven towns included in Drechtsteden plus Gorinchem have a rich architectural heritage with a total of thousands of national monuments and municipal monuments[15]; 2. natural water environment, artificial water systems in agricultural landscapes; 3. the industrial heritages[13]; 4. community's collective memory and way of life centered on the shipbuilding, dredging and steel industries[16]. FIGURE 3.

The local government and aspirants have made efforts to preserve, develop and manage the local heritage, the current intent of the Waterdriehoek project proposed by the Dutch Cultural Heritage Agency and the South Holland Province is to comprehensively revitalize the region[17]. But while some of the completed results have their merits and provide the necessary basic resources, there are still a number of problems and shortcomings in the overall picture. Firstly, insufficient attention is paid to existing heritage sites with potential for reuse. At the same time, the overall tourism branding and marketing of the region still appears to be rather old-fashioned and lacking in character, and has not yet succeeded in integrating the unique multi-layered and multi-dimensional heritage values of the region.

Given the reality of Waterdriehoek's rich and multilayered heritage and the poor integration of the tourism industry, the mentioned three cases of cyclical non-permanent arts activities handled by Fram Kitakawa are highly relevant. On the theme aspect, Analogous to Fram Kitakawa's shaping of Echigo-Tsumari Art Triennial with the Satoyama concept as its core[18], which blends natural environments of mountains and forests with artificially created environments of agriculture, the Waterdriehoek region has a system that mixes natural water bodies with artificial water management and industrial production environments. By migrating the tension from 'mountains - landscapes - agriculture' to 'canals - waterscapes - industry,' the Waterdriehoek area could also introduce 'Water-environmental Art' similar to 'Land Art (Environmental Art)'[19].

Water-environmental Art is actually a new concept that has not been systematically defined. Summarizing the content of the definition of Land Art (Environmental Art), the potential of water-related heritage, and existing examples of relevant contemporary art, the Water-environmental Art include: 1. thematic exhibitions of paintings and sculptures on the theme of water environment, water works or industries along the river, etc.; 2.

large-scale installations and space art using water as a medium, carrier or material; 3. exhibitions and trading platforms for small handmade installations, sculptures and product designs based on the reuse of local industrial residues and wastes; 4. multi-sensory multimedia art with sound and light in heritage spaces, supported by technology; 5. performing arts and musical performances in a water environment or against the backdrop of an industrial site, etc. FIGURE 4.

From the perspective of tangible built heritage, the resources of tourism within Waterdriehoek includes 7 abandoned industrial heritage buildings, 1 wetland barn, 12 water locks, 4 watertowers, several wetlands and dyke system with bike lanes along the waterfront (Figure 4). The largest industrial heritage sites that are in danger of deterioration and disappearance, such as FN Steel, Mercon Kloos, and Papegat, all have large column-free spaces that were once used for shipbuilding or steel smelting. And in addition to the built heritage, the natural heritage that can be used as a resource for art tourism includes the main river and its tributaries, several wetlands, ponds, and so on. All forms of Water-environmental Art mentioned before have the potential to appear in the heritage area of Waterdriehoek and to create links and interactions with existing built and natural heritage resources above.

**Possible Art Tourism Organizational Pattern & Strategy for Waterdriehoek.** Examining the analysis and conclusions in Part 2, there is no existing pattern of Art tourism that can be directly transferred to the Waterdriehoek site. But in terms of spatial organization, a new organizational model for the water heritage sites can be formed by combining the advantages of the 'Core + Scatter' pattern and the 'Region + Path + Scatter' pattern. FIGURE 5.

In Waterdriehoek, there was more support for using non-residential waterfront areas outside the dike as the main venues rather than core urban areas, only a small portion can be integrated into the town centers. This ensures a high influx of tourists during the exhibition period without overwhelming the local community, while off-season tourism facilities serve local residents. This limits the basic scope of Waterdriehoek Art Tourism.

It is feasible to bring art tourism to Waterdriehoek by establishing a special cyclical non-permanent arts activity (Waterdriehoek Art Triennial, for example). Waterdriehoek has numerous wetland natural spaces, such as Sophiapolder, which have the potential to combine large-scale art exhibitions with nature conservation plans, thereby forming five natural-themed art regions. The three largest industrial heritage sites can serve as the three main exhibition areas and tourist hubs, while the remaining sites of various scales can be used as temporary exhibition spaces or for placing independent art installations. Based on the relationships between the major and minor water bodies and the various points, a Y-shaped thematic art boat route can be established, forming a loop at FN Steel, thus offering a unified exhibition narrative. Additionally, all sites will be conveniently accessible via existing bicycle paths.

Using the built heritage areas and associated water bodies of Waterdriehoek as exhibition venues for water-environmental art, the vision of the ideal organizational pattern of this event contains four components (Fig-



ure 6): natural wetlands as collaborative art regions, water-related heritage buildings as scattering spots, and three large industrial heritage building as the core main exhibition area, all connected by on-water themed routes.

In terms of exhibition arrangement strategy, there is a great deal of scope for imagination in terms of the spatial qualities of the different specific types of water heritage that can be customized and combined with the water-environment art. In the wetland area, a series of large-scale sculptures can be arranged, which can be given the water absorption or use river as part of the dynamic sculpture; in the industrial heritage buildings, the fluidity and transparency of water combined with various other artistic concepts can form an interesting collision with the original industrial style environment; the unique shape of the windmill or the natural sluice gate with different water heights on both sides can be used as a base for enriching the content of the art installation or become a part of the installation directly. The intangible local maritime culture can be used as a continuous source of inspiration for the artists.

In terms of event operations strategy, the local residents and former ship-builders and dredgers participate can artist advisors in the creation of the work; maritime-related education, crafts, and other local-benefit services share with the arts activity in the use of important heritage buildings. It is also possible to use variable Seasonal flexible spaces as a means of regulating and integrating the needs of different audiences, with a portion of the space serving as creative and temporary exhibition space during the Festival and educational and craft space during non-exhibition periods. FIGURE 6.

**Conclusion.** Each water heritage site possesses its own unique characteristics and local charm, and no two are exactly the same. However, as demonstrated in this study on Waterdriehoek, by adapting and integrating the spatial organization models of successful existing heritage sites' cyclical non-permanent arts activities, it is possible to design new, suitable spatial organization models based on the distribution of resources and hydrogeological features of a given water heritage site. As a form of art that aligns well with water heritage sites, water environmental art can always be combined with various heritage elements in the area to create tourism resources with immense potential. A well-designed cyclical non-permanent arts activity themed around water environmental art could serve as an effective form of tourism and could be considered a valuable tool for the future development of water heritage sites.

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## Figures.

FIGURE 1 – Cases analysis of cyclical non-permanent art activities. Redrawn by the

author based on publicly available information and maps.

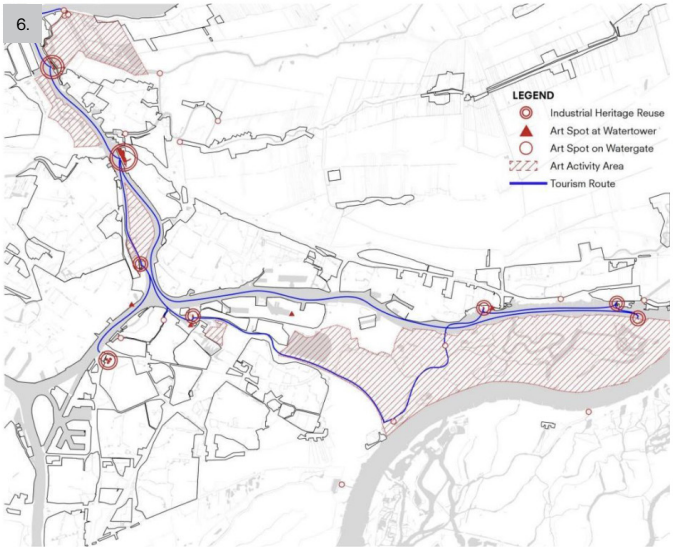
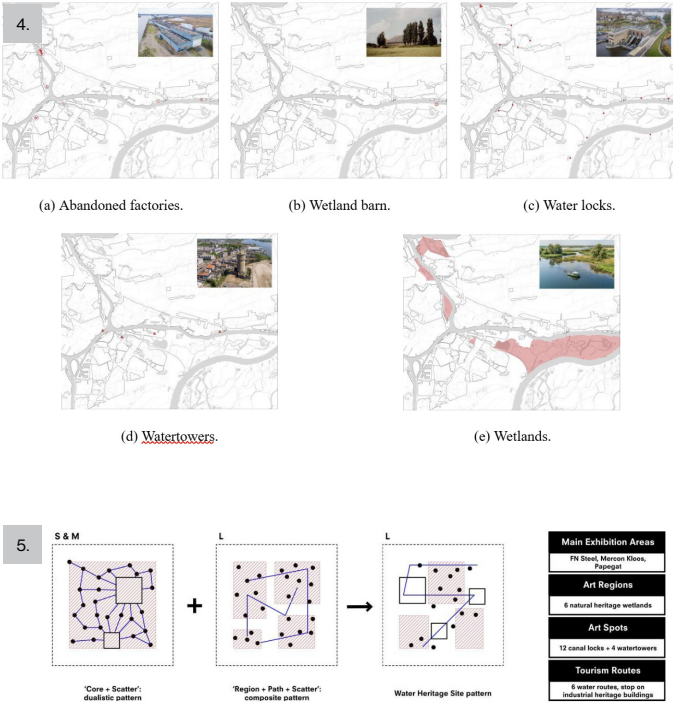
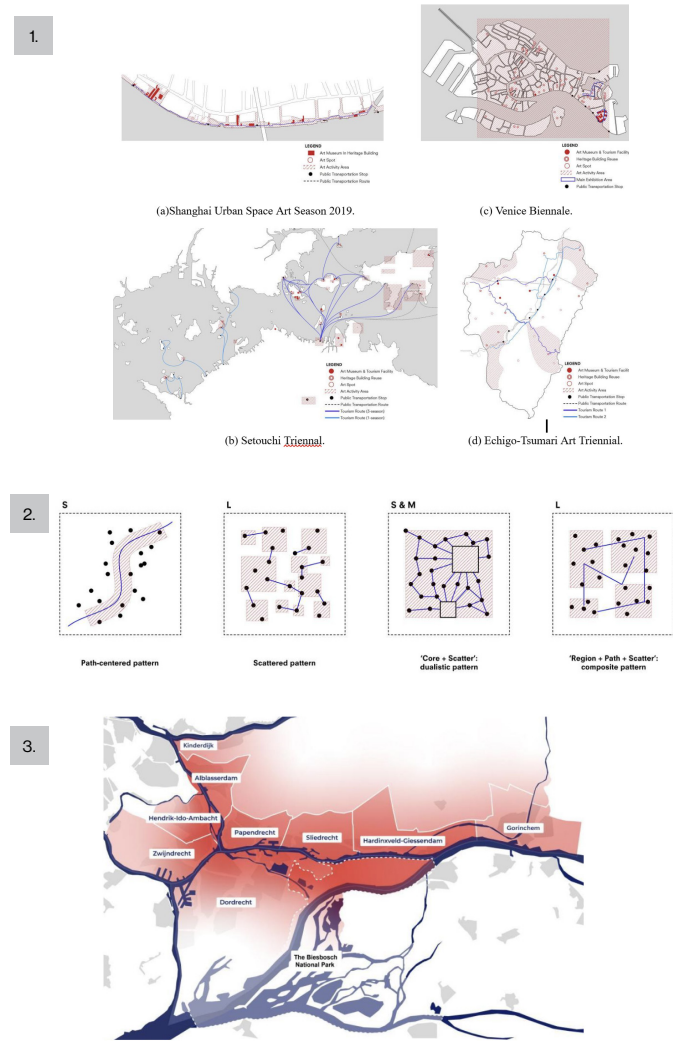
FIGURE 2 – Diagrams of the four patterns of cyclical non-permanent arts activities. Drawn by the author.

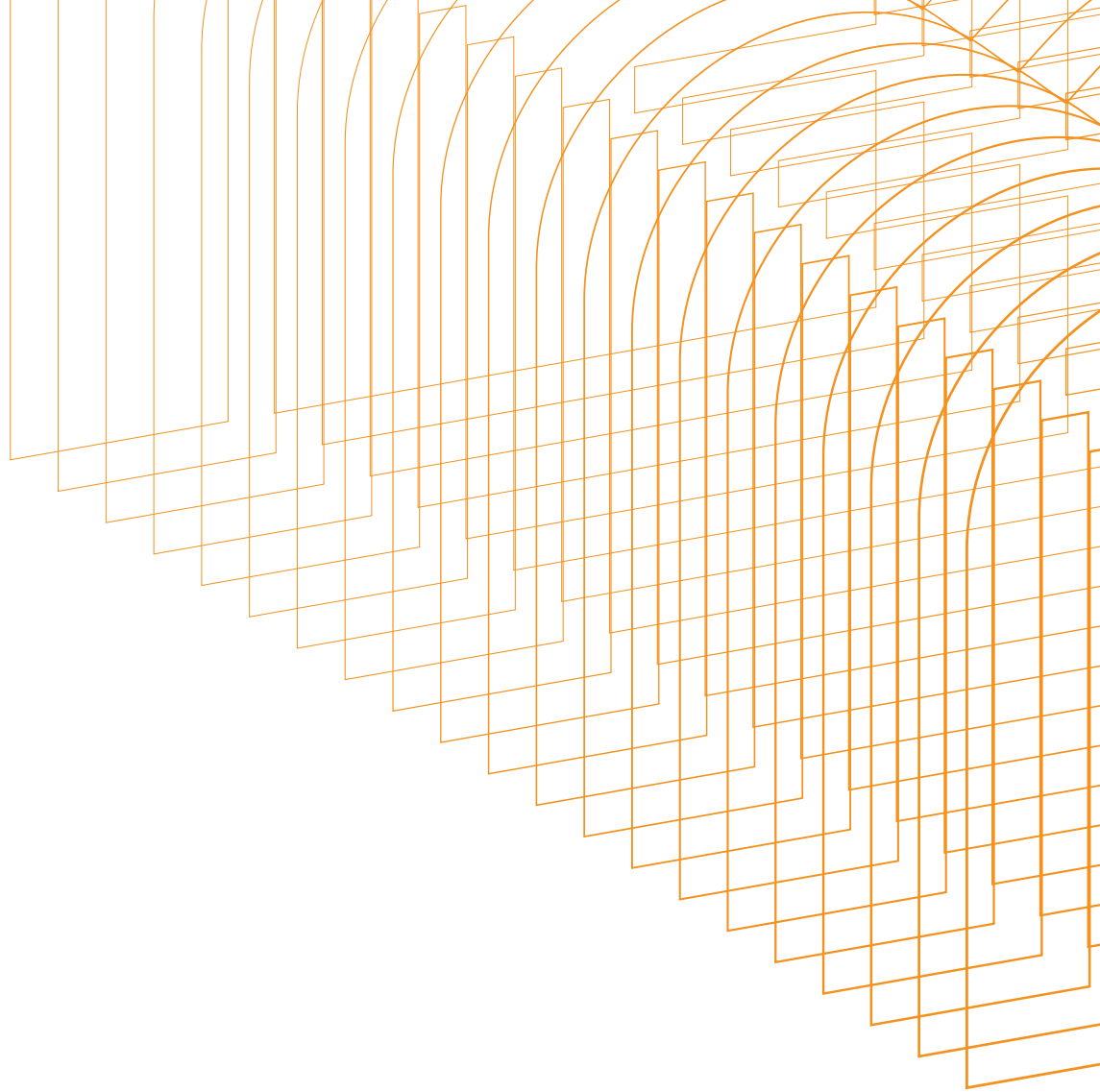
FIGURE 3 – Waterdriehoek Area. Drawn by the author.

FIGURE 4 – Typology of built heritages within Waterdriehoek. Map drawn by the author, photos from the Internet.

FIGURE 5 – Generation of a new spatial organization pattern for water heritage sites and its hierarchy. Drawn by the author.

FIGURE 6 – Map diagram of ideal organizational pattern in Waterdriehoek. Drawn by the author.





## (NON)INNOVATION: THE ENGINE OF INNOVATION IN INTANGIBLE CULTURAL HERITAGE/

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**Abstract.** The article proposes a study on the concept of (non)innovation during the Ceaușescu era, particularly in the period of maximal ostracism of any form of freedom – the 1980s. In a manner that can be described as cynical, innovation was coordinated by a resistance group that manifested covertly. This concealed breath of innovation of the time has gradually become the intangible cultural heritage of our society.

The journey into the (non)innovation of the architectural field in Romania during 1980's becomes like a negotiation with history: a decade where absurdity became normal. The mirror image between the following binary opposites: construction-acceptance and secrecy-dreaming shows how they were combined in the cultural society of the time. On one hand, the construction of the most important Ceaușescu-era buildings (construction), together with the ostracization of the creative flow (acceptance) become the description of the cultural heritage in which Romanian society finds itself. On the other hand, the article brings into discussion a surprising contribution of resistance that lived in the cultural suburbs (secrecy) and that, through subtle manifestations and architecture competitions, emulated its creative flow (dreaming). Therefore, this period gave birth to a complex diodic space of cohabitation of a hidden intangible cultural heritage – innovation, infiltrated into a rigorous cadence of the built heritage – (non)innovation.

It can be asserted that the 1980s saw the true apotheosis of cultural resistance, whose echo emanates even today. Having learned to express itself through an artistic lexicon organized in successive and dense layers with subtle hidden messages, the cultural landscape will, after the 1989 moment (the 1989 revolution), acquire introspective dimensions for instance palimpsest idea, by explorations of individual or collective traumas. Ways in which party-guided (non)innovations became the engine for generating hidden innovation will be examined. By highlighting these cause-effect binomial links, an innovative direction for understanding intangible cultural heritage is opened.

**Introduction.** The present article brings together the azimuths of hidden cultural resistance in architecture from a relatively recent period in Romania's history, specifically the 1980s. The stagnation across all levels of society, dictated by the rigid and harsh principles of a totalitarian regime, such as the Ceaușescu era, could not remain without a counteroffensive in the cultural domain.

To outline a synoptic map of the anecdotal social and cultural context within which the research is situated, the article will briefly evoke the main

changes that emerged during this temporal bracket. The ninth decade, as recounted in historical writings, is characterized by a period of maximal constraint on all forms of freedom, be it expression, thought, or movement. These constraints resulted from a systematic prior policy of instilling totalitarian communist principles. These years were marked by a dialect imposed by the ideology of the time, as well as by the redundancies and absurdities of political discourse, which manifested destructively in society, particularly within the cultural sphere. During this period, absurdity crystallized into normalcy.

The year 1980 encapsulates a series of events that led to the onset of the systematic destruction of architectural and urban heritage – through the promulgation of the Investment Law, the official launch of Bucharest's new civic center, and the simulacrum contest for the Victory of Socialism Boulevard. Up to that point, writings could still be found that discussed the poetic and symbolic functions of architecture. However, with the paradigm shift, the polyvalence of architecture was abandoned, replaced by exhaustive emphasis on officially sanctioned motifs. The censorship of architectural lyricism reached its peak during the 1980s.

Within this grim scenario, hope found its natural course. The party-driven stagnation became the engine for generating hidden innovations. Driven by an inner desire for escape, architects found their paths to salvation in cultural outskirts. This manifested, on the one hand, through theoretical writings with a profoundly poetic character and, on the other hand, through architecture competitions – spaces for showcasing innovative ideas – supplemented by the works of groups of architects who created a dream that refused to conform.

**Innovation through free theoretical writings on the poetic discourse of architecture.** The complexity of architectural discourse is reinforced by the "Movement of Ideas" column, inaugurated by Professor Mircea Lupu in 1981 in the *Arhitectura* magazine. The magazine of the Union of Architects of the Socialist Republic of Romania was the only officially accepted publication within the profession. This section aimed to analyze, in the form of elliptical and cryptic texts, the creative flows within the global architectural sphere. The texts, imbued with a profound manifesto-like character, authored by figures such as Dorin Ștefan and Mihai Opriș, embraced expressions of postmodernist movements emerging in the West.

The complexity of contextualism is explored here from every conceivable angle: on the one hand, through principles of juxtaposition, and on the other, through historicism expressed either via radical eclecticism or, conversely, through archetypal forms. Each author developed these ideas through their unique lens, with the discourse framed around the concept of the hybrid, which in essence represents the theoretical core of postmodernism—pluralism.

To begin, we reference Dorin Ștefan's article "Archetypal Openings" [1] published in issue 6/182 of the magazine. Here, the theme of archetypes represents a quest to break free from the dictatorial template of the rigid modernist functionalism imposed by the regime. He invokes a series of myths to support the creative process of architecture as a "meta-histor-



ic architectural motif”: the cosmogonic myth and Romanian spiritual tradition inspired by Mircea Eliade’s writings, the myth of the spherical androgyne and the primordial egg, exemplified by Boullée’s cenotaph, the myth of the sky column or cosmic tree expressed in Schinkel’s hunting lodge in Anonin. Beyond the idyllic portrayal of myths, these explorations are attempts to uncover architectural depths and cultural relationships, developed along historicist lines.

Mihai Opreș, in his article titled “A Model for the Evolution of Architectural Style” [2] offered a description of the evolution of architectural styles based on the writings of art historian Heinrich Wölfflin and Robert Venturi. He also proposed a definition of architecture derived from the Vitruvian qualities – firmitas, utilitas, and venustas – placing them on an equal qualitative level. Postmodern architecture was viewed strictly through the post-classical lens of modernism, as its natural progression.

The series of eight articles titled Contextualism, written by Dorin Ștefan, addresses the theme of context from various perspectives: from principles of juxtaposition to historicism expressed either through radical eclecticism or archetypal forms. In the article Contextualism II [3], postmodern architecture is seen merely as a label identifying a mannerism directed toward the meta-historic category. In other words, it recognizes that the past is an undeniable given, which cannot be eradicated and must, therefore, be revisited with deliberate intent, free of naivety. In the article Contextualism III, context is analyzed in terms of form, which supersedes any intervention strategy in situ. The relationship between the new form and the existing one must be established in such a way as to achieve harmony within the integrative unity.

**Innovation through free theoretical writings on the architecture competitions.** Another manifesto article, highly relevant for the study of creative flows, is the one dedicated to the competition for the Youth House [4]. In his description of the proposal published in Arhitectura magazine, Dorin Ștefan defined the fundamental aesthetic of architectural creation as the thought process itself, the unspoken space, the project per se, which governs the act of construction within the architectural matrix. Additionally, he aligned with American postmodernist principles by adopting the visions of Charles Jencks, Aldo Rossi, and Robert Venturi regarding the use of archetypal structures to enrich architectural discourse.

“Through the efforts so far, aiming at the integration of the archetype, we seek to reintroduce the connotative dimension and open functionalism towards an architecture of depth, in the hope of restoring the unity of architectural discourse. The attempt is to achieve, through the logic of contradiction and ambiguity, supported by high-tech quality, the contrapuntal harmony of the conjunctio oppositorum, blending scientific and poetic approaches for the benefit of architectural space.” [5]

The solution proposed spaces organized around an atrium and a spatial sequence of porticos as foundational elements, composed under technological principles, giving legitimacy to architectural exuberance through the precision of mathematics. By abstracting the concepts of the Unit of Measure ( $U_m$ ) and the Unit of Ideas ( $U_i$ ) into mathematical formulas, the author proposed a morphology of determining factors for the project, start-

ing from the archetype. Thus, the outcome was contextually anchored by interpolating with space and time, paradoxically evoking the resemblance between a prototypical project and one that vehemently opposed it.

$$O.A. = /U_m U_i / [6] \quad (1)$$

where:

O.A. – architectural object

$U_i$  – Unit of Measure

$U_i$  – Unit of Ideas

The process of design at to moment is:

$$O.A._{(to)} = U_i \beta, \Delta, t \sum U_m(\alpha, x, y, z) \quad (2)$$

where:

$\beta$  – socio-cultural nature

$\Delta$  – contextual determinants

$t$  – time

$\alpha$  – archetypal support

$x, y, z$  – spatial coordinates

The solution brings together key elements – porticos, an inner courtyard, basilical sections, and a cascading section for the accommodation area – organized around the program of a youth cultural center, a program specific to the social and political context of the time. As an attempt to manifest opposition to postmodernism, the proposal represents a return to an archetypal historicism, stripped of any postmodernist artifice.

The theoretical discourse – following a logic of contradiction and ambiguity, supported by high-tech quality – functions as a subtle underpinning of the project. However, while it explores the polyvalence characteristic of postmodernism, the approach retains a rational spirit inspired by modernism, oriented toward the pursuit of scientific legitimacy. FIGURE 1.

**Innovation through architectural competitions as a form of free expression.** The second avenue where architects found their much-desired freedom of expression was through participation in architectural competitions – projects that were free from constraints and envisioned ideas in profound opposition to the reflection of the society of their time. Architectural competitions approached theoretical discourse through a different medium – drawing – exploring the metaphorical dimensions of architecture. In other words, a competition project recalibrates its utopian idea during its early stages, presenting it as a critique of a given theme, beyond the realm of construction.

Of notable importance during the period studied were the architectural

competitions organized by the Japanese magazine *Japan Architect*, to which many Romanian architects enthusiastically aspired. In the 1981 Central Glass International Architectural Design Competition – a prestigious contest still held today – a team of Romanian architects comprising Alexandru Colpacci, Ioan Andreeescu, Vlad Gaivoronschi, Adrian Ionașiu, and Claudiu Panaiteanu won second prize. Their proposal, titled *Meditation as a Journey into the Labyrinth*, explored the theme of individual destiny: a traveler's journey, driven by the desire for self-transcendence. The labyrinth metaphor here symbolizes life and the illusion of individual centrality, with scenes representing stages of existence—from youth to death—unfolding in different zones of the labyrinth. The work employed a graphic and compositional style akin to a comic strip, with frames arranged clockwise in a circular format. Each frame illustrated a stage of knowledge, as articulated in Hegel's *Phenomenology of Spirit*. These frames referenced compositions from renowned paintings, such as Velázquez's *Las Meninas*, all revolving around the central labyrinth as a symbolic metaphor, with Venice as an example of a city-labyrinth. Architecture assumed a secondary role in this project, serving as a medium to solidify the concept of destiny. FIGURE 2.

Another competition of note was launched in 1979 by Jean Nouvel for the repositioning of Victor Baltard's *Les Halles* in Paris. Organized by the magazine *Architecture d'Aujourd'hui*, the competition saw the participation of several groups of Romanian architects. The proposals were characterized, on one hand, by a critical regionalism based on structuralist exercises involving macrostructures and, on the other hand, by postmodernist influences – ranging from the cult of megastructures to the revitalization of architectural drawing as both purpose and representation. Romanian architects Viorel Simion, Dorin Ștefan, and Dinu Patriciu participated in this competition through Romconsult – a consultancy organization established in 1973 to facilitate international consultancy projects and promote Romanian construction exports. Their project aimed to revitalize architectural drawing as both a purpose and a representational tool, inspired by the urban theories of Leon and Rob Krier, with a theoretical foundation rooted in drawings akin to Giovanni Battista Nolli's maps. FIGURE 3.

Another award-winning project in a competition organized by *Architectural Design (AD)* magazine was the London Docklands Museum, designed in 1986 by Dan Bolomey and Matei Lykiardopol [7]. The proposed architecture embraced a high-tech style, characterized by slender metallic elements supported by cables and glass enclosures. This form of contextualism drew inspiration from the technological aesthetics of utilitarian port structures, particularly the complex mechanisms designed for lifting and moving heavy loads, such as cranes. The proposal was presented in a playful and sketch-like manner, incorporating a zeppelin displaying the museum's name from above and various signage elements. The graphic representations also included docked sailing ships juxtaposed with the project, suggesting a conceptual borrowing for the architectural solution. The atmosphere and visual quality of the representations evoked unbuilt projects such as Cedric Price's *Fun Palace* (1961), which later influenced the iconic design of the Centre Pompidou in Paris (1977). FIGURE 4.

At the World Forum of Young Architects – Interarch '87 in Sofia, the project

*At the Same Time, in the Same Place* by Florin Biciușcă received third prize in the competition-exhibition. The project, focused on the theme *The New Concept of Urban Unit*, was a study of cities and housing in the post-industrial era. It proposed the development of single-family housing capable of accommodating between one and nine users through a modular system of spatial organization, arranged on no more than two levels. The volumetric and spatial configuration of the modules reflected influences from vernacular architecture, characterized by organic and asymmetric development based on successive additions. The exterior composition integrated various gabled roof typologies, adapted to the size of families. Complementing the interior spaces, the project introduced intermediate elements, such as porticos that combined covered areas on the ground floor with loggias on the upper level. Although founded on principles of modularity and seriality, the project aimed to confer each module a distinct identity and architectural recognizability.

The same theme of modularity extended to urban planning. The key concept of the proposed assemblies was functional mixing, offered as an alternative to the functional zoning of cities characteristic of the Industrial Revolution. The project took inspiration from medieval cities, where most human activities occurred in a single space—the home. On a regular grid, the project proposed spaces necessary for human existence, including workshops, residences, parking, and circulation, coexisting within the same organized modular framework [8]. FIGURE 5.

**Conclusion.** In the 1980s, a hidden dynamism reached its peak, leaving an impact that continues to resonate today. The dichotomy between dictatorship and cultural resistance gave rise to a complex cultural landscape, where artistic expression was layered with hidden meanings and subtle messages. This fusion of creativity and opposition manifested in various forms, from cryptic writings to metaphorical architectural projects. As a response to the oppressive regime, these expressions wove together an artistic lexicon structured in successive layers, containing profound introspective dimensions. After the 1989 revolution, these dynamics took on a new perspective, embodying a palimpsest of cultural evolution that continues to shape Romania's artistic narrative.

The examples cited above are not exhaustive; they represent only a small fraction of the synoptic map of architects' attempts to escape the constraints of the Ceaușescu regime. These sparks within the gray monotony gave birth to new depths in architectural discourse. In other words, the (non)innovation directed by the party became the driving force behind hidden innovations. By shedding light on these binary cause-effect connections, we open a novel perspective for understanding the intangible cultural heritage.

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## Figures.

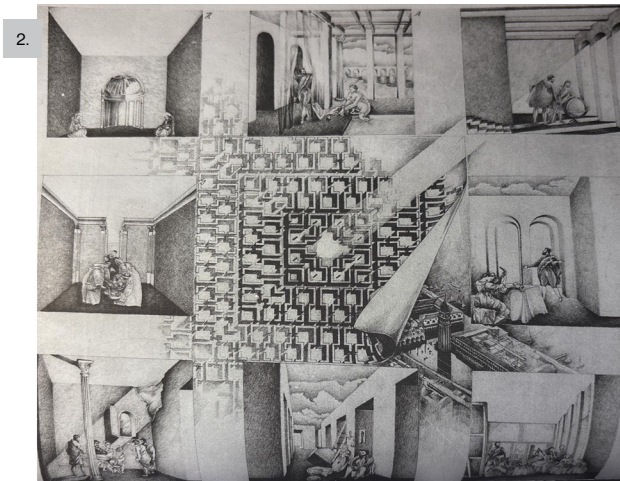
FIGURE 1 – Standardized community center project. Axonometry, facade, section.

FIGURE 2 – Central Glass competition poster, pencil drawing, 1981.

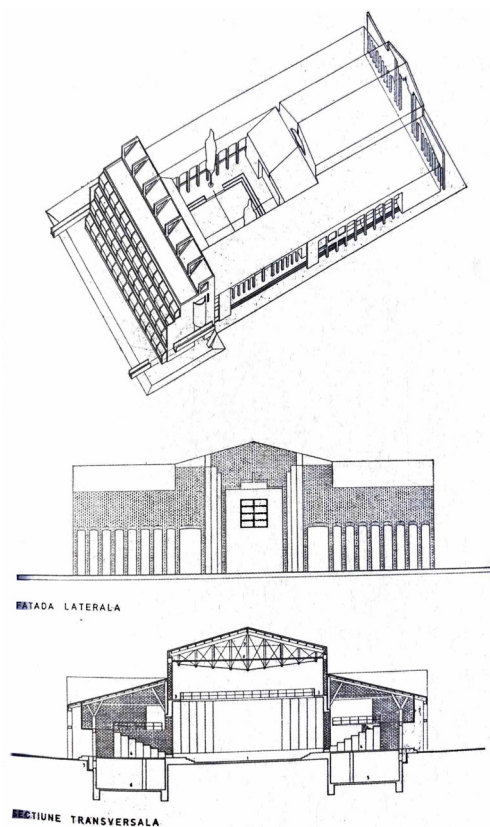
FIGURE 3 – The layout of the Paris Halls. Romconsult. Axonometric drawing.

FIGURE 4 – Museum of the Docklands in London, competition organized by Architectural Review magazine 1986, axonometric drawing.

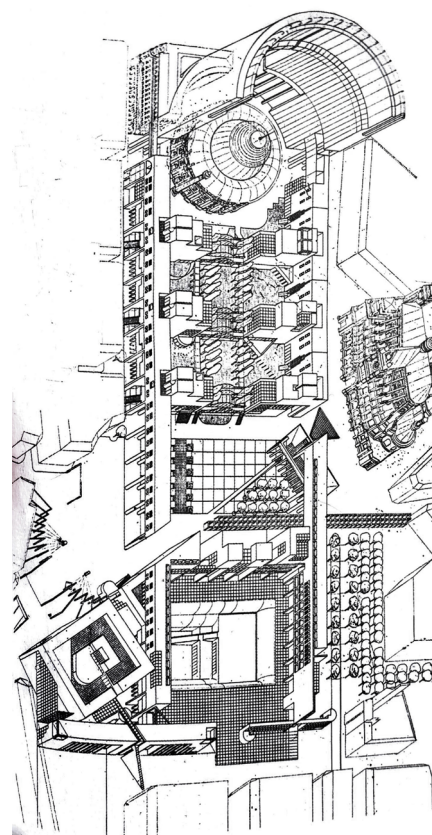
FIGURE 5 – Evolutionary housing, Florin Biciușcă, Interach' 85 competition. (axonometries, perspectives and module variants.

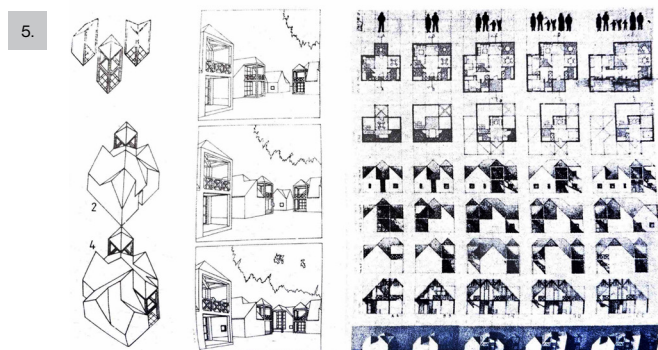
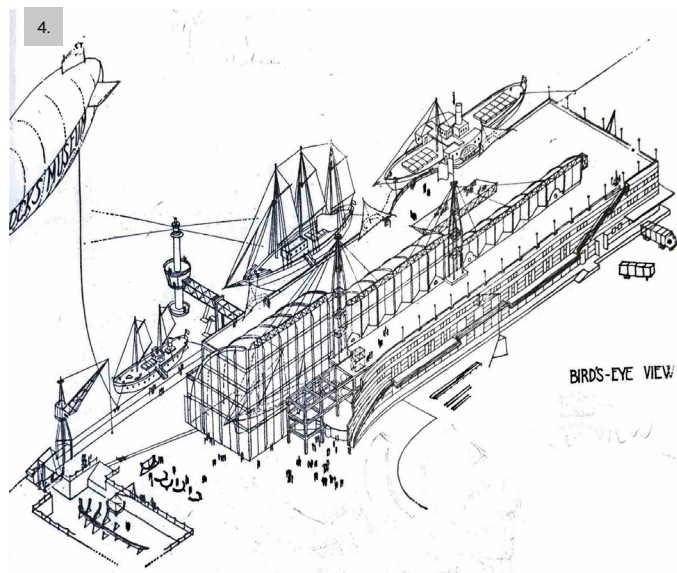


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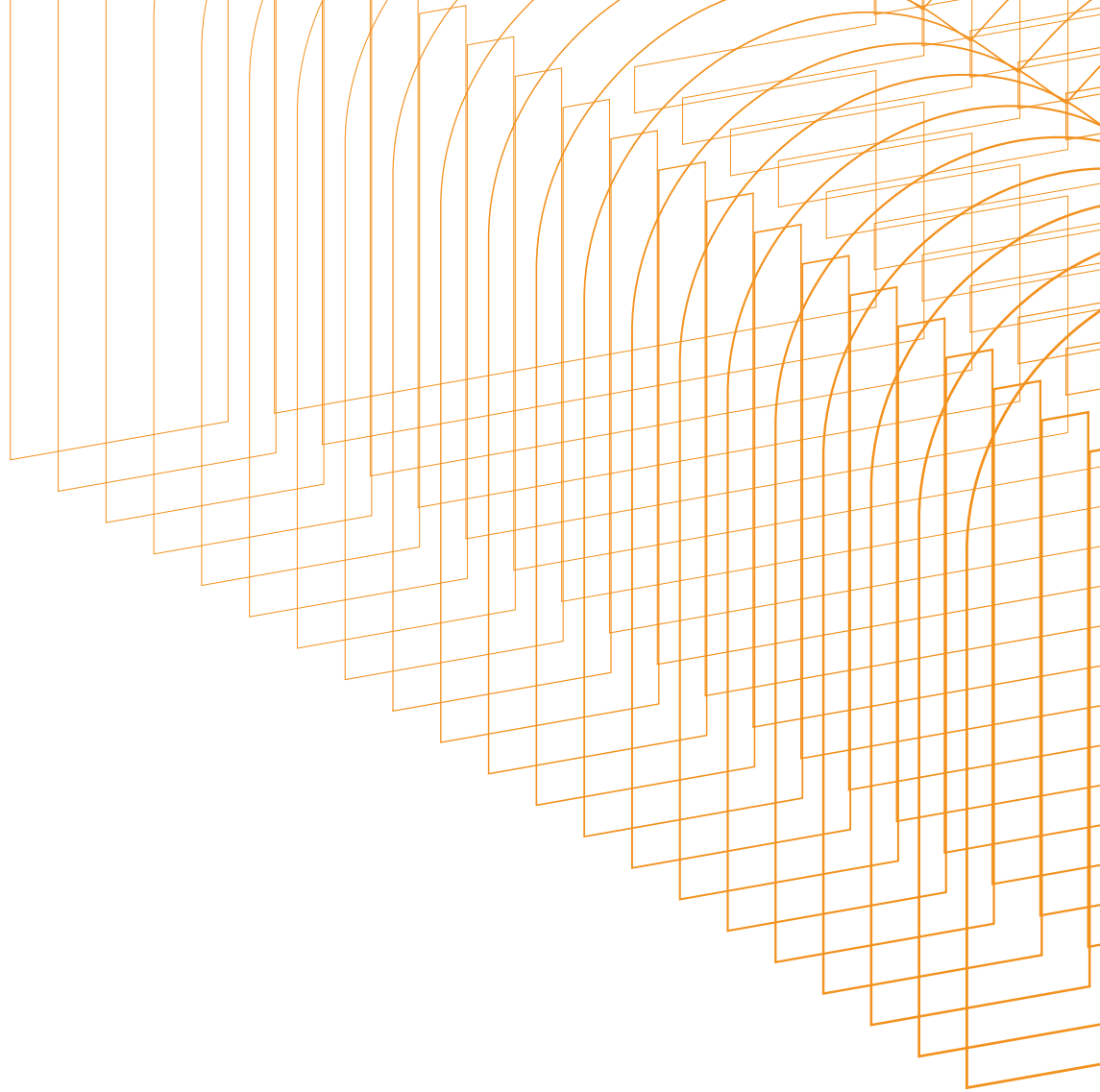


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## ADVANCED TEXTILE MATERIALS FOR HERITAGE BUILDINGS/

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**Abstract.** Although present in traditional architecture for millennia, textiles have been neglected by architects as reliable construction materials due to their short(er) lifespan and lower strength. The 20th century brought us synthetic materials which, for several decades, produced a boom in the multiplication of the uses of textiles which, being man-made, could be imprinted with the desired characteristics right from the time of manufacture. In the last decades, Nano, IoT and Smart technologies have allowed the application of specific characteristics corresponding to precise uses on both synthetic and natural materials. This, together with the diversification of the sources of raw materials, allowed the expansion of the uses of textile materials, which are present today from the structure of the constructions to the finishes and interior fittings. The main qualities specific to textile materials – a low weight per volume unit, flexibility, easy and reversible installation – represent an asset in their use in the restoration or protection of heritage buildings and sites. The current principles of restoration, which require a discreet and reversible intervention on the building itself, lead to the search for new materials solutions that are resistant but not structurally or visually invasive. Just as minimally invasive solutions are sought in the medical field, the same is happening in the field of restoration - healing of buildings. The fragility of monuments, which we often face, can be reinforced and/or protected with the help of textile systems of high resistance but with a minimal presence. The problem we have faced for decades, that of the restoration of modern materials (such as reinforced concrete), can be solved with the help of textiles and the technologies included in them. In the present article we will present some examples of textile materials that are already or could be included among those used for heritage buildings.

**Textiles and Architecture.** Today, textile materials are ubiquitous in the field of architecture and construction, emerging from the two paradigms in which they had been confined: ephemeral constructions and decorative elements for the interior. The term Architextiles synthesis this: "A hybrid of 'architectures' and 'textiles,' the word 'architextiles' refers to this body of projects and the ways of thinking and making that join the two." [1]

They "lost" their ephemerality by accumulating properties that transformed them from simple tents and coverings into complex envelopes with multiple advantages. Some of these are, we might say, traditional: light weight, flexibility, variable shape, easy assembly and disassembly etc. Others are brought in the last decades by the Nano, IoT and Smart technologies that have allowed the application of specific characteristics corresponding to precise uses on both synthetic and natural materials:

self-cleaning, absorption or chemical transformation of atmospheric pollutants etc. This, together with the diversification of the sources of raw materials, allowed the expansion of the uses of textile materials, which came out of the purely decorative sphere in which they were confined for hundreds of years and are present today from the structure of the constructions to the finishes and interior fittings.

But would they also be good for heritage buildings?

First of all, in general, heritage (classified) buildings that require restoration and conservation operations are mostly made with natural materials and more than often with traditional construction techniques. That is why the interaction with modern building materials, used for decades in consolidation and restoration, even if they have provided a momentary solution to some problems, are not always fortunate in the long term.

In an era where research on all materials is moving towards finding solutions based as much as possible on nature and sustainable, textile materials are no exception. That is precisely why the use of technical solutions made with the help of textile materials can represent an answer from a constructive point of view and which also corresponds to the modern principles of restoration [2], not only for old buildings but even for the most recent.

On the other hand, heritage buildings are not just a shell, an envelope with a compartmentalized interior, which must be consolidated, restored and returned to private or public use. In most cases they also have a content. This content, classified as "movable property", was often, over time, extremely... mobile. But nevertheless, what remains must be restored and preserved, preferably in a form accessible to use. This content, often left, theoretically but also practically, to the care of art historians, represents objects that define the architectural interior and therefore, would fall within the scope of the architect's concerns who, as a general designer, must have an overview of the project. But textile materials are present in extremely diverse objects that define the architectural interior: wallpaper, curtains, draperies, dividing panels, screens, furniture, objects with a decorative role - tapestries. So, the restoration of the building should also include their restoration if the spirit of the building is to be respected and restored to its former glory.

An important part of the European Green Deal 2019 [3] on construction concerns the renovation of existing buildings. It goes without saying that heritage buildings cannot be destroyed and replaced with new ones, but rehabilitation and/or modernization are also important because this process is less expensive and less polluting than demolition and reconstruction. Research directed towards the innovation of materials or products is thus encouraged, in order to find the most efficient and sustainable solutions.

In what follows, we will analyze some examples of textile solutions for several categories of interventions on heritage buildings, from structural to interior ones.

**Advanced Textiles Solutions for Heritage Buildings.** As the textile industry is one of the largest consumers of physical, economic and even human resources, the research in this field is oriented both towards

improving the qualities of textile materials or that can be instilled to them, and to the discovery of new sources of raw materials or the revaluation of traditional ones. Many of today's results are due to the use of nanotechnology, widely present in most industry areas. The field of architectural heritage restoration already benefits from some of these innovations and ongoing research is constantly bringing new solutions.

### Structural solutions

The issues raised by sustainability today present us with excess carbon (actually carbon dioxide) as dangerous for the future of our planet. But this element also has a positive role and without it there would be no life, as it is essential for plants for photosynthesis. Applications for the reinforcement of masonry with carbon fiber membranes, are already known and used extensively. In addition, there are some products that also provide fire protection through Carbon Fiber Reinforced Polymers (CFRP) bonded through an Epoxy Resin [4], used in both public and private buildings, whether classified or not.

Although it is not recommended to use reinforced concrete for interventions on heritage buildings, there are cases where this is unavoidable. Carbon fiber reinforcement is a possible solution, these being lighter than metal ones, do not degrade over time (do not rust, for example) and, being made of carbon, are neutral to other natural materials. Also, carbon fiber nets could be used to replace the metal ones, sometimes used to reinforce masonry.

Figure 1 below shows the latest solution for hollow beams reinforced with carbon fiber, a 3D textile lattice girder for sustainable production of lightweight carbon concrete precast hollow core elements, the result of research carried out by a complex team that brought together researchers from the textile field from the Institute for Textile Machinery and Textile High Performance Materials Technology (ITM) and the construction field from the Institute for Concrete Structures (IMB), both from the Technical University of Dresden, Germany. The presented solution won the New Concept Innovation Award at Techtextil, Frankfurt-am-Main in April 2024 [5]. FIGURE 1.

Basalt fiber is a natural element, which is not harmful to the environment, and so neither for humans and can be also used as concrete reinforcements. Woven or braided can be transformed into objects with a protective role, with great mechanical resistance and lifetime. Basalt Fibertec [6] offers a wide range of products for the construction industry (Figure 2), products that can be safely used in the consolidation and restoration of heritage buildings. FIGURE 2.

If we move on to mortars, one of the latest technologies for heritage buildings is textile reinforced mortar (TRM) [7]. It can be used to improve the earthquake behaviour of brick masonry, and the still undergoing research through the European CONNECT Project [8], is studying its effectiveness, which depends on the connectors that are used to fix the reinforcing layers to the substrate. Now, different type of connectors are tested, and will develop recommendations for correctly designing TRM-strengthened interventions. The monitoring of the state of the masonry is done by introducing optic fibers and sensors into the textile reinforcement layer [9]. Of

course, the TRM composite has to be designed using a binder which has to be compatible with the physical and mechanical properties of historic masonry (for example pure natural lime and geo binder and cement-free).

Although difficult to use in many situations due to the architectural value of the exterior of the heritage building and its requirements, an insulating layer is many times necessary to improve its energy performance. A combination of several systems - consolidation, insulating, monitoring - can be achieved by using an innovative system (capillary tubes) instead of the conventional insulating materials and smart textiles [9].

As a final example of reinforcement, one can use glass fiber combined with elastomer, for three-dimensional double-curved textile concrete envelope building structures. The material called CurveTex [10] was realized through the collaboration of the companies Penn Textile Solutions with Institute of Textile Technology of RWTH Aachen University and Stanecker Betonfertigteilewerk GmbH.

### Covering solutions

For heritage buildings it is preferable that a new roof system be lightweight and also have a high efficiency as well as a low environmental impact.

The smart conductive textiles are used for years now and Smart roof systems (SRS) [11] imagined by CITEVE Textile Technology, Saint-Gobain, Texteis Penedo, CeNTI and Itecons uses them as a reinforcement structure which integrates active heating yarns for dry/curing as well as a temperature and moisture sensing systems that predicts cracks in the membrane, in combination with a quick-drying water-based polymeric membrane with IR reflection. The sensors help prevent water infiltration over its lifespan. The product does not use solvents and the smart layer is made of 100% recycled polyester yarns, and the whole ensemble helps to use less or even no HVAC. The product was awarded the New Product prize at Techtextil Frankfurt 2024. FIGURE 3.

Many times, archaeological sites require as discreet protection as possible but at the same time resistant to climatic factors. The Ettlin company has elaborated a material, Ettlin TransProof® [12], that combines for the first time four properties: it is waterproof, it breaths, it is UV resistant and transparent. It is a woven material extremely light and thin, designed to offer sun and weather protection with a minimal visual impact. The innovative material was awarded the 3rd place at the materialPREIS 2018, Germany.

The New Technologies on Sustainability and Recycling second prize was awarded at Techtextil Frankfurt in 2024 to the ultra-performance insulating textiles made by SA-Dynamics from Aerogel fibers (100% cellulose) [13] which consist of over 90 percent air and can be processed on existing textile machines. FIGURE 4. SA-Dynamics is a start-up proposing a pioneering material in the field of natural/bio/sustainable insulation. Unlike rigid aerogels, this innovation is adaptable to the textile industry, enabling applications from clothing to construction. The environmentally friendly solution offers superior thermal insulation without microplastic emissions which is also preferable when interacting with old buildings.

### Interior Solutions

If textiles have been used outdoors for millennia for tents or similar structures and some decorative effects, the complex ones with special properties being a relatively new presence favoured by the technological advance of the last century, indoors, the textiles were very present and widely used. And here, for a long time, their role was decorative, or with certain values of thermal insulation and acoustic properties used empirically. The researches of the last decades on the acoustics and thermals of the interior space have revealed the possibility of using high-performance textile materials for this purpose. At the same time, the combination of textile fibers with other materials allows instilling new properties to the final material, including structural resistance (with certain limits), which allows their use for the creation of independent objects. Last but not least, the research is directed towards sustainable, bio, renewable solutions, which address the problems of the present but looking towards the future.

#### *Materials with structural properties*

A sustainable composite material made from pure cellulose, Purcell [14], is used as a high-strength reinforcing fiber and as a matrix component, in many cases replacing glass-fiber reinforced plastics (GFR) which are not truly recyclable. It works with two types of natural polymers: PLA (poly lactic acid - bio sugar polymer) and PHA (poly hydroxi alcanoat - natural bacterial polymer). The dispersion does not require solvents and degrades over time without emitting harmful particles to the environment. It can be used in many products for interior, like: wallpaper, flavor-based insulating composites, carpet doubles etc. FIGURE 5.

#### *Acoustic solutions*

Although they have been used indoors for millennia, textiles have not necessarily been credited for their qualities as acoustic shapers of interior spaces. After decades of minimalism - however, if we look at the achievements of its great personalities, textiles are permanently present and sometimes even with the aim of improving the acoustics of buildings, see the example of Le Corbusier in Chandigarh, India - in which textiles were neglected or omitted from interior spaces, in recent decades they are being reconsidered. The extended technical possibilities and the creativity of architects and designers allow today the realization of architectural elements or furniture and lighting fixtures from textiles, these, having implicitly or explicitly a role in improving the acoustics of the space in which they are located.

Unlike smooth, even glossy finishes and materials (glass, for example), wallpaper, curtains, drapes, blinds and other elements in this family can discreetly but substantially improve acoustic comfort by reducing reverberation and echo in the space.

Many furniture companies, both home and office oriented, offer acoustic solutions through pieces upholstered with felt or other highly sound-absorbing materials. Lighting fixtures can also have textile coverings, reminding us of the elegance of past centuries lampshades, made of precious materials such as silk brocade or satin.

#### *Removable compartments*

The refunctionalizing or conversion of heritage buildings often involves a

re-compartmentation to correspond to the new function. In some cases, given the status of the building, this is not fully possible through interventions with traditional or more durable construction materials. Textiles thus represent a solution that is both easily reversible and much lighter, literally and figuratively. The assembly and disassembly of lightweight self-supporting structures that are covered in textile material or even the installation of self-supporting textile structures represent flexible solutions for spaces with generous dimensions.

For example, the designers Stephanie Forsythe + Todd MacAllen are proposing a temporary and non-invasive partition solution for heritage buildings, with textile walls with a flexible freestanding and easy to modify configuration. Based on a foldable structure, they can be connected by magnetic end panels and packed into an extremely small space.

#### *Natural light regulators*

Heritage buildings, once restored and repurposed, often function as museums. This implies that the objects exhibited inside are also heritage objects, whose fragile existence must be protected. Natural light, so beneficial to life, is however an enemy of the longevity of natural materials, especially textiles and colour pigments. Therefore, precise control of natural lighting is necessary, which today is possible to achieve through textile materials with specific properties according to any requirements.

The Mermet Sun Control Textiles company is providing a large range of products, some of them suitable for heritage buildings. The Mastaba Hall in Louvre Museum, Paris, is using the SV 5% material (Gauthier et Compagnie, Mermet SAS) [15], in colour White Linen, in order to provide an as natural as possible shade and protection for the delicate antique artefacts exposed there. FIGURE 6.

**Conclusions.** Obtained from a huge variety of fibers and combinations of these, with the help of complex contemporary technologies, textiles are the ideal material both for the fashionable contemporary forms resulting from the parametric architectural design and for the heritage buildings restoration. As seen above, the textiles are now able not only to withstand the complex requirements of buildings, but even to contribute to their improvement.

As can be seen from the examples analyzed, the intelligence and creativity of engineers, architects and designers come together to create new materials or new products for our buildings, to rehabilitate existing ones, so that they continue their valuable journey through history for the use and delight of future generations.

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## Figures.

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FIGURE 2 – Basalt: stone, fibre, rebar, mesh. Products of Basalt Fibertec GmbH. Photos by the author.

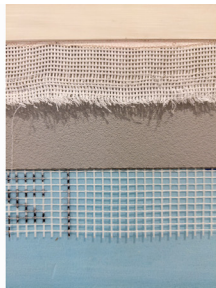
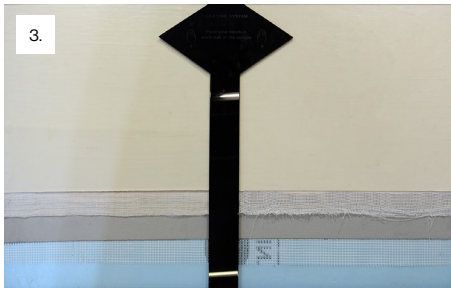
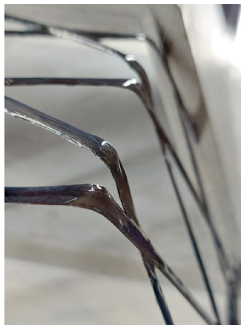
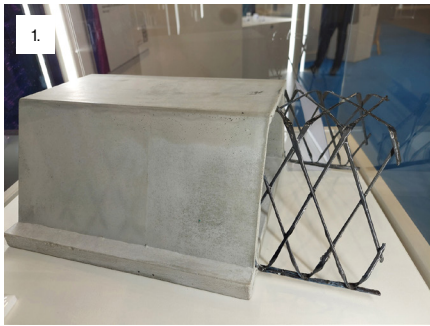
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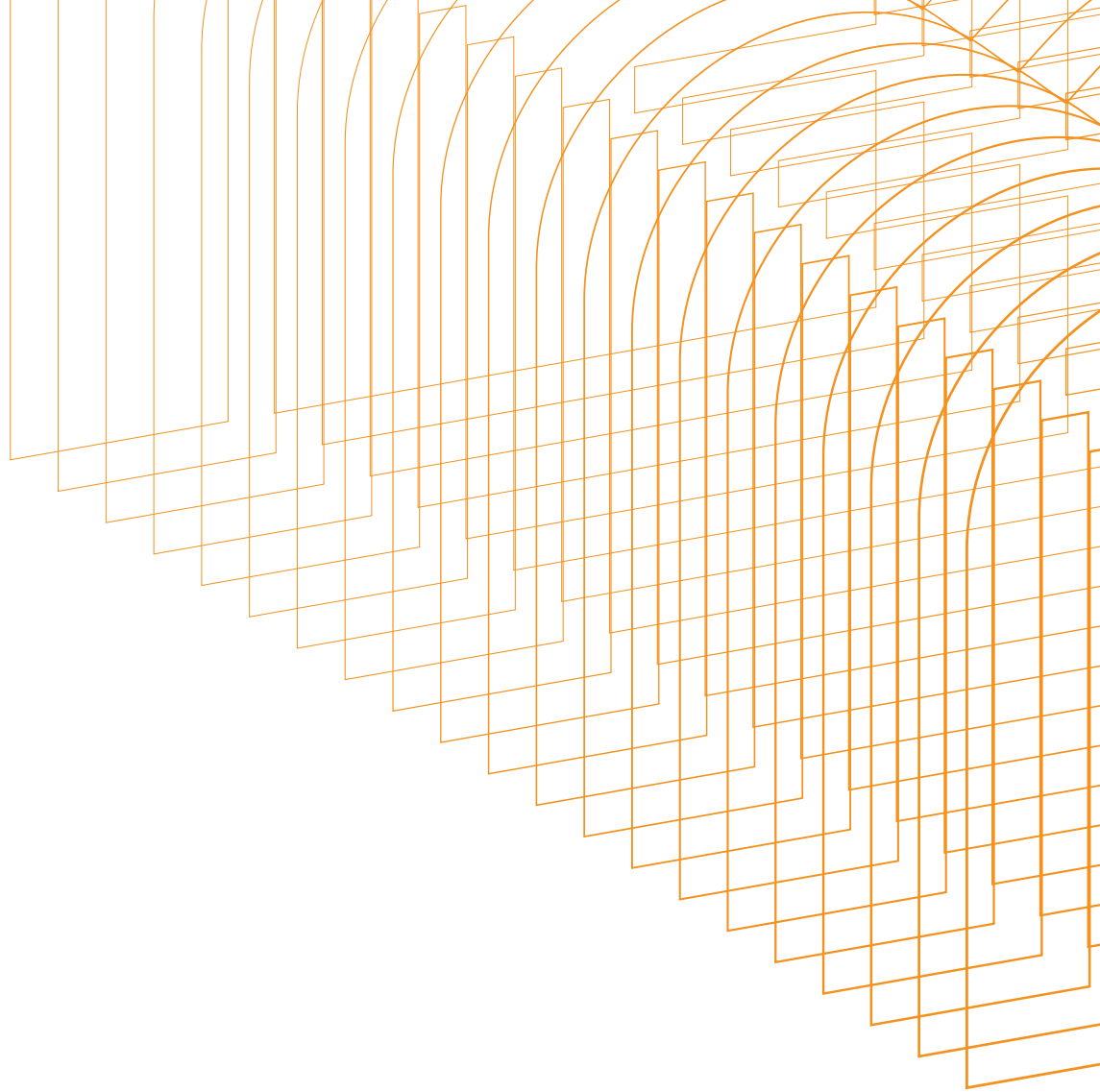
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## FASHION SHOWS AS VECTORS OF CULTURAL PROMOTION AND HERITAGE ENHANCEMENT/

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**Abstract.** This study investigates the synergy between cultural heritage and fashion, highlighting how these two dimensions can collaborate to generate new forms of territorial, artistic, and social valorisation. The analysis of three exemplary cases – Dior Cruise collections, Chanel's Métiers d'Art, and Dolce & Gabbana Grand Tour – highlights how major fashion houses have intertwined their sartorial aesthetics with the genius loci of sites selected for their cultural and artistic value. These projects take the form of narrative platforms of global relevance, going beyond the celebration of fashion's creativity. They activate profound dialogues with cultural contexts, reinterpret local traditions, and bestow a dynamic and contemporary dimension upon heritage. The interdisciplinary approach illustrates how fashion can contribute to both the preservation and innovation of cultural heritage through collaborations with artisans, artists, and local institutions. Elements rooted in the culture and traditions of specific places are translated into aesthetic languages that merge the brand's style with local cultures. This demonstrates how heritage – both tangible and intangible – can be fertile ground for creative innovation. Through the analysis of specific case studies, the research also highlights the transformative role of temporary installations, which not only enhance the visibility of the sites chosen for the collections' presentations but often improve their accessibility and interpretation. These interventions, whether ephemeral or lasting, underscore the potential of fashion as a creative medium able to integrate past and present, to promote intercultural dialogue, and to support the social and economic revitalisation of the territories involved. The paper thus offers a reflection on the new possibilities arising from the synergy between the fashion event system, its communicative immediacy, and cultural heritage. It outlines an original model of valorisation that projects heritage towards a broader and more inclusive perspective.

**Introduction.** Fashion houses are increasingly selecting culturally significant locations to present their exclusive collections, constructing spectacular narratives that deeply engage with the hosting sites [1]. This phenomenon is often frowned upon by heritage preservation critics, who look at it as a commodification of cultural heritage [2]. It is undeniable that the communicative and commercial dynamics of such events can clash with more strictly conservative perspectives, particularly when archaeological sites or historic museums are involved. However, in the most structured and meaningful cases, the interaction between fashion and cultural heritage can foster a dialogue that enhances local culture while simultaneously enriching the language and aesthetics of fashion design [3].

Recent Dior Cruise collections are a striking example of this trend; each is inspired by a distinct geographical and cultural context, interpreting its values by weaving the creative process with heritage values, from the conception of garments to the staging of fashion shows in emblematic sites. Each event becomes a great impact show, honouring the cultural and artistic traditions of the chosen locations.

Another noteworthy case is the Métiers d'Art project by Chanel, which annually celebrates artisanal excellence and its connection to the prestigious contexts in which it is presented. These events highlight the creative aspects of fashion through deeply rooted cultural references and, above all, interpret the connection between past and present, material and immaterial, blending the most traditional elements with the contemporary characteristics of the local artistic milieu.

In a different but equally effective manner, since 2012 Dolce & Gabbana has been championing the excellence of "Made in Italy" through a Grand Tour that ties its haute couture collections to some of Italy's most significant cultural sites. Through an aesthetic interpretation that marks the international signature of the brand, the historical traditions and complex artisanal qualities of the chosen locations are translated into garments of exceptional sartorial and artistic quality, showcased through theatrical presentations of great communicative power. Among the most iconic examples is the 2019 show held at the Valley of the Temples in Agrigento, where the archaeological site was transformed into an extraordinary stage, enhancing local heritage and offering new perspectives for its fruition.

These events are not merely aesthetic performances but take on the role of giving back to the territory. The most significant interventions often include heritage enhancement initiatives that go beyond the ephemeral scenographic image of a fashion show. Depending on the circumstances and opportunities, brands contribute to site improvement by funding restorations, promoting permanent cultural enhancements, or creating temporary installations designed to encourage alternative uses, accessibility, and interpretation. Through these initiatives, fashion proves itself a cultural medium capable of connecting past and present, tradition and contemporaneity, generating narratives that enrich both cultural heritage and the language of design.

**Dior Cruise.** The cruise (or resort) collections, proposed annually by various fashion brands especially since the early 2000s, originate as an opportunity for escapism, commercially linked to the idea of luxury holidays in faraway and fascinating places [4]. Their presentation, which takes place outside the traditional fashion weeks, is thus typically set in locations with significant media appeal. Maria Grazia Chiuri, creative director of Dior since 2016, has shifted the paradigm of this kind of event by focusing the Dior Cruise collections on a meticulously crafted communication strategy centred on the cultural richness and diversity of the selected locations. These are no longer mere aesthetic backdrops but become protagonists in an exploration that highlights both the ancient origins and contemporary features of the territories and their inhabitants. This process intertwines narratives, places, artisanal knowledge, social attitudes, and political messages.



The careful selection of the inspirational and presentation locations for recent Dior Cruise collections (from Frida Kahlo's Mexico to Olympic Greece, from Salento in Apulia to Mary Stuart's Scotland) has brought attention to a constellation of exceptionally diverse cultural heritages. In each case, a virtuous relationship has been constructed, blending traditions, storytelling, historical and contemporary craftsmanship, monuments, and artworks. This process translates the genius loci of each context into fashion, granting each event a distinctive identity deeply rooted in local cultural heritage. Chiuri investigates the cultural identity of these chosen locations not only through the design of garments but also via collaborations with local artisans, artists, and communities. Examples include embroidery inspired by Moroccan wax fabrics, Salento's light installations, Greek friezes, Mexican floral motifs, and reinterpretations of Scottish tartan. These creative processes celebrate the diversity and richness of local traditions, providing a global platform for the visibility of cultural heritage while supporting regional artisanal economies.

Chiuri's approach is distinguished by its ability to incorporate traditional elements and reinterpret them in a modern, compelling, and sophisticated manner, emphasising the relevance of ancient knowledge in the contemporary world. Through a nuanced dialogue with architecture and landscape, each runway show becomes a multisensory experience where fashion and cultural heritage interact to construct a shared collective imagination. The social and cultural dimensions of these collections further underline the role of fashion as a medium for connection and intercultural exchange. The visual narrative emerging from these events elevates the identity of the locations and the universal value of tangible and intangible heritage by delving deeply into local characteristics. These are not merely aesthetic expressions but authentic cultural operations offering contemporary reinterpretations of centuries-old stories. They demonstrate how fashion can act both as an interpreter and a custodian of cultural heritage. This approach not only promotes intercultural dialogue but also contributes to the economic and social sustainability of the territories. The Dior Cruise collections can be regarded as manifestations of an aesthetic language that embraces the complexity and beauty of cultural diversity, leaving a profound mark on the relationship between fashion and place. FIGURE 1.

**Chanel Métiers d'Art.** The initiative of Chanel's Métiers d'Art collections represents a distinct example of contemporary fashion serving as a vehicle for the appreciation of cultural and artisanal heritage, fostering a dialogue between tradition and modernity. Established in 2002, this annual project celebrates the excellence of the artisanal workshops affiliated with the maison – from the buttons and jewellery of Desrues to the refined embroidery of Lesage and Montex, the feathers of Lemarié, and the footwear of Massaro – creating a deep connection between traditional savoir-faire and contemporary aesthetic visions. Each collection is related to an iconic location, selected for its historical and symbolic significance, becoming a starting point for exploring the connections between the local cultural context and the identity of the maison.

Under the creative direction of Virginie Viard, who led the brand from 2019 to 2024, the Métiers d'Art collections have opened a new communicative and cultural chapter for Chanel. The brand looks beyond its own historical

heritage, forging new layers of meaning by exploring locations seemingly distant from its rooted image. For instance, the Métiers d'Art 2022-23 show, held at the iconic Palais de Justice in Dakar [5], delved into potential connections with Senegal's cultural heritage, focusing on local art and craftsmanship, both traditional and contemporary [6]. The collection incorporated elements of Senegalese textile culture, such as geometric embroidery and colour patterns inspired by African art, celebrating their richness and complexity. The show established a profound dialogue with the territory by involving local artists and artisans, highlighting the importance of preserving and reinterpreting traditions through a contemporary lens. Moreover, the event carried significant social impact, thanks to collaborations with local cultural institutions and the promotion of educational initiatives aimed at nurturing emerging talent.

Another iconic edition was issued in Manchester for 2023-24, a city symbol of the Industrial Revolution and Britain's textile tradition. In a location not classically associated with haute couture but nonetheless historically connected to the origins of the maison [7], Chanel spotlighted elements defining the city's contemporary identity. The event innovated the brand image by linking it to street culture, the music scene, and football. The collection paid homage to tweed – fabrics deeply rooted in the brand's identity and the cultural imagination of the United Kingdom – reinterpreting it with contemporary sensibilities and enhancing it with innovative textures, bold colours, and details inspired by local street art. The show took place on one of the most renowned streets in Manchester's historic Northern Quarter, sheltered from the rain by a structure reminiscent of industrial architecture, underscoring a connection with the city's culture rather than its monuments.[8]

The use of locations with strong symbolic value, such as Dakar and Manchester, allows Chanel to transform the Métiers d'Art shows into moments of cultural celebration, where traditional craftsmanship is both honoured and reimagined to meet the challenges of a globalised world. These events intertwine local and global narratives, emphasising authenticity, sustainability, and the valorisation of regions. The meticulous attention to detail embodies the dialogue between skilled hands and creative visions, transforming each garment into a work of art that celebrates cultural heritage as a living resource, capable of evolving and renewing itself. Through these initiatives, Chanel reaffirms the role of fashion as a creative expression that preserves, innovates, and promotes heritage, presenting it to a global audience. FIGURE 2.

**Dolce & Gabbana Grand Tour.** Since 2012, Dolce & Gabbana has embarked on a unique initiative: a Grand Tour inspired by the 18th- and 19th-century tradition of educational travel. This project connects annual Alta Moda collections with the wonders of Italian cultural heritage. Each year, the duo selects an emblematic location, rich in history and evocative charm, as a starting point for developing their collections. The fashion shows presenting these collections become performative moments that involve transformative interventions on the sites, through temporary installations or longer-term initiatives for their enhancement and preservation. These events combine architecture, fashion, and tradition into an aesthetic and symbolic dialogue, where the garments—unique pieces of extraordi-

nary craftsmanship—take centre stage alongside the locations, which are transformed into active components of the visual narrative. Each episode of the Grand Tour is characterised by a scenographic approach that, while staying true to the brand's maximalist aesthetic, adapts to local peculiarities. In Florence, the perspective of the Italian-style garden at Villa Bardini was accentuated by floral compositions, whereas in Syracuse, Piazza del Duomo was reimagined as a temporary architectural stage, respectful of the monochromatic palette and monumental nature of the Baroque stone.

The dialogue between fashion and cultural heritage is further enriched by Dolce & Gabbana's privileged relationship with FAI (Fondo Ambiente Italiano), demonstrating a strong commitment to the preservation of local landscapes. Since 2022, their support for the restoration of the Case Montana in the Kolymbethra garden in Agrigento has started a three-year collaboration, recently extended until 2026. This partnership also encompasses initiatives aimed at the social and cultural promotion of heritage. It consolidates the company's commitment to shared values such as Italian identity, tradition, culture, education, and beauty, actively involving local communities and fostering a renewed collective awareness.

The Dolce & Gabbana Grand Tour thus emerges as a veritable atlas of beauty and savoir-faire, constructing a complex, multidisciplinary narrative to promote local heritage. Through this project, the brand acknowledges and elevates the excellence of Italian craftsmanship and the diverse traditions across the country, immersing itself in the depth of their histories and translating them into a contemporary language. This initiative is not only a tribute to beauty and culture but also a responsibility towards future generations, underscoring fashion's role not merely as a vehicle for creativity but as an instrument for the protection, enhancement, and transmission of Italy's cultural heritage.

The two case studies examined in further detail exemplify how such initiatives can also influence the physical reality of the sites, temporarily transforming their perception and usability through artistic and architectural installations, executed in collaboration with heritage conservation authorities.

**Dolce & Gabbana Alta Moda show – Nora 2024.** The Alta Moda fashion show by Dolce & Gabbana, held on 2 July 2024 at the Parco Archeologico di Nora, serves as a quintessential example of the synergy between heritage sites, art, and fashion. This event stands out for its ability to merge the artisanal traditions of Sardinia, the historical allure of the archaeological site, and an innovative scenographic approach, crafting a multi-layered narrative that bridges the past and the contemporary.

The archaeological area of Nora is distinguished by its stratified history—Phoenician, Punic, and Roman—and its evocative landscape, suspended between sea and sky. For the presentation of the Alta Moda collection, a section of the site was enriched with an additional narrative layer that fused past and present. Central to this was the Nora Mirage installation by American artist Phillip K. Smith III: a site-specific work commissioned by the brand, comprising mirrored monoliths that evoke ancient columns while reflecting the sky, sea, and details of the collection, creating an immersive visual experience. The runway, designed to harmonise with the

site's existing pathways, established a temporary landscape that balanced aesthetic appeal with respect for heritage. The collection itself, featuring predominantly black-and-white garments adorned with jewellery inspired by Sardinia's refined filigree techniques and traditional decorations, highlighted local craftsmanship, interpreted through the lens of haute couture. At the conclusion of the event, all temporary structures were removed, leaving the artistic installation to “inhabit” the archaeological site throughout the summer season. This addition enhanced the experience of both seasonal tourists and local visitors, without compromising the site's archaeological integrity.

This initiative not only demonstrated a balance between conservation and scenographic requirements but also underscored how cultural heritage can act as a catalyst for new forms of engagement and interpretation. It generated syncretic imagery capable of conveying complexity and evocation, positioning heritage as a platform for both preservation and innovation. FIGURE 3, FIGURE 4.

**Dolce & Gabbana Alta Moda show - Agrigento 2019.** The 2019 Dolce & Gabbana Alta Moda show, held in the evocative setting of the Valle dei Templi in Agrigento, represents a significant instance of collaboration between heritage management and conservation and the creative fashion industry, aimed at a process of enhancement tied both to the image and the experiential dimension of the location. The collection showcased, distinguished by draping and embroidery inspired by the classical motifs of the temples and Sicilian folk culture, established a visual and symbolic dialogue between contemporary aesthetics and historical memory, celebrating Sicily as a cultural crossroads. The scenography, illuminated to emphasise the monumentality of the temple, and the artistic performances transformed the event into an immersive experience. Sponsored free of charge by the Parco Archeologico della Valle dei Templi due to its cultural and touristic relevance, the event turned the Tempio della Concordia into an unprecedented scenographic space. To respect the sacredness of the site, which is generally inaccessible to the public, an elevated wooden catwalk was designed to enable models to move through the temple and between its columns without disturbing the sacred ground.

The temporary installation, which took a year to design, was supported by 3D surveys using laser scanning technology and protective materials such as non-woven fabric and sandbags to ensure the preservation of the site's archaeological elements. This setup not only provided an exceptional scenographic context for the presentation of the collection but also allowed public access for the summer to an otherwise restricted part of the site [9].

This intervention, attentive both to aesthetic enhancement and heritage preservation, demonstrates how design and innovation can harmoniously integrate with historical sites, reaffirming the centrality of dialogue between tradition and contemporaneity. FIGURE 5, FIGURE 6.

**Conclusions.** The cases presented in this study highlight the potential of fostering collaboration between the fashion industry and cultural heritage. When implemented thoughtfully, these interactions can lead to innovative experiences that interweave historical narratives with contemporary contexts, material values with intangible ones, and local craftsmanship

with international excellence. In such instances, the initiatives undertaken by fashion brands go beyond offering evocative settings for prestigious collections; they act as processes of cultural restitution and regeneration, promoting local identities and artisanal traditions within a global perspective.

Through ephemeral projects, particularly linked to fashion shows, maisons can directly intervene in spaces often deemed “untouchable,” demonstrating their capacity to harmoniously integrate with the genius loci while respecting the unique historical and cultural features of these places. Temporary installations and displays, often marked by grand scenography, do not merely function as spectacular events but serve as tools to raise public awareness about the value of cultural heritage, while expanding the ways in which such sites are experienced and interpreted. In this sense, fashion emerges as a cultural medium capable of initiating a dialogue that not only enhances heritage but enriches it with new interpretations and meanings [10].

In an era characterised by globalisation and rapid technological transformation, where traditional crafts face the risk of being overshadowed, fashion positions itself as an ally of culture, safeguarding and promoting local authenticity within a framework of international visibility. The initiatives examined reveal how an emphasis on cultural heritage can translate into concrete actions aimed not only at preservation but also at the economic and social revitalisation of the regions involved. Integration with local communities, through collaborations with artisans, artists, and cultural institutions, further strengthens the connection between fashion and sustainability, proposing innovative models of cultural and creative development [11].

Furthermore, it becomes evident that fashion can play a pivotal role in building a shared legacy, one that values cultural heritage not merely as a testimony of the past but as a dynamic resource projected towards the future. Through the interplay of contemporary creativity and historical traditions, maisons enrich their aesthetic language while simultaneously reinforcing collective identity and fostering intercultural dialogue of significant symbolic value. This serves as a powerful catalyst for interconnectedness, leaving a lasting impact on the relationship between aesthetics, culture, and territory.

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## Figures.

FIGURE 1 – The Courtyard of San Ildefonso College in Mexico City, set for Dior Cruise 2024 show (© José Luiz Bernardes Ribeiro / CC BY-SA 4.0).

FIGURE 2 – Interiors of Dakar Justice Palace (built 1958), abandoned until Chanel funded its restoration and used it for the presentation of the Métiers d’Art collection in 2022, and since then used for Dakar Art Biennale (© Jeff Attaway / CC 2.0).

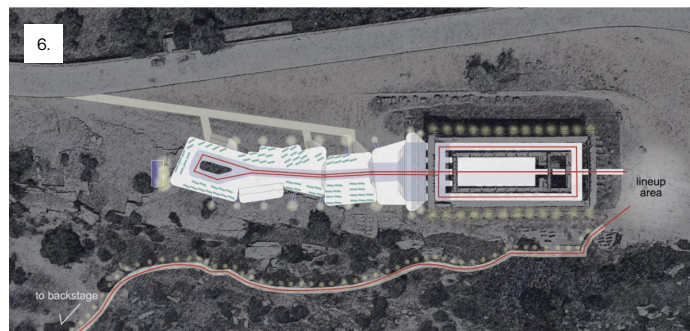
FIGURE 3 – Nora Mirage installation in the archaeological park of Nora during the summer of 2024 (© Diego Burgarella).

FIGURE 4 – Scheme plan of the Dolce & Gabbana Alta Moda 2024 fashion show setup in the Archaeological Park of Nora (© Sara Ghirardini).

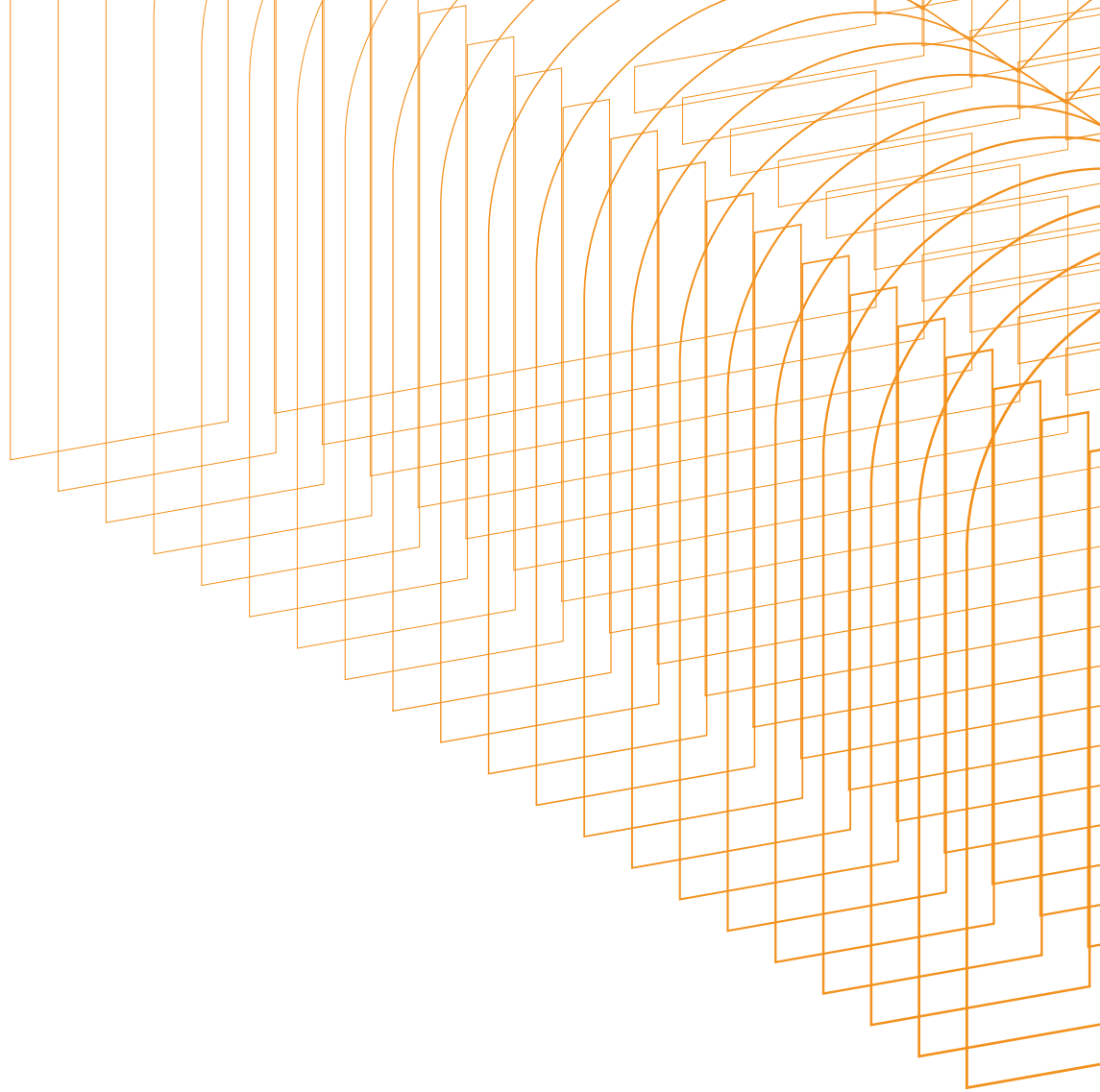
FIGURE 5 – Tempio della Concordia in Agrigento Valley of the Temples, as it usually appears to visitors, who cannot enter the sacred space (© Sara Ghirardini).

FIGURE 6 – Scheme plan of Dolce & Gabbana Alta Moda fashion show at Tempio della Concordia. The lighter area indicates the temporary platform that was kept in place for the whole summer, allowing the visit to inner temple parts. (© Sara Ghirardini).









## FAMILY, HERITAGE AND CULTURE. A DIFFERENT PERSPECTIVE ON THE PRESERVATION OF THE NATIONAL HERITAGE/

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**Abstract.** The purpose of this research is to address the ownership and abandonment issue of the historical monuments, one of the main causes of the national decay of historical architecture in Romania. After World War II, in 1948, the Nationalization Law was enacted, leading to the confiscation of private enterprises. Two years later, a decree was issued that extended the state's control to the headquarters of these enterprises, along with the homes and other forms of immovable heritage the elite owned. Afterwards, the state often confined the rightful owners of historic buildings to a small section of their property, imprisoned or dislocated them to forced domicile, replaced them with other social groups, or, in some cases, forced them to cohabitate. This upheaval disrupted many individual and family lives across generations, severing the natural familial connection to their ancestral homes. Consequently, we now face a situation where multiple tenants, concessionaires and administrators inhabit one historical monument and lack a natural attachment to the building they inhabit as well as they lack cultural knowledge. Some of the original families spent decades reclaiming their properties. Some had regained them in a context where maintenance costs exceed their financial capacity. During the endeavor they saw their intrinsic bond to these buildings eroded. In addition, due to limited financial means in most of the cases, many of the historical monuments remain neglected. In conclusion, there is an urgent need to reestablish a positive relationship between current owners and the historical monuments they possess. This should include heritage education for the owners, anthropological research, financial aid and international collaboration. The effort has the potential to restore trust in the state among monument owners, heritage experts and society and can lead to a situation where the owners take better care of our common architectural heritage.

**The nationalization of houses and other properties after world war II.** During the post-World War II urbanization process, which involved significant demographic shifts, the naturalization process commenced. In 1948, the Nationalization Law was enacted, leading to the confiscation of all private enterprises. Two years later, a decree was issued that extended the state's control to the headquarters of these enterprises, along with any houses or other forms of immovable heritage they owned. The decree included hotels, buildings damaged by earthquakes or war, and other properties. Later, under the guise of the 1977 major earthquake damage to the capital, despite opposition from heritage experts, the state demolished a part of Bucharest the size of Venice, and replaced it with socialist urbanism and architecture.

One of the most important reasons for the deterioration of historical

monuments in Romania is the fragmented ownership. Many houses, important buildings or heritage sites held by private enterprises and owned by the elite were confiscated after the second World War and have been under state ownership for more than half a century. After 1989, some of the expropriated homes went through a process of restitution, fraught with corruption and inefficiencies. In other words, a long separation occurred between the owners and their homes, which, in some cases, were eventually reunited with their original owners in recent decades. The expropriated generations of owners often did not live to see the moment when their family regained the properties, leaving their heirs to inherit the trial, the buildings and the psychological burden of the injustice they had endured.

**The home as a soul symbol.** A house is more than a physical structure. A house is considered a strong self-symbol and is the repository of memories and the place where one's identity takes shape [1]. The rupture between humans and their house was probably one of the most important traumas that communism produced with long aftereffects, and it was not a punctual event. Based on my personal experience, I have become increasingly aware of the emotional repercussions on generations affected by expropriation, which may include feelings such as sadness, frustration, anger, and resignation. A former family mansion in Santău, Satu Mare County, which was bombed during the Second World War, was later confiscated by the state as a ruin. The family was only recently financially compensated after a prolonged legal battle and exhaustive administrative processes initiated by my maternal grandfather (1914–2002), a lawyer, following 1989. In this case, the mansion, now in ruins, was repurposed as a local school. The heirs chose not to reclaim ownership of the building and land, instead opting to leave them to the community in exchange for financial compensation. Ironically, following the 1989 regime change, local authorities erected a bust of Leontin Sălăjan, a prominent communist figure after World War II, born in Santău, in the school's front yard.

To emphasize the narrative more effectively, I conducted a brief interview with Constantin Șerban Cantacuzino, although the case of the Cantacuzino family is exceptional [2] in terms of material and historical heritage and perhaps as well in terms of measures applied by the totalitarian state. I have thought of a set of questions to highlight lesser-known aspects of the expropriated families' experiences, including: the owners' education, professions, and cultural background; memories of the home and its movable heritage; the moment of property confiscation; the displacement and exile they faced; population influx; the process of reclaiming the property; the state of the home after 50 years and the present challenges.

Conversely, what initially appears to be a collection of individual narratives reveals a broader, more significant societal impact. The so-called quarrels and passions inside the international conservation movement [3] are very vivid in Romania today as they are intertwined with personal stories of nationalization and the general physical decay and abandonment of heritage buildings. Many of the prominent specialists are direct successors of the expropriated elites or the administrative successors of their persecutors – the public advisors. These pronounced national quarrels underscore a deeper collective problem.

**Rupture between home and owner.** The numbers regarding the displaced landowners (“relocated elements”) in March 1949, a Numerical Situation of Former Landowners, drawn up by the General Directorate of the Police/Miliția on January 24, 1951, mentions a total of 4,375 heads of families and a total of 8,528 people, of which 1,573 are from the city of Bucharest and 6,955 from the regions [4]. These numbers could be relevant for nationalization of properties in the 40ies - 70ies, but the confiscations were done in several stages and the displacements of the landowners were of short term. Probably many categories of historical monuments had a similar story, among which we can identify [5] 339 mansions, 221 villas, 150 palaces, 20 fortified houses, 9 manor houses, 143 castles, numerous gardens, 79 banks, 17 warehouses, 3 slaughterhouses, 17 granaries, 5 barns, 47 inns and taverns, 72 hotels and restaurants, 18 casinos, 65 power stations, factories and plants, 5 other industrial monuments and other. To all these we add the properties of the religions that were not tolerated by the state.

The owners were usually the liaders in their localities and surrounding areas by superior education and manners and the philanthropic activities of the elites. As Constantin Șerban Cantacuzino, stated:

*“My grandfather did not practice as a doctor at the Râfov manor, but he provided free medical care to all the villagers. He also took care of the children going to school, dressing and providing shoes for them so they could attend school even during winter. When the Russians came in 1940, everything changed, and he was placed under house arrest in Pitești, where unfortunately, he passed away.”*[6]

The moment the house was confiscated, was generally marked by aggressivity, humiliation and injustice. I have asked C. Ș. Cantacuzino if his grandfather received any previous notice about the nationalization of his house probably in 1951 and his answer, in a sad resignation tone with repressed anger, was relevant:

*“To inform them?! My grandfather was at the manor when six men dressed in black leather entered. No one from Râfov wanted to take part in the event, which was done with a lot of fuss, and they said “Why? We have nothing against our master| conașu”. The six men had been brought from the Jiu Valley, and they took him. Over his pajamas, he put on some additional clothes. On his nightstand, he had a signet ring that was a family heirloom from the prince, and one of the men put it on his finger and they took the ring away. My grandfather was held for three days in detention in Ploiești, after which he was sent to Pitești.”*[6]

The evacuation and confiscation of all the belongings was done during the night time, without the assent of the local community and this is the atmosphere in which the vandalization of the mobile heritage of such properties – like the mentioned ring, an item of national importance – began. In order to create a sense of the value, diversity and richness of the mobile heritage I have asked for any memories from the houses and another violent episode emerged along with links to other incommensurable immobile values that were lost. At some point some close family party that had joined the new regime asked his grandfather if he would like to have something from the house, and the former owner of the mansion had asked for a folder with a collection of stamps and a few books from the library. “My grandfather was interested in what had survived from the Alexandria library,

*some treaties that had an immeasurable value. His comrades burned them in front of the house – <<we don’t need what the boyars read>>.”* [6]

Forced dislocation, forced domicile and exile followed the nationalization of their properties. A note dated December 23, 1953, prepared at the verbal order of the Minister of Internal Affairs, contains a report on those who were under house arrest throughout the country at that time, with a total of 51,341 individuals. [7] C. Ș. Cantacuzino’s paternal grandfather was “placed under house arrest in Pitești, where unfortunately, he passed away”. His grandmother [8] “was sent to Bacău, but she didn’t go; she stayed for three days with friends and then returned to Păulești, where everything had been destroyed and taken. However, she found an annex where she lived.” There, somehow, they left them 6,000 square meters of land for her to live on, that were later supposed to be taken away too in 1973, but C. Ș. Cantacuzino had moved there in order to prevent that from happening, declaring that he will make agriculture. C. Ș. Cantacuzino’s father, expelled from the university as an “enemy of the people”, was forced to move to the Jiu Valley, as it was the only place he could find employment was the mining complex. Later, with his wife that he met there, moved to Bucharest. Another family house on Polonă 7, Bucharest “had a strange history; it was not nationalized”. The family was moved from the house. Maria Cazimir, the married sister of his grandfather with her husband, returned to the house on Polonă 7, after they found out that the person who lived there was moving. This last story shows the connection between family members and their houses, and especially the intrinsic longing for the house, that most likely had been a general feeling for all the dislocated families.

After the nationalizations of homes, the population was randomly distributed inside them. Emanuela Grama [9] published a study indicating the dramatic change in the social and ethnic composition of Bucharest’s Old Town after World War II. In the soviet countries during the Cold War [10] it was considered that the built heritage was permeated by hostile value systems – religion, feudalism and bourgeoisie applied to the main types of buildings (churches, palaces, industries, banks, etc.). The complicity of conservation with fascism was addressed as well and also, the incompatibility of old buildings and complexes with socialist aspirations for the future were aspects that contributed to the general atmosphere. Some researchers state that an unofficial influx of economically disadvantaged and undereducated populations was facilitated inside the nationalised homes, potentially with the aim of gradually undermining heritage values [11].

**Re-bonding with the house.** Following the regime change in 1989, the state slowly implemented administrative mechanisms to return nationalized properties to their original owners. For many victims, reclaiming ownership of their homes proved to be a lengthy and arduous process. Meanwhile, illicit businesses were formed – with persons buying litigious rights [12] – that most likely had inside information [13] that were coming at the former owners that were in vulnerable health, old or in financial difficulties, some living abroad. For those who started a process the trial lasted for years of frustrating and endless solicitation of documents. And another set of painful events was faced by the descendants of the owners, who saw the destruction continue long after 1989. Looking at the conservation status of the buildings of the majority of the historical monuments, we

can assume that after 50 years many of the houses and properties regained after a long and complicated trial, were returned damaged, with stolen and destroyed elements.

*The manor at Râfov was destroyed in '92 — I emphasize 1992, and it was not demolished by the communists; it functioned as a town hall until '92. The first ones who stole what they found interesting were the mayor at that time and the police chief, who left together for a small house with four rooms, 100 meters across the street after the trial, which was easy to maintain. In winter, heating costs more, and they stole everything, everything that was there. They took the metals first, then wooden beams as much as they could from the roof. In 2000, I came into possession of the building, and I was alerted by them that it was a historical monument, so I shouldn't modify anything. I said: "In this state, what should I modify?". The land registry is still not clarified so I can make a project, while some have already been built nearby. What can I say? It's a mockery. All the mayors up to now have allowed something to be done; if it is a monument for me, why wasn't it for them? A state representative told me to file a criminal complaint [against the illegal construction that was built in the vicinity]. That is, I would be the one guilty, not the town hall or the heritage department. I didn't do it. He called me saying it would remain there; I spoke with the mayor, and I was promised that it would be resolved by winter. Let's see if these are realities or just stories, as I am tired of promises. [13]*

In this case, the heirs took the house in possession – destroyed by abandonment and vandalization, after it was used by the state representatives that have failed to protect the cultural heritage and, as it seems, failed to create a natural bond with the building while they were using it. On the other hand, the feelings the owner has towards these authorities is obvious and is, most likely a prolonged feeling of the attitude of the family towards the state was formed in the first 20 years of communism and later, to this day.

The difficulties that the owners faced after recovering ownership of their houses were economic, administrative, legal concerning the conservation of historical monuments and other. Sometimes occupied by objects that belonged to the temporary tenants that could not be moved for a long while, as it was the case of the house on Marin Serghiescu Street in the Cantacuzino family, reclaimed after four years of legal proceedings [13]. Meanwhile the house served as a storage facility for the mobile heritage of the Museum of the City of Bucharest. The museum did not have financial resources to move the mobile heritage and the owners were, even after the trial and decades of communism unable to use the house properly as *"the mobile heritage could not be thrown out onto the street because it could be destroyed"* [13]. After they left, the house was rented to the Spanish Embassy for the Cervantes Cultural Institute, until they moved to a larger space. Later on, the new director of the Museum of the City of Bucharest asked for rent.

Regrettably, similar practices detrimental to architectural heritage persisted even after the events of 1989, as exemplified by the case of the Matache Market and the Buzzești-Berzei boulevard. These demolitions, carried out under the direction of the mayor in 2011, marked a continuation of such destructive trends in democracy.

In the contemporary developed societies, a major factor in human unhappiness is the loss of the connections between us and the environment, the

world around us [14]. Consequently, the most important connections of humans with the environment are their home, their neighborhoods and their heritage.

**The dual ownership of heritage houses: the individual and the state.** The communist regime had a lasting impact on property ownership and cultural heritage in Romania. The aftermath of the communist regime has profoundly affected three generations, creating a lasting trauma that severed individuals from their expropriated homes, even in cases where legal victories were achieved. This disconnection resulted in a significant loss of identity, disrupting the continuity of personal and familial histories. It also led to a massive depletion and vandalization of both built and movable heritage. While some properties were never reclaimed, others fell into the hands of organized networks that exploited legal and administrative systems. Even post-1989, authorities have perpetuated harmful practices that continue to damage cultural heritage and undermine the rights of the original owners.

For Romania to foster a deeper societal appreciation of cultural heritage, it is crucial to respect and rehabilitate the historical owners and their legacies. This process should occur at both the national and individual levels, particularly in cases where state-owned, historically significant buildings are in need of restoration. A national strategy should include the following restorative measures:

1. *Inventory and collaboration:* An updated inventory of nationalized properties and their ownership, particularly those now designated as historical monuments, is essential. Collaboration between key institutions — such as the Ministry of Culture, the National Authority for the Restitution of Properties, and the Institute for the Investigation of Communist Crimes and the Memory of the Romanian Exile and others — is important for coordinating efforts.
2. *Financial aid and heritage education:* Financial assistance for owners and targeted education programs about cultural heritage should be provided. Education programs must cater to various groups, including heirs of the former owners, the state, and those who have been assigned properties from state institutions. Each group has unique needs: heirs who have regained properties need information about the legal frameworks protecting cultural heritage, while those assigned by the state owners or state institutions must learn to appreciate the cultural value of these assets through community engagement.
3. *Research and state support:* Anthropological research on the expropriated generations should be conducted, including interviews with heirs. Additionally, the state could provide support for these heirs to meet and share their experiences, helping them navigate past injustices and current challenges. Public dialogue, acknowledging guilt, and action by the state are crucial in this context. Conferences and publications would help heritage experts and owners better understand the differences between administrative bodies and the human and emotional element of these issues.
4. *International collaboration:* Romania could also benefit from partnerships with other former Soviet countries that have faced similar challenges, learning from their approaches to restitution and rehabilitation of heritage.



A significant state investment in the systematic rehabilitation of historical monuments that were nationalized remain under public ownership is a priority. The deteriorating condition of these buildings underscores the ongoing professional tensions within the field of heritage conservation, tensions that have been exacerbated by the communist legacy.

Rebuilding both collective and individual emotional bonds with these properties is essential for both the original families and new occupants, especially in cases where assets remain unclaimed. Financial reparations, emotional redress, and policies that honor the contributions of landowners and elites who played a foundational role in shaping the nation are necessary steps in restoring trust in authorities. By addressing past injustices and fostering a sense of shared responsibility, Romania has the opportunity to transform its historical monuments from symbols of loss into beacons of cultural identity and resilience, ensuring their preservation for future generations.

### Acknowledgements.

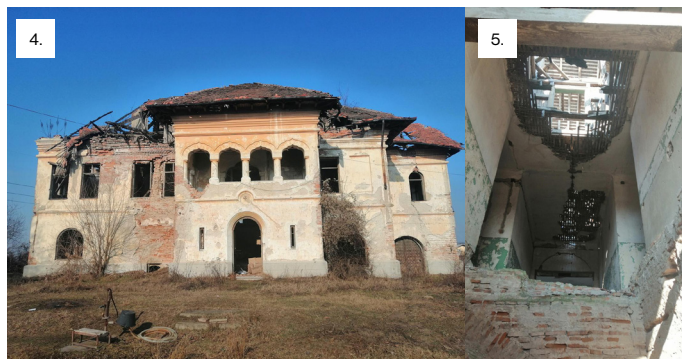
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### Figures.

FIGURE 1-5 Via Constantin Șerban Cantacuzino – family archive.



## ADAPTIVE REUSE OF BUILT HERITAGE FOR PUBLIC USES. A CREATIVE AND CONSTANTLY EVOLVING DESIGN PRACTICE./

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**Abstract.** The extraordinary amount of disused, abandoned or ruined built heritage - both monumental and ordinary, listed or not - can be traced as one of the characteristics of contemporary urban culture in Europe, especially in mediterranean contexts. The emergence and development of the so-called 'knowledge economies' in the creative field, the promotion of recycling practices, sustainability issues, environmental and resource conservation policies, and a renewed sensitivity towards existing heritage by the academic and professional community, make adaptive reuse practice increasingly important in both project practice and academic discourse, especially in the European continental context. The paper aims to investigate and analyse the main characteristics and concepts underlying the adaptive reuse of built heritage as a distinctive contemporary design practice, starting with a theoretical examination of its evolution from spontaneous practice to aesthetic one, to moves then to a critical reading of the "design attitudes" of contemporary projects towards the existing, with particular focus on recent interventions characterized by innovative and resource-saving approaches to the heritage, and on public-related uses and functions, in order to draw a critical-theoretical background for further researches on the field.

**Introduction.** Adaptive reuse of the built heritage is a "discipline" [1] that, although inherently present in the act of building, has recently garnered increasing attention and development—both in professional practice and academia—particularly in response to contemporary demands for sustainability in construction processes and the reduction of land consumption. Successful projects, architecture awards, and academic research have contributed to systematizing this discipline, now widely recognized as an essential component of contemporary design and a fundamental tool for urban regeneration. It facilitates the functional hybridization of historic buildings, transforming them into cultural spaces, co-working hubs, and social gathering places.

Engaging with the theme of reuse inevitably necessitates reflection on cultural heritage and the transformation of objects or buildings over time. As highlighted by Latina [2], "to transmit a building requires interpretations, translations, and reconstructions. Translation, betrayal, and tradition share the same Latin root — *trader* — which means to hand down, transmit, deliver." Every act of reconstruction, therefore, is an interpretive operation that "transports the existing into a new dimension, from the ancient to the contemporary." This perspective underscores how reuse is not merely a technical process but also a cultural and interpretive act, enabling the fusion of historical memory and design innovation. It emerges as a pivotal

practice for fostering dialogue between past and present in the context of architectural and urban regeneration.

This text, a re-elaboration of research conducted during the development of the doctoral thesis and based on a multifaceted analysis of case studies in adaptive reuse, addresses the theoretical, conceptual, and interpretive framework of adaptive reuse in contemporary practice. FIGURE 1.

**Adaptive reuse as an evolving practice.** The vast amount of disused built heritage—whether monumental or ordinary, protected or unprotected—and, consequently, unused or abandoned, represents one of the defining characteristics of contemporary urban culture in Europe [3]. Traditionally, the continental approach to built heritage has focused on the conservation of protected monuments. However, in recent years, the promotion of practices aimed at recycling and enhancing built heritage has spurred an expansion of research and a renewed sensitivity toward ordinary and non-protected heritage.

A clear example of this evolution is the prestigious Mies van der Rohe Award—EU Mies Award for Contemporary Architecture—which, since its inception, has served as a barometer for the directions of European architectural design. Over the past decade, there has been a marked trend of winning and finalist projects adopting reuse strategies [4]. This trend underscores how this practice, bolstered by an increasing aesthetic and cultural sensitivity, has become firmly established in the urban realm. Additional examples from international accolades, such as the Pritzker Prize awarded to Lacaton & Vassal for their extensive work in reusing modern heritage, further illustrate this shift. International exhibitions—including Reduce. Reuse. Recycle at the German Pavilion of the 2012 Venice Biennale and Reuse, Renew, Recycle: Recent Architecture from China at MoMA—alongside academic and theoretical research, such as the 2016 PRIN project Re-Cycle Italy, have further explored and highlighted the consolidation of this practice.

**Etymology and Conceptualization.** Etymologically, the concept of "reuse" stems from the verb "to reuse" [5] which encompasses multiple semantic dimensions, such as reinterpretation, repetition, substitution, and the reintroduction into the life cycle of elements that have lost their value, utility, or functionality. "Adaptive," on the other hand, originates from the term "adaptation" [6]—derived from the Latin *ad* (to) and *aptare* (to fit, adjust), itself a derivative of *aptus*—and describes "the act and fact of adapting." More specifically, it refers to "making suitable for a specific purpose [...] conforming (biologically or spiritually) to certain conditions of the environment, life, or reality, gradually reducing one's reactions or resistance to those conditions."

In biology, adaptation refers to "the correlation between the structures and functions of organisms and the environmental conditions in which they live, and the achievement of that correlation."

The extension of this semantic field from biology offers a crucial interpretive insight into adaptive reuse in architecture: it can be understood as a transformational process aimed at achieving balance and harmony between the environmental context and the requirements of a building's new use. Another key concept that emerges is the "evolutionary" dimension of

adaptation, which implies viewing the built heritage and urban landscape as living organisms subject to continuous change, adjustment, growth, and, in some cases, reduction.

Adaptive strategies for reusing built environments may range from near-radical transformations to minimal, light-touch interventions, depending on the sensitivity and intrinsic relationships that the designer establishes with the object of intervention [3].

**Historical and Critical Contextualization of Adaptive Reuse.** The study of challenges related to the integration of contemporary interventions in the built environment cannot overlook the historical evolution of reuse or the key events that shaped its development. It is evident and self-evident that the act of building upon the built, reusing the ruins of the past for new constructions, and adapting ancient buildings to new uses is as old as human history itself. Initially, reuse emerged as a spontaneous response to the need to conserve materials, optimize construction effort, exploit symbolic value (both individual and collective), and address economic considerations [7]. The city, in its historical evolution, can indeed be interpreted as a palimpsest, continually rewriting its memory upon itself [8],[9]. In the pre-modern era, particularly from the 19th century onward, with the development of conservation theories, interventions in the built environment began to take on an “aesthetic” and theorized practice. Initially, this was framed within restoration, in opposition to the modern construction of new works. Subsequently, the expansion of the concept of heritage initiated a process of hybridization, blending more conservative ideas with transformative and interventionist approaches [3],[10]. After World War II, artists, architects, critics, and intellectuals began challenging established theories about the past, the concept of heritage, and its relationship with history in response to significant societal changes in the Western world [11]. The post-war intellectual and artistic evolution profoundly influenced societal attitudes toward existing heritage. In architectural design, the ruin as an aesthetic concept gave way to the fertile ground of recovery, assemblage, and invention inspired by the avant-garde artistic and literary techniques of the 20th century [12]. FIGURE 2.

**Pioneers of Reuse: Emblematic Examples of Attitudes Toward Existing Heritage.** From the 1960s and 1970s onward, some architects began applying innovative concepts of heritage reuse in their projects, aimed at social, public, creative, and intellectual purposes. These represent “pioneering” efforts that paved the way for the contemporary practice of adaptive reuse. Among them, the decades-long work of Giancarlo De Carlo for the urban regeneration of Urbino, commissioned by Rector Carlo Bo, stands out. Similarly notable are the refined museographic interventions of Carlo Scarpa, such as those at Castelvecchio in Verona and Palazzo Abatellis in Palermo, as well as the design of the Archbishop’s Museum by Sverre Fehn in Hamar. At the turn of the millennium, several projects involving the reuse of industrial areas and buildings opened the door to the creative reuse of existing heritage. Notable examples include the Zollverein Industrial Complex, now a UNESCO World Heritage site, and the transformation of the Turbine Hall at Battersea Power Station by Herzog & de Meuron into the Tate Modern Gallery. These projects profoundly influenced international architectural culture, shifting the focus away from seeking the “Bil-

bao effect” through heroic new constructions to emphasizing the recovery and recycling of the existing. Subsequent large-scale international cultural projects, such as the conversion of the Palais de Tokyo by Lacaton & Vassal and the Neues Museum by David Chipperfield, further institutionalized adaptive reuse, solidifying its place in contemporary architectural practice. FIGURE 3.

**Framework and Characteristics of Built Heritage Reuse.** Addressing the topic of adaptive reuse of the existing built environment in contemporary contexts allows for the examination of numerous issues and challenges that urban areas face today. These challenges form the framework for understanding the recent development and success of this emerging “discipline”:

1. **The abundance of unused public buildings:** At both national and international scales, there exists a vast quantity of underutilized public buildings, representing an untapped potential that could be reintegrated into the lifecycle of cities.
2. **The question of “what to do” with this heritage:** This requires balancing conservation, transformation, and development. As Plevvoets and Van Cleempoel [3] highlight, “the separation between heritage and development risks turning Europe into an open-air museum, stripping it of its innovative potential.”
3. **The rise of knowledge economies** [13]: These have spurred the development of new entrepreneurial forms, redefining urban use through the transformation of obsolete industrial areas and buildings into cultural and creative hubs. These transformations are often achieved through participatory processes and public-private collaborations [14].
4. **The international policy framework focusing on sustainability and resilience** [15]: Urban policies now emphasize addressing climatic, environmental, and social challenges through the promotion of “zero-volume” practices.
5. **The demand for authenticity in contemporary society:** In an era characterized by the proliferation of digital, augmented, and virtual realities, there is a parallel surge in the demand for “authenticity.” Built heritage is perceived by local communities, as Sally Stone [16] asserts, as a repository of symbolic and emotional values. It embodies collective memory and authenticity, growing in value in the digital age due to its “patina,” the marks of time, and its layers of historical use.

In contemporary discourse, the concept of “value” attributed to buildings has expanded and become more nuanced. It is now understood as a “palimpsest” [8]: a layered repository of materials, histories, and narratives. This awareness enables the potential of existing heritage to be harnessed not just in economic terms but as a “value complex” [17]: a multifaceted resource encompassing historical, material, and identity values, making it a fundamental asset for the city of the future [18].

Buildings deemed “reusable,” characterized by a degree of “identity stability” and “openness” to change, can be conceptualized as “dynamic-stable structures” [17]: entities that, according to Baum and Christiaansee, can meet current and future needs through a combination of adaptability and



historical layering.

Such approaches align with contemporary design culture, which aims to densify and reorganize cities from within [19]. Built heritage thus emerges as a strategic resource for urban development, addressing the demand for urban quality and contributing to the regeneration of places that, due to their unique characteristics, present unparalleled opportunities for cultural, social, and economic enhancement.

**Interpretative Categories of Adaptive Reuse Projects.** The theme of how to approach and how to act on the built heritage constitutes one of the central notions in reuse practices. Starting, therefore, from an existing structure endowed with a certain system of “values,” and with characteristics of “openness” and “stability” working and operating on the concept of “distance” [20] in iterative and circular ways, the adaptive reuse project allows for the reorganization of the city according to various strategies of action, or “design attitudes,” which, in their explanation, can be useful in understanding and categorizing the multiple ways of acting on the built environment, following a tradition of critical reading of examples of clear fame according to interpretative categories [21]. The critical interpretative categories identified within the research are based on a reading logic aimed at identifying actions that represent the peculiar aspects of the design interventions in relation to the existing context, and which are exemplified by the following categorization: reuse as urban strategy; reuse as “superimposition”; reuse as “over-writing”; reuse as “infrastructuring”; reuse as a “scenographic setting”. The choice of case studies to analyse itself is an integral part of the research, with an iterative process of analysis and exploratory phase, in relation to the expansion and contraction of the themes and the “area of interest” of the investigation. The categories analysed in the doctoral research, which will not be exhaustively discussed here, refer to projects characterized by a great variety of disciplinary approaches and interventions, significant and recent examples from the European context, analysed in order to obtain as complete a panorama as possible on the adaptive reuse of heritage in contemporary European architecture. Projects that make urban strategy their central core [22], such as in the case of the city of Barcelona, make creative reuse a key tool for the installation of civic networks that strengthen identity and regeneration of entire parts of the city. However, even on a smaller scale, the “urban thought” guides highly relevant interventions, such as the process of upgrading and regenerating the San Pietro courtyard complex in Reggio Emilia, where the architectural project has been combined with “bottom-up” policies and practices that have populated and activated the “software” of those places, reactivating a complex part of the city. Projects that act on the theme of “rewriting” work on the concept of the palimpsest, that is, on the theme of working with a deep balance between the action of “subtracting” and “adding” architectural elements to the existing context with various “gradients of intervention” in the reuse project, from the almost entirely subtractive action of Lacaton and Vassal at the Palais de Tokyo to more complex and refined processes such as the Sala Beckett by the Catalan architects Flores & Prats. Other projects focus, instead, on the “superimposition” of a new “layer” onto the existing, almost without touching the building on which the project is based: these are those projects where even the

formal and spatial data of the architectural project can be configured as independent from the existing structure, as in the case of the “PC Caritas” project by de vylder vinck tailleu, which superimposes a new “interior landscape” inside the shell of an old medical pavilion in the psychiatric campus of the city of Melle, Belgium. Reuse as “infrastructuring” acts in a manner similar to superimposition, but with a more “functional” intent and strategies in the insertion of “infrastructures” made of passageways, service spaces, and technological equipment capable of reactivating a given space and making it respond to the required functions, without sacrificing spatial quality in the interventions that are carried out: this is the case of the project by Harquitectes for the **Lleialtat Santsenca Civic Center** in Barcelona, where the new project is based around a system of stairs and balconies structurally independent of the existing, distributing to all the rooms and constituting an internal public space for the users.

In adaptive reuse projects in contexts of value for exhibition or institutional purposes, the project becomes a field of architectural experimentation in the contemporary approach to reuse and restoration, integrating new and existing in an almost “tailored” way as in a “scenographic setting”. Examples include the emblematic and unavoidable case when speaking of adaptive reuse, the **Neues Museum** by David Chipperfield, recently awarded the 2023 Pritzker Prize, also thanks to numerous reuse projects carried out starting from the ambitious Berlin operation, or the project by Jean Nouvel for the Roman headquarters of **Alda Fendi Esperimenti**, where the exhibition program is hybridized with innovative forms of residential and entertainment spaces. FIGURE 4.

**Conclusion.** The presented research highlights how adaptive reuse in contemporary design can be considered a consolidated practice in the continental context and how it constitutes an effective tool for the sustainable development of cities, capable of enhancing the life cycles and values of the existing building heritage of our cities, acting as a factor of innovation in the processes of urban regeneration transformation, as demonstrated by numerous successful European case studies of design and applied research. Adaptive reuse of historical built heritage represents an emerging and now consolidated practice, capable of addressing the challenges of urban regeneration and climate change in an innovative and sustainable manner, confirming its crucial role in the current architectural panorama. Contemporary practice calls for, in agreement with Flores and Prats, a “right to heritage” understood as the awareness that “every generation has the right to work with what it inherits from the previous ones... and to critically work with the existing, until reaching a balance where the project actions are not new, but rather an evolution of what already existed” Adaptive reuse projects are therefore also clear examples of the concept of “care,” taking care of the urban contexts in which they operate, important parts of our cities where the built heritage carries with it value systems that go beyond mere economic value and are worthy of being transformed and reintegrated into the life cycle of the city; finally, it is an innovative field of action for the designer, who is deeply involved not only as a draftsman but also as a mediator and “ambassador of the building” for buildings that deserve another chance.

**Attributions.** This text is a re-elaboration of some of the findings of



the doctoral research thesis “Another Chance. Adaptive Reuse of the Built Heritage as a Tool for Circular Creativity” (Supervisor: Prof. Arch. Gianluigi Mondaini) XXXV cycle – ICAEA Doctoral School, Marche Polytechnic University (UNIVPM), DICEA Department, and the researches were conducted within the activities of H4HH – Hub for Heritage and Habitat Research Group.

The research adopts a multi-instrumental approach grounded in case study analysis and a research-by-design methodology. It explores the possibility of identifying, based on internationally renowned experiences and in alignment with the relevant literature, the characteristics of a ‘discipline’ that can describe and encompass interventions on the existing built environment where public or public-private functions drive changes in use and innovative contemporary transformations.

The building typologies involved, as well as the functions assigned to existing heritage through its reuse processes, reveal a varied and complex panorama. This includes spaces ranging from residential to exhibition areas, workplaces to community activity hubs, entertainment venues to public spaces.

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22. The emblematic case of the multi-decade path followed by Giancarlo De Carlo for the city of Urbino serves as a “spiritual father” for many other interventions and policies of public heritage regeneration aimed at adapting it to contemporary uses.

## Figures.

FIGURE 1 – Cover of the PhD research. The image is a collage by the Author, that synthesize the concept of the research, of reusing the existing for circular creativity.

FIGURE 2 – The Theatre of Marcello in Rome, in its medieval usage as shop on the basements, and actually after restorations (source: Wikimedia Commons).

FIGURE 3 – Evolution of reuse from the WWII (from top left: the destruction of Rotterdam; Castelvechio in Verona after Carlo Scarpa's interventions; Herzog & De Meuron's Tate Gallery in London; Moritzburg Museum by Nieto Sobejano (source: Wikimedia Commons).

FIGURE 4 – “Reuse As” interpretative categories of adaptive reuse projects: from top-left: Giancarlo De Carlo interventions on Urbino city centre (urban strategy); Sverre Fehn – Museum in Hamar (superpositioning); Lina Bo Bardi, Teatro Oficina (infrastructuring) Lacaton & Vassal, Palais de Tokyo (Over-writing); David Chipperfield Architects, Neues Museum, Berlin; Toni Girones, Vic urban regeneration strategy; Lacol, La Comunal espai cooperatiu, Barcelona; Flores & Prats, Sala Beckett, Barcelona; BAAS, Oliva Artes MUHBA, Barcelona; Zamboni Associati, Chiostris San Pietro, Reggio Emilia; De Vylder Vinck Tailleu, PC Caritas, Melle; Langarita Navarro, Medialab Prado, Madrid; Kempe Thill, Wintercircus, Gent; Jean Nouvel, Rhino, Rome (source: Wikimedia Commons and images by the Author).

1.

# ANOTHER CHANCE.

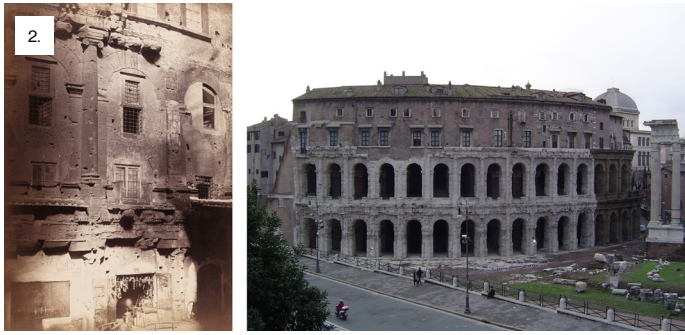
Adaptive Reuse of the Built Heritage as tool for circular creativity

PhD candidate: Francesco Giaschiera  
 PhD thesis: ~XXXV cycle  
 PhD PROGRAM IN CIVIL, ENVIRONMENTAL AND BUILDING ENGINEERING AND ARCHITECTURE  
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 Gruppo di Ricerca Hub for Heritage and Habitat  
 Docenti: prof.arch.Gianluigi Moridani, prof.arch.Maddalena Ferretti, prof.arch.Paolo Bonvini, prof.ing.Francesco Rotondo.

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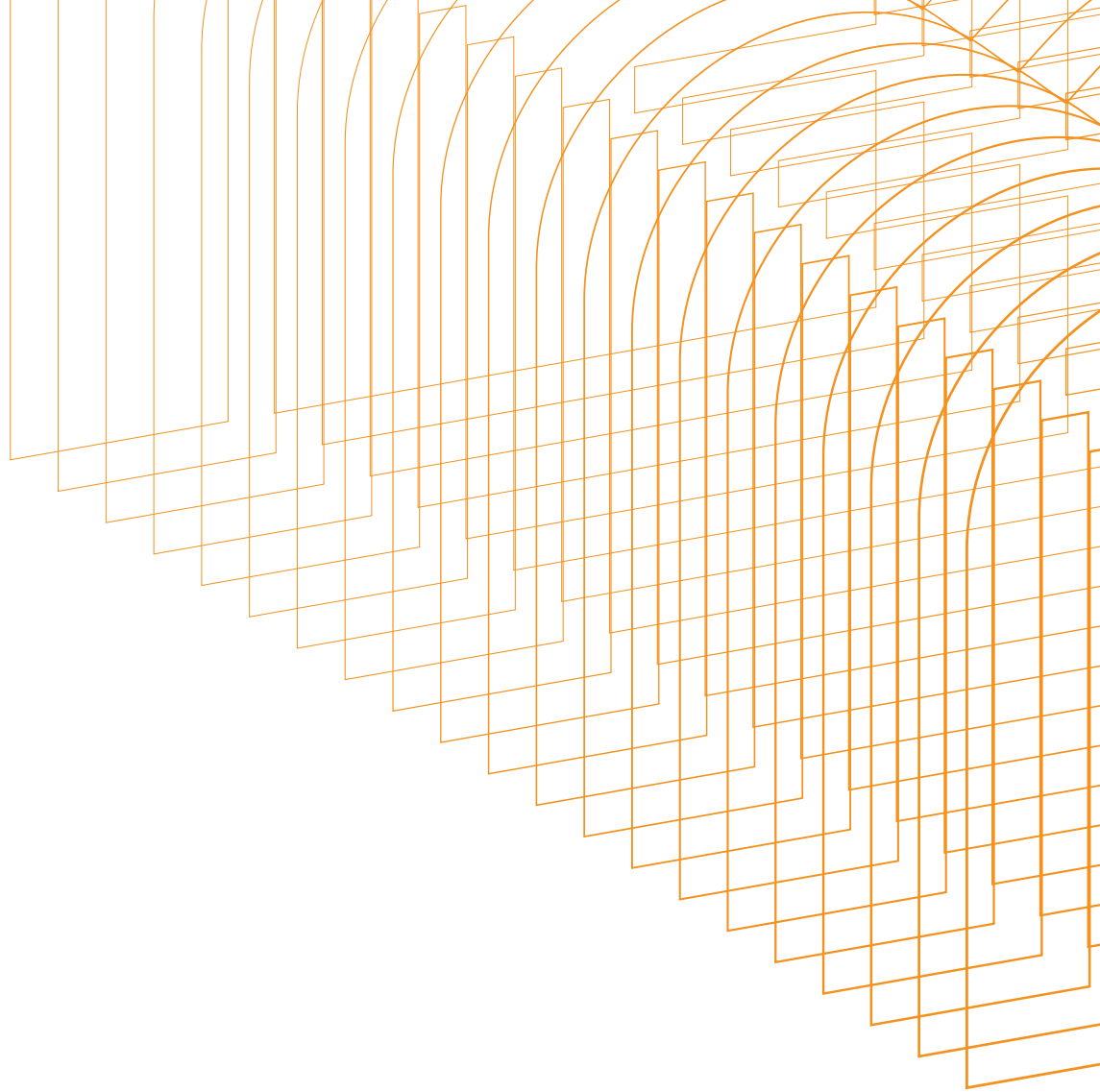
DICEA



4.

REUSE AS

URBAN    STRATEGY /    SUPERPOSITIONING /    INFRASTRUCTURING /    OVER-WRITING /    SCENOGRAPHIC    SETTING



## REUSE AND RENOVATION OF ARCHITECTURAL HERITAGE BETWEEN GOVERNMENTAL, ADMINISTRATIVE AND RESIDENTIAL USES. THE CASE OF PALAZZO COLUCCI AND THE FORMER CONVENT OF THE VIRGINS IN THE HISTORIC CENTER OF ASCOLI PICENO/

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**Abstract.** As part of the “third mission” activities, the relationships between the Department of Civil, Building, and Architecture Engineering at the Polytechnic University of Marche (scientific director Prof. Gianluigi Mondaini) and the National Agency for State Property has produced a study aimed at verifying the potential of a possible strategy for the reuse and repurposing of two significant state-owned buildings in the heart of the historical center of the city of Ascoli Piceno.

In particular the paper treats the case of Palazzo Colucci, with its garden and the former Convent of the Vergini later transformed and expanded to serve as a military barracks. Within this transformation process, the hypothesis of converting these buildings into the new headquarters of the Prefecture of Ascoli Piceno and into the new headquarters of the Southern Marche Superintendency, together with a university dormitory with related services open to the public has been proposed.

To meet the changing needs of the contemporary city, the hypothesis of a functional mix of governmental, administrative, and residential uses within a strategic part of the historic city can be an opportunity for urban regeneration and enhancement of the pre-existing architectural heritage. This approach sensitizes and coordinates a variety of public and private entities that, together, would actively contribute to the urban transformation process, bringing life and innovative uses to an urban area that is currently largely inactive. The intervention hypothesis, taking into account the various demands, has engaged with the spatial, geometric, and qualitative features of a system of historic buildings that mark the end of the ancient decumanus of the Roman layout of the city of Ascoli Piceno. This approach aims to respond to new requirement frameworks while primarily promoting an integrated architecture capable of dialogue between history and contemporary innovation.

**Introduction.** The recent Italian city, at least in its consolidated part, has hundreds of thousands of square metres of vacant and unused spaces. These spaces offer the opportunity for innovative programmatic and regenerative actions by those managing the future of our urban realities. The

fundamental question driving the research experience presented in this text is the following: is it possible to create a multidisciplinary think tank to outline the main directions for administrative action in the innovative repurposing of historic buildings and parts of the urban fabric? This would frame interventions within a unified strategy that considers the importance of heritage and the social identity of the city, emerging services and needs, economic actors and dynamics, while fostering the necessary synergy with private and private-social entities.

At present, cities need not only to consider micro-urban regeneration projects and the reuse of abandoned historical assets but also to outline a developmental pathway that defines their overarching strategies for the future. Cities today are all in search of “economies” and, above all, a clear and attractive identity. It is crucial to deeply understand what a city can become over the years, particularly for smaller cities with less established attractiveness. Only by preparing a pathway, formulating a transformation strategy, and effectively communicating it can we attract investors capable of supporting administrations in developing recovery programme with solid cultural and economic foundations for successful implementation and sustainability. No strategic investment fund or financial entity, particularly the European Union, will commit to funding operations without clarity regarding objectives or the ability to track progress over time against the model of the city being envisioned.

Such a model must be shared with city stakeholders through dialogue involving policymakers, businesses, the non-profit sector, academia, civic associations, and actors concerned with public spaces as common goods. As the “Hub for Heritage and Habitat” research group within the DICEA Department of Excellence at the Marche Polytechnic University, we are involved in several strategic actions within our territory that aim to address this question positively. This text presents a research work focused on the relationship between contemporary architecture and innovative heritage regeneration. The case study we propose could serve as a virtuous model of public action: the programme known as “Piano Città” (City Plan), implemented by the State Property Agency in various Italian cities. As a university research structure, we are advancing this programme in Ancona and Ascoli Piceno in synergy with the Municipality, the Region, and the University. This is not a conventional urban planning instrument but a specific action dedicated to the recovery of unused heritage, demonstrating significant potential for cities. The State, as the owner of many vacant buildings across Italy, convenes the relevant public actors—Municipality, University, Region, competent Ministries, and State Property Agency—to reactivate these assets by proposing programme and projects to a pool of investors based on a strategic vision for the transformation of a site that serves as a catalyst for the process.

It is essential to develop this vision first, clearly convey its objectives, and articulate the quality aspirations to enable stakeholders and implementers to envision the transformation. The “Piano Città” programme addresses buildings owned by the State and properties functional to its activities. The programme for the city of Ascoli Piceno, presented in this paper, envisages the recovery of a part of the ancient city featuring architecturally significant historic buildings, such as Palazzo Colucci and the Monastery of the



Vergini. These buildings have been abandoned for many years and were further damaged by the destructive earthquake that struck central Italy in 2016. FIGURE 1.

**A systemic approach to urban regeneration: revitalizing Ascoli Piceno through architectural innovation.** The aim is to tackle the issue of regenerating large urban voids with a systemic approach, guided by architectural and spatial vision, employing various methods and approaches to identify real needs within a general programmatic and strategic framework. For Ascoli Piceno, the recovery of Palazzo Colucci through its expansion would allow the Italian State to refurbish a property, consolidating all functions currently housed in three separate and distant buildings for which the State incurs rental expenses. Beyond the evident economic savings from consolidating the Prefecture's functions into a single building, the systemic approach has identified space for additional uses, such as a student residence with associated services and the new headquarters of the Marche Sud Superintendency within the volumes of the convent adjacent to Palazzo Colucci. This initiative would regenerate and revitalize a central area of the city, which has long been perceived as peripheral due to its abandonment.

The innovative approach of this urban and architectural regeneration hypothesis lies, far from the ostensibly preservationist stance of the slogan “where it was, as it was,” in embracing the notion of “impermanence” in the city and its buildings. Urban spaces have always evolved, transformed, and borne witness to destruction, modification, and reconstruction, reflecting their era. “A continuous process of making, unmaking, and reinterpreting what exists... cannot be governed by ‘transcendent and immutable’ laws but must adhere to autonomous laws... of becoming, which Caniggia described as ‘processual’, highlighting a harmony between history as the current state of what is built and structure as the process of construction/ mutation over time.” (Cecilia Anselmi)

The innovation we propose lies precisely in the interpretation of “harmony,” which involves attention to and recovery of the existing fabric through interventions that interpret and read forms and languages of historical and typological value, introducing necessary spaces and volumes that do not renounce their contemporaneity but whose new morphology reflects an interpretation and “harmony” with the pre-existing. FIGURE 2.

### **Hypothesis for the enhancement of Palazzo Colucci and a new student housing in Ascoli Piceno.**

#### **Repurposing and expansion as the new headquarters of the Prefecture**

The re-functionalization project for Palazzo Colucci in Ascoli Piceno, intended to serve as the new headquarters for the Prefecture, respects the typological and distributive characteristics of the pre-existing load-bearing masonry building, striving to accommodate new functions while aligning with the original layout as much as possible. Specifically, the typological configuration of the existing Palazzo Colucci is well-suited to the new uses required by the Prefecture, though the total gross floor area is insufficient to host all necessary functions.

For this reason, it is proposed that the smaller adjoining structures be

demolished and reconstructed with an extension, preserving and conserving the historic facades along Corso Mazzini (the Decumano of the Roman-founded city of Ascoli Piceno), which represent the most valuable parts of these annexes. The main structure of Palazzo Colucci comprises three levels: a ground floor interfacing with both Corso Mazzini and the garden of Palazzo Colucci—a public space—and two raised floors, with an attic space beneath a gabled roof. While the ground and first floors would house offices, conference rooms (including an expanded circular volume extending into the historic garden), archives, and storage areas, the top floor would accommodate the residence of the Prefect and the accommodation for the President of the Republic. In the proposed design, Palazzo Colucci would be served by two stairwells with lifts: one for public use and the other exclusively for the Prefect, providing direct access between the office and residence.

The adjacent extension, preserving the two historic facades on Corso Mazzini, would comprise four above-ground floors: a ground floor and two raised floors for offices, archives, and storage areas, and a fourth floor for additional offices and a multipurpose representation hall directly connected to the residential spaces of Palazzo Colucci. The facades along Corso Mazzini would be restored, maintaining the original appearance along this historically significant thoroughfare. On the southern-facing facades overlooking the Colucci Garden, the historic fenestration would remain unchanged, with the addition of a new circular volume at the ground level for events and conferences, shielded by brise-soleil. Adjacent to the Colucci Garden facade, the new extension volume for offices would harmonise with the circular conference volume through its brise-soleil design, reflecting sustainability and protection from direct southern sunlight. FIGURE 3, FIGURE 4.

#### **Repurposing and expansion of the former Convento delle Vergini**

The Ex-Caserma Umberto I, located opposite Palazzo Colucci and separated by Corso Mazzini, consists of a main building and a western wing forming an internal courtyard. From this wing extends another structure bordering the rear plot boundaries, shaping a second courtyard that was originally the cloister of the Monastery of the Vergini, the complex's initial function. Although the system comprises diverse buildings, the open space of the former cloister is characterized by ground-floor porticoes that serve as thresholds and relational spaces between the garden and the interiors of the various volumes.

For its repurposing, the first section of the wing, directly connected to the main volume of the Ex-Caserma, is designated for the new Superintendency spaces, while the remaining portion will house a student residence and associated services. The building intended for institutional use by the Ministry of Culture will have functional spaces on all floors, adapting to the masonry building's typology, all interconnected by a new stairwell and lift to meet accessibility and barrier-free standards. On the ground floor, spaces unfold sequentially through openings carved into existing transverse walls, featuring a reception area, a library, and a conference/meeting room. On the upper floors, the distribution system includes a central corridor accessing functional and service spaces such as offices, archives, storage,

and a small coffee area. The third and final floor is a large open space with ancillary facilities, dedicated to the Superintendent's office and secretariat, suspended within the spacious volume created by the innovative redesign of the building's wooden roof structure, which provides generous spatiality through its truss design.

The student housing units are located in the terminal section of the main wing overlooking the former cloister, which belonged to the Monastery of the Vergini before becoming the Caserma Umberto I and now awaiting conversion into university student accommodation.

With regard to the first section adjacent to the Superintendency, the existing volume is characterised by the presence of a central spine wall which, in section, configures interiors whose flooring on each floor is not coplanar. This constraint has resulted in variable residential configurations, including simplex and duplex rooms of varying sizes due to habitable mezzanines.

On the ground floor, an entrance/reception area provides access to the student housing, rooms, and shared services. The large pre-existing portico is converted into a shared living space enclosed by transparent glazing, preserving the original portico's structure. This portico also connects to additional system wings leading to common areas/TV rooms and a self-contained service block at the rear of the lot, housing a gym, study rooms, and dining facilities. These facilities are purposefully designed as new constructions within the open space and can be privately managed and accessible to the citizens, ensuring the vitality of the public heart of the complex throughout the day.

The student accommodation rooms span the ground floor and mezzanine, the first floor and mezzanine, and the second floor and mezzanine. They are distributed along wide corridors featuring micro-social spaces, kitchens, and living areas. The rooms are of various types, providing a total of 50 beds across 32 rooms, ranging from single rooms to duplex mini-apartments for multiple occupants, accommodating the pre-existing building's morphology. The floors are interconnected by three stairwells: one pre-existing and two new ones with lifts, aligning with the sectional development of the building. FIGURE 5, FIGURE 6.

**Conclusion.** The research work described here ultimately aims to reactivate a portion of the urban and architectural heritage of Ascoli Piceno, interpreting its valuable legacy while layering, juxtaposing, and superimposing the complexity of the new with ethical awareness of its necessity. This conviction is aptly summarized in an interview with Francesco Cellini, who observed that “subsequent usage, or even a series of entirely unrelated utilizations, has often been the true cause of the luminous presence of an ancient structure in contemporary reality—that is, in our culture and historiography. Such cases convey essential lessons... the genuine preservation of an ancient asset often arises from motivations that are far from cultural, and frequently utilitarian or explicitly pragmatic in nature.” (Francesco Cellini).

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#### Figures.

FIGURE 1 – Urban Framework.

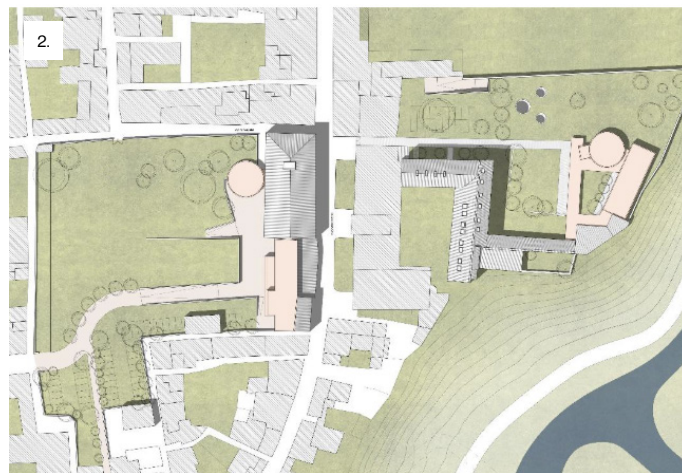
FIGURE 2 – General Plan

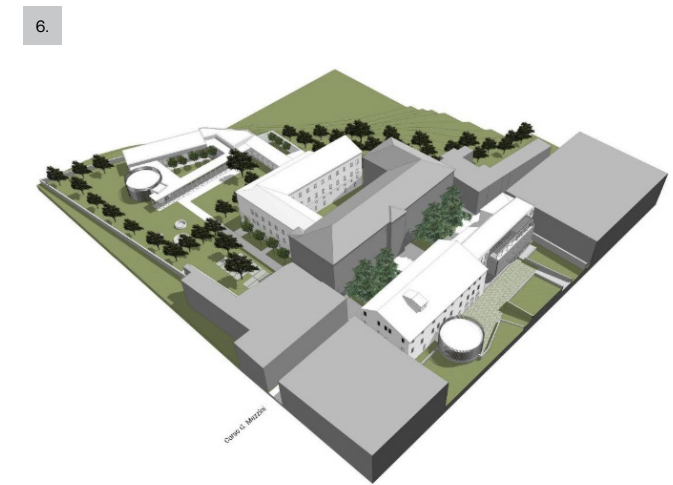
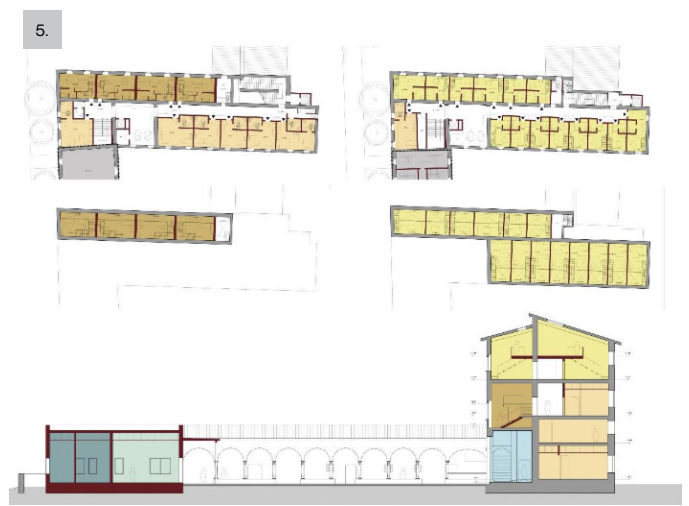
FIGURE 3 – Palazzo Colucci, Site Plan

FIGURE 4 – Volumetric View

FIGURE 5 – Plans and section of the design hypothesis

FIGURE 6 – Overall design volumes







## ENHANCING HERITAGE THROUGH SCHOOLS' DESIGN/

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**Abstract.** Every time people pass the neighbourhood they used to grow up in, some of the best of their memories come together, not only because schools represent something very special for their inner young souls, but because they are tangible, architectural pieces of cultural heritage that in most of the cases do not change for decades. Not only adults want to take a break and contemplate the whole feeling, but also, if children are around, they need to share with them the experience, and mostly, to outline the ME-MY SCHOOL correspondence.

In countries like Romania, for example, there are the First Romanian Schools, that are not one's own memory, but represent the pride of having a tradition that started with great ancestors. Then, there are the beautiful, decorated schools mostly from the 19th and 20th centuries that "graduated" when the WW2 started, but with the certification of being monuments of architecture. Despite the simplicity of shape and colour, the communist buildings are also of great value because they represent the memory of a contemporary generation, buildings with a great potential of extension and renovation due to simple but good structure, flexible spaces and easy adaptation to fire security or access issues.

Connecting schools, integrating the landscape architecture to create exterior-interior relations of spaces, enhancing the beauty of the facades, shapes or other valuable parts by using light both natural and artificial, technology integrated in the design like new but proper educational screens and gadgets, moving wall, windows or roofs, new sustainable materials, a must for the contemporary exteriors and interior that children need nowadays, architects can definitely revive the memories of a whole neighbourhood.

Education is the most valuable heritage!

Let's innovate schools! It's talked a lot, needed a lot, we just have to move better.

**Introduction.** "Teacher-centred learning in front of a blackboard has served its time. Instead, many schools now teach in open learning landscapes with movement and new functional areas. In addition, environmental comfort and lighting as well as questions of energy efficiency and technology have become decisive. [...] Specifically, participatory planning methods and innovative floor plans as well as sustainable design details are

documented. All projects aim to positively influence everyday life and to provide scope for new educational concepts.' [1]

The quote above have been a proof and a relief that after three years of continuous research about the chair and the pencil schools, things have been also researched and have been put under the same question by other specialists in one of the publications of this famous publisher's (Detail) book. Firstly, children need to explore the exterior world, not only to study; secondly, the exterior world is not enough, contemporary children need also to develop and understand their inner selves. Their perception of space, through all their senses, is very important in understanding all these exterior and interior values and the connections between them. As architecture is without doubt one of the finest structured art, specialists in this domain can certainly develop innovative, sustainable, beautiful and remarkable buildings and spaces for individuals and for community. Why? Because the physical characteristics of a building can certainly influence people in many ways, but mostly in school design, enhance creativity and ability to learn.

The first project of the current research was the project of an afterschool, where an old secession restaurant in Targu Mures, Romania, gained its fourth façade as a contemporary approach to the park it looked to. Instead, in front of the park, stood some large pictures with other city attractions on a fence that looked not only superficial, but quite residual after some time. This was the most populated park in the city, nest to one of the most famous zoological gardens in the country. With this project, not only the old restaurant may become available to public and function as entrance to the afterschool, accommodating administration, but also may revive through the restoration of its façade. Its attic might also work for some of the principal's and teachers' offices. A new atrium, an amphitheatre, classrooms, activity rooms and playgrounds, both interior and exterior spaces, are designed with innovative materials and new concepts. An infinity of light can enter the spaces. The furniture and learning activities are also based on Montessori and Reggio Emilia strategies, that tend to use nature as the most important tool. In conclusion, children may benefit from an alternative to the standard afterschool schedule and activities that do not work very well in the actual Romanian context (schools are used also in the afternoons, children learning in the same manner they used to in the morning, for doing homework, usually just through writing). FIGURE 1, FIGURE 2.

This Preschool in Cluj-Napoca was designed last year and is already in the process of being built; the fact that is a real project had had its importance in discovering the real issues of Romania's capability of doing or not doing. First of all, the first design team had quit the project because a legal problem that appeared during the process of obtaining construction permit, because of a neighbour that was a lawyer. Even though community may be happy for having a new kindergarten in the zone, the reality looks different. To take a project and go through a new design phase, including functions that had to meet the constraints and the regulations was difficult, but very challenging for the new design team. Making ends meet it was a performance and a great lesson.



Through the projects above the current research has pointed out that there are some key concepts that are linked and always related and are developed below: heritage, identity-landmark, innovation and technology, sustainability. FIGURE 3.

**Heritage.** In terms of heritage, educational institutions give quality to heritage through their location, urbanistic features, large and beautiful yet functional buildings, and their generous yards. From colourful nurseries with a strict design in terms of health and safety, to primary, secondary -usually modernist schools- and to the grandeur of the universities they are stable points in both time and place for the locality they 'live' in, sometimes for centuries. Many of the aspects above are due to the fact that nurseries are for nurturing, schools are still for 'industrialization' and most universities are for performance.

When it comes to schools, the thought about heritage is far. But the pride of a country may at many points be in the history of schools like the first Romanian Schools (in Brasov, Targu Mures, etc). It can serve as a link between heritage and identity.

**Identity – Landmark.** As Kevin Lynch states in his book *The Image of the City* that physical objects such as buildings serve as public reference points, schools may become landmarks [2]. At least one aspect of them is unique or memorable in the context they exist.

'The physical environment of the school not only affects the atmosphere, but also the actual functioning. You feel the specificity of the school as soon as you enter the door. Whether they are old or new buildings, some schools leave you feeling impersonal and institutional. Others you experience as vibrant and alive. The walls are full of student and teacher work, there are displays, installations, performances and a hum of activity. The tones and features of the physical environment are more than aesthetic'. (our translation) [3].

For Malala, the 2014 Nobel Peace Prize winner and education activist the door to her simple school was the most majestic door in the world.

"For us, the students, that door was a magical entrance to a special world, only ours. As soon as we got there, we would uncover our heads, throw aside our shawls like the wind scatters the clouds, and then run up the stairs.'(our translation) [4].

Schools may encounter in terms of identity in two classical characterizations:

- as *Genius Loci*- the atmosphere of the place:

'History, on the other hand, only becomes meaningful if it represents new concretizations of the existential dimension. In general, the concretisation of the existential dimension depends on how things are made, that is, depend on technology ("inspired technology", Louis Kahn said) [5].

- as *The Memory of Space*, (depending on perception), which gives value to that space

Architects see value in details that have a harmonious composition and a feel they are technology based, innovative. But all people see the memory

of a space they inhabited at a moment in time. When looking at schools, this is for sure one of the building programmes that counts.

Franics Kere **embraced and denied** in the same time, the constraints of cost, climate and the proximity of resources when designing one of the projects he was a Pritzker Prize winner, Gando Primary School, in order to create identity, in that case, uniqueness [6].

When someone thinks about the Primary School, Secondary or the University attended, might not find many similarities between the architecture, the quality of the spaces, the diversity of resources, but it may be as much important to a person or a community to see that the school, the street of the school, the neighbourhood of the school was taken care of, developed, technologized, but also protected as a landmark and for what it represents, keeping its identity while getting along with innovation.

**Innovation and Technology.** In the book *School Buildings-Spaces for Building and the Community* the authors have made a spectacular journey of school design from extensions and renovations to the Neo-Gothic Special School in Kent from 1873 to new schools like the German School in Madrid built in 2015 from scratch. All of them have combined the new technology approaches to the context they sat in.

Extension of most of the existing schools: good structures and good fire protection because of the brick-concrete walls and slabs.

- horizontally > schools still have large yards

- vertically >the structures built in 60s-70-s-80s can bear at least another floor

Schools before 1945 -how can we use them? They are a continuously source of inspiration for designing eclectic interior spaces for high-schools learning and university courses, not very good for primary schools.

From a physical point of view, new schools, extensions, renovations and reuse of old schools, go through a process to implement functionality, structural calculations, safety (fire safety, acoustic safety, health, etc), accessibility and not the least, low carbon emissions. All these can be summed in the following two categories: use of space and materials, techniques and equipment. FIGURE 4.

- use of space

- materials, techniques and equipment. How a contemporary approach for Riaz Primary School in Switzerland is described:

'Construction. The new building consists of a central masonry core and a wooden structure for the facades, floors, and roof. Each classroom has a wall made of compressed mud bricks. These warm-textured bricks are chosen for their thermal inertia and humidity-regulating properties. All these qualities guarantee to the users a healthy comfort and a pleasant interior environment, a building in which one feels good.

Technique. The concrete for the floor slab and the base walls was poured on-site. The prefabrication of the framework allowed the construction time to be limited. A dry screed of poured and levelled wood pellets made it easier to distribute the technique. The mud bricks were installed in the

interiors at the same time as the advance on the facades. The interior finishing work was almost completely carried out by the careful work of the carpenters, without recourse to plasterboard and paint that are often used for finishing. These healthy construction choices leave a pleasant solvent-free after-smell.' [8]

**Sustainability -return to Nature.** In the Romanian context, education is a delicate issue, but not for everyone. In the book Responsible Education, Andrei Marga, one of the reformers in Romanian educational programs, having contact with both politics and universities, could see the problems that nowadays society has with global politics, globalization, democracy that is not finding its way... 'And yet, nothing is possible without education...'

'Even education, if it is thorough, cannot make up for the characteristics of the existing society. In fact, the circumstance in which we are, as humans, on the historical course created by three processes with an overwhelming impact - the emergence of globalization, the triumph of neoliberalism and the digitization of activities.'

'In today's Romania, money is not missing in the first place, as a refrain that prevents changes. New ideas and organizational solutions that lead forward are missing, above all.'

Though, in the context of Romania as part of the European Union since 2017, The New European Bauhaus, an initiative started by the European Commission in 2021 that introduces sustainable solutions to the lifestyle and the built environment as green development may be a chance to change, as all European directives oblige to participation.

Preserving and transforming cultural heritage through this new program includes:

- preservation of existing buildings
- cultural heritage access to anyone
- low carbon footprint
- vernacular knowledge and knowhow with new technologies for contemporary solutions and products connected to local heritage
- attention to cultural heritage (may offer opportunities for renewing our dialogue with history, building new relationship between places and people, ensure the reinvention of a large scale collective present and future lifestyles).

The extension and renovation of Riaz Primary School, in Switzerland, built of course, using a lot of natural materials and sustainable technologies, finds itself in a natural but also cultural well-preserved context, and give the inhabitants the feeling of a 'house'. The extension was generated by the need of after-school classes and care, and turned out to be an example of good practice.

**Conclusion.** Innovation using technology improvements, material use and good research is undoubtedly a part of the imminent development of the society. A permanent positioning on preserving the environment, enhancing what history stamped all over the place and became heritage, taking care of what is memory valuable and not only immediate beauty,

will certainly define an architect that is able to understand in both space and time. As simple as it is, schools' design may depend mainly on space, but how an educational building is shaped depends enormously on past and future(generations).

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#### Figures.

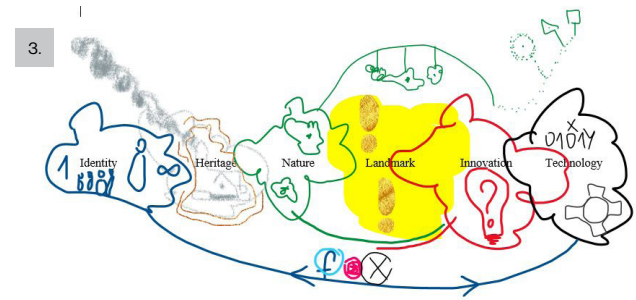
FIGURE 1 – Afterschool project renderings(own work).

FIGURE 2 – Preschool design in Cluj-Napoca (own work).

FIGURE 3 – Key concepts in schools' design.

FIGURE 4 – Schemes of possibilities of extensions in school design.





4. Extension possibilities: LARGE SITE  
A. Horizontally

Advantage 1 STRUCTURE	Advantage 2 ACCESSIBILITY	Advantage 3 INTERSTITIAL SPACE	Advantage 4 MANAGEMENT	DISAdvantage ACCESS AND ESTHETICS
The rehabilitation of the existing structure and developing horizontally is easier to design and most site soil permit it	Easy access Integrating children with disabilities	By an horizontal extension nice links can be created and also interesting interior courtyards	The EDUCATIONAL PROCESS does not need to be interrupted during site work	Sometimes happen to create long routes or bad juxtaposition to the old building

Extension possibilities: SMALL SITE  
B. Vertically

DISAdvantage STRUCTURE	Advantage 1 ACCESSIBILITY	Advantage 2 SITE	Advantage 3 EXISTING SPACES	Advantage 4 ESTHETICS
The structure may be not as good and needs improvement	Easy access with elevators Not so long distances to walk	Use of the same footprint	Usually the attic is already there, but not in use	It may result in very nice attic learning spaces

## CONSERVATION PRACTICES WITHIN THE HISTORICAL MONUMENTS DIRECTORATE (1952-1977) AND THEIR CONTEMPORARY RELEVANCE/

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**Abstract.** The Romanian restoration movement reached its peak between 1952 and 1977. This period was characterized by the activity of the Directorate of Historical Monuments - DHM, a division under the relevant ministry. Following the nationalization of properties after World War II, the Romanian state became both the planner and beneficiary of restoration efforts. Archival materials from the National Institute of Heritage, along with dedicated publications, reflect a range of practices aligned to the on growing global awareness towards cultural heritage, concerns about authenticity and integrity, interdisciplinary and international cooperation, legislation development, technological innovations and other. During this time-frame, extensive historical research underpinning restoration projects was conducted, that included detailed studies of building techniques and the archaeological research became more pronounced. Innovations during this period included the implementation of anastylosis, protective structures, advancements in construction materials and techniques, the reinforcement of historical buildings with concrete, horizontal and vertical translations of buildings. A significant focus was placed on the rehabilitation of historical assemblies, city centers, and historic avenues, emphasizing an urban perspective on restoration. This included debates on contemporary interventions in historic places, extensive landscape reshaping, urban furnishings, signage and decorative lighting projects. Other notable areas of interest were vernacular architecture, interdisciplinary fresco restoration using new technologies, restitution of historical functions, interpretation museums within iconic monuments, inventory actions and the institution of buffer zones. These developments indicate that DHM's efforts in heritage conservation align well with leading global practices. The DHM was not only the sole institution responsible for coordinating the conservation of built heritage, but it also served as the exclusive national school for heritage architects, which was abruptly disbanded in 1977. Following the political regime change in 1989, national professionals and emerging institutions encountered a transformed political and economic landscape, while still aspiring to the professional standards of the past.

**Introduction.** After the Second World War, the demolitions of cultural heritage and the economic and social debates about reconstructions, emphasized the historical ongoing concerns about authenticity and integrity. The Venice Charter 1964 was followed by interdisciplinary and international cooperation and legislative developments. Technological innovations and the enlargement in time and space of the concept of historical monument followed as well.

The concept of critical restoration and what was developed in a programmatic document through the articles of the Venice Charter synthesize the generalization of practices considered successful by the best researchers in Western Europe. The Venice Charter was the maturation of the field of historical conservation by basing restoration interventions on thorough research. The research included archive projects, document images, facade research, archaeological research, visual analyses carried out to demarcate the successive stages in which interventions were made on the historical monument and to identify arguments for a restoration of lost elements. Historical research also becomes the basis of the volumetric and formal compositions of elements with a contemporary design that are to be inserted into a monument or historical site. Historical studies began to be carried out by specialists and historians with well-documented sources and not by architects, as had been proposed since the 19th century by some researchers from the German environment.

In parallel with the development of a global approach in restoration, different personal and historical styles in restorations coexisted and still do. The specific ISMs in architecture and art in the 20th century were present in the conservation field as well, before and after the second World War, and were represented by individuals, national and regional schools.

The early beginning of the conservation movement in the Romanian space in the second half of the 19th century had a very important role in the exceptional evolution that followed after the second World War. The evolution of the field coincided with the unification of the country and at the end of the 19th century and an economic growth that bloomed in between the wars. Also many of the founders of the heritage movement in Romania had graduated at Beaux-Arts in Paris, many restoration architects that worked in DHM afterwards had postgraduate scholarships in Rome, in the interwar period. After the second world war the Romanian state became both the planner and beneficiary of restoration efforts, and this had also contributed. The premises for the national restoration movement to reach its peak between 1952 and 1977 were formed. DHM was not only the sole institution responsible for coordinating the conservation of built heritage, but it also became an unofficial exclusive national school for heritage architects.

The evolution of the conservation field after the World War II in the developed countries included innovative activities such as: thorough historical studies, archaeological and architectural research, inventory actions, anastyloses, protection structures, innovative construction materials and techniques, consolidation of historical structures and relocation of historical monuments, urban restoration: rehabilitation of centers, assemblies and historical centers or cities, buffer zones, concerns for vernacular architecture, concerns about the interpretation, museification and the historical use of the building.

**Innovative conservation practices.** During the second half of the 20th century, as in the Western European countries, important inventories were made in Romania [1], as the second version of the list of historical monuments was published in 1955. The first had been issued in 1904. The field of archaeology in the Popular/Socialist Republic of Romania – PRR/ SRR



was advanced as information about underwater archaeological prospects in 1952 was published [2] and about archaeological photo-interpretation studies [3] in 1973. In the same time, in Dobrogea, at Adamclisi, an important roman monument was reconstituted with scattered fragments and inaugurated in 1977, the Tropheum Traiani. The works were the results of a political views emphasizing the daco-roman origins of the Romanians, in order for the state to gain individuality from the Soviet Union.

Few anastyloses made by DHM were presented by the delegation in Paris in 1957 as the Hunchiar Mosque [4] in Constanța, project by architect Rodica Mănciulescu, building of massive stone blocks walls built in the Turkish construction system. Probably the most famous one that contains elements of creativity and is a good example of collaboration between architects, archaeologists and engineers carried out between 1960-1964 is the anastylosis of the caves carved in fragile calcar at Basarabi [5]. The materials used for the anastylosis at Basarabi are reinforced concrete and cement mortar, which restored, reconstituted and consolidated the rock from chalk fragments. The action was completed by 1983.

We have identified two protection structures by DHM. A concrete protective structure was partially constructed for less than half of the Basarabi cave site. Since the construction was not finalized, it was later covered temporarily with a structure of wood and asphalt cardboard between 1957 and 1962 [6] for protection, later replaced with polycarbonate [7]. In Constanța, an ancient mosaic [8] that occupied one of the ancient terraces towards the sea was accidentally discovered during excavations for the foundation of a block of flats, which was later covered by a protection construction. The monument found had great universal value as a site from early Christianity with very few correspondents known in the universal history and the project concept implied unique theoretical and technical approaches in a series of articles were later published [9].

The most important restauration projects out of the hundreds of projects developed by the DHM are the ones selected by the same structure [10] for the participation at the international congress held in Paris in 1957 – although some of the projects were developed prior to the second World War, the ones selected almost two decades afterwards in 1972 by Ioana Grigorescu [11], one of the most creative restorers and Vigil Polizu's selection [12] in 2018. All three sources mentioned the restorations at Moldovița, Neamț and Sucevița monasteries and Dragomirna was mentioned by two of them, and almost all had a dedicated article in the periodical *Arhitectura PRR*, amongst many other [13]. All this restoration project had fierce decisions, at Moldovița a ruin was reconstructed, based on historical research, at Neamț the second church built inside the historical courtyard was dismantled and moved, at Sucevița the historic volumes of the assembly were recomposed and at Dragomirna, the abbot's residences were boldly rebuilt in concrete, in the absence of documentary images and information. Another important reconstruction was the Potlogi palace in order to preserve the stucco decorations. Other two bold approaches were the restauration of Manuc's Inn, one of the few historical inns in the region, that was restored to the historic appearance and the works at Mărcuța Monastery, where the volumetric integrity at the bell tower was not considered compulsory.

Mihaela Slomnescu [14] presents her rehabilitation project of a building from 1928 by famous Grigore Matei Cantacuzino at the Mogosoia Palace and in her article we found detailed information about the materials and construction techniques. The previous details were exquisite in wood, metal, mosaic and were executed by the Fondul Plastic, an artistic specialized institution.

The consolidation of historical structures was a domain in which there were exceptional results due to the seismicity of the area and the experience accumulated historically. The good engineering superior education of Romanian specialists who consolidated the historical structures, collaborated on complex anastylosis projects and relocated monuments was a contributing factor. Vertical relocations or translations of important monuments protected from the major water systematization works – the socialist dams were a well-known practice: the Ostrov Hermitage Church, the Rebegești Church – Crevedia or the relocations of fragments from from Ada Kaleh to Șimian by architect Mihaela Adrian, in order to avoid submersions. In 1957 [4] the vertical lifting of the church from Rebegești by 3.5 m in the middle of Lake Bufta by the engineers Spoială and Moraru was presented at the International Congress of Architects and Technicians of Historical Monuments in Paris at Chaillot Palace and was appreciated regarding technical and scientific aspects of restoration. The earthquakes areas consolidations presented within the same context were also praised.

Curinschi [15] dedicates a consistent chapter to new theoretical and practical concerns regarding urban restoration in the post-war evolution and the preservation of historical cities and centers and discusses the identity character imprinted on cities by historical ensembles, like in the cases of: Brașov, Târgu Mureș, Sibiu, Sebeș, Ploiești. In Bucharest, the notable projects were the Competition for the systematization of Nicolae Bălcescu Square in Bucharest, now University Square. The proposed arrangements targeted the area where the Bucharest National Theater was later built [16] but also other major projects for the systematization of other central areas were done: Union's Square, Victory Avenue, and the Old Center. For the protection of historical centers, important duplications of historic centers were made during that period: the new center of Sighișoara, the new ensembles of Băile-Herculane, Băile Govora and Călimănești and other such resorts oriented towards national and international tourism.

Contemporary constructions in historical areas and in protection areas were consistently debated within the Historical Monuments Commission. In the Unirii Square in Timișoara a historic house with a baroque stylistic was built to complete the historical ensemble, another example in the vicinity of the Voaleta store in Bucharest, and another intervention in an important historical ensemble among the most successful ones is the Aurora Hotel [17] situated in Satu Mare. The rehabilitation of centers, assemblies and historical centers or cities and large-scale contemporary architecture interventions in historical and protected urban areas was a field that was considered highly developed in Romania and <<can be envied at the international level and especially a particularly sensitive urban conservation that can be considered a leader in the field of urban planning>> [1]. Due to the rapid assimilation of critical restoration concepts that were well-known by professionals trained in Paris and Rome and rigorously applied within

DHM and the urgent modernization of cities in the socialist era, the urban rehabilitation domain flourished.

Oliver Velescu [18] published in 1972 the article entitled “Protection zones of historical monuments. Their role and functions”, as the discussions about protection zones and the surroundings of the monument began to be possible together with the idea of more thorough research within the DHM since the 1950s.

Concerns for rural heritage, increased as a modernist trend as it appears from multiple articles published in the 1950s, often entangled with politic propaganda by Curinschi [19], G. Ionescu [20] Adrian Gheorghiu [21] and others. Other articles contain rural urban planning research as base for concepts in systematization projects: Măgura Branului [22], southern slope of Piatra Craiului conducted by the Ministry of Construction, Upper Argeș Basin [23] and a very meticulous research, Northern Dobrogea [24], Mangalia [25], Suceava region [26]. The rural industrial housing projects and individual housing among the new projects were inspired by folk architecture [27].

Large-scale landscape consolidations were also carried out at the Suceava Citadel, where a team of engineers remodeled the land and probably in other fortresses that were consolidated by DHM. Associate architect Laurian [28] writes about the open spaces planted in the socialist city along with many concerns for parks, gardens in cities and landscape arrangements as specific state concerns for the citizens well-being. The restoration of historical parks was another activity during DHM's existence [29].

Urban arrangements and furniture, signage and details were considered important within the DHM. Special attention was often paid to carpentry, ironwork, decorative or nighttime electric lighting [30] at Potlogi and Brașov Council Square and other finishes exposed to faster degradation due to use – as in the case of Manuc's Inn, or in the details of the Hurezi Monastic Assembly and especially in Ioana Grigorescu's projects. There was a specific care and concern for the neat appearance and visual harmony with the monument of all the new elements necessary for the use of the monuments, as many of the professionals that founded the discipline were educated at Beaux-Arts, Paris.

The restoration works of mural paintings included in the articles in the magazine *Arhitectura* are very few, but are thoroughly described in the Bulletin of Historical Monuments – BHM: the works about the international pilot construction site in Humor from the 70s and an article reviewing a work entitled *Disease and degradation of old fresco painting and restoration methods* published in the singular number of the periodical in 1958 [31]. The international cooperation was adopted in the communist state, as The Center in Rome had one of his first missions in Romania. The legislation and specific national and international institutions followed.

In the case of the restorations at Manuc's Inn, there were debates about restoring the historical use and identifying the appropriate function that the new ensemble was to receive, one of the proposals discussed was the creation of a museum of trade, but it was considered that the inn, the original one or a modern hotel closer to the original one is more appropriate. Most likely, these debates were also held in the historical monuments commission regarding many monument buildings.

The educational role of historical monuments [32], and on the other hand, in the international environment, with the development of ideas for research and valorization of historical monuments, the side of cultural tourism and education through monuments begins to develop. Many of the most important museums nationally were created during that period, including the Museum of National History and Archaeology in Constanta.

The role of the architect who sometimes was not part of DHM's team was less important. The decision makers were the professionals working for DHM and the Commission of Historical Monuments. There were rejected projects, debates, and professional arguments. For example, at the Putna grand monastic assembly, architect Curinschi, once a deputy director inside the DHM proposed a contemporary intervention for the new museum that was rejected by the commission. We have identified a similar case at the Mihai Vodă Church when a pastiche frieze was rejected in the 1950 with the recommendation to work with a contemporary artist, as it was the case in France.

**Conclusions.** DHM was the descendent of the Commission for Historical Monuments – CHM and was in tune with the newest practices at European, Italian and French level through the scholars at Academia di Romania Horia Teodoru, Ștefan Balș and other. It is difficult to place the activity of DHM in an international or European context, without relatively detailed research of the specificities of each case, but we have the appreciations of Jukka Jokilehto and Miles Glendinning and, in addition and the SRR's presence through DHM at the International Congress of Architects and Technicians of Historical Monuments in Paris, organized at the Chaillot Palace in 1957, where the works of engineers Spoială and Moraru, regarding technical and scientific aspects of restoration, were highly appreciated, particularly in addressing the issue of consolidations in regions where earthquakes are more severe.

Teodoru noticed that in Paris, the principle of unity of style was abandoned, yet the issues of authenticity and the question of whether or not to intervene especially in antique sites when knowledge is missing or the changes of destination – problems that were opened by the Second World War and the destructions of that time, were insufficiently debated. It is understood that national thinking was aligned with the directions of the Rome Center and the Athens Charter, which had not yet deeply penetrated the French milieu.

All the practices established by the Venice Charter were applied at a national level and continued to be applied until 1977, and the state institutions and legislation were highly functional and efficient and were accompanied by construction materials deposits and construction professionals that knew how to work in stone, metal, wood and other in traditional techniques.

The restorations seem to have lost the preoccupation for authenticity after 1977, and many of the practitioners seem to be unaware of the basic restoration principles. In Romania, especially because there was an interruption of the natural evolution for 12 years, there is an urgent need to return to the Venice Charter principles, revisited.

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10. The use of reinforced concrete at the Church of Saint Michael in Cluj, works led by architect Ion Dumitrescu and engineer Nicolae Laslo, the anastylosis of the Hunchiar Mosque in Constanța, a project carried out by architect Rodica Mănculescu, the restoration of the roofs of the Sucevița Monastery church to their original forms, a project by architect Dan Corneliu, and of the Neamț Monastery church, a project by Ștefan Balș, the restoration of important monuments of civil and monastic architecture, namely the Palace from Potlogi by Radu Udriou and Rodica Mănculescu, the Moldovița Monastery baptistry, a project by architect Dan Corneliu, the completion of an architectural ensemble through the vaulted gallery of the Aninoasa Monastery, works at Tismana by architects Radu Udriou and Maria Lozano, the restoration of the Gura Motrului Monastery to its original form and reconstruction by Eugenia Greceanu, the project by architect Dinu Teodorescu for the church in Rădeana, the restoration of the vaults at Huniade Castle, the works at Dealu Monastery by architect Nicolae Diaconu. H. Teodoru, *Op. Cit., Passim*.
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12. The works considered valuable by Polizu from the DHM period are: the Arbore church through the beauty of the roof made by Virgil Antonescu, the Royal Inn in Suceava, the Monastery Ensembles of Moldovita and Neamț made by the architect Ștefan Balș and his team, the unfinished Râșca Monastery church also by Ștefan Balș under what Polizu calls Ștefan Balș's doctrine still valid today, the monastery ensembles of Dragomirna and Sucevița by Ioana Grigorescu. Virgil Polizu in Al. Panaiteșcu, *Op. Cit., Passim*.
13. The restoration projects of the DHM period 1952-1977 described in the *Arhitectura RPR* magazine (probably also with a recommendation from the management – that is, probably considered among the best) are: Neamț Monastery, Precista Church in Galați, Restoration of the Brâncovenesc Palace from Potlogi, restoration works of the walls of the Sibiu citadel, restoration works at the church of St. Mihail in Cluj, the “Vasile Alecsandri” National Theater in Iași, Hirscher House, Brașov, wooden church, Plopiș, restoration of the Călnic fortress, the Siegfried tower, the Brașov - Prejmer region, Mediaș, the Royal Court in Târgoviște, the Neamț Monastery, the Church of Stephen the Great, Brebu, Horezu, Călnic, Moldovița, Cozia, Crețulescu, the Melic House, the Tei Inn, the Strehaiia Monastery, the Basarabi cave complex, the Galata Church in Iași, the Doina Restaurant or the “Bufetul”. *Arhitectura RPR*, București, Uniunea Arhitecților din România – UAR, 1952 – 1965. *Arhitectura RSR*, București, UAR, 1965 – 1989.
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## Figures.

FIGURE 1 - Gheorghe Marin, Manuc's Inn, Bucharest, 1966-1967, Biblioraft 94 – Hanul lui Manuc, Fototeca INP, Fond DMI, Arhiva INP.

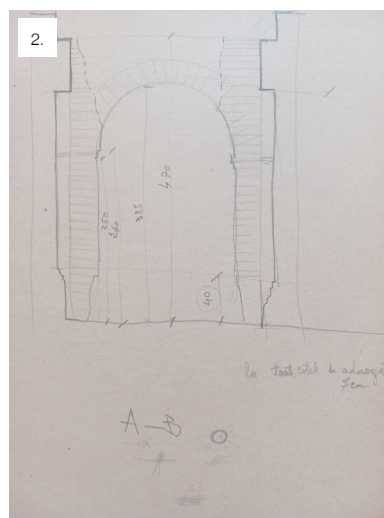
FIGURE 2 - Unknown author, Entrance tower elevation, Mărcuța Monastery, Bucharest, Arhiva Institutului Național al Patrimoniului, Fond DMI.

FIGURE 3 - S. Costiuc, Mărcuța Monastery, Bucharest, September 2023.

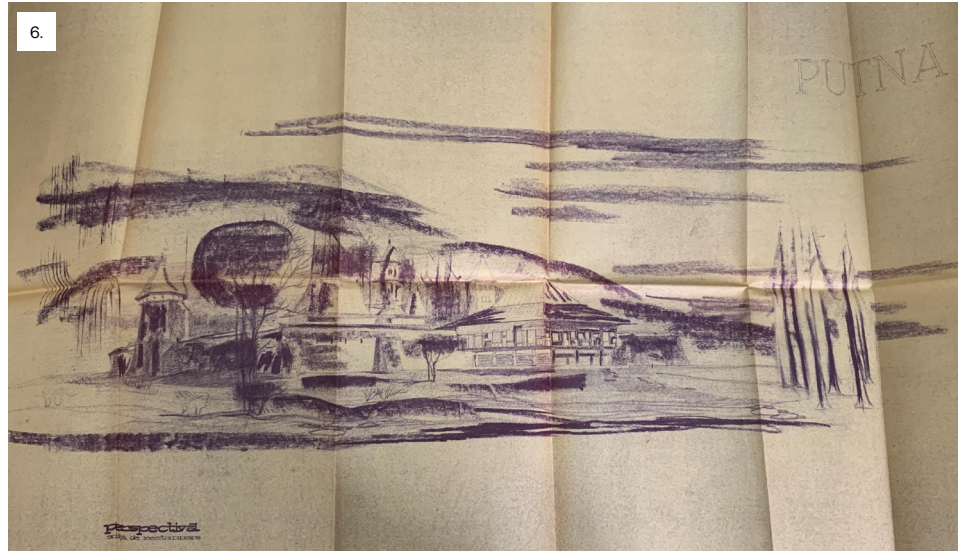
FIGURE 4 - S. Costiuc, The museum of the roman edifice with mosaic – interior, Constanța, October 2024.

FIGURE 5 - S. Costiuc, The museum of the roman edifice with mosaic – exterior, Constanța, October 2024.

FIGURE 6 - Curinschi Vorona, Museum project for Putna Monastery rejected by the CHM, 1967. Arhiva Institutului Național al Patrimoniului, Fond DMI, Dosar 7419/1967.







## ARCHITECTURE AS TEMPORAL REWINDING AND SPATIAL RESTITCHING. A PROJECT FOR THE ANCIENT CITY OF SUESSOLA IN THE PIANA CAMPANA/

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**Abstract.** In the historical territories of the inland countryside, the 'synchronic rediscovery' of different types of heritage is an opportunity to outline development prospects that rethink architecture and archaeology, for instance, as inseparable from the multi-dimensional and stratified environment in which they are inserted, in terms of temporal rewinding and spatial restitching.

Among the declinations of the contemporary project for the enhancement of the entire historical and territorial phenomenon, an interesting reflection concerns two innovative aspects in particular: on the one hand, the capacity to incorporate in synthetic configurations the evolving evolution of the different phases of the archaeological discovery, and, on the other hand, the possibility of interconnecting different types of heritage in integrated redevelopment strategies, as demonstrated by the experiments conducted by Toni Gironès, Luigi Franciosini and Carles Enrich, to name but a few architects who constantly measure themselves with these themes.

With these premises, as part of an Agreement for scientific collaboration between the Soprintendenza Archeologia, Belle Arti e Paesaggio for the metropolitan area of Naples and the Department of Architecture of University Federico II of Naples (Italy) aimed at the knowledge and enhancement of the architectural, archaeological and landscape heritage of the Piana Campana, the Suessola area in Acerra was studied, within the urban park of the ancient Roman city in which the eighteenth-century Casina Spinelli, a historic monumental residence, also falls.

The main innovation of this experience concerns a project implementation that proceeds synchronously with the progress of archaeological excavations. In fact, the aim of the work concerned the definition of a strategy of accessibility, narration and usability that looks at the different times and spaces of which the palimpsest is composed, interpreting the progressive phases of discovery and development of the area in unitary and interconnected terms. The system of new architectural devices is addressed to the interpretation and enhancement of the ruins, as well as to the fruition in support of the archaeological excavation site, and at the same time, it stands as a plot of contemporary and reversible signs on the historical, anthropic and natural traces of the entire Piana Campana.

**Introduction.** The consolidated territories of the Italian context are characterised by the presence of a widespread cultural heritage deeply connected with the natural environment in which it is embedded and of which it is an inseparable part. The Piana Campana, a predominantly flat area extending north of the city of Naples, is a portion of this stratified territory that has undergone important transformations over the centuries. It was the site of settlements from the Roman times, leaving the imprint of the *centuriatio* on its soil furrowed by the passage of important territorial connection roads. It was then fertile land for hunting and fishing in the Bourbon era and then reclaimed through hydraulic works, the infrastructural value of which remains to this day. In recent centuries, a rural use of its land has prevailed and the pattern of fields now characterizes this landscape punctuated by a constellation of urban centres. In the connecting space between the centres, traces of various kinds have been stratified, constituting an important archaeological, architectural and landscape heritage that is not always adequately protected and valorised.

From the different forms of this heritage and its territory today, we can start out again to imagine a public landscape safeguarded through its reconstitution, whose components are related to each other and whose relationships are measured through strategies and design grafts that place permanences in dialogue with a view to the long term and to opening up the sites to the communities in order to favour their accessibility, recognisability and use.

**Intersections and concatenations.** In the condition of abandonment of consolidated landscapes resides the processual and narrative value of a memory that is not only a deposit of past circumstances but is, above all, a nursery of possibilities for the construction of a state of affairs relative to a present time. Rather than reminding us of the transience of everything, heritage increasingly becomes the symbol that calls us to an unconditional and vigilant principle of responsibility [1] that concerns the definition of an overall development of countries in which the consolidated values of history are not detached from those of care for cultural landscapes at risk, from those linked to the social cohesion of communities and those connected to the economic sustainability of territories.

«One does not want to discover or write new words, but to find new lands in those that are already there, reading them as statements of constructions and processes» [2]. In an attempt to renew the relationship between architectural design and the changing condition of the landscape through the adoption of an archaeological type of reading, Sara Marini argues that among the existing layers, one seeks new lands, one looks at what exists not only with the possibility of recovering it, but to welcome the prospect of development it poses. Architecture is, in this sense, called upon «to make itself a work capable of dialoguing with the time factor and to speak, to communicate with those who pass through it: to refer not to a single history, but to multiple interweavings; to find ways of grafting and participating in the rediscovered stratification» [2].

In consolidated landscapes, as in the case of the landscapes of the Piana Campana, the architectural project works on the concatenation of the morphological diversity of the landscape, on the reconnection between

different and controversial aspects of the context, on the stitching together and re-composition of different times, on the reconstruction of a dynamic identity that confronts the mutilated state of the heritage [3]. Confronted with intermittent scenarios made of eroded strata or precious storage grounds and with the vulnerabilities of changing and disrupted landscapes, new architectural grafts anchor themselves to the topographical roots of contexts, unhinges the fences of monofunctional areas, roots themselves in recognisable physical structures and new narrative devices, giving priority to relationship and dialogue, interweaving the territorial gaze with that oriented towards the interpretation of individual evidence [4].

In establishing a relationship of reciprocal necessity between architecture, archaeology and landscape, it is possible to clarify ways in which the project can take on the role of a device for integrating redevelopment and regeneration measures of both the natural and the archaeological context, reinforcing the value of archaeological evidence as areas of concatenation between different components of the contextual reality and as project opportunities for the integrated regeneration and symbolic collective re-appropriation of large portions of territories.

**Multilevel interpretation of the different forms of heritage in the Piana Campana.** The area of ancient Suessola and the Casina Spinelli insist in the territory of Acerra, a municipality in the province of Naples, bordering the province of Caserta to the north. The territory is predominantly plain, and to the north-east of the municipality lies the urban park of the ancient city of Suessola. This territory was predominantly marshy due to the Clanio river; in the 17th century, with the Kingdom of Naples, through a reclamation of the Clanio river, the spring waters were regimented with a network of artificial canals called 'Regi Lagni' and the marshy areas reclaimed [5].

In Roman times, this municipality had two centres: Suessola and Acerra, the ancient centre of which remains little investigated due to the complexity caused by the overlapping with the medieval centre. Suessola was an important centre and was crossed by numerous road axes, including Via Popilia, the road connecting Capua and Reggio Calabria; this trend was later reversed and Suessola became a marginal area within the municipality; the Urban Park of the ancient city of Suessola, currently crossed only by the Calabritto road, was created with the aim of preserving a part of the territory, tying it in both from an archaeological and a landscape point of view, with the aim of avoiding the establishment of new infrastructures, since it is already surrounded by several industrial plants and crossed by a motorway viaduct. In addition to the presence of archaeological traces, the park is characterised by the presence of numerous artefacts typical of the rural landscape of the Piana Campana.

The area that is the subject of the project proposal, FIGURE 1a, combines the presence of a relevant architecture such as 'Casina Spinelli' with an area that has been subject to archaeological excavation and has been investigated since the end of the 19th century. The first excavation campaign was started between 1878 and 1901, the subsequent excavation campaigns date back to the period between 1999 and 2002, when the forum area was investigated, in 2016 and 2024.

Fundamental was the study of the ancient city through Amedeo Rossi's reconstruction hypothesis [5], which, through non-invasive investigations, led to the identification of the layout of the ancient Roman city; in particular, adjacent to the Casina Spinelli hill is the forum area, previously investigated and then re-interred with the aim of preserving it, which arose along the route of the ancient Via Popilia (Regio-Capua) and some of the city's public areas, among which the temple is hypothesised to be one. The other fundamental hypothesis concerns the theatre on which the Casina is grafted, the particular shape of the north-east side revealing traces of the layout of the Roman theatre of Suessola from the 4th century B.C.; the curved boundary wall replicates the perimeter of the cavea and the main body is hypothesised to be located on the proscenium.

The stratification of the Casina is complex and marked by superimpositions over the centuries: the above-ground wall, which replicates the perimeter of the cavea, and the tower are from the early Middle Ages; it is assumed, in fact, that they were parts of a single defensive structure. The main body was conceived in 1778 by Count Ferdinand III De Cardenas of Acerra as a hunting lodge, and between 1778 and 1786 the wing for servants was built. The last superimpositions, with the stables to close off the courtyard and the two volumes to the north-east, are dated between 1922 and 1994 [6]; gradual abandonment followed. Therefore, the state of conservation of the Casina was studied, through an indirect survey, limited to the portions of the building most closely connected to the archaeological area.

These assumptions made it possible to develop a strategy on the scale of the park, FIGURE 1b, that emphasises the desire to integrate different forms of heritage through the project.

**An architecture of connections.** River and rural landscape forms, architectural ruins and archaeological remains are the integrated heritage forms within the park-scale strategy involving to the north, The Water Mill and to the east, the Riullo spring.

Starting from the reading of the traces of the layout of the ancient city that have come to light and from the ruins of Casina Spinelli, FIGURE 2, the project, FIGURE 3, has been configured through an interconnected sequence of architectural grafts that allow for accessibility, enjoyment, recognisability and the continuation of the excavations, reconfirming the propositional value of the fundamental ancient axis of Via Popilia. A first series of grafts has been placed in the interspace between the western part of the Casina and the axis of Via Popilia, creating a basement building and a rest area; a second series of grafts is positioned within some of the rooms of the Casina involved in the reuse strategy as part of the visitor route, with special attention paid to the work of the archaeologists and their stay at the site; finally, a third series of grafts is placed around the architectural and archaeological presences, and defines the two entrances to the area, for operators to the north and for visitors to the south.

The validity of the route of the ancient via Popilia is reconfirmed through the configuration, along its development, of a footbridge that runs through the entire project system, while allowing the archaeological excavation work to proceed, and which is topped by a walkable canopy that provides a further possibility of visiting the site at an elevated level. FIGURE 4. The

graft, therefore, would allow the reconnection of the two areas, the crossing of the entire site and the scanning of the visit route. The visitor route begins through the walkway, continuing in the new grafts and concluding in the rooms of the Casina involved in the re-functioning hypothesis.

FIGURE 5.

The geometric and modular configuration of the walkway and the canopy is rooted in the proportions of the measurements taken from the traces of the ancient Roman temple and the façade of the Casina; moreover, by grafting onto the route of the ancient pathway, it is conceived as a dry structure, with removable paving, also to allow the excavations to continue. Temporary structures can be anchored to the canopy to support archaeological excavation operations only. These can be dismantled and relocated according to the needs of the excavation.

The entrance volume located to the south and dedicated to visitors makes it possible to begin the visit by choosing whether to continue at the lower level corresponding to the level of the excavations, walking along the walkway also around them, or at the higher level corresponding to that of the Casina, climbing up to the roof.

Subsequently, the exhibition volume placed as the basement of the western part of the Casina, which can also be walked on the roof, has the role of a junction between the excavation area and the building. Next to it, a transversal pathway connects the two levels and while on the lower level it precedes an area to stay, on the upper level it marks the separation between the area dedicated to visitors and the area dedicated to the work of the archaeologists and their stay at the site. The visitor route continues on the upper level of the Casina, access to the Casina is made possible through the helicoidal staircase located inside the oval room on the western side. This graft was made possible by the collapse of the intermediate vault; the upper vault has also partially collapsed together with part of the roof slab to the south of the main body which, as part of the re-functioning, is dedicated to exhibitions.

Inside the two volumes, which had functioned as stables and are in a considerable state of decay, totally lacking roofing, two volumes with sloping roofing have been inserted, juxtaposed with secondary elements of lesser height and with flat roofing, which define the pathways and direct towards the guest quarters volume, which also represents the access to the area for archaeologists, for which the same compositional logic has been followed.

The design proposal, through the stitching together of the architectural and archaeological system, becomes a node for creating directionality and possible connections with the forms of the surrounding landscape. FIGURE 6.

**Conclusions.** «From these elaborations we arrive at a definition of archaeological context [...] which, similarly to the definition of landscape context [...], outlines a sphere characterised by common evolutionary features - historical and contemporary - within which to propose 'specific' rules of design behaviour, aimed at guiding the landscape transformation according to sustainability guidelines» [7]. Understood as a unicum for the construction of a greater design sensitivity and for the reconstruction of a sense of cohesion and inclusion of local communities, architecture, archaeology and landscape are the symbolic components of a broader

cultural discourse related to the sustainability of the development of consolidated contexts. This means not only rethinking excavations and archaeological sites, but defining a system of connection of these areas with each other, with the museum system, and above all with the delicate environmental system in which the so-called 'minor heritages' are inserted, for which the project becomes a cure, a preventive therapy against alterations, tampering, oblivion and isolation [8].

In the prospect of constructing an even more extensive concatenation with other heritages of the Campania Plain, such as the Water Mill and the Lanciolla along the Regi Lagni in Acerra and the invisible city of Atella in Frattaminore, integrating the work on the relationship between the widespread heritages with that of a more general objective of enhancing the compatible development of the areas, the approach described and developed through the project becomes a fertile opportunity to strengthen the symbolic value of the heritages from which to start off again for the reconnection of larger parts of the territory.

**Attributions.** The research work was developed by all the authors jointly, however the paragraph "Introduction" is to be attributed to Mariano Nuzzo and Serena Borea; the paragraphs "Intersections and concatenations" and "Conclusions" should be attributed to Bruna Di Palma; the paragraphs "Multilevel interpretation of the different forms of heritage in the Piana Campana" and "An architecture of connections" should be attributed to Marianna Varchetta.

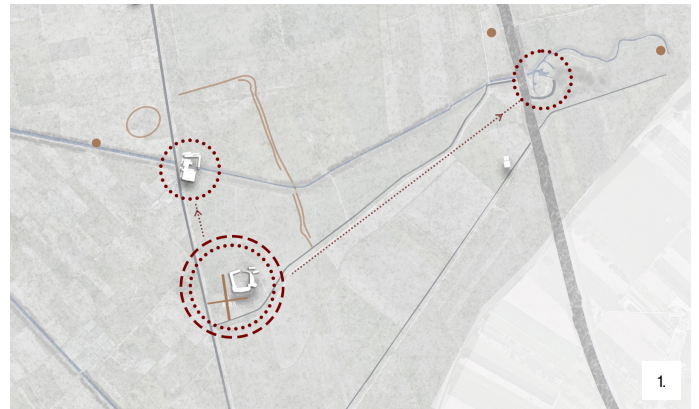
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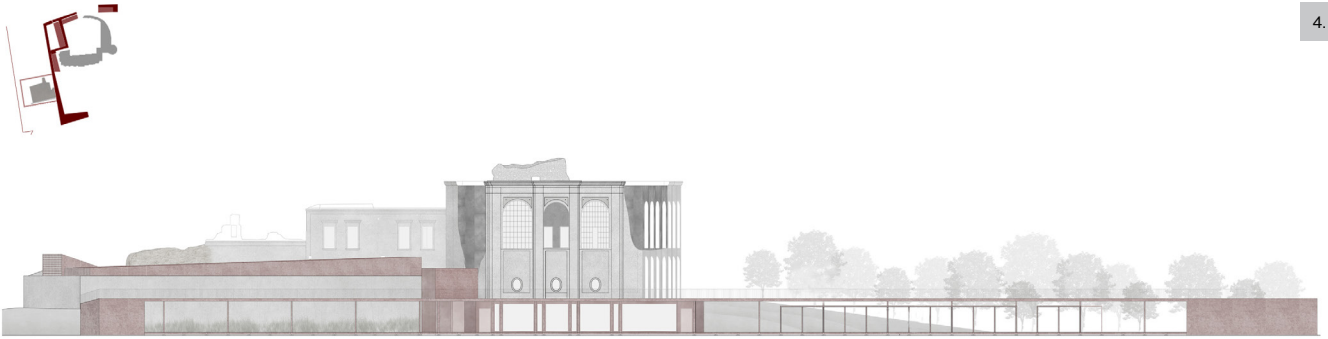
## Figures.

- FIGURE 1 - a) State of the sites, b) Territorial strategy.  
 FIGURE 2 - Project area: the Casina Spinelli, the landscape and the archaeological area.  
 FIGURE 3 - The project planimetric layout: excavation level - Casina level - roof level.  
 FIGURE 4 - The project as a new layer-base between different ground levels.  
 FIGURE 5 - The project as a connection between different altitudes.  
 FIGURE 6 - The project and its possible expansions in the landscape.



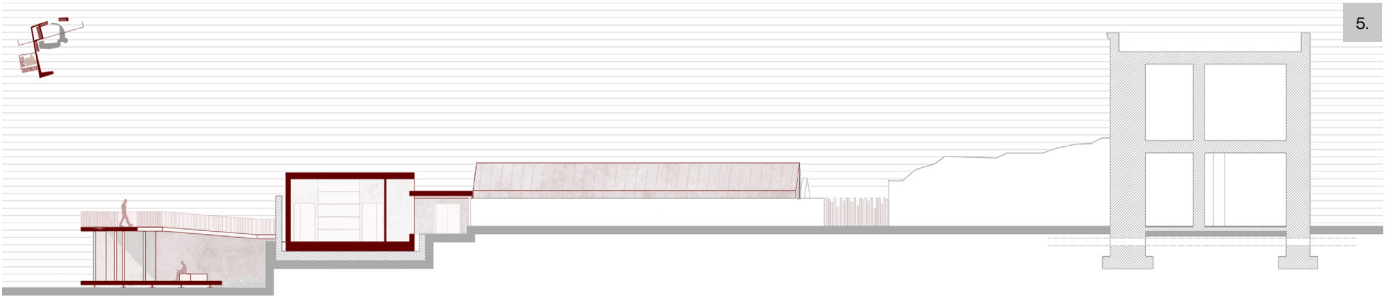


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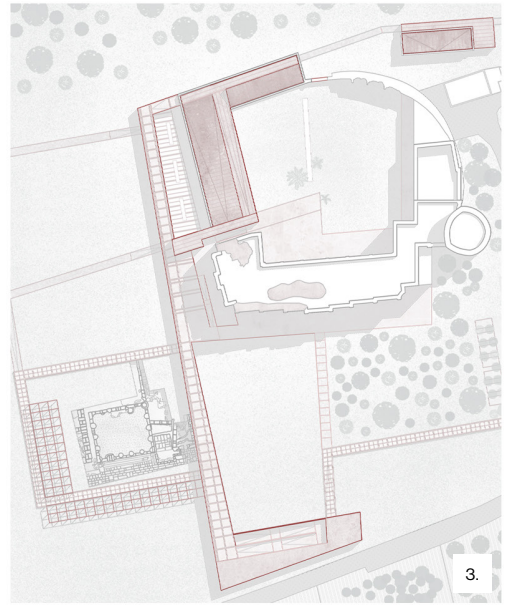
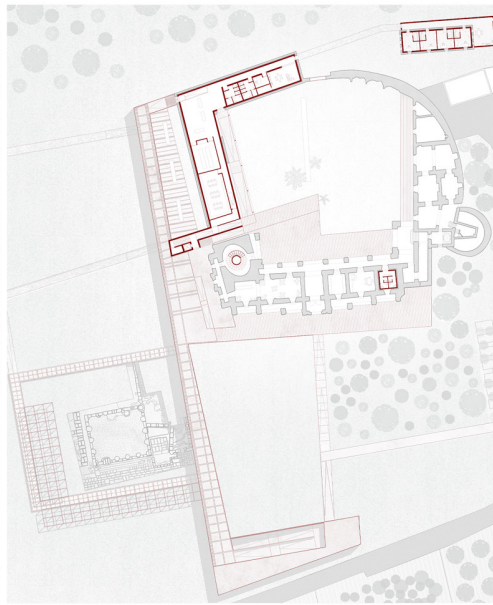
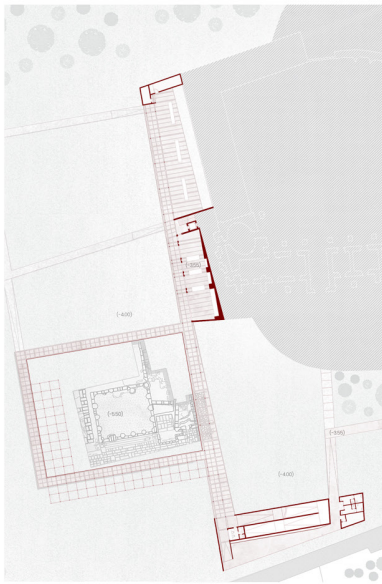
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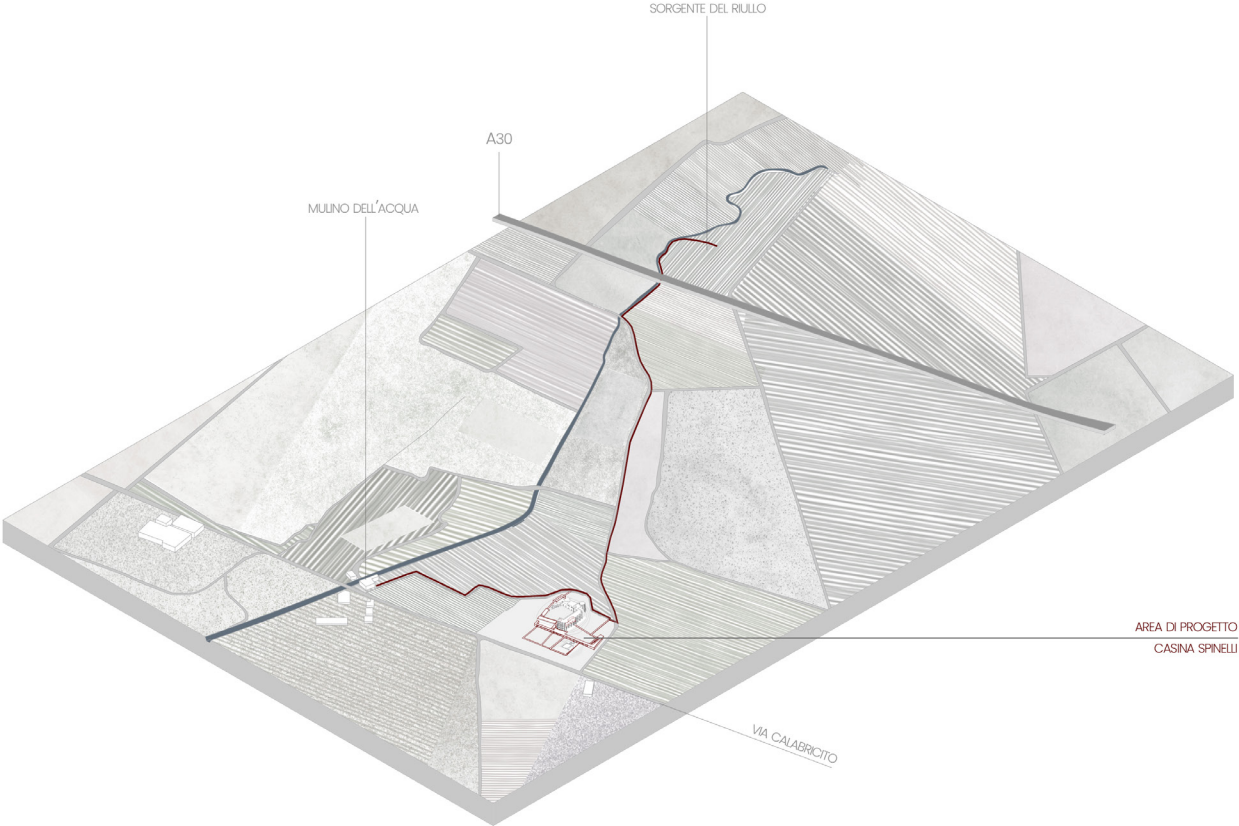
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3.





## SEASIDE COMMERCIAL CENTERS FROM 1960`S ROMANIA- A PARTICULAR DISPLAY OF MODERNISM/

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**Abstract.** Researching and reviewing modern heritage in a country as Romania - with a troubled political past linked to it - is somewhat difficult. Yet, in today`s time, with all the developments threatening the former layer, it is necessary.

The commercial centers that were once designed for each resort represent a particular type of experimental architecture (even as a whole, the entire project for the Romanian seaside started in the early 60`s had this characteristic). These shopping places are the prototype for the ones later placed inside preplanned residential areas across the country – of course, with slight changes according to the rather rough climate. They were open air pavilions, with glass boxes as stores and gardens patched along. The overall image resembled the one of the commercial strips, with neon lights and colour. It was a special kind of holiday atmosphere and freedom that was sought after. Furthermore, each of these architectural ensembles stands aside the box-like modernism of that time in Europe, by being charming and inviting towards visitors. Maybe the design team drew inspiration from the works of the European architects who went over the Ocean after the War.

Most of these early commercial centers are still in use during the summer. While some kept part of their original volume and plan close to the opening day, some lost their unique elements in a search to accommodate new features needed today.

**Introduction.** The construction of the Romanian coastline in the early 1960s was determined exclusively by the political decisions of the new leadership of the country, which had a series of particular architectural implications. In order to advance the new doctrine and cultivate a novel way of being, architects were permitted to conceptualize a utopian blueprint. Design teams engaged in experimentation with a modernist scenography in the newly constructed vacation destinations, striving to achieve a symbiotic relationship with the surrounding natural environment. In addition to the initial accommodation functions, which consisted of low-rise villas offering a unified level of comfort, there was a subsequent introduction of high-rise hotels. Ancillary programs, such as catering and commerce, were also integrated into the architectural plans.

The inaugural summer shopping complex was inaugurated in 1961 at Eforie Nord (a project by architect Roxana Katz, to be discussed in the initial case study), followed by the one in the resort of Mamaia and eventually the 1967 one at Neptun. The shops were delineated by glass boxes, with access to them provided via a shaded promenade featuring small gardens. Following 1973, a shift in stylistic register occurred along the coastline, although the

aforementioned buildings represent the prototype for the country`s facilities in its initial residential neighbourhoods.

The article will identify and highlight, through two case studies, the distinctive architectural characteristics of this architectural programme. They will consider the summer shops at Eforie Nord before examining a later variant at Eforie Sud. Establishing particular architectural qualities and elements represents a significant objective, particularly in the context of late, voluminous modernism, frequently exhibiting brutalist tendencies, which was prevalent in continental Europe during that period. The principles of relating and interweaving with the natural element represent nuances with which the architects of the time predominantly worked overseas. In the context of the time and, in particular, of the country, these functions also had an experimental role, the success of which at the time and its current usefulness are yet to be determined.

**Case Study 1 – Eforie Nord Summer Stores (arch. Roxana Katz, 1961).** *In Eforie, working people who come to Eforie to relax are in for a pleasant surprise. A new shopping centre is being built on the main road in the centre of the resort. A covered market, a large restaurant, an express self-service cafeteria, confectioners, dairy shop and more, all equipped with the latest technology* [1].

The beginning of the 1961 season marks the inauguration of another architectural programme in the series proposed for the restructuring of the central area of the Eforie Nord resort[2] - the Summer Stores or the Summer Shopping Complex, designed by the architect Roxana Katz. It is the first shopping centre of its kind to be built in Romania, and is the prototype for later commercial and catering facilities within residential neighbourhoods. Situated on the main road, Republicii Boulevard, the Summer Shopping Complex relates to the new Post Office building (P.T.T.R. Office), Block E of the first Rest Centre and the permanent shopping precinct on the north side. The rectangular volume, with openings corresponding to the internal gardens, is set back from the road on a platform[3]. In front of it is a landscaped green area, which provides a subtle transition between the busy public area and the covered promenade. The functions that the complex houses are made up of 14 different shops and a catering area [4]. A similar project by the same designer appeared in an improved version at Neptun in 1967.

The volume of the complex has a strong horizontal line due to the covering of a thick concrete slab - 130m x 40m [3] in size - supported by thin metal columns. The drill pipes supporting the slab are spaced at 4.75 m [3]. The slab is thickened at each column for economic reasons [3]. In this way, the main resistances are taken up with a reduced consumption of cement and steel [3]. The flexible and transparent vertical elements emphasize the line of the slab. At night it seems to float above the illuminated shops. The project has a particular resolution thanks to the alternation between diaphanous architectural elements - treated with materials such as glass and metal - and tectonic elements - treated with concrete and limestone.

The shops, originally only open during the summer months, have been designed to recreate the traditional shopping street in a modern context. Furthermore, the complex offers a form of recreation through the provision



of a covered promenade, which provides a strong visual stimulus. Furthermore, the fragmentation of the interior, achieved through the use of smaller, transparent volumes and the discontinuity of the slab, contribute to an enhanced perception of the large volume (note: From an aerial perspective, the scale of the proposed summer shop complex becomes apparent. It extends beyond the considerable area of the *Pescăruș* restaurant-cafeteria and is of a larger magnitude than the interwar buildings situated across the street.). The portico solution, comprising a thickened concrete slab and metal stilts, is also employed on the opposite side of Republic Boulevard at the food market. The market area, where the stalls are situated, is distinguished by its U-shaped configuration within the *Restructuring Plan* for the central area of Eforie (as proposed in *Revista Arhitectura RPR*, no.4-5/1961).

Tourists may gain access to the site via three routes: from Republic Avenue and through the side gardens on the north and south sides. The eastern side of the property is accessed via a side street, which provides convenient access for the delivery and servicing of goods. The commercial units are situated within glass boxes. The interior is characterized by the absence of conventional boundaries, with glass walls providing uninterrupted views from the street. The cafeteria, which includes ancillary functions, is situated at the northern end of the building. The serving area is enclosed in a glass box that can be opened onto a terrace that complements it. The building's facade is characterized by a geometrically cut-out wall, which allows light to filter through while providing privacy. The buffet area is situated between three shops parallel to the street, with an uncovered garden and water basin separating it from the shops. The shops themselves are constructed with movable glass walls [3], each containing a small storage space, and sell a range of products including sports goods, beach items and gifts. The courtyard wall of the sports shop is completely opaque and clad with Techirghiol stone [3]. At the geometric centre of the volume is another uncovered courtyard, elongated in a north-south direction. Additionally, the courtyard features a rectangular water basin with a crossing bridge. The plan presented in the magazine *Arhitectura RPR*, no. 4-5/1961 depicts the interplay between the concrete slab floor, finished with pebble gravel [3], the green space, and part of the planters. The horizontal finish is similarly maintained in the shops to reinforce the coherence of the space [3].

Parallel to the long central courtyard, on the east side of the building, are the grocery stores: fruits and vegetables, bread, groceries and dairy products. Each has its own storage area enclosed by solid walls. In the grocery area there is a staff toilet, a cloakroom and an office area. Then, at the southern end of the complex, there is a shoe shop and a boutique, followed by two smaller rooms for the lottery office and the perfumery. A final garden, which also marks the entrance to the portico from the P.T.T.R. direction, separates them from the tobacconist and haberdasher. The shop signs are arranged on a glass frieze integrated into the shop windows and lit from above [3].

The construction that formerly housed the summer shops at Eforie Nord continues to serve its original purpose. The self-service buffet was initially transformed into a general store and later into a grocery store. The concrete wall with geometric apertures is still extant, while a substantial portion of the former service area is enclosed by opaque walls. The terrace

area of the buffet, situated on the left side of the complex, was subsequently subdivided and sold, as was the entire rear garden. The complex is currently adjacent to a restaurant and a hotel of considerable height, which obstructs the north side of the complex. The majority of the current functions are permanently open, which has resulted in the replacement of the universal shopfront. Many of the original units now have a full front parapet and PVC joinery. The three glass boxes facing the avenue are enclosed and converted, and the transparency of the frontage has been lost due to the additional insertion of other volumes. The metal pillars of the structure can still be seen, but unfortunately the slab has suffered substantial seepage and is not in good condition.

Both the inner and outer gardens have suffered most from recent changes. To the right of the street garden on the south side, the paving slab has been removed. It has been replaced by a two-story building and commercial space. Nearby, the tobacconist and haberdashery have been replaced by a street-facing restaurant with a terrace, which also occupies a large part of the boulevard's green space. The other two courtyards are covered with cement and partly built with other units that do not correspond to the original plan. They can be identified today by the arrangement of the openings in the slab, which are also partially covered. At the rear of the ensemble, where the grocery shop used to be, there is a household goods shop and a shoe shop next to it. In the dense fabric of the center of the resort of Eforie Nord, the summer shop complex stands out on the ground plan, but it is almost impossible to see it from the street.

**Case Study 2 - Eforie Sud Commercial Complex.** At the same time, in the early 1960s, Eforie Sud inaugurated architectural programmes with a commercial or catering focus [5], as discussed in the case of Eforie Nord. The Carmen Sylva resort was first developed before the Second World War, but after 1955, with the construction of the Eforie I and II leisure centres, the main work was transferred to Eforie Nord. In Eforie Sud, there is already an established architectural fabric and image, so the new additions to the site do not alter the picturesque specificity of the seaside resort. Moreover, the works were largely taken over by the design team from Constanta and are less well documented in the specialist press of the time (note: Although Eforie Sud has seen a number of new buildings over the years, which have increased the number of holidaymakers, they have not attracted as much interest as those in Eforie Nord. The magazine *Arhitectura RPR* gives only superficial coverage to a very small part of them, probably because they were realised by the design team from Constanța and not by the already award-winning design team from Bucharest. The general press also paid little attention to them until after 1970, which is no longer relevant).

In 1961, a new shopping complex was inaugurated in Eforie Sud, which included a self-service restaurant [6]. The self-service restaurant constituted a novel concept at that time. The building is situated at the junction of Stefan cel Mare Street and Republicii Boulevard, on the south side of the street, on the same axis as the cold baths on Lake Techirghiol. The complex is oriented in a north-south direction, parallel to the road linking Constanța and Mangalia, similar to the Eforie Nord summer shop complex. However, its footprint is noticeably smaller, and it better respects the proportion of the existing subdivisions.

As in the case of the Eforie Nord example, the spatial communication with the surrounding environment is maintained through the openings in the slab, even when the environmental gardens are situated exclusively on the exterior. In terms of architectural aesthetics, the most striking element is the treatment of opaque vertical surfaces. While glass curtain walls are employed to delineate the boundaries of the commercial establishments, the opaque Techirghiol stone cladding of the partition walls exerts a dominant visual presence. The architects put forth a tectonic approach that is in close alignment with the surrounding visual context, wherein the majority of villas constructed during the interwar period exhibit a comparable treatment of their facades. Indeed, the material is employed in both the programmes constructed prior to 1960, which adhere to the realistic-socialist style, and those erected subsequently in Eforie Sud. The canteen project, designed by architect Spiridon Spirescu in 1957 [7], incorporates limestone from Techirghiol on the exterior, thereby evoking the appearance of an aged structure.

The shopping complex is organised with the pavilion, which contains the group of shops, located in the northern part, and the cafeteria situated opposite, at the southern end. The catering unit is a popular destination for tourists, offering a variety of hot and cold dishes [6]. The supporting structure comprises rectangular metal pillars, reinforced by concrete beams. The roofing is of the terrace type, accentuated on the facades by a doubled attic, which also facilitates water drainage. The concept of a unified floor treatment, a cement mosaic with geometric accents, extends from the circulation area to the interior of the shops.

Today, *Pescărușul Curios* shopping complex (as it is now called) is still open, both in the summer and part of it in the winter. Some of the original aluminium joinery has been replaced and parts of the building have been permanently sealed off, either with solid walls or by inserting additional volumes. The cafeteria has been replaced by a larger grocery store. Some of the slab voids have been filled in to make them suitable for permanent use. However, the moulded benches that originally formed the portico and internal promenade are still in place.

**Conclusions.** In conclusion, the summer shop complex has been a successful architectural program due to its prominence over time. Both seaside and neighborhood shopping centers have retained their original location and function, although they have undergone a number of aesthetic and volumetric changes over time. However, these changes are generally correlated with the failure of modern architecture to work with the local climate.

Holiday resort shopping centers can be considered universal examples of good architectural practice, technically and stylistically ingenious works. They recreate the shopping street, but are adapted to a colorful, summery, mid-20th century architectural style. However, without some form of concrete protection and at least professional recognition of their value, they risk being lost in later real estate developments.

**Acknowledgements.** I would like to express gratitude to Professor Ana Maria Zahariade for her meticulous guidance and exemplary patience. I am also indebted to Professor Irina Tulbure Moldovan for her unwavering support of my academic pursuits, which she has encouraged since the inception of my academic journey.

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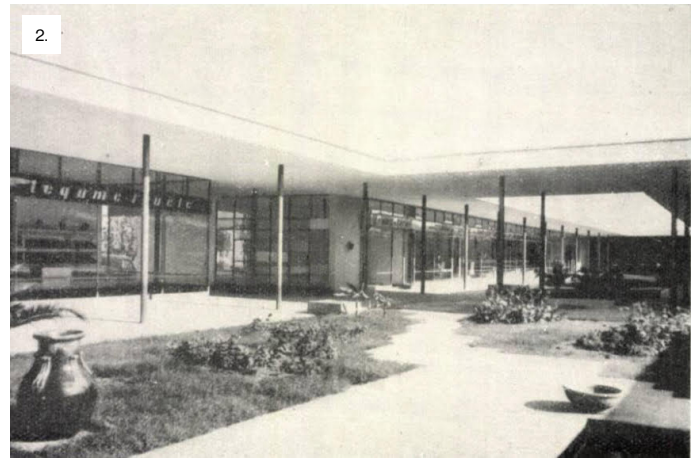
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## Figures.

FIGURE 1 - Eforie Nord Summer Stores, photo *Revista Arhitectura RPR*, nr.4-5/1961.

FIGURE 2 - Eforie Nord Summer Stores, today, photo arch. Alexandra Ioana Radu.

FIGURE 3 - Neptun Summer Stores, photo *Revista Arhitectura RPR*, nr.1/1968.



## A MULTIDISCIPLINARY APPROACH TO UNDERSTANDING HISTORIC ARCHITECTURAL FAÇADES/

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**Abstract.** The current article is part of a broader theoretical approach to studying the architectural façade, and it aims to reveal, in a technical manner, good practices for understanding the historical architectural façade.

Working on a solid basis in the restoration field requires a thorough knowledge of the historical monument. The theoretical foundation for the architecture project is laid by research, which is often multidisciplinary, involving painters, restorers, historians, and architects.

Plaster is a classical render used on architectural façades and can take virtually any form, color, or texture to achieve the desired effect on the building. The general composition of a plaster renders consists of the base layer (plaster body) of hard consistency, adherent to the support layer (e.g., brick masonry), and the finishing plaster of a fine and dense consistency with a small thickness. By sanding in various directions and brushing, different textures can be achieved that are perceived differently in the light and will develop a distinct patina (depending on the sanding direction). Optionally, a fine layer of painting film can be added in order to protect the finishing plaster.

In the case of historical monuments, the first stage consists of the *in situ* analysis of the plaster, especially the cohesion of the material. The cracks, their direction and depth, are visually inspected, and the cohesion is checked by non-invasive techniques. The next stage consists of the analysis of the plaster taken from the site to determine the chemical and physical composition using the latest technology available, such as XR or SEM. By covering the vast expression of plaster renders throughout architectural history and evaluating current practices in conservation and restoration, we will see how laboratory research and technology can aid in restoring the historic façades.

**Introduction.** The following paper is based on visual research on several historic houses located in Bucharest and was inspired by *Forgotten textures* [1], a robust research project on historic interwar plaster renders (cement-based plaster), coordinated by Pro Patrimônio Foundation. Because the time and funding resources were limited, the research developed over a period of eight months and it was founded on the following methodology. The project corroborates four types of research: the bibliographic research sets up the broader European context at the beginning of the XX century and the spreading usage of cement-based plasters in the given context. The other tools used were laboratory testing of samples of plaster, practical experiments on site, and photographic documentation [1]. As the study suggests, the limited bibliography can only deepen the lack of knowledge in the

restoration of interwar historic façades. Architects need to rely on practical experiments on site, and exploring different types of recipes of plaster in order to create a batch of samples to choose from. Ultimately, the samples must be laboratory tested in order to certify material compatibility.

By exploring the interplay between aesthetic attributes and the underlying physical characteristics of plaster, this study seeks to develop a comprehensive framework for assessing and preserving these surfaces. Plaster render façades are a versatile canvas to exploit architectural expression, and understanding the material can lead to durable and visually rich results. The embellishment of the architectural façade is not a theme of the past but an acute problem in contemporary architecture in order to achieve an alternative architecture rooted in the classical tradition of composition, texture, and ornamentation, as opposed to industrial, cold, technological façades. This research aims to delve into the methodologies and tools used in the visual analysis of plaster façades, emphasizing their application in heritage conservation, contemporary architectural practices, and material innovation. A plaster façade can become a shell of the desired appearance of the building, regardless the load-bearing wall that supports it.

**Visual analysis of plaster façades.** The research took place in Bucharest, in an area covering Calea Victoriei and neighboring streets, selecting a number of historic buildings which belong to the XVII-XIX century period. Plaster is a valuable material in rendering the appearance of a building, as it is often used to dissimulate a more precious or inaccessible material, such as stone. The ubiquity of plaster façades (especially in Bucharest) is also a component that justifies this study in better understanding the historic façades and how to care for them. The following examples studied in the present article were selected on two criteria: firstly, the façades belong to the same urban context; together, the façades convey a coherent appearance in the urban public realm; secondly, the three façades render a bossage-type plaster. The visual analysis aims to reveal if there is a particular type of detail, texture or material application that would make a more durable façade over time. If so, it would be relevant information for the technical papers that deal with historic conservation, given the little bibliography available on the topic. This chapter follows the idea that texture and details have a significant impact on the aesthetic qualities of the façade, but also on the durability. Learning from the historical façades can shape the way contemporary architects can use plaster renders, considering also the evolution in time of the façade and the main risks.

As defined in the work *Plaster, Render, Paint, and Coatings*: “Plastering / rendering Plastering / rendering, as defined in the standard, is a single-or multi-layer coating of plastering or rendering mortar applied to walls or ceilings with a defined thickness (other coatings as a top coat are also possible). Its final properties develop only after hardening” [2].

Starting the list is a valuable example, the plaster render of a pilaster at Monteoru House. The first image, FIGURE 1, is important because of the trowel technique used, a combed texture with vertical lines that conduct the raindrops in this direction. So the raindrops are quickly drained; there is no water stagnation, and this can improve and maintain a good quality visual appearance of the façade over time.



Regardless of the application complexity of this type of plaster, the aesthetic appeal of the combed plaster technique adds visual interest with its unique linear patterns and can suit various architectural styles. It was often used in the Art Nouveau period and in the early 1920s by architect Horia Creanga to embellish the main façade of his very first commission that marked his return from Paris, which was the residential building located on Bv. Schitu Măgureanu no.19, Bucharest.

As previously stated, this combed technique can contribute to the overall durability of the façade by conducting the raindrops properly. Also, the grooves can mask minor imperfections or wear over time, maintaining an appealing surface for longer compared to smooth finishes that show cracks and stains more easily.

In comparison, the next example would showcase some improper or less desired results when applying a plaster render finish to the façade. The analysis will focus on the Romanian Athenaeum, a neoclassical cultural icon of the city, designed by architect Albert Galeron and finished in 1888. Although it had some interventions and restoration works during the last century, the last major one finished in 2004-2005. The visual analysis of the plaster highlights the following aspects: The finishing layer of paint gives a less mineral aspect to the plaster, it creates a fine, film-like look. Underneath the paint, the last stroke on the plaster had been done in a circular manner, which creates an uneven aspect of the bossage and even stains caused by the raindrops. This unguided water dripping on the façade may be a cause for the fine cracks observed on the surface of the plaster.

Focusing on the following photos, FIGURE 4, there is something to say about the degradation of the plaster just by visual observation: the lack of adequate slope at the joint of the bossage pieces can cause rainwater stagnation, which leads to stains and horizontal cracks. FIGURE 4a, 4b.

The following example, FIGURE 5, will showcase a type of joint that has an adequate slope and there are no visible cracks caused by water stagnation.

As a general conclusion on the visual analysis, the trowel technique used, the ratios, and the recipe of the plaster can have a significant effect on how the façade will age over time. Architects, as professionals in the field should take in consideration construction detail that would prevent water stagnation on the decoration of the façade.

### **Multidisciplinary approach in understanding the historic façade.**

As the title of the chapter suggests, in the field of conservation of historical heritage, a multidisciplinary approach is necessary to fully comprehend the materials in question and to make the right decisions.

The good practice, as various studies suggest, after the visual analysis, is best to sample and analyze the physical and chemical composition of the plaster. Using the latest technology available, such as XRF[1] or SEM[2]. By covering the vast expression of plaster renders throughout architectural history and evaluating current practices in conservation and restoration, we will see how laboratory research and technology can aid in restoring the historic façades. This type of research implies different tests and involves a full range of specialists:

-Chemist: to determine the chemical composition of the plaster and the ratios of different materials: sand, cement, and limestone, and to operate laboratory equipment.

-Biologist: to sample and perform specific laboratory analysis to determine the presence of fungus or other biological decay (if there is present on the façade).

-Paintings restorer: to analyze the chromatic pigments and their type (natural, acrylic pigments) and their layering, if the façade or the ornament in case had been through multiple restoration stages.

-Architect: to coordinate, analyze all the feedback and to decide the best approach in restoring or repairing the historic façade.

In the decision-making process charged by the architect, the first step of the assessment is to choose upon the strategy: the conservation and repair of the façade using compatible materials and techniques or the substitution of the historic material with new compatible render [3]. The decision is often preceded by the visual assessment and the diagnosis that involves: moisture presence in the body of the plaster, types of degradation (biological or mechanical), and also the quantity and placement of these types of degradation [3].

Taking samples of plaster is an important step in the evaluation of the façade render. A sample needs to be taken to a specific laboratory to be analyzed with X-Ray Fluorescence spectroscopy or scanned by an electron microscope: electron microscope with balayage. The sample is carefully sliced in order to reveal its component layers, which generally consist in: from the exterior of the wall to the interior, a very thin layer of paint, the finishing plaster layer, the main plaster body, and the support of the plaster (the structural wall). The microscopic analysis could reveal important data that conclude to the appropriate intervention, such as the component layers of the façade, the type of aggregates and binders, and ratios, chemical composition, type of degradation (such as loss of cohesion between different materials and layers).

Following this step, in considering the choice of materials, there are several aspects to follow regarding the environmental factors, understanding the conservation principles, and the test and validation in situ.

Climate and moisture remain the main parameters in considering certain types of renderings. Plaster acts as a protective barrier against environmental elements such as rain, wind, and sunlight. Understanding the composition and application of the finishing layers ensures that the building remains resilient to these factors, preventing water infiltration and structural damage.

Some plaster finishes are designed to regulate thermal performance and control moisture. Knowing the properties of different plaster types (e.g., lime, cement, or gypsum-based) can help improve energy efficiency and indoor comfort.

The main principles stated by the Chartas stand for compatibility of the materials, reversibility, and minimal intervention, meaning to retain as much of the original material as possible and to replace only what is

necessary because of unrecoverable damages. The references cited in this article reveal specific ratios to obtain historic plaster, but also the choice of materials, such as “very fine, clean sand washed at least six times in distilled water” [4].

The in situ tests are generally non-invasive and important to evaluate certain parameters such as water permeability with Karsten tube techniques or surface hardness with a durometer [3].

**Conclusion.** Following this study, we hope to reveal why it is important to understand plaster render façades in order to properly choose the right approach in the repair or simply maintenance of a historic façade. The plaster, like any other render, such as stone cladding, is like a piece of garment, an ornamentation of the façade. This was established particularly in the Renaissance, when *façadism* gained momentum especially in Church façades, and the idea of the façade as a shell emerged. The shell could have a classical appearance while the supporting structure belongs to a completely different system. The embellishment of the brick wall took off with the plaster ornamentation and texture. Further embellishment can be added on a façade by controlling the texture with trowel techniques, grain dosage, and color, even decorative paint, depending on the desired effect of the façade.

The status of plastering on architectural façades is a current issue because it intersects with multiple contemporary concerns, from sustainability and restoration to aesthetic trends and urban regulations. As architectural practices evolve, the role of plaster continues to be reassessed, balancing tradition with modern demands for durability, efficiency, and environmental responsibility.

The tension between the standardization of construction processes and the need for high-quality craftsmanship is a significant issue. While prefabrication and mechanized plastering methods can reduce costs and speed up construction, they may also lead to a loss of the fine detail and texture that traditional plaster techniques can achieve. The conflict between standardization and craftsmanship is particularly acute in Romania, where very few architectural firms design with consideration for how the façade will age. Even fewer implement a maintenance plan for plaster façades, despite plaster being the most common and accessible finishing material for the façades. The standardization, the modern approach, leads to a flood of industrial variants of plasterings in the current market.

The traditional historic textures, featured in the visual analysis at the beginning of the paper and also featured in an organized manner based on typologies in the *Forgotten Textures*, do have superior aesthetic values and a timeless and vibrant appearance, while the industrial variants, pre-dosed, generally have a poor appearance, although the physical characteristics regarding moisture transfer of the pre-dosed plaster are good and mostly compatible with the traditional plaster. What is lacking is a general pre-occupation in the aesthetic spectrum of the plaster render, despite being a versatile medium to showcase architectural expression, and a lack of durability measures, which can be fought with a rigorous attention to the details. The consumerism exploitation on the construction sites is taking a toll on the image we project as architects on the architectural façade.

**Acknowledgements.** We would like to acknowledge the contribution of the Pro Património Foundation with the research entitled *Forgotten Textures* [RO: Texturi uitate] that inspired the visual study for the historic plaster render façades.

Also, we would like to present a special appreciation to architect Șerban Sturdza and the architectural office PRODID, which puts an emphasis on restoring architecturally valuable buildings and also with consideration to historic heritage.

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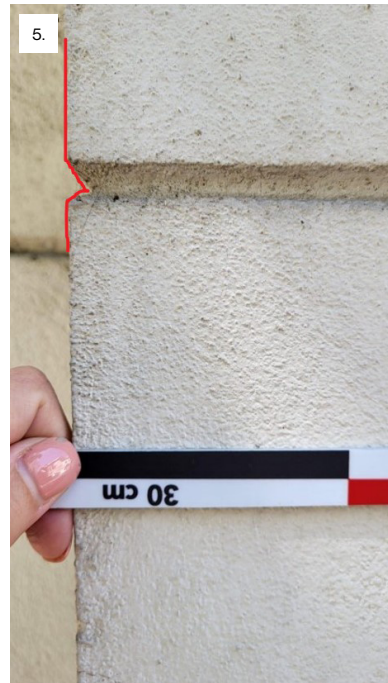
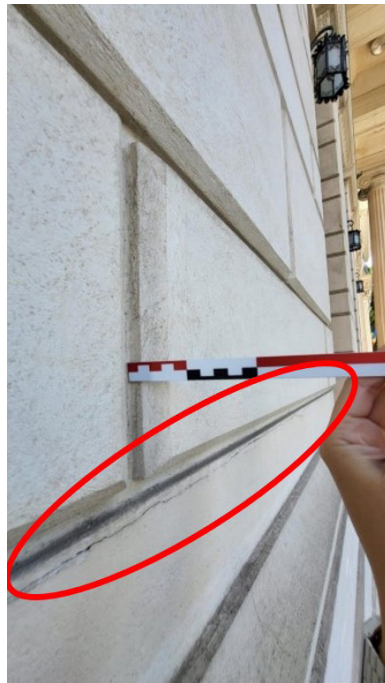
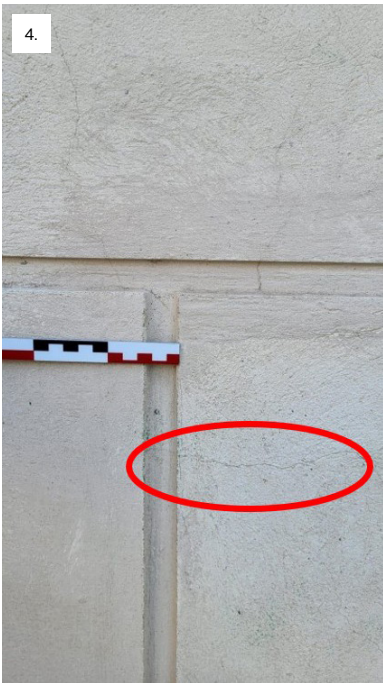
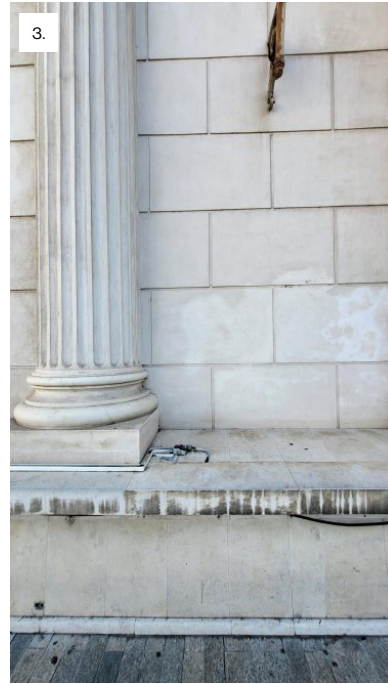
FIGURE 1 - Pilaster, covered in plaster, Monteoru House, situated on Calea Victoriei street, Bucharest, copyright author of the paper.

FIGURE 2 - Detail, plaster of pilaster at Monteoru House, situated on Calea Victoriei street, Bucharest, copyright author of the paper.

FIGURE 3 - Western, main façade of Romanian Athenaeum, Bucharest, plaster finished façade, copyright author of the paper.

FIGURE 4 - (a), (b), Detail of the main façade, zoom on the plaster to showcase the cracks, copyright author of the paper.

FIGURE 5 - Detail of the eastern façade, of Theodor Aman Museum, Bucharest, copyright author of the paper.





## HYBRID HERITAGE(S)/

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**Abstract.** The integration of artificial intelligence (AI) is changing design processes, enabling the creation of unprecedented forms that challenge traditional aesthetics. However, this pursuit of defamiliarization through AI-driven innovation raises critical concerns about the psychological well-being of users and the erosion of cultural identity. This paper addresses the research gap concerning the balance between technological advancement and cultural familiarity in architecture. By exploring historical and contemporary examples of architectural hybridity, the paper proposes a systematic methodology for developing hybrid architectural aesthetics that harmonize innovation with cultural resonance. Through an interdisciplinary approach incorporating neuroscience, cultural theory, and architectural practice, the study underscores the imperative of integrating AI technologies ethically and sustainably to foster environments that are both intellectually stimulating and emotionally comforting.

**Introduction.** Architecture today is increasingly influenced by advanced computational technologies and the complexities of cultural identity in a globalized world. The integration of artificial intelligence (AI) into architectural design processes marks a significant shift, positioning machines as collaborators rather than mere tools. AI has evolved from its traditional role to become an independent agent capable of generating innovative forms that challenge established conventions [1].

This technological evolution connects with Viktor Shklovsky’s concept of *ostranenie*, or defamiliarization, a principle rooted in early 20th-century literary theory. Shklovsky [2] argued that art’s transformative power lies in making the familiar appear strange, thereby rejuvenating our perception. In contemporary architecture, this idea has been adopted as a framework for innovation, encouraging designs that challenge conventional expectations and promote new ways of engaging with spaces.

However, the quest for aesthetic disruption raises significant concerns about the psychological and social impacts of defamiliarized environments. Neuroscientific research highlights the importance of familiarity in enhancing cognitive processing, reducing mental strain, and fostering emotional well-being [3]. On the other hand, environments characterized by unfamiliarity or estrangement have been associated with increased stress, discomfort, and anxiety, potentially undermining the human-centered goals of architectural practice. Prolonged exposure to such environments may alienate inhabitants, challenging the fundamental purpose of architecture as a discipline that supports human flourishing [4].

The tension between the avant-garde aims of defamiliarization and the fundamental human need for cultural familiarity raises important questions about the ethical and psychological aspects of architectural innovation. How can architects address this dual challenge, especially in a globalized

world marked by hybrid cultural identities? Homi Bhabha’s concept of the “Third Space” [5] emphasizes the fluid and negotiated nature of identity in contemporary societies, where diverse influences come together to create complex cultural hybrids. This reality calls for a shift in architectural practice towards hybrid approaches that effectively balance the competing demands of familiarity and innovation.

To address these tensions, this paper presents a systematic methodology for developing hybrid architectural aesthetics. The first step focuses on understanding the cognitive and cultural frameworks through which users perceive and experience architectural spaces. The second step involves analyzing the physical, cultural, and environmental factors that shape the site, including historical influences and contemporary cultural dynamics. Finally, the process synthesizes insights from these stages to create architectural models that balance tradition and innovation. By exploring the potential of hybrid architectures, this paper provides a framework for reconciling the demands of innovation with the cultural and psychological needs of human experience. This reconciliation positions architecture as a medium through which the complexities of identity, memory, and technological progress can be harmonized.

Building upon these considerations, this paper posits that ‘architectural hybridity’ emerges from a continuum wherein historical precedents and AI-driven methodologies converge. By drawing on layered cross-cultural examples—such as Gandhāra and Mudéjar—and situating them within contemporary design contexts, hybridity is understood as a dynamic negotiation between tradition and innovation. In this view, AI tools function not as mere novelties but as contemporary agents that extend a long lineage of cultural exchange and adaptation. Consequently, the resulting hybrid architectures are neither mere stylistic collages nor purely technological artifacts, but rather fluid constructs that reconcile evolving forms and material capabilities with the enduring imprint of cultural memory and local identity.

**A Critical View of Defamiliarization.** The integration of AI in architecture has enabled the creation of forms that challenge traditional aesthetic and functional norms. AI’s ability to process large datasets, simulate material behaviors, and optimize complex geometries has positioned it as a transformative force in design. Lev Manovich [6] observes that AI has evolved from being a supportive tool to becoming an autonomous agent in cultural production, capable of generating designs that broaden the boundaries of architectural imagination. This evolution is vividly illustrated in projects such as the ICD/ITKE Research Pavilion, where robotic filament winding techniques inspired by biological exoskeletons resulted in a structure that is both materially efficient and visually striking [7]. Similarly, Michael Hansmeyer’s concept of the “unimaginable artifact” encapsulates the potential of AI to create forms that defy conventional expectations [8].

A central theme in the discussion of AI aesthetics is the concept of defamiliarization. In architecture, this process involves using computational tools to produce forms that disrupt standard spatial and aesthetic expectations. Designers like Matias del Campo have employed neural networks and machine learning algorithms to create what he describes as “estranged



objects”—architectural forms that challenge perceptual norms and encourage new ways of interacting with space [9]. Such designs resonate with Shklovsky’s theory of *ostranenie*, which posits that art’s purpose is to estrange the ordinary, thereby renewing perception [10].

While defamiliarization can stimulate intellectual and sensory engagement, its psychological ramifications are concerning. Studies in neuroaesthetics reveal that defamiliarized forms activate brain regions associated with emotional processing, often leading to feelings of stress, discomfort, or unease [11]. Mild stressors can enhance resilience—a concept known as *hormesis*—but chronic exposure to unfamiliar and alienating environments can lead to adverse psychological outcomes, including heightened anxiety and cognitive strain [12].

This raises ethical questions regarding the purpose of design. Alison Hills and Alexander Bird warn that creativity devoid of value risks producing innovations that alienate rather than enrich [13]. In architecture, where the well-being of inhabitants is paramount, it is crucial to distinguish between meaningful innovation and novelty for its own sake. Furthermore, the relentless pursuit of aesthetic “progress” aligns with accelerationism, which suggests that the rapid advancement of technology inevitably results in a rupture with traditional human experiences and values [14]. While accelerationism advocates for the speed of technological and cultural change, it often overlooks the potential consequences on human experience and social cohesion.

Thus, while AI-driven defamiliarization broadens the possibilities of architectural form, it also presents significant challenges. The risk that these designs could become disconnected from cultural and social contexts necessitates a reevaluation of architectural priorities. There is an urgent need to balance innovation with cultural relevance, ensuring that architecture remains a medium that supports human experience rather than undermines it. Tension between the avant-garde aim of defamiliarization and the fundamental human need for cultural familiarity raises important questions about the ethical and psychological aspects of architectural innovation. How can architects address this dual challenge, especially in a globalized world marked by hybrid cultural identities?

**Cultural Familiarity in Architectural Design.** Cultural familiarity plays a crucial role in how people engage with architectural spaces, influencing their perceptions, navigation, and emotional responses to these environments. This familiarity goes beyond aesthetic preferences; it is deeply rooted in cognitive processes, emotional well-being, and social dynamics. Neuroscientific research shows compelling evidence of the psychological and physiological benefits of culturally familiar environments, highlighting their ability to enhance cognitive efficiency, reduce stress, and foster a sense of belonging. Studies in neuroarchitecture have revealed that environments that align with individuals’ cultural backgrounds facilitate better cognitive processing, as they match pre-existing cognitive schemas. For instance, Mecklinger et al. found that participants exposed to architectural forms reflective of their cultural heritage exhibited reduced activation in the N350 event-related potential (ERP) component. This indicates that familiar stimuli require less cognitive effort to process [15]. This finding

aligns with the hedonic fluency hypothesis, which asserts that stimuli that are processed easily are perceived as more enjoyable [16]. Consequently, familiarity enhances aesthetic appreciation by lowering cognitive load, allowing individuals to interact with architectural spaces in a more intuitive and fulfilling way.

However, the concept of cultural familiarity becomes increasingly complex in a globalized world characterized by hybrid identities and intersecting cultural influences. Traditional architectural design approaches, which often emphasize singular representations of cultural heritage, risk oversimplifying the diverse and dynamic nature of contemporary identities. The concept of the “Third Space” provides a critical framework for understanding cultural hybridity, emphasizing that identity is negotiated within a fluid space where various cultural influences intersect. This perspective challenges architects to move beyond static interpretations of heritage and engage with the complexities of hybrid cultural contexts.

Cross-cultural research illustrates that different cultures perceive architecture in unique ways. Richard Nisbett argues that cognitive styles are profoundly influenced by cultural backgrounds, with Western thought being analytical and object-focused, while Eastern thought is holistic and context-sensitive [17]. Luo, Zhu, and Han support this view, demonstrating that cultural experiences are deeply embedded in the brain’s network structure. Their study reveals that individuals from Western backgrounds show stronger connectivity in brain regions related to self-referential processing, whereas participants from Eastern backgrounds exhibit heightened connectivity in areas associated with socio-emotional processing [18].

In this context, the fragmentation of identities presents significant challenges for architects. The rise of hybrid identities reflects a complex interplay of global and local influences, historical legacies, and socio-political contexts [19]. As Jan Nederveen Pieterse notes, cultural hybridization is accelerated by contemporary globalization, which challenges traditional notions of cultural dominance and opens new avenues for creativity and innovation [20].

To effectively incorporate cultural familiarity into architectural design, a nuanced understanding of identity, context, and perception is essential. Architects must draw from insights in neuroscience, anthropology, and cultural theory to create spaces that resonate with diverse user groups and address the psychological and emotional aspects of design. This approach not only enhances the relevance and accessibility of architecture but also strengthens its role as a medium for fostering cultural continuity and social cohesion.

**Hybrid Architectures.** The concept of cultural hybridity in architecture is not a recent development. Throughout history, cultural exchanges and interactions have led to the creation of architectural forms that embody a fusion of diverse traditions. These historical examples provide valuable insights into how hybridity can enrich architectural practice and reflect complex cultural identities.

One of the earliest and most notable examples of architectural hybridity is the Buddhist architecture of Gandhāra. Located at the crossroads of ancient trade routes, Gandhāra became a melting pot of Hellenistic,

Persian, and Indian influences. The region's stupas and monasteries are characterized by a unique blend of Greco-Roman artistic techniques and Buddhist iconography. For example, the drapery and anatomical precision of Gandhāra sculptures reflect Hellenistic artistic traditions, while their spiritual themes and symbolism remain deeply rooted in Indian Buddhism [21]. This synthesis of artistic and architectural elements illustrates how hybridity can create forms that are both innovative and culturally resonant.

Another compelling example of hybridity is the Mudéjar architectural style that emerged in medieval Spain, during the coexistence of Muslim, Christian, and Jewish communities. Mudéjar architecture features the integration of Islamic decorative motifs, such as intricate geometric patterns and calligraphy, with Gothic and Romanesque structural forms. This style reflects the dynamic cultural interactions of the period, where Islamic artisans adapted their techniques to fit within Christian architectural frameworks, resulting in a unique and enduring aesthetic. Ila Nicole Sheren describes Mudéjar as “an allegory of cultural negotiation,” where architecture serves as a medium for expressing the complexities of identity and coexistence [22].

In the Americas, the adaptation of Mudéjar techniques in colonial contexts further exemplifies the versatility of hybrid styles. Indigenous artisans in Latin America incorporated local materials and motifs into Mudéjar designs, crafting a new architectural language that reflects the interplay of European and indigenous traditions. This process of transculturation highlights the dynamic nature of hybridity, where architectural forms are continually reinterpreted and transformed through cultural exchange [23].

The Art Deco movement of the early 20th century serves as a modern example of architectural hybridity. Described by Benton et al. as a “curious mixture” of traditional and contemporary styles, Art Deco drew inspiration from ancient civilizations, such as Egypt and Mesopotamia, while embracing the geometric abstraction and technological optimism of the modern era [24]. Iconic structures like the Chrysler Building in New York City illustrate how Art Deco seamlessly combined historical references with industrial materials and innovative design techniques, creating a style that was both timeless and forward-looking.

Despite the historical success of architectural hybridity, the modernist movement often rejected such fusion in favor of universal principles and functionalist aesthetics. Modernism emphasized breaking away from the past, which frequently led to a disconnection from traditional or regional styles in favor of global and universal designs. This ideological shift resulted in a homogenized vision of architecture that stripped away cultural specificities and local resonances. The extreme distance from the past advocated by modernism relegated premodern styles to the status of historical artifacts, emphasizing a discontinuity that treated these styles as relics rather than living practices.

In response, Critical Regionalism emerged, seeking to reconcile modernist innovation with a renewed respect for the local and particular [25]. It advocates for architecture that employs modern techniques and materials while being deeply engaged with the specific context of place—its culture, climate, and history. However, it has faced critiques for potentially over-

simplifying regional identities and marginalizing alternative voices [26]. The work of Mexican architect Luis Barragán, for instance, is celebrated for embodying regionalist qualities but has also been criticized for aligning with a nostalgic, conservative vision that caters more to elite tastes than to the broader population.

Hybrid architectures offer a way forward by embracing the complexity of cultural identity, representing a profound rethinking of design culture, where the integration of diverse cultural, stylistic, and material elements transcends traditional boundaries. As Ferda Kolatan argues, hybrids are not mere amalgamations or juxtapositions of disparate components but entities that embody the productive tension between the familiar and the unfamiliar, the traditional and the innovative. Kolatan describes hybrid architecture as a process of reconfiguration and adaptation, where architectural forms are shaped by the interplay of conflicting forces, creating designs that are complex, ambiguous, and layered. He emphasizes that hybrids are not static or predetermined but dynamic and evolving, reflecting the fluidity of cultural and social identities in the contemporary world [27].

Kolatan's concept of “genuine hybrids” challenges conventional architectural classifications by highlighting forms that emerge from unexpected intersections of cultural, technological, and material influences. These hybrids are not necessarily deliberate or intentional; they often arise organically from the interactions between diverse forces in urban environments. Kolatan suggests that such forms, which are often dismissed as architectural anomalies, possess a unique capacity to capture the complexities of modern life. By embracing the idiosyncratic and the irregular, hybrid architectures disrupt normative design paradigms and open up new possibilities for creative expression.

To operationalize hybrid architectures effectively, a systematic methodology is essential. This paper proposes a three-phase approach that integrates perception, context, and synthesis to develop designs that balance innovation with familiarity. Each phase incorporates interdisciplinary insights from neuroscience, cultural theory, and architectural practice.

The first phase, “Canvassing Perception,” focuses on understanding the cognitive and cultural frameworks through which users perceive and experience architectural spaces. Utilizing insights from neuroscience and embodied cognition, architects can identify design elements that promote cognitive fluency and emotional well-being. Tools such as virtual reality simulations and cognitive mapping can help visualize how users interact with proposed designs [28]. Ethnographic research is also critical; by engaging with communities to explore their cultural narratives, traditions, and aesthetic preferences, architects can identify elements that resonate with users' identities. This empathetic, user-centered approach ensures that the design processes enhance the human experience.

The second phase, “Canvassing Context,” involves a thorough analysis of the cultural, historical, and environmental factors that shape the site. This includes mapping local traditions, assessing historical architectural forms, and engaging with community stakeholders to identify shared values and aspirations. Concepts such as transculturation, which emphasize the dynamic interplay of cultural influences, provide a framework for integrat-

ing both global and local elements [29]. Environmental analysis, which incorporates sustainable practices and biotectonic strategies, ensures that designs respond to ecological challenges while aligning with broader sustainability goals. This holistic understanding of context allows architects to create spaces that not only respond to their environment but also reflect the complex cultural identities of their users.

The final phase, “Hybridizing Models,” synthesizes insights from the previous stages to develop architectural models that harmonize tradition with innovation. Hybrid tectonics acts as a key tool in this process, enabling architects to integrate classical, digital, biotectonic, and quasi-tectonic approaches into a coherent framework. By combining traditional materials and forms with advanced computational techniques—including AI-driven generative design processes—hybrid designs can achieve a dynamic balance between cultural resonance and technological exploration. Prototyping and iterative testing are crucial here: by creating both physical and digital models, architects can experiment with diverse formal expressions and rigorously assess their effectiveness in reconciling familiarity with novelty. Drawing on the data gathered from earlier perception and context analyses, these AI-based simulations help refine formal opportunities in real time, ensuring each intervention remains firmly grounded in human-centered principles. Finally, interdisciplinary collaboration with experts in anthropology, sociology, and environmental science further enriches the process, integrating multiple perspectives on complexity and ensuring that the resulting designs remain culturally meaningful as well as technologically innovative.

This methodology provides a replicable framework for integrating cultural familiarity and technological innovation in architectural practice. By aligning design processes with cognitive, cultural, and environmental dimensions, it ensures that hybrid architectures are not only aesthetically compelling but also deeply connected to the lived experiences of their users.

**Conclusion.** The tension between defamiliarization and cultural familiarity encapsulates broader questions about the purpose and ethics of architecture in the 21st century. While AI-driven design has expanded the creative possibilities of architecture, the psychological and social impacts of unfamiliar environments highlight the necessity of grounding innovation in human-centered principles.

Hybrid architectures offer a compelling solution to this tension, integrating the best of both worlds to create spaces that are intellectually stimulating, emotionally resonant, and culturally meaningful. By synthesizing insights from neuroscience, cultural theory, and technological innovation, hybrid architectures address the complexities of identity, memory, and perception in a globalized world.

Historical precedents demonstrate the enduring value of hybridity as a source of architectural enrichment, while contemporary examples illustrate its potential to navigate the challenges of modernity. Through a systematic methodology of canvassing perception, canvassing context, and hybridizing models, architects can create designs that reflect the pluralistic realities of today's societies while pushing the boundaries of creative expression.

As architecture continues to evolve in response to technological advancements and cultural shifts, the adoption of hybrid approaches offers a pathway to reconcile the demands of innovation with the imperatives of human experience. By embracing hybridity, architects can transform heritage into an active and dynamic participant in contemporary design, ensuring that architecture remains a vital and inclusive force in shaping the environments we inhabit.

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## Figures.

FIGURE 1 - The 2014 ICD/ITKE Research Pavilion, showcasing 'unnatural' design and fabrication techniques, achieving forms and structures unattainable through conventional methods. Photograph by Roland Halbe.

FIGURE 2 - Master Bedroom of the Deep House, an exploration by Matias del Campo into the aesthetics of defamiliarization. While the design is captivating and represents a significant experiment in reinterpreting traditional architectural knowledge, the creators themselves recognize the strangeness and incompleteness of the spaces, engaging in a dialogue with their client on whether to refine the algorithms behind these outcomes.

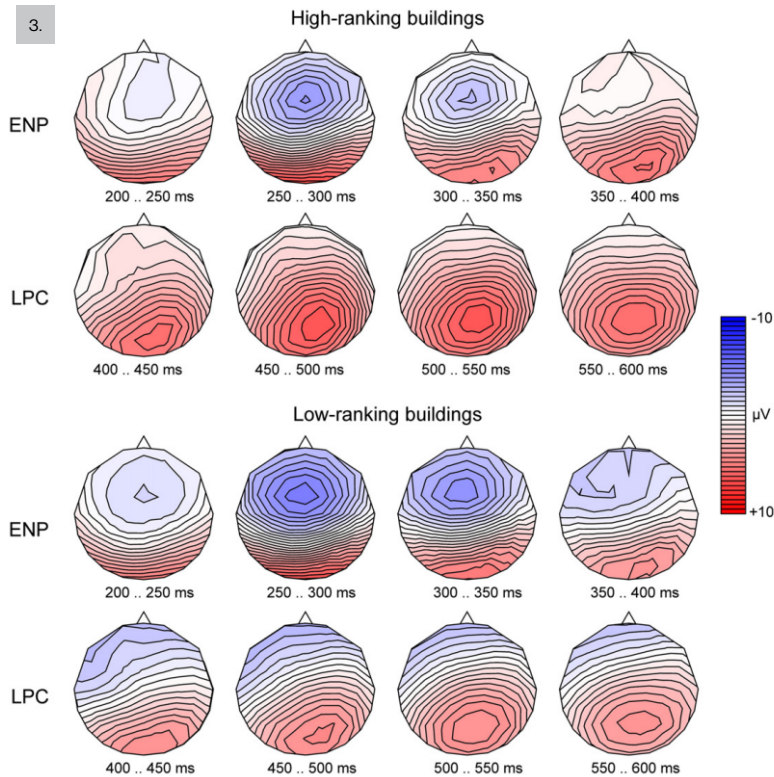
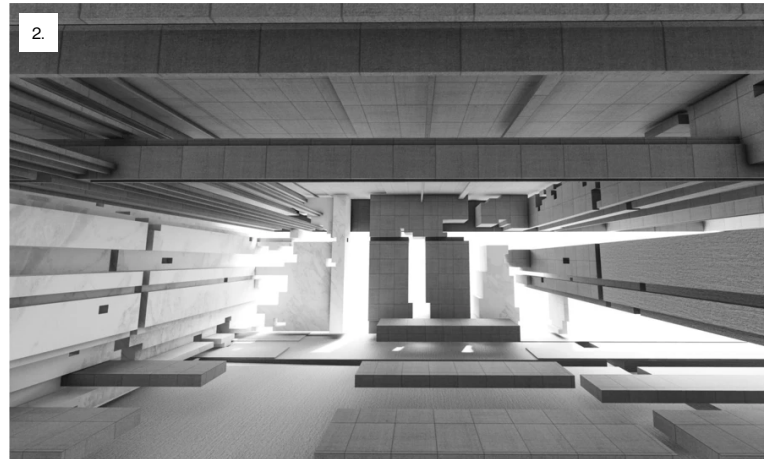
FIGURE 3 - Brain activation patterns for High-Ranking vs. Low-Ranking Buildings. Topographic maps display the scalp distribution of ERPs in response to high- and low-ranking buildings, measured between 200 and 600 ms post-stimulus in 14 healthy subjects. ENP refers to the early negative potential, and LPC to the late positive component (From Oppenheim et al., 2010).

FIGURE 4 - This image showcases the unique fusion of Hellenistic and Buddhist architectural elements characteristic of Gandhāra. The Greco-Roman artistic influence evident in the Buddha's drapery and facial features exemplifies the hybridization process discussed by Kurt A. Behrendt. It visually represents how diverse cultural influences converged to create a distinctive architectural style in the Kushan period. Photography courtesy of JI FilpoC.

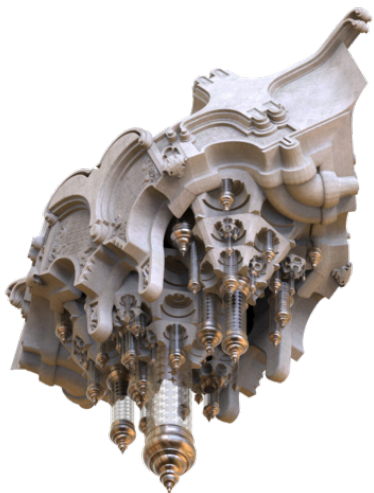
FIGURE 5 - Student work from Caleb Birch Ehly at the Weitzman School of Architecture in the Oddkin Architecture Istanbul III, held by Ferda Kolatan. The Image presents twisting and turning architectural machinations, that do a certain dancing of styles and scales, canvassed and re-weaved together from the rich hybrid tapestry of Istanbul. Image courtesy of the Weitzman School of Architecture.

FIGURE 6 - Hybrid architectural ornaments, generated by the author using Midjourney, following a "Classical + Futurism + Biophilia"-based instruction prompt.

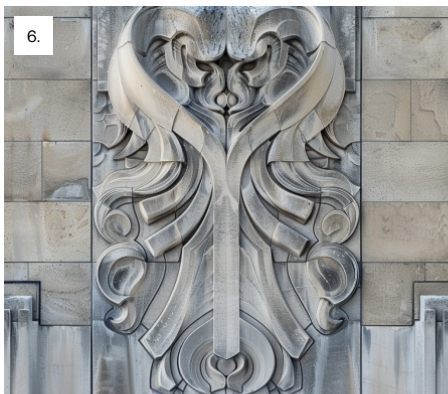




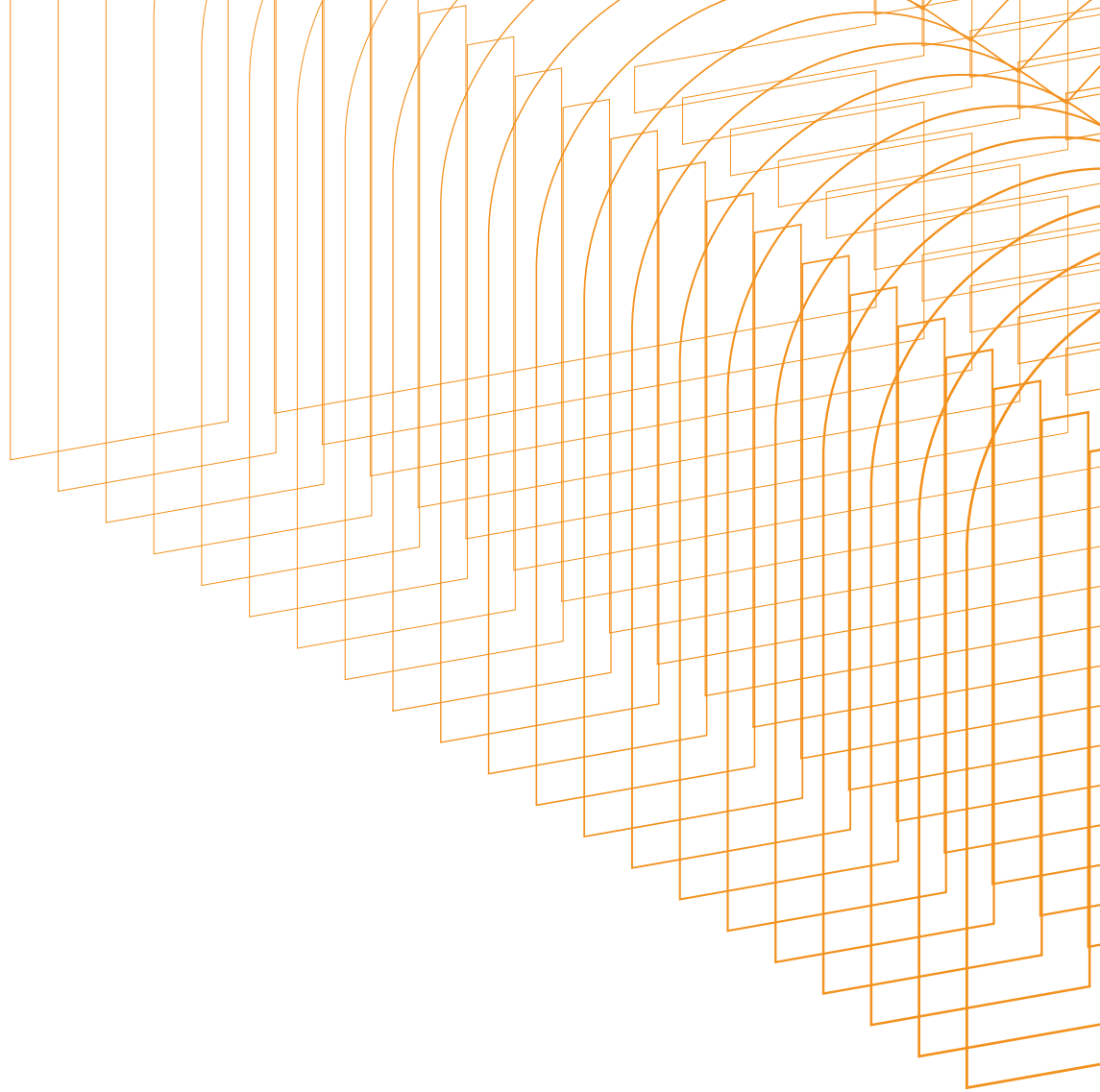
5.



6.







## MEMORY OF MODERN POST-MILITARY CONSTRUCTIONS/

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**Abstract.** The avid pressure that technological progress imposes is also transposed into the built space, which must be able to accommodate the new needs/challenges. But if a device is easy to replace with a new one, a building is not as easily replaceable. Recycling seems to be a key word of the 21st century, but in some situations, it seems a difficult action to apply to constructions that have reached a stage unsuitable for use. The public has positive recollections of the centennial-built space, ruins of a bygone time it witnessed only in books or photographs, which through the lens of the mind appears almost romanticised. On another note, the remains of recent buildings are sometimes seen as an aggression in the built space, ruins of a time that has been witnessed and whose time is still felt. As in the case of post-military architecture that, although laying fallow, is still surrounded by walls with sealed gates, absent of its original usefulness because it is technologically outdated. Military events have significantly influenced the history of the world and that is why the military legacy, in all its aspects, has been important in shaping today's society [1]. These ensembles are often adjacent, but they are not erased from the local memory, because the city is a living organism, in perpetual transformation, that functions as a coherent system. As the military-built environment began to suffer mutations in the way it is built, it also needed to be in unison with the changes in the society and politics. Therefore, special care was taken in the instruction of the future military cadets in construction. Looking at the evolution of modern military-built environment is there a correlation with the evolution of the construction branch in the military school? Can we deduct that this could be a factor offering more value to some of the military buildings? If we consider the immovable heritage of military constructions as legacy, then it represents an intangible connection through the memory of a place, or an object that can be important from a social or cultural point of view and which can be transmuted in a catalyst object in the socio-cultural environment of a community.

**Introduction.** The nineteenth and twentieth century witnessed a rapid evolution in military technology and tactics, resulting in alterations to military construction and the repurposing of many military buildings for civilian use. The progressive mechanization of the military system radically changed the rules of war tactics and their needs. Massive changes occurred in the 19th century in Romanian countries, especially through *The Peace Treaty of Adrianople*, when principalities were allowed to move towards the establishment of an autonomous state. Thus, it was possible to establish new institutions and mechanisms to ensure the proper functioning of each discipline. The development of Romanian military-built sites coincides with the start of the military defense system's reorganization. This study investigates the evolution of modern military-built infrastructure through the perspective of training military personnel in the field of construction.

Preserving military heritage helps us understand important societal ideals and traditions. Each country is unique in its military heritage. The rather neglected military architectural heritage must be treated and protected as an important heritage, by ensuring the viability of the cultural heritage, including identification, documentation, research, conservation, protection, promotion, improvement, transmission, especially through formal and non-formal education, as well as the revitalization of various aspects of this heritage. *There is a great need to increase interest in the integrated conservation of tangible resources and intangible values of military heritage sites due to its specific character* [2].

In general, military events have exerted significant influence on the development and historical trajectory of nations, as numerous consequential outcomes can be achieved through military interventions. Thus, the implications of military use have led to influences in the way we see a city in the present. Through *fortifications and defence tactics*, military architecture has played a significant role in protecting cities and settlements from external threats and influencing their physical layout and security measures. With *urban planning*, castles, citadels and military buildings have been frequently integrated into the urban landscape, thereby influencing the overall design and organization of the city. Developments in military engineering and technology, such as novel defensive structures, led to innovations in architecture and construction techniques. The presence of military architecture has influenced the way a space is used, shaping the cultural and social fabric of a community (power dynamics, aspirations of ruling authorities, social hierarchies). But for the Romanian military system, the built environment after the Phanariot regime was in disarray, with many troops operating in rented buildings. The needs of a new established state, also included modern and adapted military that can embody it and the people's aspirations, so the education of the new military troops for the military-built environment needed to shape them akin to the new goals.

**Establishing a modern Romanian army through education.** The initial approaches of training for military personnel in the first half of the 19th century were organized as general education. Officers were exclusively recruited from upper-class families with sufficient financial resources to ensure higher education, and the majority were educated in military schools abroad. Consequently, the number of recruitable officers into the army, especially those capable to manage construction was negligible, necessitating the establishment of military education. Following the Order of February 27, 1833, in Moldova, the “*Lesnicioasa învățătură la lagăr* [3]” was implemented in two stages. The *first stage* focused on the training of teachers, professors and instructors. Initially, they were recruited from the officers of the Russian army who subsequently settled in principalities. The curriculum emphasized mastering Russian military regulations. The *second stage* involved the establishment of schools to train military personnel. These schools were formed under both principalities: *Lancastrian-military schools* [3] intended for lower military ranks to learn reading, writing, arithmetic, history, and geography. The primary objective of these schools was to elevate the level of general culture among those who were to be ranked. The subsequent purpose was to establish a necessary foundation for those who were to prepare for higher ranks.



From the instruction provisionally sent by the Polish general Czaikowski during the War of Independence, it was observed that military training in construction was inadequate. In his correspondence, he provided suggestions on ensuring the necessary military personnel and recommended the establishment of a military school to train staff and engineer officers to draw up plans, conduct topographic surveys, execute campaign work and construct pontoons [4]. In the mid-19th century, military education remained undersized and insufficiently prepared for all necessary specialties. To enhance the educational process, after the unification of the principalities, the government, in collaboration with the Ministry of War, committed to sending students with the highest academic performance to further study abroad on scholarships. According to Army Magazine no. 63 of 1864, approximately 50 Romanian officers studied in France in the same year. To study abroad, they signed a commitment to serve for a minimum of eight years in the army [5].

In 1859, the first engineering battalion was formed on May 30, 1859, in Moldavia. It was composed of civilian specialists who were assimilated into the military ranks. The rank of lieutenants was similar to that of ordinary engineer class I, but they required knowledge of integral and differential calculus, mechanics, geodesy, strength of materials, hydraulics, architecture, fortifications, art and military strategy [6].

Initially, knowledge related to fortifications, construction and the military regulations was assigned to the special weapons department within the engineering division. *The Ordinance for Admissions and Promotions* within the Engineering Corps of September 14, 1859, laid the foundation for engineering education. Graduates of this school received engineers' qualifications.

The Preparatory School for Engineering (the branch that included constructions) established its headquarters in 1862 in Bucharest. Future cadets had to acquire the following knowledge: general knowledge at an average level (similar to that of a high school graduate) and specialized knowledge: general scientific and humanities culture. They studied Romanian, foreign languages such as French and German, mathematics such as algebra, arithmetic and geometry, history, geography, natural history, drawing, calligraphy, topographical drawing, descriptive geometry, geology, topography, astronomy, tactics and strategy, fortifications, architecture, bridges and roads, administration and legislation, biology, gymnastics and swimming [7].

Students were guided to specializations depending on the results obtained. Those with averages of at least 7.50 were selected for the engineering specialization. In 1860, graduates with the highest grades at the Bucharest Military School were assigned directly to the 2nd Engineering Battalion after a period of five years of schooling. The 1862 regulation specifies that graduates of special weapons have the opportunity to continue their studies in France, Germany and Belgium. Some students studied at the Artillery and Engineer Application School in Metz or Fontainebleau, the Artillery and Engineer Application School in Brussels, the General Staff School in Paris or at various Polytechnic Schools in France and Germany.

During the period 1866-1870, according to engineer Dumitru Atanasiu, the Romanian military education entered under the military influences of the Habsburg empire, and then in the following period the French military influences began to be assimilated [8].

The short training period and insufficient number of military personnel imposed a need to ensure early practical training. Training camps were established. In the Florești Camp, 2-month sessions were formed starting from June 1-July 31 and August 1-September 30. In 1870, the first methodological work necessary for the educational process was conducted as follows: "Practical instruction manual for the school of roadways or campaign fortifications," "Course of military bridges." [9]

During this period, a subdivision of the specialized military schools was formed in order to streamline the training time and obtain as many military personnel as possible in various organizational points: military personnel to deal with the administrative and economic side of constructions, military personnel to manage premises and their maintenance, enlisted personnel to deal with the enactment of military structures and personnel necessary for the design of buildings. This structure was proposed in 1875 and kept operating in roughly the same form until approximately after the Second World War.

Compared to the other military branches, the admission to the Engineering programme was the most demanding. Only the students with the best grades from the military school or civil school were selected. The exam consisted of several tests including: mathematics, descriptive geometry and drawing. [9]

Increasing developments in military warfare have led to a decrease in the importance of the visible built environment. With the exception of representative structures, other buildings throughout the century began to be less visible/noticeable. This can be seen even in the education system, as with time, schools of construction and courses such as architecture diminish in importance. In the first half of the 20th century, the Ministry of Defence collaborated with civil schools of construction and architecture sending a few students to study extensively. Between 1964 and 1967, a few students from polytechnic schools and architecture schools were integrated directly into the defence system. With the development of new weapons and engineering programs, the construction education programme was reduced as importance, concentrating mainly on structure, function and less on the architecture.

The evolution of military education in Romania reflects efforts to build a modern and capable military force. Military schools and training programs played a major role in developing the technical and tactical expertise of Romanian officers and non-commissioned officers, equipping them with the knowledge to defend the nation's interests. At the same time, military heritage, including historic fortifications, barracks and training facilities, shaped our cultural environment and identity.

**Influences on the modern military architecture.** We can observe that the attention given to construction process and architecture is greater at the start of the modern era when there was not only a concern for developing the military defence system of the nation, but also for establishing an image for the society that aligned with political views of the time. Between the 1850-1900 in the architecture of barracks, examples of projects implemented in states with a military tradition in Europe were used. For example, the barracks of Malmaison were built on principles from the

French army [5]. To the end of the XIX-th century a shift begun: carefully constructing buildings, designed to satisfy the needs and psychology of the Romanian soldier[x]. With the establishment of a local architecture school and a need to express the idea of a national identity through architecture, at the beginning of the XX-th century, elements of neo-romanian style were gradually introduced into the military architecture.

Other architectural styles that we can observe on military buildings are the neo-gothic (The Military school of Iași), neo-classic (Palace of the National Military Circle), realist-modernist (The Military Academy Carol I) etc. With the changes on the political scene, a new style had to be introduced to the public. With the soviet regime, in the 1950's, the preferred architectural style was the realist-modernist, including ornaments depicting soviet symbols. The architectural morphology of the military building's façade has been an element influenced or coerced depending on the political views and the needs of the defence system. This led to the need of well-prepared military personnel (architects, engineers, military construction workers etc) in the sphere of architecture. At the beginning of the modern military system, the education system prepared personnel for understanding architecture and construction. But as the military defence system grew rapidly, given the need to establish itself for national defence purposes, taking into consideration the conflicts that swept Europe and the need to constantly adapt to evolving military technology, the discipline of military architecture and construction shifted to the utilitarian. As explained above, the number of architectural specialists was insufficient, at first caused by the lack of trained professionals and later on because the preference shifted to instructing people in different defence branches. Another reason in the diminishing of interest in architectural representation was the increasing need for many provisional structures. This started with the Second World War, a time where there was an increasing need for temporary structures, usually tents, with the advantage to be rapidly installed in considerable numbers. The change in war tactics and technology led to the need of a transformation in military defence constructions. Camouflage, efficiency and functionalism have gradually become the focal point in building, leading to temporary and pre-engineered constructions.

The decreasing need for new constructions that could hold a representative meaning and the increasing need for developing the standardisation of the army led to gradually concentrating the military construction education mostly for infrastructure (such as railroads, bridges, tunnels etc.) and pre-built structures. Also, the gradual shift of military constructions to the outskirts of a community made the new military structures less visible and less connected with the residents.

**The shrinking of the military-built environment.** A restructuring of Soviet military bases had been planned since 1987 following the Warsaw Pact, but shortly after the U.S.S.R. collapsed, the Cold War ended, and a massive restructuring of military bases occurred not only in the former Soviet sphere, but also in the United States [10].

Studies relating to the urban regeneration of former military bases took place in Western Europe, but United States were the forefront. Immediately after the bases became inactive in the 1990s, the problem of their

reintegration into the economic and social spheres of their communities began to be considered. Manuals for the conversion of these areas into civilian circuits were also developed, programs for the conversion of former bases into functions accessible to civilians were created, and sponsors that would involve not only local authorities, but also the population in the area were enrolled [11]. Their goal was to a lesser extent related to military heritage, but rather to socioeconomic and urban revitalization. In contrast, in Western Europe, urban revitalization programs of post-military sites also considered their tourist potential; therefore, the potential of military heritage was studied thoroughly.

It was found that in Romania the situation of post-military sites is quite precarious. The less-transparent attitude of the authorities has transformed these areas into unattractive places for investment. As is the case of industrial heritage, within large cities, for some investors the land value for real estate is more important. Some sites were purchased by private owners for such ideas, but following the financial crisis, the market shrank and most of them were only partly demolished, their status being even more precarious now. On the other hand, the lack of budgets and investments at the local or county level is another factor that prevents their valorization, few local administrations allowed themselves the budgets to provide security of the sites in order to prevent possible vandalism. Other ground requires work for decontamination. The study by FATE states that such actions can be carried out with the support of the Ministry of Environment and Forests, but due to current budgets, local public administrations do not have the capacity to prepare non-reimbursable financing projects for decontamination works. As a result, some of these sites have a desolate appearance, of abandoned ruins, with undesirable effects on the environment [12].

Another factor in the slow process of the revitalization of ex-military buildings is the level of representation. Compared to the more recent military buildings that were built out of necessity, we can argue that military architecture from the 19th to the middle of the 20th century engaged with the public. Some of the buildings had programs that needed to impose themselves: to attract the general public like the Military Circle buildings or to express security and dominance like The Military Academy from Bucharest. Consequently, these types of buildings are easily assimilated by the residents' perceptions.

Thus, we can see that the transformation of military buildings can lead to a couple important points.

a. Conversion to civic spaces: Former military bases and facilities can be repurposed into community centers, libraries, and cultural hubs, thereby fostering a sense of shared ownership and connection among local residents.

b. Preserving historical significance: The adaptive reuse of military buildings can maintain their architectural and historical significance, serving as tangible reminders of the community's past, while simultaneously providing modern amenities and functions.

c. Economic revitalization: The transformation of military infrastructure into commercial, residential, or mixed-use developments has the potential to stimulate economic growth and generate employment opportunities in the region, thus benefiting the local economy.

d. Environmental sustainability: Repurposing existing military structures can be a more environmentally sustainable approach than demolition and reconstruction, thereby reducing waste and minimizing the carbon footprint associated with redevelopment.

e. Community engagement: The process of transforming military buildings can incorporate community input and participation, fostering a sense of ownership and pride among residents and promoting reconciliation within the community.

**Conclusion.** The training and education of military personnel in the branch of army constructions has been a constant concern for the authorities since the start of the Romanian state. The emphasis was placed on training personnel even before they specialized in order to raise the general level of knowledge of the entire cadet squadron. But at the same time, through the study of standards and documentation from more advanced allied armies, efforts were made to implement particularly the laws and regulations that best served the needs within the Romanian army. The 19th century was for military construction education a period of experimentation: external sources of study were used, instructors were trained with the help of the Russian, French or Austrian armies, students were sent to study at specialized schools, etc. Constrained by the minimal experiences that the army had and the need to develop rapidly, construction education had to be very efficient. Emphasis was placed on the practical side by organizing training camps and on-site visits. From the archive documentation it resulted that in the case of theoretical study the emphasis was on understanding mathematics, descriptive geometry, topography and construction. Although several of the descriptive geometry teachers received training in France, for the construction courses we could not identify a specific source. From archives and specific written materials, it panned out that there was a concern at least at the infancy of the state to incorporate a national architectural language in expressing the facades and adapting the functional building configuration to be better used by the soldiers, there were no mentions of how those things were executed or what were the main principles used. But even so, we can still determine that these buildings, now relinquished for civilian use, still have a presence in the memory and evolution of the community. On another note, we can say that the attention in construction study for architecture was also influenced by politics and military tactics.

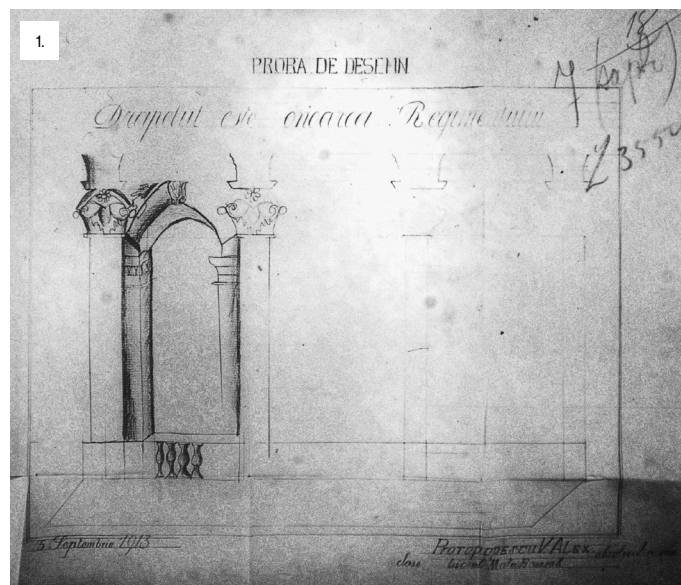
The evolution of the built military environment became less conspicuous, and the camouflage of military structures within civilian contexts gained increased significance. Following a substantial influx of buildings that became suitable for civilian use, the public experienced a sense of saturation. With the exception of prominent edifices, numerous structures remain unrecognized, even by local communities. It can be implied that the diminishing emphasis on architectural education in military institutions, coupled with the predominantly utilitarian nature of these buildings, resulted in a society less informed about the value and importance of the existing post-military-built environment.

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## Figures.

FIGURE 1 - Admission board for military constructsures. Source: MAPN archives.



## EXPLORING THE REUSE OF SPACES THROUGH TEMPORARY USES: THE CASE OF THE EXHIBITIONS OF THE HUB FOR HERITAGE AND HABITAT GROUP

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**Abstract.** The article examines the transformative impact of temporary exhibitions organised by the Hub for Heritage and Habitat research group and how light processes of transformation can highlight the potential of spaces.

The exhibitions analysed concern the works of students from the Building Engineering-Architecture courses at the Polytechnic University of the Marche, typically focusing on the Marche Region.

We will analyse the “Cityscape” exhibitions, the title of the final exhibition held every July since 2013. The exhibition aims to share the results of UNIVPM students’ study courses with local administrations, industry professionals, and the public.

Architectural design courses focus on the recovery of existing building heritage and the redevelopment of peripheral urban areas. For this reason, these temporary exhibitions have always focused on marginal places, underused spaces, or those in a state of neglect.

The most recent exhibitions were set up between the municipalities of Ancona and Jesi. In 2019, for example, the Polveriera Castelfidardo was chosen, located in the heart of Ancona’s Cardeto Park, a recently renovated space rarely open to the public. In 2022, the venue was a warehouse within the Municipal Agricultural Consortium of Jesi. For the past two years, the exhibitions have been held at the staircase of the Caserma Villarey, a large, underused space, and the Chiesa del Gesù, in the heart of the historic centre of Ancona, which is open to the public only on a few occasions during the year.

By occupying these spaces with new interactive elements, users can recognise their unexploited potential: temporary exhibitions have turned a spotlight back on these places, making them more attractive and acting as catalysts for urban renewal.

**Introduction.** This article aims to explore how the reuse of spaces through temporary uses is a highly effective tool for the re-appropriation and revitalization of neglected or abandoned places, offering an operational perspective that intertwines architecture, territory and community. This approach, which combines architecture and culture, is deepened by the Hub for Heritage and Habitat research group with whom I had the opportunity to work as a team to design and create temporary exhibitions between the cities of Ancona and Jesi.

The group adopts an approach deeply rooted in the territories in which it operates, collaborating with public administrations, cultural realities and citizens. The enhancement of the existing heritage is addressed starting from the needs expressed by local stakeholders, through a process that brings together students, professors and communities. The method used is that of Research by Design, an approach that integrates theoretical research with design action in real situations.

The key aspect of these initiatives is that they are not limited to the mere presentation of projects or ideas. The temporary events organized by Hub for Heritage and Habitat are configured as tools for the reactivation of architecture, capable of giving new life to places that, due to their marginal position or lack of attention, risk being forgotten or underused. In this context, architecture takes on a mediating role between memory and design, between vision and built reality [1].

The process is divided into several phases: from the inspection and the shared selection of the site to the set-up and the public event, each exhibition is conceived as a moment of research and design, actively involving the territorial context. Temporary exhibitions act as catalysts for new visions for urban space, offering a concrete alternative to conventional regeneration. The very concept of ephemerality, often associated with a negative value, here takes on a propositional connotation: the temporary intervention becomes an open laboratory, a device capable of soliciting alternative imaginaries and practices [2].

The reuse of the existing architectural heritage, in particular of disused buildings, thus represents a design strategy that goes beyond simple conservation, proposing a new way of cultural and social activation. The interventions analysed in this study, in particular the Cityscape series of exhibitions took in exam in this paper, aim to stimulate public interest, favouring the collective appropriation of urban spaces. Such experiences show that through the temporary, shared imaginaries and lasting perspectives can be generated [3].

The main benefits of these practices include: the activation of local creativity, the promotion of cultural entrepreneurship, the awareness of the quality of urban spaces, as well as the creation of collaborative networks. The case studies illustrate how temporary reuse can translate into a replicable tool for participatory urban transformation. Furthermore, these actions contribute to redefining the role of the architect as a mediator between local instances and urban visions, overcoming the solitary figure of the designer-author in favour of a more collective and situated practice.

**Case studies.** The first clue to the complexity of temporary uses can be seen in the fact that such practices are defined in many different ways. Lehtovuori and Ruoppila define temporary uses as “those uses that have a developmental orientation, i.e. they have the capacity and aim to explore further potentialities of the places in which they are located. Thus, they form a category between momentary events and permanent (re)development [4].

An emblematic example of this approach is the annual Cityscape exhibition, organized by the group, with the support of cultural associations, local entrepreneurs and public bodies. This cycle of exhibitions, which



involves students of the degree course in Building Engineering-Architecture of the Polytechnic University of Marche, offers a platform to share the results of design teachings with citizens. The exhibition venues are selected from abandoned or undervalued places, often located in strategic but neglected positions.

The choice of marginal and abandoned spaces to host the temporary exhibitions promoted by the Hub for Heritage and Habitat group is configured as an action of enhancement, but also as a real design exercise aimed at urban experimentation. These places become open contexts in which to test new spatial, aesthetic and social relationships. In this perspective, the abandoned building is no longer just an empty container but is transformed into a generative device capable of activating reflections and creative practices. “Abandoned buildings can be understood as ‘spatial experiments’, capable of generating new creative ideas for the city” [5].

The purpose of the exhibition is therefore twofold: on the one hand, to communicate academic work to the public; on the other, to trigger a process of resignification of the selected spaces, which become catalysts of attention, comparison and urban vision for a short period. The curatorship of the event is articulated in a constant dialogue between design content and spatial container, generating unprecedented synergies between form, function and meaning. FIGURE 1.

#### **2019 | Polveriera Castelfidardo**

Among the most recent cases we find the former “Castelfidardo” powder magazine, a place surrounded by the greenery of the Cardeto Park in Ancona, a restored space but rarely open to the public, which in 2019 was temporarily transformed into a vital and dynamic exhibition space. Light and sound installations have also colonized the outdoor space, making it attractive and livable beyond the conference room inside the building.

The exhibition was articulated along the perimeter corridors, around the conference room, the central nucleus of the building, and followed thematic groupings, reserving a small area for a digital exhibition: here simultaneous videos, stories and musical accompaniments intertwined to amplify the sensory experience of the space. FIGURE 2.

The exhibitions not only reactivate spaces during their lifetime but also invite reflection on how such places could be reintegrated into urban life on a permanent basis.

#### **2022 | Consortium of Jesi**

Another example is the use of the warehouse of the agricultural consortium of Jesi, near Ancona. This space was used in 2022 for a temporary exhibition that opened to the public a place normally accessible only to a few insiders.

An important aspect that is not easy to implement is the relationship between temporary uses and masterplans: these small-scale changes are conceived as the first step to achieve lasting changes. Therefore, these practices are most effective when used in conjunction with long-term planning efforts [6]. This exhibition has been placed in an area that has been the subject of redevelopment projects by the administration (as well

as being the area of one of the projects exhibited within the exhibition itself). The location is actually strategic with respect to the urban fabric of the city, being between the railway station and the access to the historic center of the city.

The exhibition made it possible to physically and symbolically open this place to the community, stimulating reflections on its potential for urban reconversion.

Here the challenge of the set-up concerned the creation of different thematic areas within a single room that could also be suitable for accommodating participatory design tables. On the day dedicated to co-design and during the inauguration of the exhibition, we were able to see how that space (and that of the square in front) were actually adequate to cover alternative roles since the large square, protected by the consortium buildings on three sides and by a fence on the fourth, is used only in the months of May and June for the storage of wheat. FIGURE 3.

#### **2023 | Villarey Stairs**

In 2023, the staircase of the Caserma Villarey, home to the Faculty of Economics of our University, was chosen as the location. This large distribution space, occupied by a double staircase connecting the three floors of the faculty, is scarcely used due to its off-center position with respect to the main entrances of the faculty.

Temporary exhibitions, through installations, allow the viewer to be stimulated to reflect not only on the contents on display, but also on the intrinsic potential of the space in which he finds himself. The absence of permanent interventions creates an environment open to experimentation, inviting visitors to imagine new scenarios and uses for these places: the exhibition in this place served as a testing ground for the hypothesis of definitively converting this space into a university museum. Temporariness, as Bishop argues, allows for reactive and open design, capable of evolving with the context [7]. FIGURE 4, FIGURE 5.

A fascinating aspect of temporary exhibitions is their transitory nature, which is both a challenge and an opportunity. The temporary nature of the interventions allows free experimentation, in which spaces are reinterpreted in a non-binding way, offering new possibilities of use that meet contemporary needs. The brevity of the occupation creates a sense of urgency and invites visitors to see spaces that would otherwise go unnoticed in a new light.

#### **2024 | Chiesa del Gesù**

Last year’s exhibition venue was the Chiesa del Gesù, a deconsecrated church in the historic center of Ancona, designed by architect Luigi Vanvitelli. The large Baroque-style church is currently open to the public on a few occasions during the year: the hall is normally empty without sufficient lighting to enhance the interior. Despite the few opportunities for use, it represents an important reference in the city context.

In this case we had the opportunity to reinterpret the canonical space of the church, shifting the center of the viewer’s attention from the altar to the space of the nave, enhancing the icons on the sides and establishing a

dialogue between ancient and modern. The same supports of the set-up, metal gratings and wooden boards, typical of construction sites, help to reinforce the contrast, establishing a hierarchy between the elements and reinforcing the concept of provisionality. FIGURE 6.

These initiatives are part of an ongoing dialogue between the past and the future. Historical places, often full of memory and meaning, are reinterpreted through modern interventions that reveal their new potential. The event stimulated a reflection on the management and accessibility of disused ecclesiastical assets, which represent a great resource in many Italian cities.

**Results.** The temporary interventions carried out by the Hub for Heritage and Habitat group demonstrate how, even with limited economic resources and using recycled materials, it is possible to generate a profound change in the perception of spaces. The use of poor elements, such as metal gratings, wooden construction site panels or simple lighting fixtures, has made it possible not only to contain costs, but also to establish a direct dialogue with the provisional dimension of the installations. This approach has helped to make the hidden potential of neglected places tangible, transforming them into welcoming, stimulating environments full of new possibilities of use. The interaction with space generated by temporary installations has triggered a different way of using and reading places in visitors, highlighting how even the ephemeral can have a lasting impact on the collective imagination. In particular, the simplicity of the installations facilitated a process of spontaneous appropriation by the public, suggesting alternative uses and encouraging future visions of permanent regeneration.

**Conclusion.** The value of temporary uses, such as those organized by the 'Hub for Heritage and Habitat' group, goes far beyond the artistic or educational dimension. These initiatives represent a concrete example of how culture and academic research can converge to generate a positive impact on the urban environment. The reuse of spaces is not only an economic or functional necessity but becomes an opportunity to create more aware and responsible communities, capable of enhancing their heritage and imagining a sustainable and innovative future, promoting a new sensitivity towards architecture.

The experiences analysed show how temporary use can represent a concrete opportunity for experimentation for new forms of use and enhancement of disused urban spaces. Through a shared pact, it is possible to imagine a sustainable and inclusive urban transformation, capable of integrating the cultural, social and design dimensions of architecture.

The ultimate horizon is to generate impacts on the territory under research, pursuing the goal of the third mission and at the same time demonstrating that heroic strategies are not necessary to imagine an alternative future for spaces and places still capable of memory and available for innovative uses. The architecture of the temporary becomes a language with which to question the city, experiment with its possibilities and build new forms of collective habitability.

**Attributions.** The author wishes to thank the Hub for Heritage and Habitat team, the students of UNIVPM and the students' association cento55, and the municipal partners of Ancona and Jesi for their collaboration and support in the development

of the exhibitions analysed.

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## Figures.

FIGURE 1 – Localization of venues in relation with the contexts.

FIGURE 2 – Corridors of Polveriera Castelfidardo.

FIGURE 3 – Participatory design activities at Consocium of Jesi.

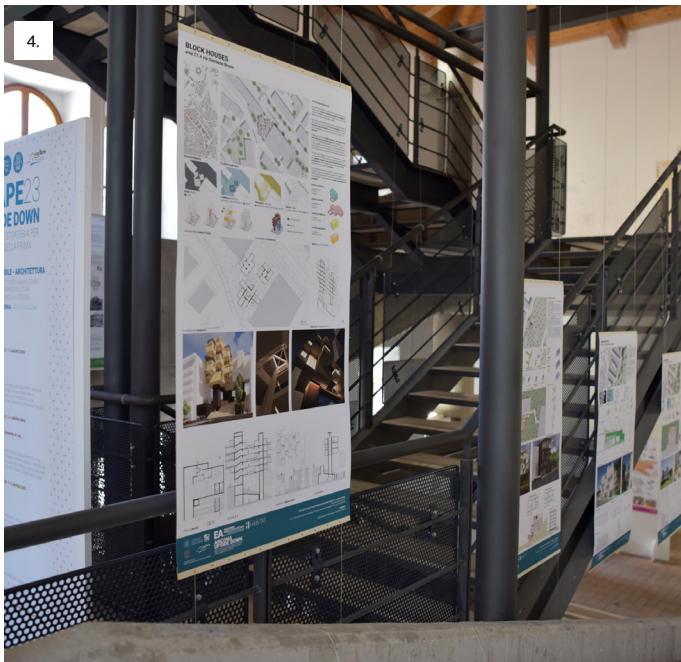
FIGURE 4 - Exhibition at Villarey Stairs.

FIGURE 5 - Exhibition at Villarey Stairs.

FIGURE 6 – The contrast between materialities at Chiesa del Gesù.







## ULTRACALEM. STRATEGIES FOR THE CULTURAL AND URBAN REGENERATION OF A SMALL TOWN IN CENTRAL APENNINE/

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**Abstract.** The paper investigates the path developed so far within the framework of the research agreement “ULTRACALEM. The Cagli of the future. Strategic programme for a new vision of Cagli. Relevant themes, places and architectures for the urban and cultural regeneration of the city.” The research and design process involves the municipality of Cagli and the Department DICEA of UNIVPM and aims at imagining short, medium and long-term design strategies to reactivate a territory experiencing significant risks, such as depopulation. Careful mapping and reading of the city have been validated through community engagement and public presentations, to unveil “potential spaces”, selected areas that are neglected or underused but rich in potential. Indeed, they are an important legacy for Cagli, closely linked to the stories of its inhabitants. The community engagement activities were crucial to involve local population in the research, ultimately guiding the final design visions based on the territory's needs and desires. In working with and on the territory, the researcher-designer task is to manage the fundamental and fragile relationship with local actors, avoiding top-down solutions which are alien to the context and instead favouring new collaborative practices. These activities were fundamental in developing transformative strategies and project visions tailored to the territory. They facilitated a dynamic exchange between the perspectives of communities and the expertise of researcher-designers, ensuring that proposed interventions were grounded in real-world needs and aspirations. This inclusive approach fostered a collaborative environment, bringing together stakeholders and leveraging their collective knowledge to address the complexities of the territory. The trans-scalar and participatory approach, focused on reactivating existing building and in collaboration with administration and citizens, underscores the pivotal role of thoughtful architectural and urban design in the development of a shared vision of ULTRACALEM towards a more resilient and vibrant community.

**The context.** This short contribution aims to show the first results and the methodological approach developed within the framework of the research agreement “ULTRACALEM. The Cagli of the future. Strategic programme for a new vision of Cagli. Relevant themes, places and architectures for the urban and cultural regeneration of the city” [1]. The context of the project is the area of the Appennino Basso Pesarese – Anconetano (ABPA), in Italy; this is the Marche region's pilot area for the National Strategy for Inner Areas – the so called SNAI, an innovative national policy for local development that aims to fight the marginalization and phenomena of demographic decline characterizing inner areas in Italy. In this context, the 9 municipalities identified by SNAI are characterized by several risks and opportunities. For examples, they face a relevant depopulation

phenomenon and abandonment of built heritage, they suffer the lack of essential services and infrastructures, but they are rich in natural and cultural resources and the community and local expertise are a unique richness of these places. The municipalities of the ABPA are also characterized by high seismic and hydrogeological risks, as revealed in the dramatic floods of September 2022.

These territories have also been studied in the “Branding4Resilience” project [2], a research project of national interest funded by the Italian Ministry of Research and coordinated by UNIVPM group which involved four Italian universities in exploring potentials and opportunities linked to a territorial and architectural regeneration of the inner areas in Italy. ULTRACALEM adopts its scientific research framework, transferring the similar methodological approach to the area under study.

ULTRACALEM is also connected to a Ministry-funded PON doctoral thesis, RESETtling APPennines [3], concluded in October 2024, that studied the rebirth of the mountain inner areas in the Marche region particularly focusing on the possibilities to reimagine territories through minimal architectural design interventions, keeping together both the strategic dimension and the building scale and applying an interdisciplinary approach that combines design-driven research with new digital technologies. The recently completed thesis has scientifically supported the agreement, expanding its theoretical and scientific framework and scope. Cagli, lead municipality of the ABPA, is the small town involved in the project ULTRACALEM, that involves the municipality of Cagli and the Department DICEA and aims at imagining short, medium and long-term design strategies to reactivate this fragile territory. The process of territorial knowledge and design took place through a trans-scalar and multidisciplinary approach, using different tools, which led to imagining an urban vision and developing design explorations.

**The process.** In order to elaborate strategic and design visions for Cagli, ULTRACALEM adopted a multiscale methodology, capable of considering not only the site of intervention, but the broader context in which the small city is located. This transversal reading, performed continuously and in parallel to the design work, allowed to envisage transformations which are coherent with the territory's needs and which is attentive to its characteristics. The municipality was studied in depth from different points of view and the extrapolated readings were revised and deepened through a dialogue with the local administration and the community. In a first phase, therefore, Cagli was studied within its broader territorial context, within the framework of the National Strategy Inner Areas and also in relation to the surrounding municipalities. The different maps and multiscale insights then allowed the elaboration of a SWOT and needs analysis. In parallel, public presentations, round tables and an urban walk have been carried out, which have been crucial in guiding the final design visions based on the real needs, perspectives and desires of the area. The experiences were also conducted in line with the policies and programmes of the inner areas, which invest in local actors in the conviction that they can make a difference because they can mobilise and gather material and immaterial resources of the area. In working with and on the territory, the researcher-designer has sought to manage the fundamental and fragile



relationship with the community, avoiding top-down solutions alien to the context and instead favouring new collaborative practices.

**The exploration.** The first approach to the municipality of Cagli took place through a series of interpretative readings on a territorial and urban scale, represented and narrated through maps. FIGURE 1. For example, the maps produced at the territorial scale were: maps of hamlets, infrastructures and natural elements, constraints, risk, working sectors, patterns of built heritage and heritage assets. In the latter, for example, the built heritage of the municipality of Cagli, included in a complex and rich territorial system, has been identified and classified according to 4 macro-categories (production, infrastructures, nature and settlements). Each category embeds different building typologies derived from a thorough pattern analysis [4] that aims to highlight the existing relationships between the elements of the built heritage, the landscape, and the territory. The surveyed places portray the habitat of the inner area with its spatial capital, the built resources, their relationships, and its complex territorial configuration. Besides the potentialities, the analysis showed the area's shortcomings, such as poor accessibility and thus marginality. Through spatial analysis it was possible to frame the characteristic architecture, its materials and colours, the links and characteristics of each place, but also the singularity of each element, as well as the vulnerability and liveliness aspects of the area. The urban scale readings, on the other hand, allowed for an in-depth study of the urban planning tools and regulations governing Cagli's urban development, as well as its green spaces and road system. These tools and plans are sometimes obsolete and need update. Moreover, an observed critical aspect is that the historical centre is completely open to vehicles and full of cars and parking lots.

**The potential spaces.** Pattern analysis, supported by numerous on-site investigations and visits, photographic campaigns and the dialogue with the local administration, has been deepened to the point of identification, within the municipal territory, of containers or open spaces inside or outside the historical centre [5] usually perceived as residues of the city [6]. These are not always completely abandoned, empty and decaying spaces, but sometimes they are underutilised and their full potential is not exploited. They are voids, indeterminate spaces that are able to adapt to future uses and could be re-activated from local internal resources [7] through processes of social and ecological resilience (Gangemi, 2019, p.97). The survey revealed parks, squares and sports fields, in a state of decay or even closed to the public and, for this reason, almost unused; but also an abandoned built heritage, considered an important transformative and regenerative potential for the territory to be maintained, protected and re-activated. Among them we have detected the former slaughterhouse, the Mallio bridge, the Sant'Emidio Arena and the church of Santo Stefano, the San Francesco complex and the covered fish and produce market in one of the central squares of the city; the Parco delle Rimembranze, the bus station and the sports field. They have been defined potential spaces [8] because, through their re-use, they can become re-activators of this fragile territory, starting from internal resources and preserving the memory of the place, becoming catalysts of the design visions and pivotal key points of the urban regeneration strategy [9]. FIGURE 2.

**The SWOT and needs analysis.** The first phase of the research agreement focused on a SWOT analysis and a subsequent needs assessment, marking a critical step in understanding the territory and developing initial design strategies. This analysis highlighted Cagli's strengths, such as its rich built heritage, vibrant cultural and care associations, and the identity and cooperation fostered by its surrounding hamlets. Opportunities include leveraging its built and natural heritage and human capital for regeneration.

At the same time, weaknesses like a car-oriented historic center and fragmented local networks, along with threats such as hydrogeological, landslide, and seismic risks exacerbated by poor land management, present challenges. By addressing these issues while building on its strengths and opportunities, Cagli can move toward sustainable and regenerative development.

The needs analysis builds on the findings of the SWOT analysis. After identifying the municipality's strengths and weaknesses, the focus shifted to defining its core needs for sensitive and coherent design. These needs were summarized into four key areas: regeneration of the historic center, connections and mobility, riverbank renewal, and public space and participation. FIGURE 3. Although treated as distinct topics, these areas are deeply interconnected and require a cohesive strategy to address them simultaneously for lasting results. The needs analysis thus provides a clear roadmap for Cagli's development, grounding design efforts in a comprehensive understanding of the territory's challenges and opportunities. By integrating these insights, the research transitions from theoretical exploration to actionable design strategies aligned with the community's aspirations.

**The dialogues.** The Cagli community was actively engaged and regularly updated through public presentations. The first public presentation shared the research team's analyses, including large-scale readings of the territory and SWOT and needs analyses. This event involved both the research team from Università Politecnica delle Marche and Cagli's municipal administrators. To integrate the residents' perspectives, a process of sharing and participation was initiated before developing a strategic vision for the municipality. This constructive process allowed participants to offer valuable feedback, particularly on issues like seismic and hydrogeological risks, leading to discussions about updating the town's outdated plan with more flexible, sustainable tools. Tourism was a key topic, as Cagli, despite its resources, lacks a cohesive economic vision. Promoting Francesco di Giorgio Martini's legacy could become a major tourist attraction. The discussion also addressed generational divides, with young people often feeling excluded and planning to leave. While many questions remained open, the debate still managed to provide valuable insights for the following phases of the design research.

The second public presentation, held at Cagli's Sala degli Stemmi, showcased research progress, demonstrating to citizens that their feedback had been integrated, fostering a sense of trust. The initial phase of sharing results involved a traditional public presentation, followed by roundtable discussions with participants selected in collaboration with the municipal administration based on their engagement with the relevant issues. These discussions focused on the four key themes identified in the needs anal-

ysis, aiming to prioritize actions, identify critical factors, and strengthen connections among local associations, citizens, and stakeholders.

Participants, about 10 per table, were divided into multidisciplinary groups, including researchers, municipal administrators, and representatives from associations, enterprises, cooperatives, and citizens. Organized into three rounds, the activity explored urgencies, needs, and necessary actions. In the third round, a programmatic list of actions, along with a tentative timeline, was developed to help the administration implement the discussed transformative objectives. These “elegant steps” [10] were formulated to provide a timeline for their realization.

ULTRACALEM, in its process of exploring Cagli and dialogue with the inhabitants, also applied already validated methods, such as the urban walk [11] open to the entire community: each participant was provided with a map showing the stops and the route taken within the municipality. FIGURE 4. This activity allowed the researchers to discover the places and needs of the city from a new point of view. During the explorations, in fact, the inhabitants spontaneously narrated about the city and its places, bringing to light memories and anecdotes. These narratives made it possible to add ‘material’ to the research already carried out, providing valuable context and depth. The tool of the urban walk makes it possible to invest in a new sense of living and experiencing places that are to be taken on without rhetoric and with disillusion, even in their negativity [12]. It enables the collection of knowledge about the landscape and its cultural values involving the communities in the narration of their own identity: narration is a central process in the collection of knowledge about the landscape and the cultural values contained in it [13].

Investing in the various actors guarantees an interweaving of skills and the creation of a network that tends to form and take root in the territory over time. Listening must not stop with the administration or technicians [14], but must directly involve universities, operators in the sector, the elderly, children, foreigners, associations, in order to gather opinions on different topics. The dialogue is intercultural and intergenerational: proponents confront and clash, putting transformative proposals, links with the past, and the desire to maintain or innovate on the table. It is the conflict itself, inherent in the nature of small villages that have always been places of tensions and opposition, but at the same time a symbol of bonding and presence [12], that often leads to the activation of the process: the local community should get involved by accepting the possibility of consciously putting itself in crisis and exploring unfamiliar paths, in a process of building trust that can guarantee long-term results [15]. Within the urban walk itinerary, specific stops and routes were carefully selected to highlight the city’s criticalities, urgencies, and resources. These choices were made in agreement with the administration, based on previously identified potential spaces. The aim was not only to gather more information about these locations and their history but also to involve citizens in envisioning their future possible transformation. Together, new futures for these spaces have been imagined, grounded in the community’s needs and desires, while respecting and maintaining a connection to the past and the history of the place.

**The strategy and design actions.** After analysis, mapping, and dialogue with the community and administration we have drawn upon best practices in urban regeneration and sustainable design to develop effective and innovative ideas for the revitalization of the city. By examining successful methodologies and case studies focused on regeneration and community resilience, we have tailored strategies that address Cagli’s specific challenges and unlock its potential, ensuring the proposed solutions are both impactful and sustainable.

Following the methodological process, we have selected four *potential spaces*, four areas to be transformed through custom-made [16] interventions of architecture and urban design.

The first *potential space* is Largo Eliseo Mattiacci, where Francesco di Giorgio Martini’s tower stands, today used like a roundabout. The recovery of a corner of the site, today occupied by shrubs and bushes and in a state of abandonment is proposed. Here we imagined an information space where to stop, get some knowledge about the tower and enjoy its view. In the second stage, we plan to remove some parking spots and realize a new continuous floor: this will enhance the public space around the tower and it will be a signal for cars to slow down. Finally, in the third stage, vehicular traffic is re-designed and the public space for pedestrians is enlarged and implemented. The step-by-step hypothesis of reactivation of the complex of St. Francesco are more complex and longer, but they are fundamental for Cagli because today the complex hosts a school that will soon be relocated leaving a great void in the city center. In the first stage, the headquarters of local associations will be renewed and new urban gardens will be inserted instead of the semi-abandoned green strip outside the convent. At the same time, the covered market is reopened for the sale of local products and evening events. In the second phase, the square and the ground floor spaces of the complex are redesigned to accommodate co-working spaces. The third phase involves the design of the inner courtyard and the rooms facing it for the creation of cafes and spaces for arts and crafts. Finally, on the second floor a hostel is designed where today there are the school’s classrooms. FIGURE 5.

For the Sant’Emidio Arena, an open-air theatre close to the historical centre, the first step is to arrange the parking lot that is meant to be used when no artistic events are planned. A new park is created, including a green space for leisure activities and new pedestrian accesses to the area. Then a bicycle and pedestrian path along the left riverbank will be built to connect the Arena with the city centre. The rethinking of this slow-mobility system also includes new bus stops and public transport routes. Finally, it will be important to design the permeable area along both Burano riverbanks through the creation of spaces that can be flooded and integrated into the landscape.

The same design approach is applied to other *potential spaces* in Cagli, such as the former slaughterhouse, which is now empty. For this project, the concept involves recycling a section of the building and redesigning the surrounding public space. Following this, the possibility of reopening the area is considered by offering the spaces freely and temporarily to workshops for both elderly and young people. Finally, based on the insights

gained from these earlier phases, the structure could be adapted to suit its newly defined functions through significant interventions.

In these design strategies, the importance of using gradual solutions and reactivating *potential spaces* through a step-by-step approach, envisaging actions, interventions and investments over time is emphasised. This method allows municipalities to reactivate buildings with small interventions and temporary uses and helps communities metabolise the transformation, fostering acceptance and support for the regeneration efforts.

**The knowledge transfer.** In conclusion, the experience in Cagli helped identify an approach that can be applied to other contexts. Although the architectural interventions remain unrealized, the ideas behind them spark unexpected collaborations, generate projects for funding opportunities, and assist local administration in engaging the community with transformative proposals. Grounded in rigorous analysis and high-quality design, these explorations support sustainable solutions even in fragile territories with constraints like heritage and protected areas. By transferring knowledge, universities play a vital role in aiding inner territories, where limited infrastructure, resources, and expertise hinder development, fostering resilience and guiding small communities through complex future challenges.

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#### Figures.

FIGURE 1 - Some of the maps created for reading and interpreting the municipality of Cagli on a territorial and urban scales.

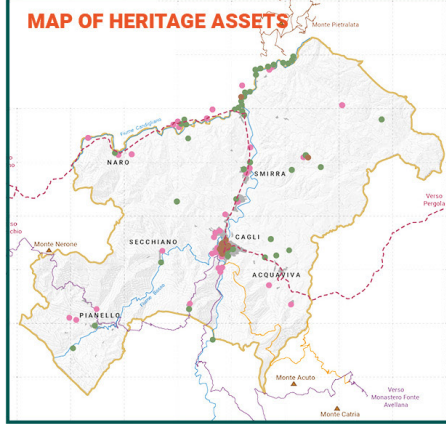
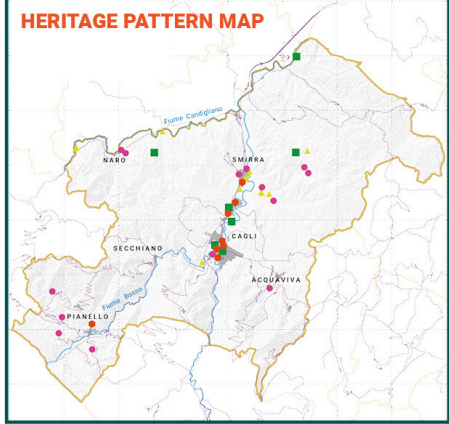
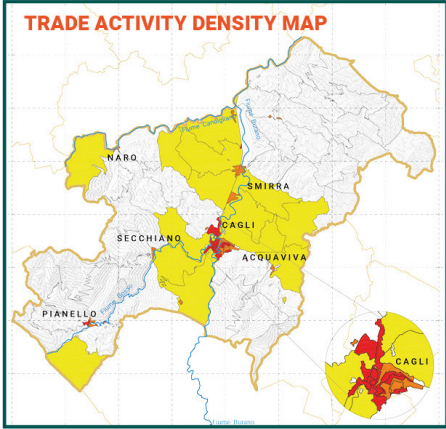
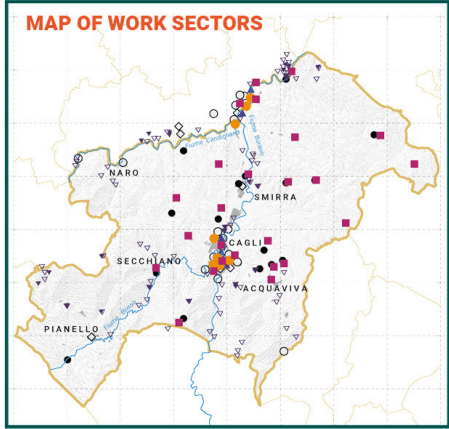
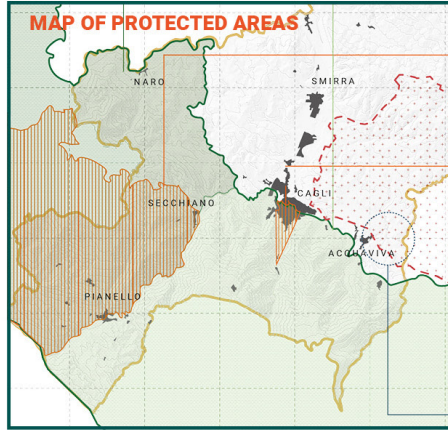
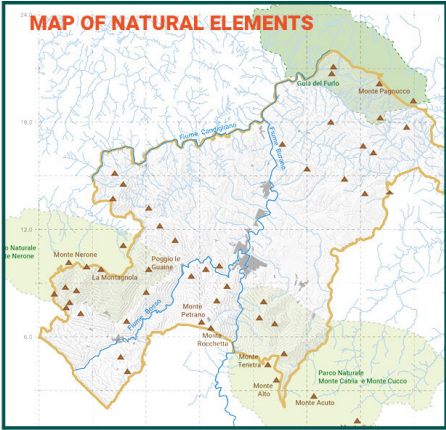
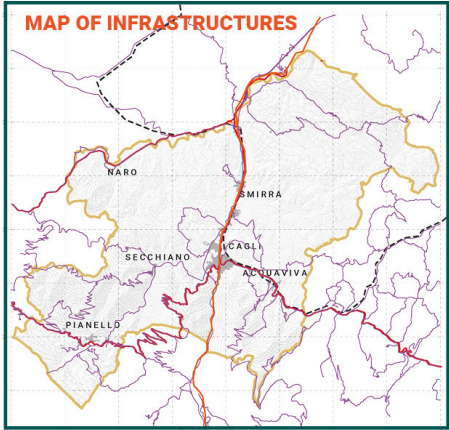
FIGURE 2 - Map of the *potential spaces* in Cagli.

FIGURE 3 - Diagram of the Needs Analysis of the Municipality of Cagli.

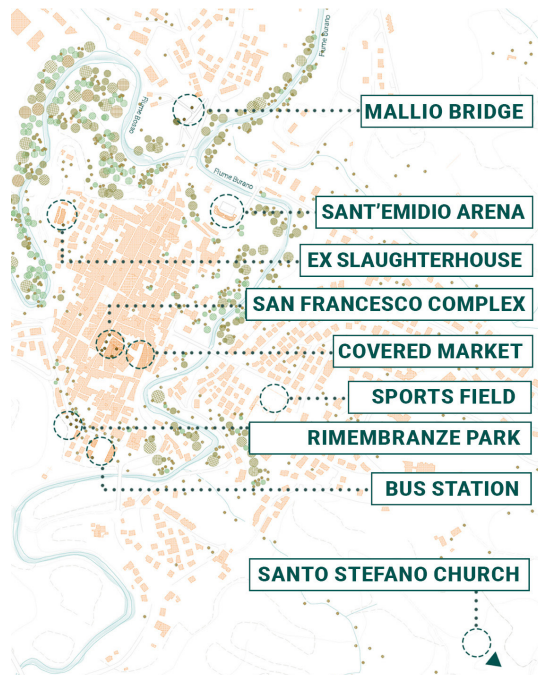
FIGURE 4 - Some moments of the urban walk and the itinerary provided to participants with the stops and actors involved.

FIGURE 5 - The re-use of *potential spaces* to hypothesise strategies of re-activation in the municipality of Cagli: design exploration for the complex of St. Francesco and the former market.

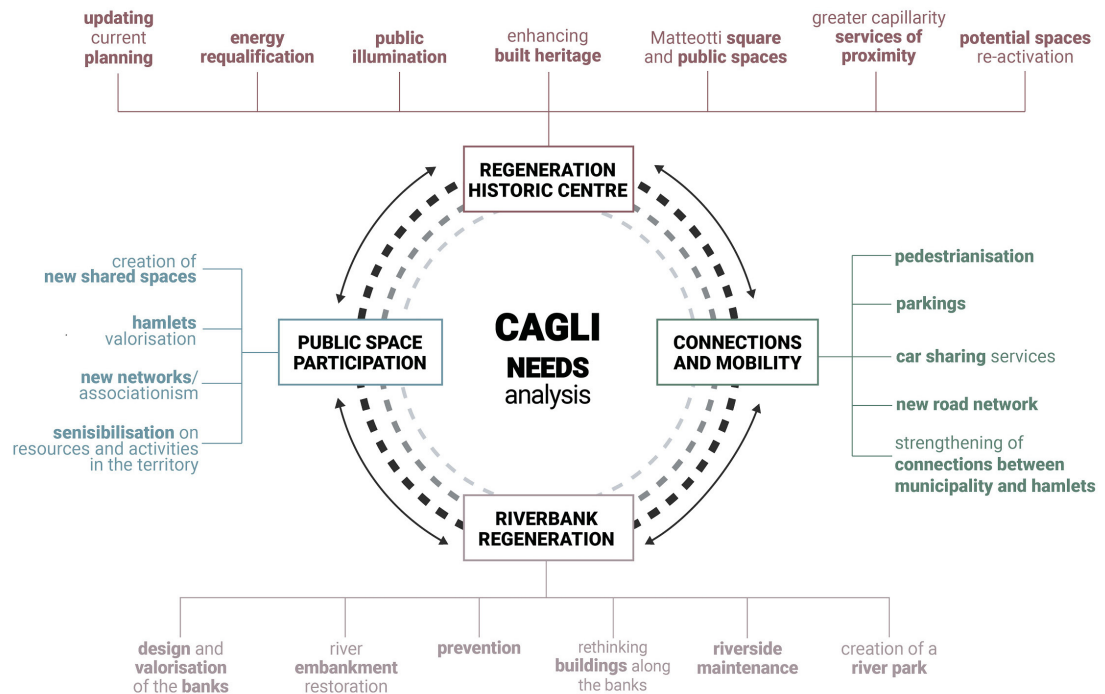






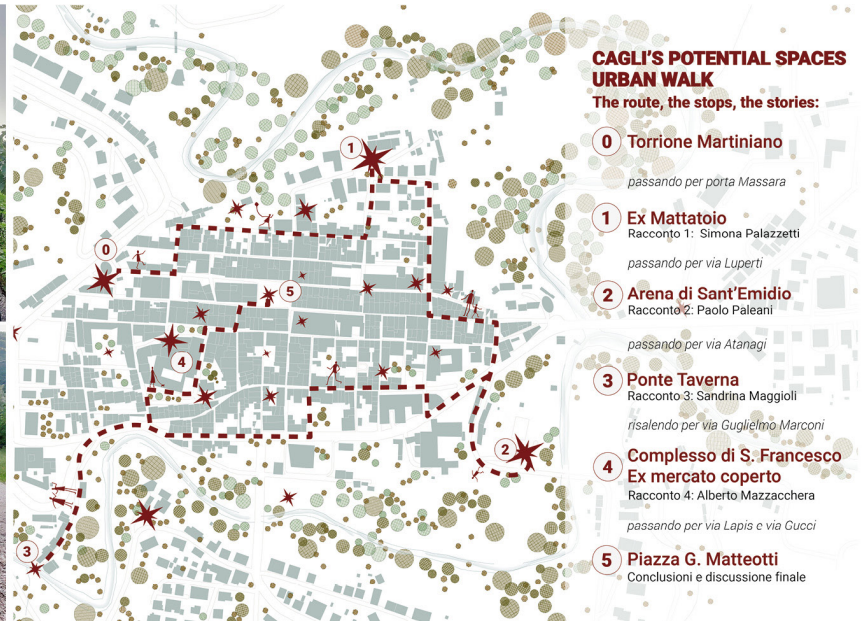


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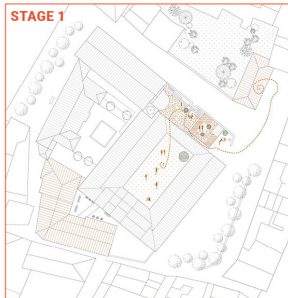


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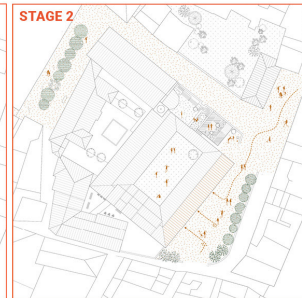




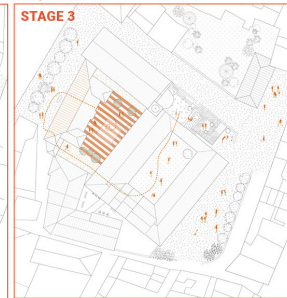
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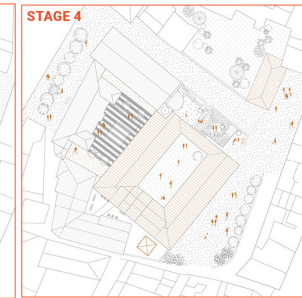
**PUBLIC SPACES + CO-WORKING**

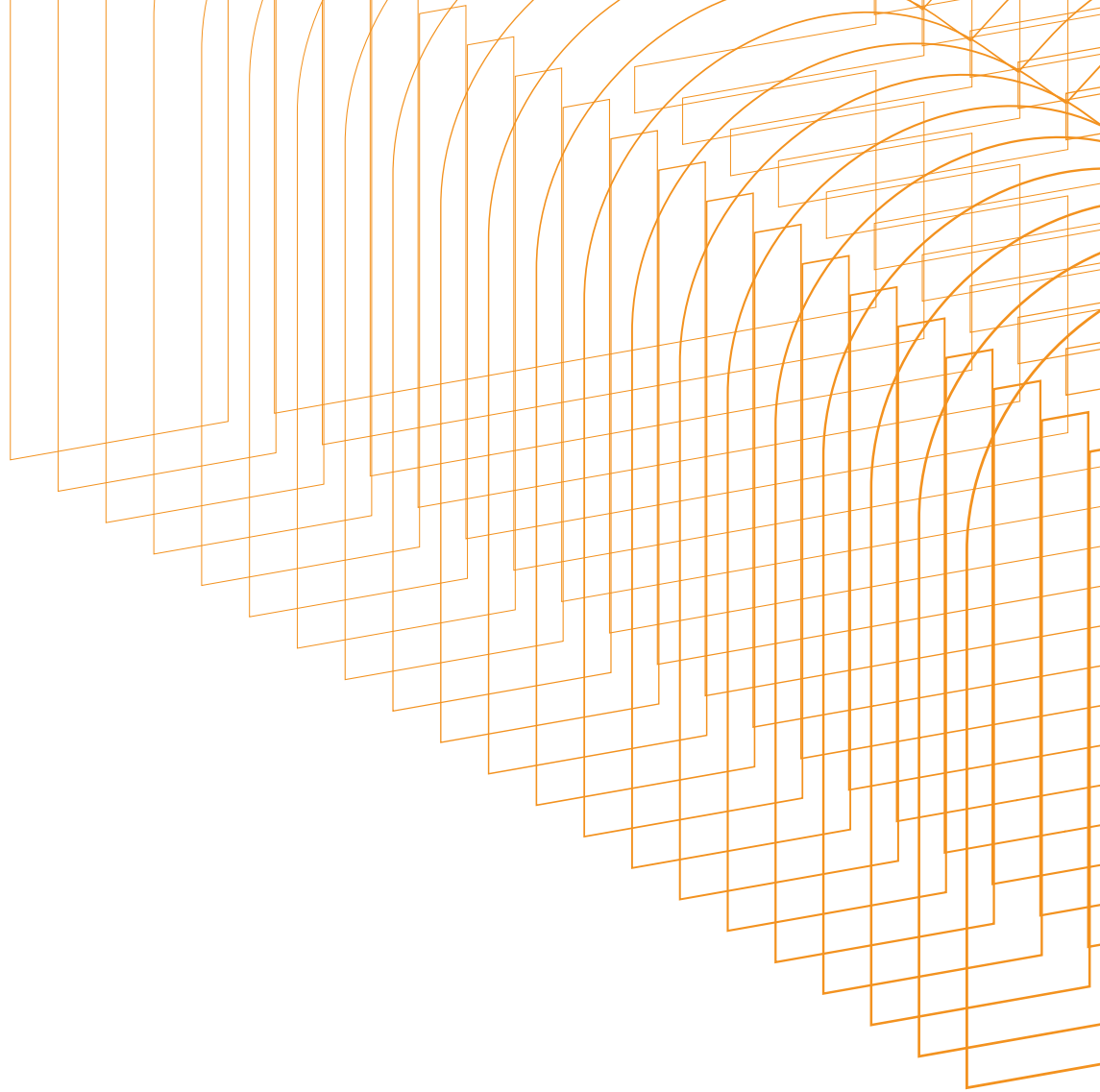


**ART, CRAFT AND COMMUNITY**



**NEW ACCOMMODATION SPACES**





## RECOVERING “THE GODS OF THE CITY”. A PROJECT FOR SYRACUSE/

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**Abstract.** The paper reflects on the relationship between transformation, memory and heritage through a project for Syracuse. The project concerns three distinct places and assumes three different scales: the first and most extensive place, the Epipoli plateau, geographically defined by the rocky leap on one side and sloping towards the sea on the other. Here the ancient city was built of which traces of the Dionysian walls garrisoned by the Euryalus castle can still be partially read; the site of the Neapolis with the ancient architectures that define the archaeological park, located at the foot of the Epipoli crag, between the plateau and the later urban expansions and in relationship at a distance to its original horizon towards the sea; the third area concerns the eastern edge of the island of Ortigia, for years occupied by the Talete parking lot, a formal break between the historic city and the sea. Three different areas in which the autonomous “pieces” of the project work in system according to common objectives: to make it possible to read the extension of the city, providing collective spaces and connecting the fragmented parts perceived as distinct and distant and to give new formal definition to some places built incongruously over time or left unfinished, recovering or specifying new constituent relationships with the sea and its landscape, the two elements that have always identified the city and its architecture. Not only common objectives but also a general mode of intervention that, discarding everything that clutters the visual field and prevents the possibility of understanding the city, interprets the traces of the ancient and the formal characters of the orography of the places and, as in an archaeological excavation operation, tries to enlighten its constituent reasons by proposing a new design, analytical and synthetic at the same time, that connects in a unified whole the scattered fragments as an opportunity – also for the design of the modern city – to rediscover, according to Italo Calvino, “the gods of the city”.

**Introduction/A point of view on the tie between the heritage and the project.** A quality that can be traced in many of our cities, especially in the Italian territory, is the extraordinary formal richness that characterises them, and which derives, to simplify, from two fundamental issues: the “nature” of the place and the variety of contexts in which cities arise on the one hand, and the history of settlements, in some cases thousands of years old, on the other.

These two major issues shape the physical manifestations of a “heritage”, the notion of which is to be understood, in this sense, in reference to both historical-monumental and environmental elements.

However, when does this complexity represent a positive value and when does the vastness of material accumulated over time become a random collection of materials?

If an image is too full, one can no longer see anything; each piece of information is worth the other, without distinction or hierarchy, with the consequence that the capacity for understanding it is drastically reduced. To this complexity, in order not to be subjected to it but to be able to govern it, one can respond, on the contrary, by carrying out operations of simplification, which, with an intentionality, discard the superfluous from the image through a principle of selection, to highlight instead the elements considered of value and on which to rely. It is necessary to look at reality with “*the gaze of the archaeologist*”[1], on the past as well as on our present, bringing into play something that was taken as consolidated, going back but to produce an advancement from a precedent, to better jump. Through “excavation”, discovering the place, detecting and revealing those measures from which to build the future. [2]

«Heritage, in this way, does not only take on a value linked to memory and its role as testimony, but also to the potential connected to its possible renewal and re-signification, deriving from its being, first and foremost, “form”. [...] To take on “transformation” as a tool for conservation and valorisation it is therefore necessary to propose a new point of view that is capable of recognising the “orders” underlying the existing form and take them on as relational ‘structures’ for the definition of new orders and the attribution of new meanings at the same time necessary for the renewal and reinforcement of the identity of what we recognise as Heritage and corresponding to the aspirations of our time». [3]

Starting from this way of facing the problem of the relationship between the pre-existing and the new, between memory and invention, the contribution draws attention to a design and research experience conducted within the “Siracusa - Palazzolo Acreide” design seminar that involved several PhDs in Architectural and Urban Composition from major Italian universities. The project described below concerns three different areas of the city of Syracuse. Extraordinarily important places, since ancient times, both in terms of urban value and location, but which have currently lost their centrality and are asking to be redefined in order to return to the centre of the dynamics of urban transformation. With this in mind, it is proposed to give an answer in terms of form to the theme of the relationship between heritage and project, declaring a position on the need for the project in restoring value to the past, against the idea of its musealisation or conservation at all costs, in favour of its “transformation” according to a sensibility that characterises Italian design culture – just look at the stratification of our cities where architecture has always been “built on the built” – and that is part of a certain *identity* that belongs to our architecture.

**Ruins of a heritage to be re-composed. Notes on the nature and the architecture of the city.** The city of Syracuse, the oldest of the *poleis* of the Western Greek world according to Timaeus, boasts a history stretching back thousands of years and owes its fortune and importance from ancient times to its special geographical and orographical situation.[4]

The Corinthian colonists of Syracuse chose for the foundation of their city a place that was close to the southern branch of the ancient east-west route of the Mediterranean and as a bridgehead gave on the one hand security and on the other the possibility of dominating the hinterland.



Added to these favourable conditions are the natural characteristics of the place. Towards the interior, the plateau of the Monti Iblei slopes down towards the sea and forms the system of hills that, extending to define the sea coast, gives shape to the system of limestone plateaus that informs the Syracuse landscape: the plateau of Epipoli – divided into two parts by the drop in elevation that corresponds to the Akradina crag and the Temenite hill –, which constitute the most important embankment of the city's orographic system, overhanging the sea to the north and east and, on the southern side, connected by a strip of land sloping down to the plane of the so-called island of Ortigia, the site of the city's oldest altar, on which the historic city was subsequently built. The latter defines with the ancient Plemmirio – the tip of the limestone block of the Maddalena Peninsula to the south – the gulf of Porto Grande. Behind the harbour, the immediate hinterland largely hosts the alluvial plain, which is part of the system of mouths of the river Anapo and the course of the Ciane: the ancient *Lisimelia* marsh, an important wetland area of the city where the salt pans of Syracuse are located.

This particular conformation of the orographic substratum constructed in antiquity a discontinuous urban condition, defined by the system of crags that constituted veritable natural theatres, facing the landscape, mountainous on one side and towards the open dimension of the sea on the other, in which it was possible to measure the extent of the great polis by means of sight. In this system, the settlements of the *pentapolis* (*Epipoli*, *Neapolis*, *Akradina*, *Tyche* and *Ortigia*), with their primary elements, were made identifiable and recognisable, distinct and held together by the natural interval between the parts. The ancient architecture of the city thus assumed discontinuity, already inherent in the landscape, and topological location as necessary values for the definition of its significant places. Beginning with the 19th-century expansions, the polycentric urban design of ancient Syracuse gradually lost its recognisability in favour of an alleged unity that led to the progressive cancellation of all specificity, until reaching total unrecognisability in the present day. A few traces remain of the ancient urban order, more explicit in the area of the archaeological park and others latent, partly in the area of the ancient Neapolis and partly along the site of the ancient Dionysian walls guarded by the Euryalus Castle on the Epipoli plateau.

Starting from the traces of this heritage, today massacred and reduced to ruins by uncontrolled building, indifferent to the history and nature of the place, the project attempts, through recognisable urban figures that stand out in the Syracusan landscape, to clarify the parts and recompose them in a renewed order that establishes new relationships and, as in an archaeological excavation operation, to rediscover in the founding elements – built and natural – of the place the cornerstones for future urban development.

The project for Syracuse insists on three different areas: the Dionysian walls, the Neapolis, and the Talete car park on the north-eastern edge of the island of Ortigia. Three autonomous projects, which nevertheless should not be looked at in terms of the intervention for its own sake, but rather in the relations they intend to establish between them and with the site, in order to generate new values from this relationship.

The parts of the project work on three different scales, but according to a common objective: the definition of the limit, to make the extension and the form of the city legible, through the construction of collective places that restore the relations between the parts that are continuous but perceived as fragmented, built over time in an incongruous manner or left unfinished, and in this way give a new formal definition. In this rewriting of an urban order and the form of certain parts of the city, the project takes its measures from the ones of the place to re-establish lost relationships with its primary elements, the sea and its landscape: the two elements that have always identified and informed the construction of the city and its architecture. FIGURE 1.

**Measures arising from measures.** The first and largest project site is the plateau of Epipoli, where the ancient city was built.

Almost triangular in shape, this area is geographically defined by the rocky drop in elevation along the long sides and by the sea along the short side to the east. This geographical condition provided natural protection to the urban settlement, further guaranteed by the presence of the Dionysian walls, within whose perimeter the city was included. At the western summit of the plateau, the point of access to the city from the land, the walled system was garrisoned by the Castle of Euryalus. Built to defend Syracuse from the onslaught of the Carthaginians, they gave shape to the city's defensive design which, together with the island and its fortifications, made Syracuse an extraordinary fortress city, defensive from land and offensive from sea.

Once their defensive role had ceased, the traces of this part of the city's history were largely obliterated, although – thanks to their construction as an offshoot of the natural lines of the terrain – a few brief portions can still be traced along the ancient development, ending with the castle, which coincides with the most intact part of the Dionysian defence system.

The project starts from the hypothesis of reconstructing the unity of the plateau from which one can enjoy a privileged view of both the coastal and the mountainous landscape. Following the route of the walls, the project envisages the development of a linear park traversed by a pedestrian and bicycle path, which connects, at certain notable points that coincide with those of the ancient walls, the highest elevation with the lowest. At these points are small artefacts for resting, refreshment and leisure, which, through the use of recognisable and repeated figures, rhythm and measure the extension of the long territorial park that embraces the modern city and culminates in the Euryalus Castle and the neighbouring museum.

In this way, on the one hand, the legibility of the ancient city form is regained and, on the other hand, a unique heritage of historical testimony is placed at a higher value than the modern city.

The extraordinary archaeological site of Neapolis, the centre of the Greek city, is one of the remarkable sites of the system – the most important together with the castle – of the Dionysian Wall Park and the second application point of the project. It contains some of the most outstanding architecture of the ancient city: the Greek theatre facing the sea, the ancient Altar of Hieron and the later Roman Amphitheatre.

In this area the project has a single but complex objective: to recover the relationship, both visual and physical, of the archaeological park with its original horizon, the landscape sloping down to the sea to the south-east, well represented by the architecture of the theatre. FIGURE 2.

The operation is to some extent similar to the one carried out for the walls, but this time with a single architecture, a “bridge-architecture” that connects the archaeological area with the coast, to the point of building a new landing place. This architecture defines with its course the unity of the site, specifying its limit and enlarging the area, which thus becomes available to other possible excavations: a true bridge connecting the ancient city to its landscape, gaining privileged viewpoints along its development. FIGURE 3.

In this sense, the activities related to vehicular accessibility, the current caesura between the Neapolis and the neighbouring city, are placed in a lowered area further south, along Viale Paolo Orsi, deviating from the private Via Giuseppe Agnello. The ticket office and services attached to the archaeological park, directly connected to the car park, define a long and narrow porticoed square that excludes the busy Viale Orsi from view.

This becomes the starting point of the elevated path, a kind of long *aqueduct*, which bypasses the avenue itself and delimits the new green areas containing the ancient remains of the circular Hieronian temple. The long corridor consists of a masonry building housing services on the park level and a superimposed porticoed path interrupted only near the station. At this point it redesigns and defines the new tree-lined station square. FIGURE 4.

From here it gradually gains lower altitudes, protects the ancient Roman gymnasium and reaches the beach to give access to the sea. This area, originally occupied by the alluvial plain, is freed of the incongruous constructions occupying it and returned to nature in the form of a large park extending to the mouth of the rivers Anapo and Ciane. In this way, through its development, which finds its measure and topological reason in the shape of the ground and in the relationship to be established with certain elements of the ancient and modern city, this architectural element, which can be traversed at elevation and crossed at the level of the tax plane, specifies, on the one hand, the limit of the central ancient part of the city, and on the other, that of the modern city, distinguishing with its own figure the built part of the city from the part returned to nature.

The third project area concerns the eastern edge of the island of Ortigia, occupied for years by the Talete car park. A building with no quality, both architecturally and in terms of its urban value, with respect to the relationship with the historic centre built behind it and with respect to the sea that the city overlooks, which, precisely because of the presence of this building and the traffic artery of the Lungomare Vittorini, is unable to have any relationship with the sea that laps it. Acknowledging, however, a certain “usefulness”, the project confirms the presence of the Talete car park, with the aim, however, of defining the unfinished edge of the historic city and the 19th-century blocks towards the sea, starting from the surviving bastion of the ancient walls to Porto Piccolo. Once again, the measure of the intervention is the relationship with the traces of history, more recent in this case, but from which the project draws its definition.

The general hypothesis is to reconstruct a walled boundary on the site of the ancient Aragonese walls, to give shape and identity to both the interior and exterior areas, absorbing the difference in elevation between the city and the sea in such a way as to establish a new relationship with the water element that strongly characterises the city, especially on this side. FIGURE 5.

On the inside, towards the city, a double inhabited wall opens up with commercial, restaurant, service and collective activities that define minute squares and internal gardens in relation to the existing blocks. In the development of this new “enclosure”, there is also space for elevations leading to a higher level, where a continuous promenade allows for views towards the open sea, the marina, the coast and the city. Here is a linear roof garden, a theme strongly felt in Syracuse; a collective place of nature for the city of stone, which bypasses the road and the car park and in this way physically links the city to the waterfront. From this there is access, gradually descending towards the level of the sea, to a new urban lido, organised with shady promenades, pergolas, refreshment areas, loggia courtyards, services and piers extending to the sea, which, again, recovers but transforms the old image of the city at this point and the ancient and lost relationship between the city and its sea. FIGURE 6.

**Conclusion.** Taking a step back and returning to what was said at the beginning, with the awareness that, especially in the contexts in which Italian architecture operates, one often finds oneself coming to terms with history, the project for Syracuse declares a clear position with respect to the idea of a positive relationship between heritage and project. Not a conservative or mimetic relationship but one that selectively chooses the elements to refer to in order to set about modifying them. In this sense, this relationship can certainly be found in the elements of the city, both built and natural, elected as elements to lean on, from which to take measures in order to set the future, but also and especially in terms of the city’s principle of order, ancient but still valid for the construction of the places of the modern city.

«[...] In the presence of the elements of history, the fundamental question is, with the project, to find the right critical distance, which calls into question the problem of disposition [...]. What [...] sustains the relationship with the past are the settlement structures, that is, the rules of disposition of buildings». [5]

Without a nostalgic look or reverential fear, only by putting in place a principle of selection, which identifies what to relate to while distinguishing through forms that must be recognisable and appropriate to the time to which they refer, is it possible to shape an idea of continuity in the construction of the city.

«Every city has its own implicit “programme” that it must be able to rediscover every time it loses sight of it, on pain of extinction. The ancients represented the spirit of the city [...] by evoking the names of the gods who had presided over its foundation. [...] A city may pass through catastrophes and middle ages, see different lineages succeeding one another in its houses, see its houses change stone by stone, but it must, at the right time, in different forms, find its gods again». [6]

**Attributions.** The project was carried out by a working group belonging to the IUAV Doctoral School in Venice and led by Professor R. Neri with C. Angarano, S. Binetti, A. Cerri, M. Cukaj, L. Landi, F. Lucchi, C. Musella, F. Pavan.

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1. I. Calvino, “Lo sguardo dell’archeologo”, in Id., *Una pietra sopra*, (Mondadori, Milano, 2016), pp. 320-323.
2. «Non esiste una rottura nella complessa fenomenologia della storia e in quella dei simboli che essa ha prodotto nelle tre dimensioni; perciò i monumenti e i paesaggi eccezionali debbono essere considerati solo come emergenze nella visione temporale e spaziale della realtà che non presenta soluzioni di continuità. Il problema dell’inserimento nelle preesistenze ambientali potrà, dunque, essere più o meno sentito a seconda delle circostanze, ma una volta posto [...] diventa una delle implicazioni essenziali dell’interpretazione artistica, in ogni momento e in ogni luogo». E.N. Rogers, “Il problema del costruire nelle preesistenze ambientali”, in Id., *Esperienza dell’architettura*, (Einaudi, Torino, 1958), pp. 311-316.
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4. on the landscape of Syracuse refers to: H-P. Drögenmüller, *Siracusa. Topografia e storia di una città greca*, (Tyche Edizioni, Siracusa, 2018), pp. 11-20.
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6. I. Calvino, “Gli dèi della città”, in Id., *Una pietra sopra*, (Mondadori, Milano, 1995), p 344. [translation by the author]

### Figures.

FIGURE 1 - A project for Syracuse. General masterplan.

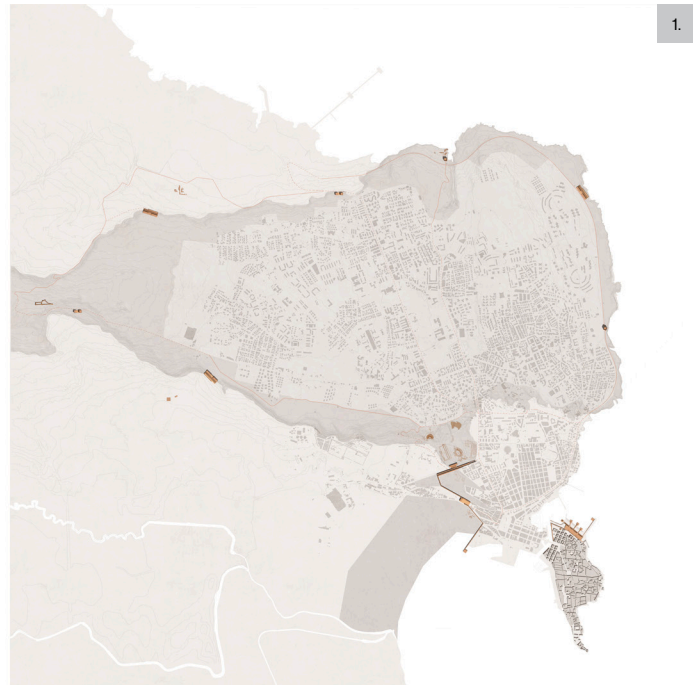
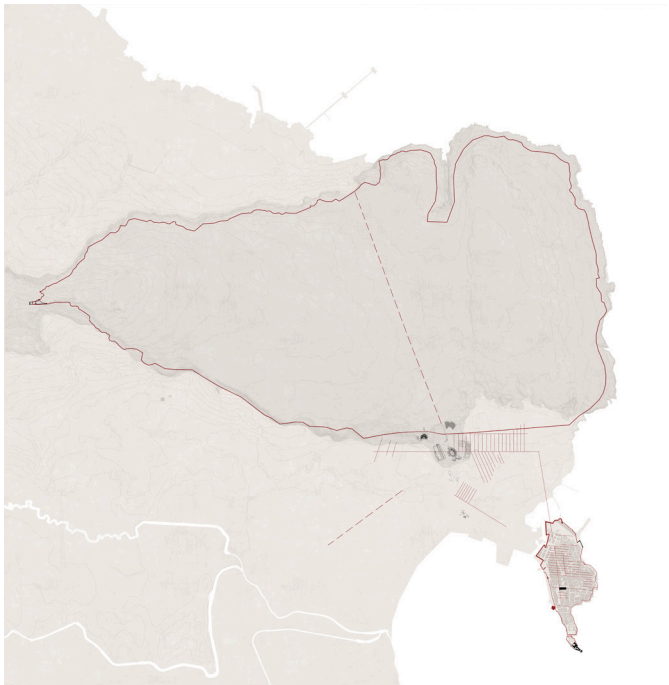
FIGURE 2 - Bird’s eye with the elements of the city “heritage” and the project

FIGURE 3 - The archeological city and its scenery. The new *aqueduct* of Neapolis, volume plan and main facade

FIGURE 4 - The archeological city and its scenery. The new *aqueduct* of Neapolis, ground plan and view of the project.

FIGURE 5 - The ancient city and the sea. The new waterfront of Ortigia island, volume plan and views of the project.

FIGURE 6 - The ancient city and the sea. The new waterfront of Ortigia island, ground plan and urban sections.

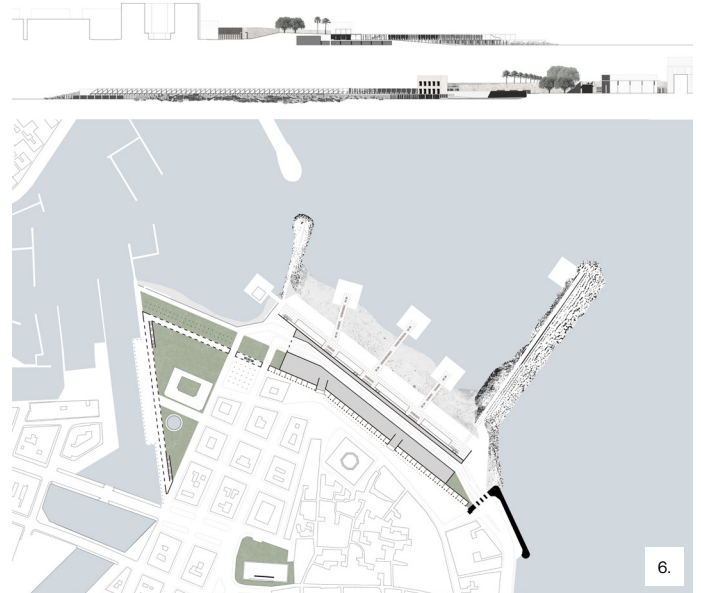
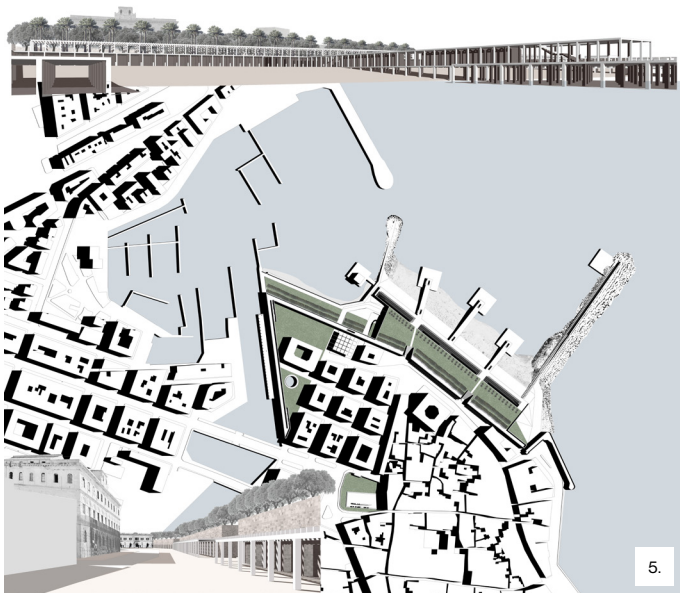


1.



2.





# STRATEGIES AND VISIONS FOR NEW URBAN HABITATS. THE RE-FUNCTIONALIZATION OF THE FORMER 'CONVENTO DEI CAPPUCCINI' INSIDE THE NATURAL PARK 'CARDETO' IN ANCONA'S CITY CENTRE/

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**Abstract.** The opportunity to establish a reflection on the relationship between Heritage and Innovation, on the role of built heritage as a significant element for the medium-sized city, and on the relationships between Heritage, the Contemporary City, and its uses, arises from a series of applied research studies conducted by the UNIVPM research group 'Hub for Heritage and Habitat' as part of the activities of commissioned by the Regional Office of the State Property Agency. This research focused on the case study of the area known as 'Colle dei Cappuccini' within the Municipal natural park called "Cardeto" inside the city centre of Ancona, specifically on the built complex of the former Capuchin friars' convent, later a military barracks, which is now disused. This area of the city, which includes various pre-modern fortifications, is an extraordinary blend of artifice and nature, with a highly valuable historical stratification close to the city's historic core. However, it is in a state of 'periphery at the center,' where many of the existing structures are in a state of abandonment. The owner's intention to transfer the Provincial State Archives headquarters there represents an opportunity to reactivate not only an urban container but an entire habitat where nature and artifice, landscape and environment, meet through the creativity of the architectural project and its functional program. This allows for a new dialogue between heritage and innovation, between the present and the future.

**Introduction.** Although sometimes inaccessible or even invisible to the community, the public heritage of abandoned properties, especially the one related to former military and conventual uses, today represents an opportunity to rethink the contemporary city and constitutes a strategic resource of extraordinary importance for urban and territorial regeneration [1,2]. This heritage consists of a wide and varied collection of assets, distributed extensively across the territory, characterized by a plurality of historical periods, architectural languages, functional typologies, and spatial configurations. It includes complex building aggregates, isolated prestigious buildings, and entire territorial compartments, often located in areas of great landscape or historical-artistic value, which are frequently in a state of abandonment or disuse due to functional obsolescence or challenges in accessibility.

This latent condition poses a dual challenge for contemporary design: on one hand, the recovery of these assets offers a unique opportunity to redefine roles, meanings, and methods of action on the existing; on the other, it invites a reconsideration of territorial usage dynamics through

the introduction of new functions and programs capable of addressing socio-economic transformations and new living paradigms [3]. The abandoned buildings and complexes, often of historical value and subject to preservation constraints, therefore, require integrated and multi-stakeholder design approaches that balance respect for the memory of the place with functional and technological innovation. From this perspective, abandoned heritage can be interpreted as an urban and territorial palimpsest, a trace upon which to overlay design visions that do not limit themselves to mere conservation but engage with the complexity of contexts and contemporary needs.

The transformation of these assets thus becomes an opportunity to tackle major contemporary challenges: from combating urban sprawl to regenerating peripheries; from creating inclusive spaces to meeting the housing needs of the most vulnerable population groups. The introduction of new uses [4]—ranging from innovative residences to community services, from productive activities to culture and tourism—also allows for a rethinking of the city's edges and the reconnection of fragmented territories, both in central and peripheral urban areas. This condition is not exclusive to Italy: similar dynamics are observed in many European countries, where the recovery of abandoned public heritage intertwines with different normative and cultural traditions[5]. However, the peculiarities of the Italian context—characterized by a vast historical-architectural heritage, often of high quality—make it particularly urgent to develop design strategies capable of combining preservation with innovation. In this sense, architectural design is proposed as an operational and critical tool, capable of transforming the "voids" left by functional obsolescence into spaces for new urban and territorial utopias. Through the recovery and regeneration of abandoned public heritage, perspectives open for a more resilient, inclusive, and sustainable city, capable of responding not only to immediate needs but also to the aspirations of a continuously evolving society [6].

**The Case of Ancona: Evolution and Future Perspectives.** Within this general framework lies our reflection, focusing on a large area of the historic center of the city of Ancona, located within the perimeter of the Parco del Cardeto. This area includes archaeological sites, buildings, and robust city fortifications with significant historical, identity, and heritage value for the city. It has been a privileged site for a series of research projects at various scales, commissioned by the regional headquarters of the Agenzia del Demanio—the owner of many buildings in the area—and considers the area as an "open-air laboratory" and a living material through which to explore the relationship between Heritage and Contemporaneity.

The city of Ancona [7,8], strategically located on the promontory of Monte Conero, represents a unique example of urban evolution closely linked to its defensive function. Founded as a Greek colony with Syracusan roots and developed into a commercial outpost in Roman times, the city progressively assumed a prominent role in the Adriatic context thanks to its strategic position and the natural conformation of its port. In the Middle Ages, the city consolidated its strategic role due to its political independence as a maritime republic, supported by intense maritime trade and the construction of defensive and civil structures that defined its urban character around the harbor. Starting in the 16th century, Ancona's inclusion

in the Papal States led to a substantial transformation of its urban fabric, “militarized” through the creation of a complex system of fortifications on the surrounding hills.

In its recent history, the city underwent profound transformations induced by catastrophic events of both anthropogenic and natural origin: it was devastated during World War II, suffered the destructive consequences of an earthquake in 1971, and was further marked by a landslide event in 1982 [9]. These events caused irreversible changes to the urban fabric, leaving vast areas of the historic center, including much of the urban fortified heritage, in conditions of decay and abandonment. This phenomenon created a sort of “urban aporia,” in which the historic center, historically the city’s beating heart, was relegated to the role of a “periphery at the center.” Today, the urban landscape of the historic center appears fragmented: extraordinary archaeological layers coexist with historic buildings reduced to empty containers, awaiting a regeneration project capable of giving them new vitality.

**The Cardeto Park as an Urban Extension of the Natural System of the Conero Park and as an Outpost for Cultural Development in the City of Ancona.** The Cardeto Park, a vast naturalistic area on the doorstep of the historic center of the city of Ancona, constitutes the urban extension of the Monte Conero Regional Park. With its 35 hectares, it is one of the most extensive “urban forests” in the peninsula. It is characterized by a perfect blend of nature and artificiality—resulting from a succession of urban transformations linked to the city’s defensive functions. The park, with its historical and orographic stratification, has given rise to a complex system of structures, artificial terraces, and pre-modern military infrastructures of extraordinary environmental quality, where the integration between natural elements and historical-architectural structures offers a layered narrative of the relationship between humans and the territory.

The park includes a series of structures related to the city’s defensive function that testify to its evolution and represent an opportunity to rethink the relationship between historical heritage and contemporary development.

The valorization strategy for the Cardeto Park and the Cappuccini Hill in Ancona presented here is configured as a strategic interpretation of a large part of the city, aiming to provide an innovative scientific basis for subsequent interventions and urban and architectural regeneration programs. The objective is to integrate historical heritage with new contemporary uses. The primary goal is to create an innovative urban habitat capable of reintroducing abandoned heritage into the city’s life cycle, avoiding purely conservative approaches and proposing solutions that reinterpret the area’s potential. This would involve introducing functions and uses that reintegrate the heritage into the surrounding city’s life cycle. In this context, the urban strategy is presented as a coherent vision of urban regeneration, where nature, history, and new functions intertwine to generate a culture-based development model. The project aims to reinterpret these traces, transforming the hill into an “Acropolis of Memory and Culture,” capable of dialoguing with the surrounding urban fabric and the environmental context.

**Analysis of Historical-Architectural Emergencies. Objectives and strategies.** The proposed urban vision falls within a general interpretation of the area “in section,” which reexamines the city’s stratifications, distilling and enhancing them. This is summarized in the development of pathways that identify areas of potential urban regeneration, starting from opportunities to enhance archaeological sites and repurpose existing historical structures. These nodal points are capable of reactivating, as a whole, the historical body of the Doric city in an ideal series of ascensions “from port to sea,” eventually connecting to a new system of entrances to the Park itself.

Within this macro-strategy of reconnecting the Park to the city and vice versa, an integrated system of area accessibility was studied, including the addition of park-and-ride facilities in strategic, non-invasive locations and mechanized access systems to the area, integrated into the hillside.

The research thus began with a critical interpretative analysis of the Built Heritage within the Park’s context, identifying several main “clusters”:

1. The archaeological-monumental cluster, centered on the archaeological remains of the Roman city and the major medieval monuments tied to the city’s religious and temporal powers. Today, these serve as cultural, administrative, and religious institutions (the Municipality, Archdiocese, and National Archaeological Museum housed, respectively, in the Palazzo degli Anziani, the Cathedral of San Ciriaco, and the noble Ferretti Counts’ Palace).
2. The cluster related to the transformations of pre-modern military structures, connected to the economic pole of the Polytechnic University. This includes the Faculty’s headquarters in the Villarey Barracks, the future student residence in the former food warehouse, and several buildings awaiting further use, such as the Castelfidardo Powder Magazine and the so-called “casematte” area.
3. The cluster of the so-called “San Paolo Bastion,” the focus of this investigation, acting as the cornerstone of the new enhancement system. It comprises the complex of the former Stamura Barracks/former Capuchin Convent, the fortified system of the San Paolo Bastion, and the system of lighthouses and Napoleonic batteries.

The area’s enhancement strategy includes selective demolitions of obsolete and incongruous structures to configure a series of public spaces and the assignment of new functions to the historical structures, made accessible by a new entry system and served by new parking areas integrated into the natural setting.

**The Macro-Strategy of Reconnecting the Park to the City and the Regeneration of Colle dei Cappuccini.** The strategic vision for the San Paolo Bastion cluster involves transforming the area into a cultural hub tied to urban memory. This transformation is primarily anchored in the inclusion of the Provincial Headquarters of the State Archives within the former convent complex, as outlined by the Agenzia del Demanio (Italian State Property Agency). This initiative is expected to trigger positive urban regeneration processes in the area, made possible by the synergy between public investments and private activities. The goal is to foster a multiplicity of uses, encouraging functional hybridization and opening the building to the city.

From the perspective of the area's macro-functional division and following a cultural development logic, structures to be transformed, restored, or conserved and enhanced have been identified, as well as those to be demolished due to incongruence or incoherence. Simultaneously, the interpretative analysis of the site revealed three distinct zones within the fortified system, which were subsequently identified as separate areas of urban regeneration and intervention, each with specific uses and functions.

The regeneration of Colle dei Cappuccini thus revolves around three main intervention areas:

1. The Terrace of the Lighthouses: This is a new system of public spaces and panoramic paths connecting the old lighthouse, Risorgimento-era military batteries, and the ancient port. This area serves as a privileged observation point and a connection between Colle dei Cappuccini and Colle Guasco, reinforcing the relationship between history and landscape.
2. The San Paolo Bastion: As the project's centerpiece, the bastion is repurposed to house a cultural and museum center, as well as an interpretive center focused on the city's military and fortified history. It will also feature open public spaces and new access systems.
3. The Former Stamura Barracks: The transformation of this historic structure includes an innovative functional program. It will feature spaces dedicated to the State Archives, a museum-exhibition interface, and multifunctional rooms related to the Archives under the concept of an "open archive." Additionally, it will include a conference center and a panoramic bar/restaurant, offering new opportunities for the city and its inhabitants to enjoy and engage with the space.

**The Former Stamura Barracks.** The meta-design strategy for the former Stamura Barracks serves as a paradigmatic example of the adopted approach. With the dual aim of hosting the new headquarters of the State Archives and incorporating a functional mix with an innovative program for a building open to the city, the intervention at the Stamura Barracks includes contemporary light "infill" elements made of metal and glass.

These will be placed in the empty spaces left by the historical structure, both above ground and underground, ensuring the proper use of all available spaces without overloading the precious historical edifice. The addition of these contemporary elements—such as an underground "archival vault" for document preservation and a metal canopy over the smaller courtyard to transform it into a flexible space for events and exhibitions—balances functional needs with the preservation of historical heritage. This transformation solidifies the building's role as a central node in the new cultural network.

The enhancement actions for Colle Cappuccini, culminating in its complete restoration, will represent a crucial step in reconnecting the Cardeto Park to the city of Ancona. The entire area is reimagined as a kind of Acropolis of Memory and Culture. The regeneration of Colle Cappuccini and Cardeto Park marks a significant turning point in the relationship between Ancona and its heritage. By interpreting the area as a new Acropolis, the project goes beyond merely preserving the memory of the site, reimagining it in a contemporary context and transforming it into a dynamic

and vital part of the city. Through an approach that combines preservation, innovation, and sustainability, the intervention becomes a model of urban regeneration where the past serves as the foundation for building a new urban future.

**Acknowledgements.** These results are part of a research conducted by H4HH – Hub for Heritage and Habitat, architectural and urban design research group of DICEA Department – Marche Polytechnic University of Ancona, within "Agenzia del Demanio" (Italian State Property Agency) – Marche Region offices.

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## Figures.

FIGURE 1 - General overview of the Ancona's territory and the Cardeto Park area as a urban terminal of Mount Conero regional Natural Park.

FIGURE 2 - General overview of the city with the Cardeto area highlighted, and the medieval wall system outlined.

FIGURE 3 - The three Heritage Clusters involved in Cardeto Park area.

FIGURE 4 - Overall urban strategy.

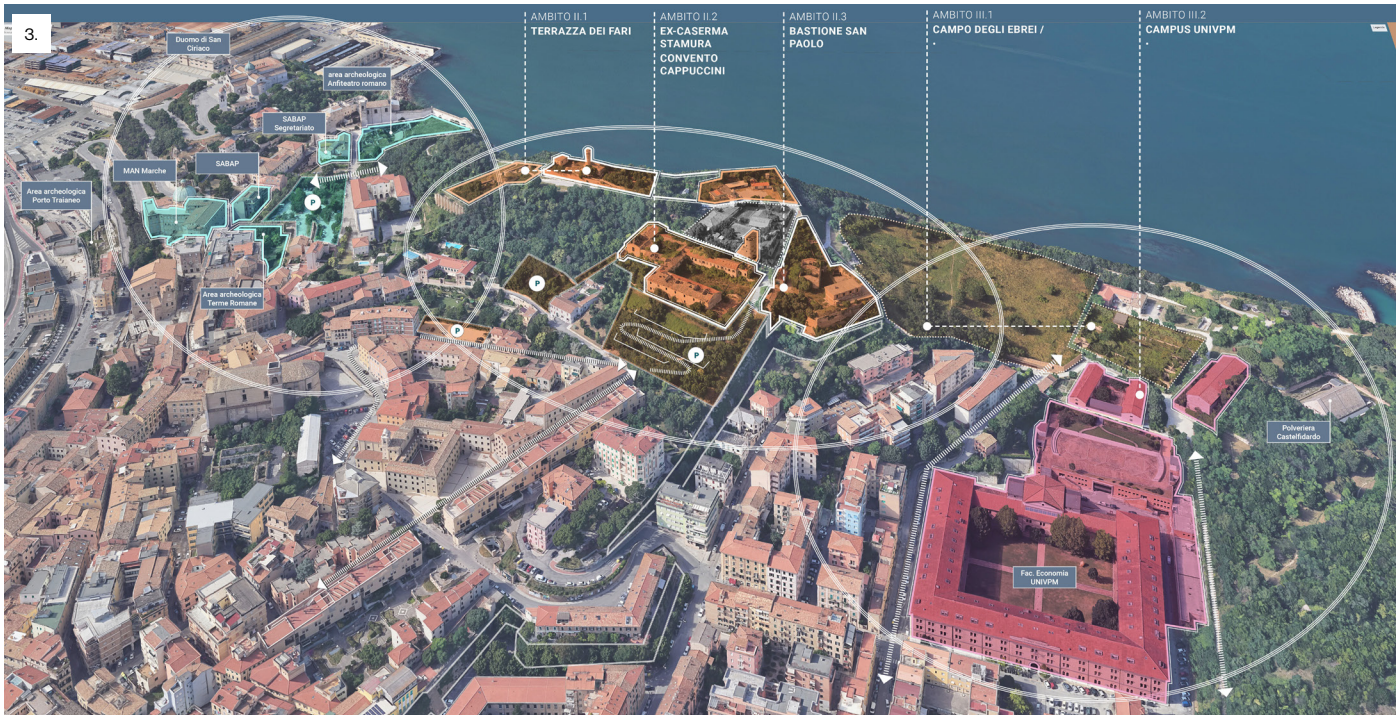
FIGURE 5 - Pictures of the actual state of Stamura Barracks.

FIGURE 6 - Bird-eye view of the preliminary design.













## RESILIENCE THROUGH DESIGN. INNOVATIVE ISSUES IN THE RENOVATION OF TORINO ESPOSIZIONI/

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**Abstract.** The historical complex of *Torino Esposizioni* was designed by Ettore Sottsass senior in the '30s, then modified by Roberto Biscaretti di Ruffia and Pierluigi Nervi in the '50s before suffering several modifications and being abandoned in the '80s. The complex is now to be renovated, becoming part of the new Architecture Campus of Politecnico di Torino and, in the main pavilion, hosting the Central Civic Library. In the first part, the essay tells the history of the complex, showing how the various interventions changed its spaces' usability and resilience, eventually contributing to its abandonment. Then, it investigates the recent history, looking at the multiple failed attempts to restore the building due to several intertwined factors – e.g., its cultural value, its structural behaviour, costs, and the overlapping of inconsistent norms – that affected its actual potential. The second part of the essay describes the renovation project, firstly introducing the strategic division of Politecnico di Torino – the Masterplan Team – and then deepening four innovative issues of the project. The design approach, introducing the architectural outputs in the political and decisional process through the continuous construction of possible scenarios. The way the various stakeholders – e.g., politicians, technical directors of the city, and the Superintendence (the cultural authority that controls and supervises the design of historical buildings – were involved in the process by means of unofficial but performative design documents. The design approach, aimed at tracing down the elements of values, turning them into a system of alive elements defining priorities and opportunities, and using this system to redesign small and big interventions that valorise the building while renovating it, promoting its resilience through design. Lastly, innovation in design actions: the whole intervention is a continuous experimentation of innovative design solutions to make all parts consistent with the renovated legacy building.

**Introduction.** The renovation of *Torino Esposizioni* involves the participation of various public and private stakeholders, all sharing the goal of revitalising and reactivating this important part of the city of Torino, Italy. Among these stakeholders, the Politecnico di Torino played a key role, with the goal of finding an adequate space for the Architecture Campus, in direct connection with the historic faculty of the *Castello del Valentino*. The paper aims to highlight the position of Politecnico di Torino in this regeneration process, and particularly the role of the Masterplan Team, the university's strategic design office. The work carried out by the Masterplan Team has several innovative implications, both from a procedural, design and technological perspective. These innovations enabled the develop-

ment of a project that is, at the same time, functional and respectful of the significant history and heritage of the exhibition complex. Following an initial historical overview of *Torino Esposizioni* within the broader context of the Parco del Valentino, the paper will discuss the results achieved, focusing on the innovations explored during the design process.

### **From Palazzo della Moda to Torino Esposizioni, up to the recent history of the complex.**

The Valentino is the most important monumental park of Torino. Initially planned in the 19th century by the gardener and landscape designer Jean-Baptiste Kettmann, the park has been used from the beginning not only as a natural environment linked to the city but also as a highly anthropised space where numerous cultural activities occur. The cultural and academic characterisation of the park dates back to the 1880s, when a project for constructing a university campus, called *Città delle Scienze*, was carried out by the mayor Ernesto Balbo of Sambuy [1]. In the meantime, the park was already used for cultural events of various kinds. *Torino Esposizioni* is located, indeed, in a triangular plot that has been used for exhibitions since the late 19th century. The story of the complex began at the end of the 1930s when the city of Torino asked for a series of permanent spaces to host the international exhibitions and events organised in the city. In 1936, a design competition was held, which was won by the architect Ettore Sottsass Sr. [2]. Sottsass's project consisted of four pavilions around a green, open courtyard. Circular in plan, the northernmost pavilion was later renamed the *Rotonda* (literally, the rounded one) and housed the complex's restaurant. Immediately to the south, Pavilion 1 was the main exhibition hall, accessed via a monumental vestibule supported by slender reinforced concrete square columns. On the south side of the complex was the theatre, with two proscenium arches – one opening westwards to an indoor seating area for winter events and the other eastwards to an outdoor area for summer performances. Two wings connected the theatre and the exhibition hall: the narrower one, along Corso Massimo d'Azeglio, was intended for offices, while the wider one was reserved for exhibitions. Between these wings was a large rectangular garden, enclosed on all four sides by the pavilions. The complex was opened in 1938 but had limited use. In 1943, during the Second World War, it was severely damaged by bombing, especially in the southeastern part, including the theatre and the exhibition wing.

After the war, a group of local industrialists founded the “Società del Palazzo delle Esposizioni” to rebuild the complex to host major trade fairs and promote the local burgeoning industrial scene [3]. The project was entrusted to the architect Roberto Biscaretti di Ruffia and the engineer Pierluigi Nervi. In 1947, the exhibition wing, or Pavilion 2, was rebuilt – one of the most iconic works by Nervi, with a roof made of emblematic pre-casted ferrocement elements [4]. The theatre, renamed *Teatro Nuovo*, was also rebuilt, retaining, at least initially, its original design with double proscenium arches. A few years later, in 1950, the open-air theatre was replaced by Pavilion 3, also designed by Nervi. This time, Nervi created a centrally planned structure with a large pavilion roof supported by four reinforced concrete arches [5], again using pre-casted ferrocement elements as in Pavilion 2. In the mid-1950s, Pavilion 2 was extended by replicating the same vaulted ferrocement structure and extending it to the office wing



along Corso Massimo d'Azeglio, eliminating the garden initially designed by Sottsass Sr. In 1959, Nervi proposed a new façade, a monumental entrance and an office tower to replace Pavilion 1, but this plan was never realised. Despite these changes, the complex continued to host important international exhibitions, such as the Torino Motor Show. In 1960, the need for additional exhibition space led to the construction of an underground pavilion, designed by the engineer Riccardo Morandi and located about a hundred metres north of the *Rotonda*, in the direction of the XVII Century *Castello del Valentino*.

Since the 1980s, the *Torino Esposizioni* complex has gradually fallen into disuse, with occasional cultural and sporting events contributing to its partial transformation. One such event was the 2006 Winter Olympics, during which some spaces were converted, including Pavilion 2, which was turned into an ice stadium. Over the years, various extensions have been added, including Pavilion 3B in the 1970s, located adjacent to the east of Pavilion 3, now called 3A. Since 2009, Pavilion 1 has been used by *Università degli Studi di Torino* to temporarily house the Faculty of Humanities, while *Teatro Nuovo* was used as a dance school. Nevertheless, even these last uses stopped, and the complex was completely abandoned. In 2014, the City of Torino, in collaboration with the Politecnico di Torino, developed a tentative proposal for recovery. This proposal led to a feasibility study carried out by ICIS, Rafael Moneo and Isolarchitetti. The study, completed in 2017, examined the possibility of relocating the Central Civic Library (including its archives) and the School of Architecture of Politecnico in *Torino Esposizioni* – the latter in the underground Morandi pavilion. However, this scenario proved impossible due to the new structural and seismic regulations introduced in 2018, which would have imposed severe modifications to the pavilion, failing to preserve it and costing far too much. Moreover, the increasing constraints – as the pavilions were declared of monumental interest in 2022 – the clashes with the town plan – which quite curiously allowed for residences, for example, but not cultural uses – and the general crisis situation annihilate any attempt to renovate the complex. Nevertheless, the place was crucial for Politecnico, as using it was the only possibility to create a true Campus for the School of Architecture, connecting it to the historical headquarters in the *Castello del Valentino*.

Then, in 2020, Politecnico's Masterplan Team was set up to develop new proposals for the "Campus Architettura" within *Torino Esposizioni*.

**The Masterplan Team regeneration project: four fields of innovation.** Despite its name, the Masterplan – created in late 2016 and enormously evolved in 2019 – is not a strategic document but a research centre – a design group that continuously spatialises policies and explores possible future scenarios. The conceptual premise of the Masterplan is that every policy requires, in the end, a physical space. Hence, it is possible to work with future scenarios to translate strategic policies into physical realities, positioning the project in a tactical dimension – in Jullien's terms, such a design both follows the process and orients it [6]. The Masterplan method parallels autopoietic processes, characterised by continuous interaction between practice and conceptual reflection, allowing for flexibility and reorientation. The success of this method is also due to its agile and minimally hierarchical organisation, which ensures control over

project materials and communication. Presentations, dossiers, drawings and visualisations are used to guide stakeholders through the implementation of the project, promoting its assimilation and encouraging action. The Masterplan team also navigates external variables such as policies and regulations, forging alliances to create synergies between projects in shared spaces where interactions converge, exploring their less-than-obvious dimensions [7]. Hence, it valorises the systemic dimension of design and enhances design's role in the system of society [8]. At the same time, the Masterplan produces architectural projects. It does work on the pre-design, but at the same time, it continuously anticipates design issues through the definition of architectural projects – which occasionally become the actual projects like in the case of *Torino Esposizioni*. Therefore, the creative and the strategic dimensions of design converge.

The unique working approach of the Masterplan Team has allowed the development of the Architecture Campus project, and thus part of *Torino Esposizioni*, despite the difficulties mentioned above, and in relationship with the significant cultural and heritage value of the buildings. The continuous interaction between practice and conceptualisation has allowed great flexibility and minimised the friction typically caused by bureaucracy, regulations and the diverse interests of the various stakeholders. In this way, process and project are no longer opposed but become one singular entity: the project becomes a formative act, capable of writing its own rules as it evolves [9]. FIGURE 1.

**Methodological innovations.** The first innovation issue is the way the process was built and oriented. In 2020, when the failure of previous projects was apparent, the Masterplan Team started elaborating new hypotheses to reuse the complex. Following the unexpected news that the Dance School had to leave its spaces, the team started developing alternative scenarios for reusing its spaces and some of the pavilions nearby, building up an architectural proposal which gave a new sense to a part of the complex. Working on just a part of the complex was paramount to make the city accept this operation, which continued to hope for a new Civic Library there – and just a year later, indeed, they had it thanks to the funds of the National Recovery and Resilience Plan (PNRR): hence, this modest approach was the winning move. And to make it winning, many scenarios involving, alternatively, various parts of the complex were designed and comparatively evaluated, giving reliability to the process. After a long negotiation, the City of Torino let Politecnico use three pavilions: Pavilion 1 – which will be named Sottsass Pavilion – Pavilion 3 – the future Nervi Pavilion – and Pavilion 3B – to be rebuilt and called the New Pavilion. This process marks one of the innovations of the *Torino Esposizioni* project: the architectural design has been used as a tactical tool, capable of seizing opportunities and highlighting the best course of action to move the project forward.

**The Dossier.** The second innovation issue concerns the tools used to govern the whole process and interact with the stakeholders. From the pre-design phase onwards, the Masterplan invited the participation of various stakeholders, including the Superintendence, potential co-users, the City of Torino and, obviously, the Politecnico's governance (which can be seen both as an external and an internal actant). To manage the various discussions with the city's directors – e.g., the urban planning, the green

and the environment – with the Superintendence, the various parts of the university's governance and many other stakeholders, the Masterplan only elaborated a *single* document. An all-encompassing dossier, FIGURE 2, that gathered all functional and non-functional requirements, data, reasons and solutions. This Dossier never arrived to the stakeholders in a complete form. Each time, it was crafted for a specific purpose by erasing some parts so as to enhance the tactical power of that specific interaction of the process. Moreover, this Dossier never arrived to be an official document. This informal and unofficial Dossier – which questions how documents become performative – is the primary tactical tool through which the Masterplan creates the conditions for the project to move forward and influences the actions of stakeholders [10].

**Forms of action.** The third innovation issue is the (way of maintaining the) position of the Masterplan in the system it acts within. The Masterplan operates in a hybrid space between policy and design, academia and practice; just as well, it operates in the middle of public and private interests. Its approach is guided by two fundamental principles: efficiency and speed. These two principles are effectively demonstrated by the timeline, FIGURE 3, which outlines the strategic approach of the Team. This comprehensive overview allows to trace the various interactions and sequential steps that contributed to the project's development, providing a clear understanding of its evolution over time. The readiness and efficiency of the Masterplan Team proved crucial when large amounts of funding from the PNRR became available after the pandemic. It is also thanks to obtaining these funds that it was possible to ensure the project's economic feasibility. However, it is paramount to underline that these timelines cannot be considered proof of causality among the actants. In full contrast with ethnographic, Latourian approaches – which fall into the *post hoc, ergo propter hoc* fallacy – these timelines get their sense only afterwards, retrospectively, in the continuous and everchanging reinterpretation of the process.

**Systemic design.** Finally, the Masterplan had to incorporate an incredible number of technological innovations to accommodate the new functions within *Torino Esposizioni* and valorise its historical dimension. In this case, consistently with the Masterplan approach, the innovation started in the pre-design phase, anticipating many potential issues – like the acoustic of the pavilions, the rebuilding of the glass-block façade, the structural reinforcements, issues related to thermal insulation and thermal bridging, FIGURE 4 – and involving the Superintendence since the very beginning. This required numerous technological experiments and tailor-made solutions, coordinated from the architectural design stage, ensuring optimum control of the final result. At the same time, the involvement of the Superintendence allows the team to orient the decision processes, showing alternatives and mock-ups and obtaining even unexpected successes. The case of the acoustic performance of Pavilion 3 is emblematic. According to the project, the voluminous vaulted hall will have four main functions: conference, workshop, exhibition and study. The latter function, in particular, was badly suited to the relatively poor acoustic performance of the hall. After numerous studies and research, the application of a cork-based acoustic plaster – a solution negated to similar projects – was approved, as its impact on the aesthetic of the vault was minimal compared to practical advantages.

**Conclusion.** Construction works began in 2024 and are expected to be completed in 2027. Throughout this period, the Masterplan plays an active role in overseeing the artistic direction of the works, ensuring the coherence and consistency of the execution of the project. When completed, the complex will include classrooms and offices in Sottsass and New Pavilions and, as anticipated, a large multipurpose hall in Pavilion 3. FIGURE 5. Being open to the city will be a critical asset for the broad community. However, above all, it will provide new, innovative and exciting spaces for the students and scholars of Politecnico di Torino, reflecting its international dimension.

In conclusion, the renovation project of *Torino Esposizioni* represents a strategic and innovative development both for the city of Torino and Politecnico di Torino. The project successfully deals with complex cultural and normative constraints, merging them in a design that considers historic spatiality, new needs, and functional necessities. This dual focus on preservation and modernisation exemplifies the Politecnico's commitment to integrating heritage with contemporary functionality. The Masterplan team's unique approach, characterised by a flexible and collaborative methodology, has been central to overcoming the complex regulatory, structural, and financial challenges that initially hindered progress. By involving stakeholders at every stage and adapting the project scope to meet evolving demands, the Masterplan has transformed architectural design into a dynamic tool for navigating policy, historical preservation, and practical requirements. This process-driven approach has enabled the project to secure funding, align with regulatory requirements, and incorporate technological solutions without compromising the integrity of the original Pavilions.

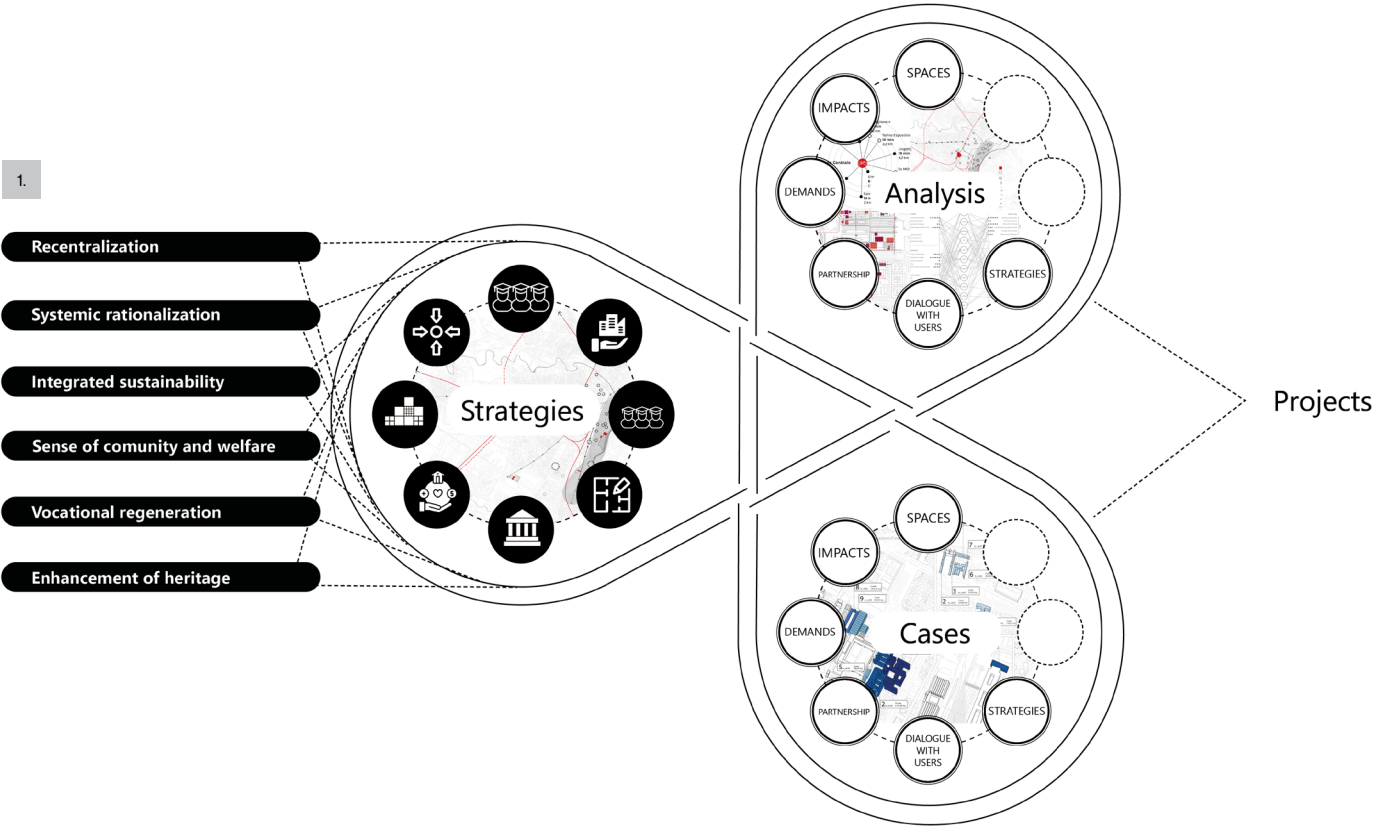
As construction continues, the *Torino Esposizioni* complex is set to emerge as a vibrant, multipurpose educational hub, offering spaces for learning, collaboration, and cultural events. When completed, it will enhance the educational resources available to the Politecnico di Torino and contribute to the city's broader cultural and academic landscape. FIGURE 6. Ultimately, the redevelopment of *Torino Esposizioni* reflects a successful model of architectural heritage adaptation, showcasing how historical sites can be thoughtfully transformed to meet modern demands and serve future generations. Furthermore, the peculiar and innovative way of acting of the Masterplan Team proved to be a winning approach to design in complex contexts.

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**Figures.**

- FIGURE 1 - Masterplan Team's methodological scheme.  
FIGURE 2 - Synoptic view of the Dossier.  
FIGURE 3 - The timeline of the project.  
FIGURE 4 - Technological innovations adopted in Pavilion 3.  
FIGURE 5 - The large hall in Pavilion 3 used as a study room.  
FIGURE 6 - Exploded axonometric view of the Politecnico di Torino interventions in Pavilion 1 and 3.







Torino  
Esposizione  
2015

### 01.1 / Inquadramento territoriale



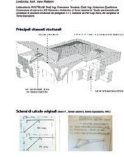
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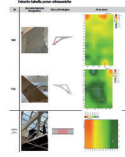
Il Piano paesaggistico regionale (PPR) del 2008, approvato dal Consiglio regionale del Piemonte, definisce le linee guida per la tutela e la valorizzazione del paesaggio regionale. Il PPR è uno strumento di pianificazione che ha lo scopo di garantire la coerenza tra le diverse politiche settoriali e la tutela del paesaggio.



### 01.2.2 / Pedagogia spaziale sulla struttura



### 01.2.3 / Studio di facciata e area esterne



### 04 Verso il Campus Architettura



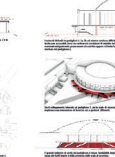
### 04.1 / Piano paesaggistico regionale (2008)



### 04.2 / Piano paesaggistico regionale (2008)



### 04.3 / Piano paesaggistico regionale (2008)



### 04.4 / Quadro bidimensionale



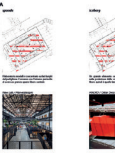
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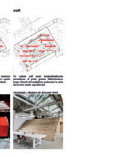
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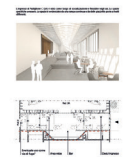
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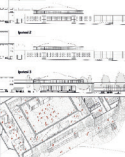
### 04.8 / Padiglione 18



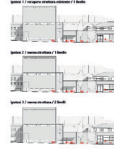
### 01.2.4 / Ingresso



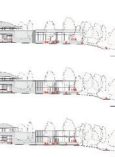
### 01.2.5 / Studio di facciata e area esterne



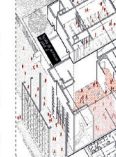
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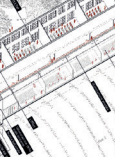
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### 04.3 / Piano paesaggistico regionale (2008)



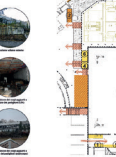
### 04.4 / Quadro bidimensionale



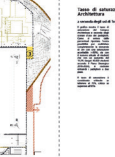
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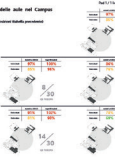
### 04.6 / Padiglione 18



### 04.7 / Padiglione 18



### 04.8 / Padiglione 18



### 04.9 / Padiglione 18



### Tutti gli espositori del Campus Architettura



### 04.1 / Piano paesaggistico regionale (2008)



### 04.2 / Piano paesaggistico regionale (2008)



### 04.3 / Piano paesaggistico regionale (2008)



### 04.4 / Quadro bidimensionale



### 04.5 / Superfici e Interferenze



### 04.6 / Padiglione 18



### 04.7 / Padiglione 18



### 04.8 / Padiglione 18



### 04.9 / Padiglione 18



### 04.10 / Padiglione 18



### 04.6 / Padiglione 18 / Nuovo



### 04.7 / Padiglione 18



### 04.8 / Padiglione 18



### 04.9 / Padiglione 18



### 04.10 / Padiglione 18



### 04.11 / Padiglione 18



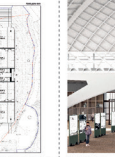
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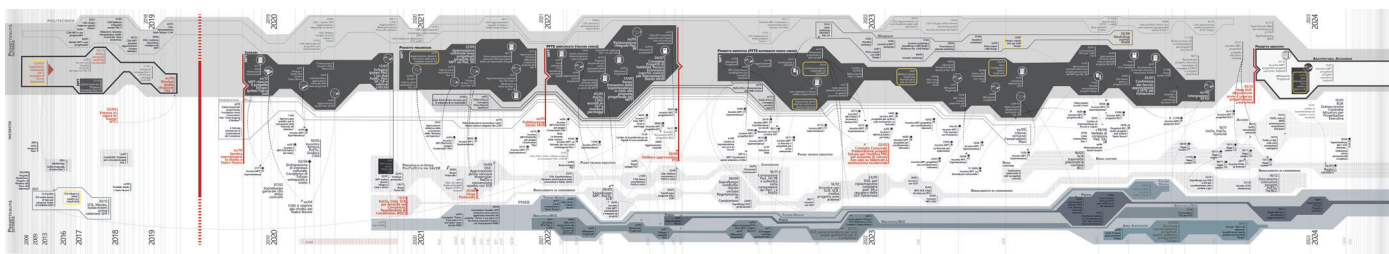
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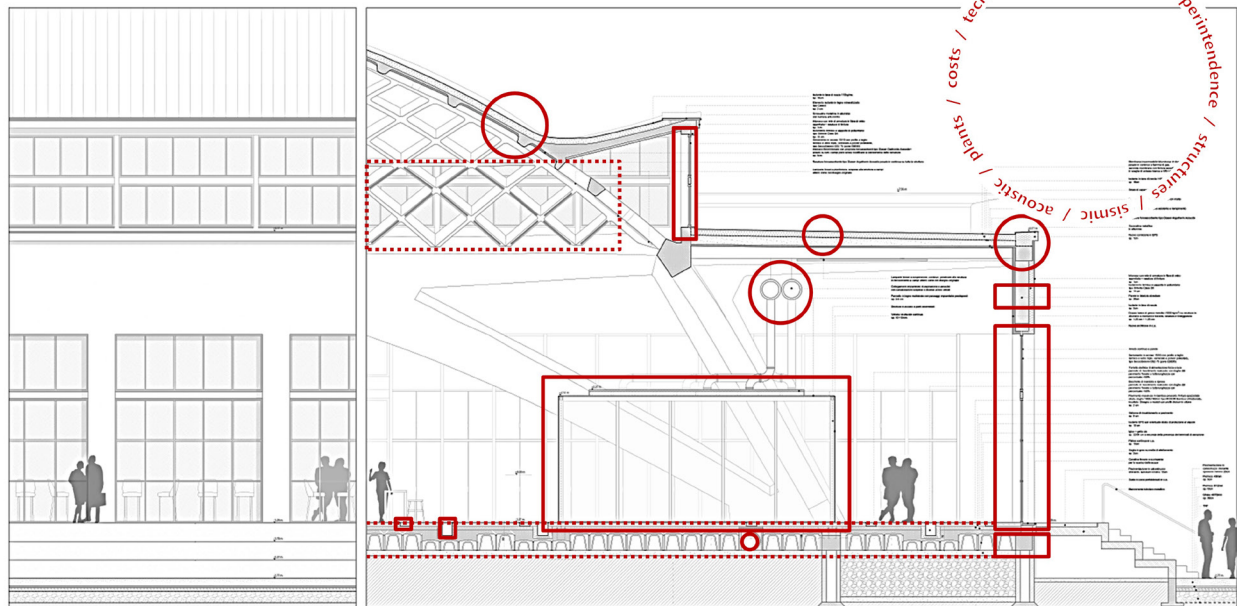


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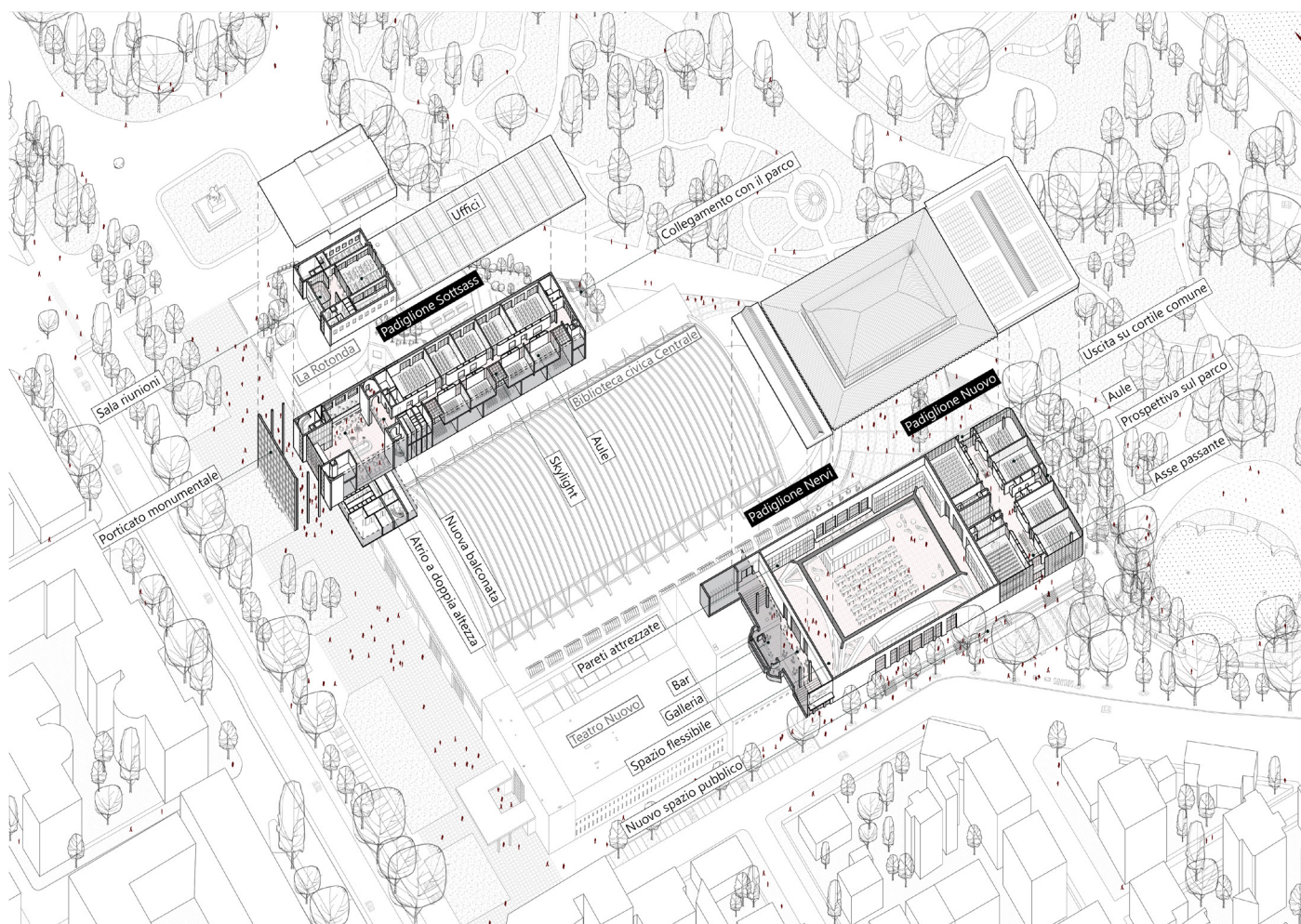


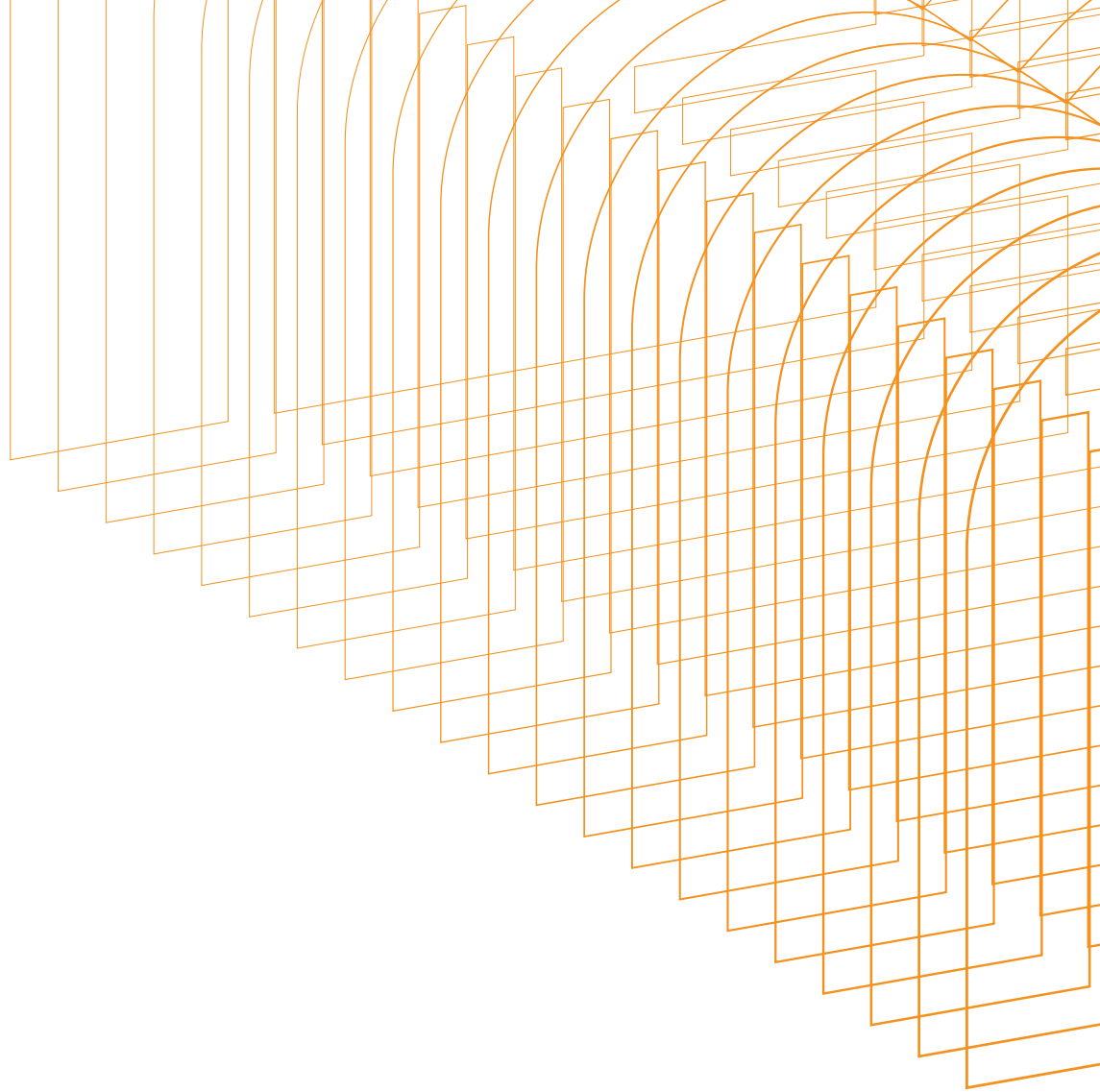
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## FROM ARCHITECTURAL ALLEGORY OF POWER AND PRIVILEGE TO DISSONANT LEGACY: THE 1960S GUEST HOUSES AND RESIDENCES OF THE CENTRAL COMMITTEE OF THE PCR THEN AND NOW/

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**Abstract.** As in most socialist republics, the residences and guesthouses of the Central Committee of the Romanian Communist Party (CC of PCR) were created by the party's internal administrations as unique architectural objects within the political representation circuit, benefiting from notable production during the years of modernist reconnection. Today, they embody a distinct chapter of the regime's architecture, challenging both the study of recent architectural history and their preservation, along with their place in the collective memory. The current contribution proposes a reevaluation of the CC of PCR's built legacy within the broader debate on dissonant heritage, considering the allegorical dimension arising from their past 'exogenous' nature. Questioning the factor of exogeneity, a radiography of the CC's residences and guesthouses' historical substance reveals a spectrum of nuances. On one hand, this can be interpreted through dichotomous values establishing a causal relationship between their architectural quality and the political context: as luxury objects, they diverge from ideological foundations and functionalist architecture, yet, as objects of representation, they stem from the core of political activity. Although designed at the margins of urban planning projects and outside state standards, they aligned somewhat with national architectural discourse during the relative liberalization of the 1960s.

On the other hand, the perspective of exogeneity provides a premise for expanding the discussion beyond the dissonant implications of socialist facture. The dissonance issue may be legible in the post-Revolution management of communist elites' heritage, varying between the Region and the Capital, whether through maintaining them in the protocol circuit, museification, or interventions enabled by their privatisation. However, their inherent secrecy, combined with architectural novelty and historical identity, supports a more allegorical understanding of this heritage, even within local communities.

Thus, these two attitudes will constitute the focus of the present study, which, by addressing the elusive aspects of socialist-era architecture, aims to add a new dimension to the research framework for reconciling with recent heritage.

**Introduction.** The issue of the architectural heritage of the Central Committee of the Romanian Communist Party (CC of the PCR) pertains to the relationship between politics and architecture in a specific context, described by Ana Maria Zahariade as "*occult architecture*". This term en-

compasses its atypical nature and its allegorical reinterpretation after 1990, despite its socialist facture. The historical perspective is framed by three features: the absence of a design brief, "*financial nonchalance*" in project investments, and exclusion from architectural publications [1]. Addressing these aspects highlights the need to refine interpretive frameworks, focusing on deconstructing the exogenous nature of CC objectives and identifying points of alignment emerging in the preceding decade.

The ambivalent status of luxury and representational objects highlights a correlation between socio-political hierarchy and the enclosed creative environment shaped by the Soviet model. Despite claims of equality and anti-imperialist rhetoric, party residences represented objects of privilege, reflecting the Leninist belief that "*state-provided housing was not a concern for leadership*" [2]. As the political apparatus consolidated under Stalin, "*special*" residences became creations of the CPSU's Department of Internal Affairs. Following this model, the PMR's Central Committee defined its housing stock largely through requisitions and nationalizations, establishing its Party Household Construction Sector in 1950. Socio-residential enclaves were created in neighborhoods once occupied by the bourgeoisie, such as Jianu and Dorobanți in Bucharest. Additionally, legal outlets were created in 1952 allowing excedentary residential space for dignitaries [3]. The special status was later introduced under the 1958 authorization of construction laws, placing the Political Bureau's projects directly under the Ministry of Internal Affairs, bypassing local councils [4].

On the other hand, the "*occult project*" of the 1960s preceded its convergence with state architecture during the Black Sea Coast's early systematization phase, coinciding with the revival of the modernist direction. Testing marginality within mass-tourism urban planning and resorts, villa commissions in Mangalia and Eforie Nord marked the beginning of long-term collaborations between the Party Household Administration and ISCAS architects in 1956. These collaborations facilitated the assimilation of Central Committee residential and guesthouse projects into the emerging architectural direction. Far from a purely domestic domain (guesthouse programmatic nuances will be detailed later), CC of PMR's project emerged amid a volatile architectural landscape, between housing standardization studies and unique designs.

These factors corroborate the 1960s closed creative phase under Dej and Ceaușescu. By 1965, distinctions emerged between the architectural heritage of the central apparatus—focused in Bucharest and along the Black Sea Coast—and regional counterparts. These historical aspects inform part of the allegorical framework for interpreting the relationship between architectural discourse and historical events.

**The occult project of the "Center" between representativeness and duplicity.** The creation of accommodation spaces became significant after the PMR Central Committee's political repositioning in 1958, following the Soviet troops' withdrawal from the RPR. This period marked a phase of cohesion for the political group and reinforced loyalty to Gheorghiu-Dej [5]. Beyond the PMR's 3rd Congress in 1960, which strengthened economic planning as a means of projecting the Party's commitment to national interests, Gheorghiu-Dej assumed a dual role



as leader of both the Party and the State in 1961. These events reinforced the national leadership in the early stages of a gradual break with the USSR, that described a new phase in foreign policy. Therefore, housing in the Capital, the power center, served a dual purpose: material reward emphasized by the end of the practice of living in a superior's house after 1957 [6], and representation through diplomatic activities in the tense external context. Between 1962-1964, Dej commissioned villas for Political Bureau members within Jianu quarter and proximity of the Capital, such as Snagov, exempt from urban planning resolutions. Following the Seaside episode, Cezar Lăzărescu became 'Dej's trusted man' [7], and, along with other ISCAS architects, was chosen to collaborate with the Household. Thus, the approaches reflect a continuation of the modernist experiment on a smaller scale in two ways: one derived from space-structure, synthesizing the coastal exercise into villas in secluded areas like the Floreasca Peninsula, and another with 'opaque approaches,' characterized by a more austere language and adaptable partitioning, primarily applied to villas on major streets (Kalinin intersection - Leonte Răutu, Primăverii 17 - Emil Bodnăraș, Primăverii 48-Ion Gheorghe-Maurer).

Despite their cyclical role within the party-state apparatus, the residential projects facilitated direct collaboration with future users, restoring the *"fundamental quality"* of individual design practice lost after the institutionalization of the profession. In contrast, the standardized state projects focused on sociological considerations aimed at social homogenization [8], further compounded by the rationalization of living spaces (under 7 sqm between 1962-1965) [9]. Significant financial resources were allocated to these projects, with materials sourced from beyond the Iron Curtain for the First Secretary's residences. Custom design solutions, such as a glass stair made by Saint Gobain for one of the Lac villas (1962, arch. Cezar Lăzărescu, arch. Anca Borgovan) [10], were employed. This trend reached its apex in projects like the P-50 villa (1964-1965, architects Aron Solari Grimberg, Robert Voll, engineers Luigi Corra, Mircea Solomon), designed for Nicolae Ceaușescu during the leadership transition. Breaking from the era's architectural style, classical elements were applied to a functionalist base design, distinguishing it from elite villas through its unprecedented costs, further enhanced by the level of detail.

After 1965, under the same premises of promoting political loyalty to new leadership and distancing from the old guard, Ceaușescu's secretariat maintained material rewards and control through proximity. The capital's enclave barrier was reinforced by restricting access to the later named Primăverii district, where new villas were built for the political elite on streets like Aviatorilor (arch. Constantin Rulea, Sebastian Moraru, late 1960s), Pictor Negulici, and Moliere [11]. Meanwhile, projects initiated outside the capital suggest a shift of interest toward expanding the space for political representation. Early plans for seashore resorts north of Mangalia, outlined in H.C.M. no. 1280 (1966), were launched under the dual management of the Ministry of Construction (ISCAS) and the Party's Household, leading to the first elite resort complex in Neptun. Previous examples of vacation villas had been purposed peripheral to resort plans, but the new complex aligned with Khrushchev's Soviet 'resort diplomacy' model in Crimea, later continued by Brezhnev [12]. Both in the capital and

on the coast, the modernist language of the villas was replaced by larger forms, employing brutalist approaches or softened by vernacular elements [13]. Cantilever beams, concrete gargoyles, wooden shutters and terrace details were notable. However, the first stage of Ceaușescu's *"apparatus residences"* coincided with a general liberalization phase, particularly after Decree 713 (July 21, 1967), which permitted private housing construction. In this context, regional DSAPCs tentatively explored regional expressions, especially in standard housing projects [14].

**The emancipation of the guesthouse project in the Region.** The quality of materials, spatial dimensions, and organization preserved the excesses characteristic of their purpose, even compared to contemporary examples outside the Eastern bloc (e.g., the FRG chancellor's villa in Bonn, arch. Sep Ruf, 1968). Adapted to the user's status, these features included filtered access, a hierarchy of living, work, and night areas, and expansive service zones. Overemphasis on layouts included private bathrooms, apartments, and integrated leisure spaces. This functional logic and expressivity qualified several residences of the old political guard, such as the Lac villas or the Kalinin villa, for conversion into guesthouses. This reallocation, later managed by the Representation Sector, extended to some villas conceived in the late 1960s [15].

This adaptability became evident in the early 1960s, as noted by Aron Solari Grimberg: *"It was neither a dormitory nor a hotel but a construction with a basement, ground floor, and upper floor, featuring small apartments above and service rooms below. The building was intended for Communist Party activists or affiliated organizations, supporting the 'neo-bourgeois-landlord' administrative apparatus at the top"* [16].

The creation of guesthouses became particularly prominent regionally, reflecting Ceaușescu's political strategy emphasizing *"collective leadership."* Before the PCR's 9th Congress in June 1965, this approach was bolstered by the General Secretary's visits to the major provincial cities. Following this episode, the Central Committee authorized, starting in 1966, Regional Households to commission guesthouse projects in the regional main cities. For the design CRs subcontracted DSAPCs. Projects for the Regional Councils (CR) provided architects with opportunities to explore personal architectural-plastic interpretations within the emerging framework of *"national specificity."* In this early phase, Nicolae Porumbescu's guest house in Suceava exemplifies these explorations, experimenting with wood, stone, and concrete within a distinctive formal vocabulary, reflecting the architect's engagement with the *"stylistic matrix"* of northern Romani through a brutalist lens. Yet Porumbescu critiqued the *"garishness"* of vulgar interpretations of national art [17]. Although detailing often served as a platform for individuality, certain projects, such as Liviu Niculiu's design for CR Bacău (1967), became grounds for assessing structural expressivity. The elevated volume housing day spaces and private apartments engaged a mix of V-shaped pillars and oversized concrete beams - a recognizable vocabulary in unique public projects - with massive wooden joists. Despite its experimental nature, the internal technical committee praised the design for its *"originality in construction aesthetics, excellent functionality, and cost-effective engineering solutions"* [18]. Despite the inconsistency of plastic experimentation with the new regionalist

orientation, the use of interior elements, such as integrated artworks and wood, remained constant, as seen in the Japanese garden and the atrium of the Timișoara guest house (1968, arch. Aurel Sârbu).

While often used by regional leadership, these guesthouses primarily served representational purposes. On a smaller scale than those in the capital, they played a significant informal role in historical events, whether international, such as Tito's 1969 visit to Timișoara, or internal, like Ceaușescu and the Political Bureau's use of the Suceava guest house.

**Implications of inheritance.** Although the socialist framework often directs discussions towards the regime's trauma and its heritage's value in a democratic context, several perspectives shift focus to the perception of these sites' occult dimensions post-1989. This perception often links the dilution of socialist characteristics through architectural insolite with a historical disconnection between the masses and the political apparatus. This is now overlaid by a fascination with the remnants of Romanian socialist effigies and the gravitas of historical events and is further nuanced by questions of compatibility, particularly evident in the management of these properties post-1990. Following the 1989 Revolution, the National Salvation Front transferred the properties of the CC of PCR to "*state and Romanian people*" ownership [19]. Government Decision (H.G.) no. 115/1990 divided guesthouses and villas into two categories: those retained by central state authorities or repurposed for diplomatic functions and those transferred to local administration [20].

Subsequent decisions, such as HG no. 567/1993 and HG no. 940/1996, placed residences formerly allocated to PMR/PCR Secretaries and the Political Bureau under the management of the Autonomous Administration of State Protocol Patrimony (RA-APPS), assigning them to high-ranking. Globally, official residences are an integral part of the political apparatus's convention, even when located in exclusive protocol zones, often maintaining a degree of public visibility. In contrast, those tied to the Central Committee apparatus remain largely conceptual in the public imagination, despite punctual public openings (villa Dante in 2012). This includes residences situated in the Floreasca or secluded areas like the vanished Scroviștea Palace site and Snagov. While these properties serve representational purposes during historically significant events (e.g. Emmanuel Macron's 2017 visit to Vila Lac 3), modernization intentions are ambiguously reported in the media. However, the current status guarantees the allocation of substantial resources for their upkeep. This is occasionally evident in minor external updates, such as fenestration, as observed in properties on Turgheniev Street.

However, interventions under RA-APPS often highlight controversies that transform the mythical character of urban enclaves into reflections of post-communist elites. A recent example is the 2024 modernization and repartitioning of Aviatorilor 86. Functional continuity occasionally favors architectural preservation, as seen in post-1990 embassy conversions, such as villas at Moliere 13 or the Kuwait ambassador's residence at Aviatorilor 100 (formerly allocated to Iosif Banc and János Fazekas). By contrast, minimal domestic features have been removed, like Emil Bodnăraș's former residence, now a diplomatic institute. Unlike other

villas in proximity designed in the same period displaying slight finishes' degradation, Aviatorilor 100's alterations include façade-mounted antennas and temporary structures, like guard booths, that disrupt its urban presence, despite villas typically integrating such facilities.

**Appropriations and new significances.** The inheritance of functions often supports marginality and mythologization through state security, while their alienation complicates the reception of this heritage in collective memory. On one hand, museification amplifies the allegorical weight linked to the former leadership in the capital, as a focal point of political avatars of modern Romanian statehood. The 2015 public opening of Ceaușescu's villa on Bulevardul Primăverii 50 can be seen as a formal rejection by the post-revolutionary state. One factor is the villa's historical status as an extension of the dictator's portrait, objectified through cultural activities on totalitarianism [21]. In other countries, similar occurrences took place outside capitals, like Stalin's villa in Abkhazia or Tito's Villa Brijuni, part of local cultural heritage. Beyond reevaluating the ideological burden or trauma, the villa remains a symbol of system duplicity in collective memory, "*unmasked*" after 1990, when some nomenclature members left and villas were opened to the public, yet perpetuating the myth of communist elite opulence.

At a regional level, the value of local heritage is questioned by stochasticity. Although HG no. 115/1990 placed guesthouses under local council administration (Annex 3), some were privatized. Among those preserved, some were integrated into the cultural circuit, becoming local landmarks, such as the Bacău guesthouse, a cultural center since 1990. Except for the degradation of wooden elements and stone cladding and some AC systems installed on façades, the building's aspect was preserved, and most interior features, from coffered ceilings to presidential apartment doors, remain original. The only significant intervention was converting the bowling alley into an art gallery, with the linoleum floor replaced by ceramic tiles. Privatization raises concerns about arbitrary interventions and destruction, such as the 2019 demolition of the Iași villa for a private investment project [22]. In many cases, commodification has led to properties being maintained within touristic circuit, like the Suceava villa, where both architectural features and interiors were preserved. This issue has been noted in recent positive governmental heritage management examples from former socialist states, like the 2016 restoration of the K-2 dacha in Saint Petersburg (arch. Alexander Zhuk, 1971), following a series of interventions [23]. The local value, however, is increasingly undermined, as seen in Timișoara, where a villa adjacent to the central park and C.D. Loga Street became a ruin after finishes were stripped in 2007 for a rehabilitation and extension project that was never executed.

**Conclusions.** Despite being framed within the unwritten, exogenous architecture of state projects, the CC of the PCR's villas and guesthouses represent a significant part of the historical architectural landscape. Their significance lies not only in their alignment with the polarized search for modernist directions and regionalist reorientation but also in the contrast and duality they establish within the political context, being products of a parallel environment to that of design institutes or even reflecting the specific considerations of the political function that led to their urban

marginality. What I refer to as an allegorical character is a cumulative history, partially unwritten, often carrying an oral quality that architecture aims to express. This emerges from my research process, which shifts what should be a study in architectural history into a multidimensional investigation, linking its origins to the political context and current conditions and ownership of this heritage.

Moreover, continuity demonstrates that most of this architecture is not meant to be trivialized, but rather maintains its symbolic value within the state's domain. This is further emphasized by the evolution of terminology and its significance, particularly reflected in the shift to the concept of “*protocol residence*”. The term “*protocol residence*” was not used in Romania during the communist period. Instead, the PCR adopted the Soviet-derived phrase “*special villas*” (which later became “*gosdacha*” in the USSR). However, preservation in cases of commodification and privatization is not guaranteed, despite the acknowledgment of their local value. This issue places the CC heritage within a broader analysis of the regime's legacy and growing interest in the reevaluation of postwar architectural discourse.

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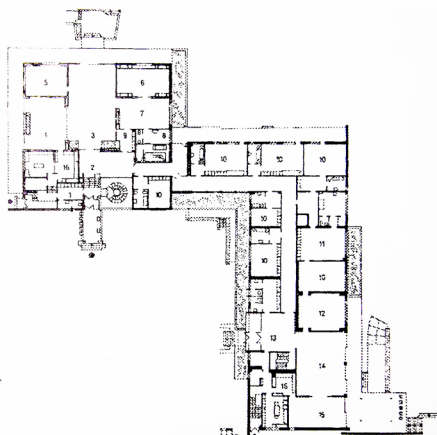
## Figures.

- FIGURE 1 – Groundfloor plan of Lac 3 villa. Ileana Lăzărescu, Georgeta Gabrea, Vise in piatra. In memoria prof. dr. arh. Cezar Lazarescu, București: Capitel, 2003, p. 221.
- FIGURE 2 – Primăverii Palace – livingroom, 2022. Personal archive.
- FIGURE 3 – Villa on Moliere street, 2023. Personal archive.
- FIGURE 4 – Collage of details from the execution project, 1966. County Council of Suceava Archive.
- FIGURE 5 – Back courtyard arranged as an outdoor exhibition space at Bacău guesthouse, 2024. Personal archive.
- FIGURE 6 – Atrium of the guesthouse in Timișoara, 2023. Personal archive.



1.

1. garderobă;
2. hol;
3. cameră de zi;
4. sufragerie;
5. birou;
6. dormitor principal;
7. salon;
8. baie;
9. dressing;
10. dormitor+baie;
11. salon mic dejun;
12. birou;
13. hol acces;
14. hol primiri;
15. sufragerie,
16. bucătărie oficiu



2.



3.



4.







## THE «MINOR ARCHITECTURE» IN HISTORIC TOWNS: PORTO VS BUCHAREST/

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**Abstract.** More than the few isolated monuments, the diffuse minor architecture is the one that determines the specific atmosphere of a historic town. A comparison between Porto and Bucharest points out different local minor architecture and, moreover, completely different attitudes towards it, also including various types of "*innovation within heritage*". This comparison is an opportunity to reflect on "*best practices*" regarding the minor architecture, considering its contribution to the local identity of a historic town.

**The «minor architecture».** The phrase «minor architecture» designates the numerous ordinary historic buildings that individually do not have any special cultural value (and, as such, do not have individual legal protection), but whose significance results from their co-existence in traditional urban areas. Most of them are historic dwellings, grouped in ensembles with a specific atmosphere: simply buildings that, over time, have always found their reason "*in the practice of life*." [1]

In the early 20th century, Gustavo Giovannoni spoke about major (or monumental) architecture and minor architecture (the rest of the buildings). He differentiated "*major*" from "*minor*" architecture according to their historic, artistic, or social importance. Moreover, he considered that "*minor architecture*" as a whole (i.e. the urban context of a historic town) would have a higher overall value than the principal monuments. [2]

Later, Roberto Pane resumed this idea affirming that the distinctive character of a city was to be found not so much in the exceptionality of the singular poetic episode represented by a monument, but above all in the widespread environmental quality, or in the only apparently minor writing of the built environment, characterized by the shapes and colours of the local material culture. "[...] *it is not the few monuments that create the environment of our cities, but the many works that contribute to determining a particular local character*"[1].

In 1975, the European Charter of Architectural Heritage stated: "*Today it is recognized that entire groups of buildings, even if they do not include any example of outstanding merit, may have an atmosphere that gives them the quality of works of art, welding different periods and styles into a harmonious whole. Such groups should also be preserved.*" [3] These buildings represent what we generally designate as «minor architecture».

Besides their major architectural monuments, Porto and Bucharest have a particular living charm which reveals itself little by little when exploring the town on foot. In their historic neighbourhoods, there are many specimens of minor architecture which get cultural relevance just from "*their being together*" [1] creating an atmospheric landscape which

expresses local identity. But Porto and Bucharest are completely opposed as characteristics of the local minor architecture and, above all, in terms of attitude towards it.

**Porto.** In Porto, the sloping alley-woven historic centre, with rowhouses, small squares with laid-back vibe, and beautiful viewpoints, unveil the spirit of the place. The local minor architecture is composed by ordinary buildings with no intrinsic architectural value but contributing to the atmospheric landscape and creating background for the architectural emergences. In Porto, such modest buildings are consistently preserved and refurbished, even when their architecture is banal, and their obsolescence requires extensive interventions.

Observing closely the minor architecture in Porto, the poor quality of the materials and the longtime lack of maintenance leading to decay, is evident: their lifetime is currently exceeded. On the other hand, one can easily notice the difficulties to introduce modern comfort in narrow existing buildings with a restrictive layout. On the other hand, the continuous use is essential to preserve architectural heritage and minor architecture in particular: when affected by obsolescence and rejected by users, it has to be brought back to contemporary life requirements. Consequently, an overall interior restructuration often appears to be a rational design solution to ensure the decent contemporary use of these modest buildings, at the same time preserving their contribution to the specific atmosphere of a historic urban context. Practically, the conservation of the minor architecture in Porto concentrates on its most relevant values: the characteristics through which it contributes to defining the quality and cultural significance of a historic urban context. This means the preservation of the physical parts of the building belonging to the urban context too: the main façade and the volumetric configuration, also including traditional finishing materials and original colours. (FIGURE 1)

The positive results are visible in the coherence of the historic town. It is also to be noticed that, although radical, the Portuguese approach to minor architecture (conservation with overall restructuration of the buildings interiors) is in accordance with the principles of sustainable development in a broader understanding of the concept: it prevents the negative environmental impact of complete demolition and ex-novo construction, keeps alive the atmosphere of traditional built environments, provides a better quality of life and cultural vitality, helps stabilize communities and revitalizes the economy. (FIGURE 2)

**Bucharest.** Old Bucharest has its own charm that reveals itself when exploring the town on foot especially when you leave the grand boulevards and enter traditional residential areas. But Bucharest is a very different town. Without fortification walls, it grew freely in the territory, in an organic development coordinated only by internal rules, integrating Oriental and Occidental influences over time. Consequently, Bucharest is as an eclectic town, where various construction eras and architectural styles intermingle.

In the second part of the 19th century, Ulysse de Marsillac (a French journalist settled in Bucharest in 1852) was talking about "*the quiet neighbourhoods where the slightly monotonous life of the old Orient has taken*

*refuge. In these parts, almost all the houses are set in the middle of gardens, quite poorly maintained, to tell the truth. Some are still very beautiful, and the number of really elegant and rich houses in these neighbourhoods is increasing every day and gives these areas of Bucharest a charming look, which reminds a little of Auteuil and Passy or, if you prefer, Baden and the entertainment towns in Germany and Italy.”* [4] The same French journalist was suggesting a reason for the melancholy and desire to return felt by those who, coming from highly civilized countries, got to know this city: “[...] *if there was a country where you could find both the advantages of civilization and those of nature, wouldn’t you like to live there? Well, that’s what the city of Bucharest offers us.*” [4]

Nowadays, this particular character can still be noticed in some residential areas of the historic Bucharest. The stylistic mix, the low-rise houses alternating with gardens, the significant presence of vegetation, the winding streets and the green squares at crossings, characterize the old neighbourhoods. The minor architecture in such areas is mainly dating back from the late 19th – early 20th century. Even if modest in scale, these buildings represent material testimonies of a historically relevant urban civilization in this part of the world. Besides, their architecture is not devoid of artistic interest. (FIGURE 3)

Very few such buildings survived the massive demolitions of the 1970s and 1980s. At present, these minor historic buildings are again coming under threat from ignorance, contempt and aggressive real estate development. Some are arbitrarily transformed, getting strange, improper, shapes and colours. Thermal insulation with polystyrene, transferred from blocks of flats to historic buildings, is a new threat. Many historic buildings are abandoned and deliberately left to decay becoming victims of a sort of “*passive euthanasia*” or even “*helped*” to degrade at an accelerated rate, to justify their demolition for speculative interests. (FIGURE 4).

Above all, facadism is a growing trend in Bucharest and, in most cases, it is just the result of the desire to make the most of the land: the expression of “*the money-centric political and market forces shaping our cities*”. [5] Facadism is often a tactic used by developers to increase their profits in central historic areas, apparently avoiding demolition and loftily proclaiming that they have preserved the historic heritage. Sometimes they even claim the “*rehabilitation*” of the historic building from which only a facade was in fact preserved (or rebuilt!), adding on top of it a new building, completely out of local scale. One can find in such intervention many strange forms of “*innovation within heritage*” that have as a result “*totemic markers of a period in which real estate is the ultimate asset*”. [6] (FIGURE 5) This way, Bucharest is progressively losing its characteristic minor architecture in the pleasant neighbourhoods once admired by Ulysse de Marsillac and other foreign visitors. Consequently, the identity of the historic Bucharest is severely altered. Even in areas officially declared “*protected*”, historic buildings are demolished simply because they prevent the profitable exploitation of the land they occupy.

Afterwards, there are the disastrous effects generated by the new constructions replacing the demolished ones, designed with no respect for those elements that define the character of a historic area indicated by the

Washington Charter (1987) and brought back to attention by the Valletta Principles (2011) as elements to be always preserved even when renewing the buildings: “*a - Urban patterns as defined by the street grid, the lots, the green spaces and the relationships between buildings and green and open spaces; b - The form and appearance, interior and exterior, of buildings as defined by their structure, volume, style, scale, materials, colour and decoration; c - The relationship between the town or urban area and its surrounding setting, both natural and manmade; d - The various functions that the town or urban area has acquired over time; e - Cultural traditions, traditional techniques, spirit of place and everything that contributes to the identity of a place.*” [7]

The Valletta Principles also state that “*all new architecture should avoid the negative effects of drastic or excessive contrasts and of fragmentation and interruptions in the continuity of the urban fabric and space. [...] there is a danger that any reorganization of the lots may cause a change of mass which could be deleterious to the harmony of the whole.*” [7] But what happens in Bucharest is exactly the contrary, in an explosion of “*innovation*” whose ultimate effect is the cancellation of the character of the historic “*protected*” areas. (FIGURE 6)

Observing the current situation of the minor architecture and the historic areas in Bucharest, the comparison with Porto comes naturally, and is accompanied by sadness. In a completely different situation from Bucharest, the minor heritage in Porto – even modest and devoid of aesthetic values – is continuously refurbished and harnessed in base of consistent politics and strategies. Thereby the “*apparently minor writing of the built environment*” is integrated to contemporary life, and the “*widespread environmental quality*” is strengthened. [1] And this is very visible by everyone visiting the old Porto.

**Conclusions.** There is no doubt that contribution to the specific character and atmosphere of a place is the main value of the minor architecture and thus the main reason for its conservation. “*Like aesthetic feelings, an attachment to the ‘familiar and cherished scene’ is a very subjective emotion. Yet it is a bedrock of human identity, and we should dignify our attachment to, and need for stability in the world around us [...].*” [8]

In Porto, the minor heritage is not only preserved, but also used, promoted, and enhanced, and “*its economic, social and cultural values are harnessed to the benefit of local communities and visitors.*” [9]

In Bucharest, the minor architecture is despised and “*threatened by ignorance, obsolescence, deterioration of every kind and neglect. Urban planning can be destructive when authorities yield too readily to economic pressures and to the demands of motor traffic. Misapplied contemporary technology and ill-considered restoration may be disastrous to old structures. Above all, land and property speculation feeds upon all errors and omissions and brings to nought the most carefully laid plans.*” [10] Of course, sometimes replacements are necessary, but the new buildings should respect all those elements of urban setting which define the character of a historic area, clearly stated in the Valletta Principles; but in Bucharest these aspects are ignored.

A certain degree of public (and professional?) ignorance (and opportunism?) under-valuating the minor architecture in traditional neighbourhoods, is a noticeable problem in Bucharest and this situation facilitates



the speculative actions of developers (supported by architects) to the detriment of the character of the historic town.

As teachers, it is our responsibility to educate future architects and, through them, ordinary people too, in order to enhance the awareness of the community and its engagement with the built environment. The current students are the future architects who should consciously assume the role of competent and honest advisor for decision-making in the interest of the community. It must be recalled here an extremely necessary ethical component of architectural education. In an article published in 2008, Steven W. Semes was stating that *“a new conservation ethic is emerging, drawing together traditional architecture, new urbanism and historic preservation in pursuit of a built environment that is beautiful, sustainable and just. In the new paradigm, the architecture of our time will be the result of a critical engagement with the architecture of place, seen as a continuously self-renewing field of character and civility”*.<sup>[11]</sup> Semes's text describes an ideal situation where the architecture of present time would find its natural place in historic towns. But the path up there seems long and difficult, as the financial profit is a strong, addictive, drug and people mentalities are not easy to change. A first step would be a new ethic of the kind suggested by Semes, assumed, taught and encouraged by the schools of architecture and the personal model of the academics' professional practice.

On the other hand, the competent authorities should fulfil their mission of serving the public interest. The declaration *“On heritage as a driver of development”* adopted in Paris in 2011 by the participants of the 17th General Assembly of ICOMOS (which brought together 1,150 participants from 106 countries) reminded the public authorities that *“they are the guardians of the public interest and are responsible for the legal protection of the heritage in the face of the pressure on the land”*, at the same time emphasizing that they should *“give priority to restoring rather than demolishing heritage”* and *“place heritage at the heart of overall development strategies”*.<sup>[9]</sup>

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## RETHINKING WHAT EXISTS/

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**Abstract.** Architecture builds the city in detail. Space, whether urban, architectural or landscape, arouses such intense sensations and feelings that it inspires intellect and reason. However, those who experience the city of the present are often unaware of the archaeological, artistic and architectural heritage it possesses, and the need to consider the places and architecture of the historic city as historical-material-environmental permanences is becoming increasingly urgent.

Significant is the case of the former Church of San Lorenzo di Castello in Venice, which still stands today in its majestic grandeur; a place evocative of past events, in which echoes of successive generations and memories of splendours now faded remain. In fact, over time it has lost its formal and functional essentiality, thus becoming emblematic of a critical condition that often involves historical and especially religious buildings.

The uniqueness of this space also inspired the architect Renzo Piano in 1984, who created the temporary installation for Luigi Nono's Prometheus, a musical work recently revived on its 40th anniversary.

The increasingly evident phenomena of material decay and static instability made it necessary to carry out some preliminary investigations prior to consolidation and restoration work recently realized to reopen the building to the city as Ocean Space, a global center presenting exhibitions, installations, research and public programs to promote critical literacy on the Ocean and environmental protection through the arts promoted by the TBA21 Academy.

This, then, is the meaning of 'rethinking what exists': to give back its own modernity to a building anachronistically at odds with its real belonging to contemporaneity, demonstrating the need for a consistent change to survive in time and to return to fulfil a noble task that is now earthly, no longer spiritual.

The theme that manifests itself in its contemporary paradox, in a city like Venice - that is the essence of paradox - is today a necessity and primarily an opportunity: to build to preserve. The real contradiction of conservation, or rather of memory, is that it needs to change, just as it needs to repeat itself in order to be preserved.

**Introduction.** Venice, in its meaning as a city, is a work of art in terms of its singularity of shape, intrinsic characteristics and number of cultural assets. The management and protection authorities therefore have the onerous task of preserving and enhancing the artistic and architectural heritage. A case study is the deconsecrated Church of San Lorenzo di Castello, today Ocean Space/TBA21-Academy (FIGURE 1).

The main objective of the research on the most widespread topic concerning the reuse of ecclesiastical buildings closed for worship is to

investigate current issues such as the redevelopment, reuse and restoration of such buildings to return them to the city together with the values to which they bear witness. The intention was to define, through codified and analytical processes, the state of conservation of the Church, which was then followed by restoration work made by Tyssen Group to give new life to the space as Ocean Space, a global centre within which exhibitions, research and public programs are developed to promote a way of critical literacy on the Ocean and the environmental defence (FIGURE 2).

The architectural artefact as such remains an object of design experimentation in the academic didactic sphere, as a malleable space suitable for hosting performances, events, theatrical works and installations in an unfolding of sequences not only inside the building but also outside, extending to the homonymous Campo di San Lorenzo.

**The Paradox of Conservation.** Starting from a research work that keeps the project as conservation of architecture and that places itself on a level of interpretation of elements, signs and matter of which architecture is made, the need to consider the places and architectures of the historic city as historical-material-environmental permanence becomes increasingly urgent.

The question that manifests itself in its contemporary paradox, in a city like Venice, which is the essence of the paradox, is today a necessity and primarily an opportunity: to build in order to preserve. It is the paradox of conservation - that is, of memory - that characterizes the theme from which this work has begun, and as Salvatore Settis suggests - in his book *If Venice dies* - about the paradox of memory "*it is that it needs change, just as it needs to preserve and repeat itself*".

For this reason, the work presented here focuses on the physicality of the building studied, on the material, geometric and spatial assonances both inside and outside, on the stratified and contradictory solutions (of restoration, archaeological excavation and safety) that have followed one another over time and that have influenced, modifying them, the spatial characteristics of the building itself.

What emerges is the desire to preserve the meaning, not just the form, consolidating the role and function of an urban event, of a part of the city available for any collective use, in a dialogue between Old and New that passes through the inadequacy of an increasingly fragmented and divided culture, incapable of making a synthesis and questioning itself on how to revive the Old by practicing a contemporary architectural culture.

Starting from these assumptions, the research therefore proceeds by means of compositional figurations and constructive geometries that refer to the internal rules of the historical building, to its spatial character and to its iconic dimension. People who live in the present cities are often unaware of the cultural heritage they possess. Indeed, Salvatore Settis again writes that "*cities die in three ways: when they are conquered by a ruthless enemy, when a foreign population settles there, or finally when the inhabitants lose the memory of themselves*".



The city of Venice, so rich in monumental emergencies and yet so fragile and heedless of its own preservation and transmission to the future, can be approached to this last case. This is why the former Church of San Lorenzo di Castello, in its formal dimension, has been taken as an example of conservation through transformation.

**History of the church.** The Church of San Lorenzo is unique in its plan development, richness of decoration, articulated succession of stratigraphic sequences and complexity of the roof structure.

The first layout with three apses dates to the 10th century. Only later the church was enlarged to its current 17th-century form, with a single hall divided into two cross aisles by a passing structure consisting of three large arches with a monumental central marble altar (FIGURE 3). The uniqueness of this space also inspired the architect Renzo Piano in 1984, who, on the occasion of the International Festival of Contemporary Music, created the temporary setting-up for Luigi Nono's musical opera *Prometheus*, an event that was staged again in early 2024 to celebrate its fortieth anniversary, with a structure-environment re-imagined by Antonello Pocetti and Antonino Viola (FIGURE 4).

In the following years, the building began to show increasingly evident material decay and structural problems that made geological investigations prior to consolidation work essential, also involving the foundations. These operations inevitably entailed the removal of part of the interior floor, and archaeological excavations brought to light remains of mosaic decorations and foundations of the church's previous forms.

In addition, the consolidation of the roofing structures, which took place in the 1950s, may have changed the structural balance of the entire building, following the insertion of two pairs of pre-stressed reinforced concrete beams entirely cast in situ. This operation, *avant-garde* at the time, turned out to be a singular construction choice, constituting an additional point of interest for the building.

**Archaeological excavations.** The excavation campaign, performed by the Superintendence for Cultural Heritage, was carried out at the initiative of the city of Venice, owner of the building, as part of a broader context of restoration work in the church.

As described in Dr. De Min's studies, a sequence of different layouts emerged in chronological order starting from the 9th century A.D., when the complex was founded. This took place at the same time as the urban development of the city, which also included the foundation of the Marcian chapel and the Benedictine complex of San Zaccaria. The few remains that have been preserved suggest that the layout was originally articulated according to a plan with three apses, the main one rectangular and the lateral ones semicircular. A second construction phase almost certainly entailed the demolition of the first building and the construction, between the 10th and 11th centuries, of a new basilica with three naves divided by columns, with apses contained within the masonry of the rear façade, whose plan model can be traced back to the one widespread in the Veneto area from the 9th to 12th centuries. A subsequent building phase corresponds to the reconstruction, around the mid-12th century, of the previous building, which had been severely damaged by the violent fire that

destroyed much of Venice in 1106. The new church was built directly over the older one, respecting its layout, but it underwent substantial changes in the interior spaces, with the creation of a crypt, robust pillars in place of the previous columns and a dome at the centre of the two arms of a pseudo-transept raised over the side naves.

The distance between the four central pillars supports the hypothesis of the presence of a volumetrically raised transept and the dome or perhaps a polygonal *tiburium*, as Jacopo de' Barbari's 1500 map seems to suggest. However, it is not clear from reading the image whether the structure is a *tiburium* of small elevation or the tambour of an unbuilt or demolished dome, equipped with a canopy.

The main façade was provided with a colonnade in 1208; to this layout, which reveals transitional elements between the basilican and Romanesque shapes, belongs a mosaic floor covering the entire nave, some remains of which have been recovered from the excavation. The characteristics of the workmanship and the typology of the decorative schemes of the artefact show remarkable similarities, including stylistic ones, with the almost contemporary floor mosaics of the churches of San Donato in Murano, San Zaccaria and San Marco in Venice.

However, the demands of representation and the age of the church, as well as the rising water level and deterioration of the building materials used, led to its demolition and the construction of the present imposing building. Between the end of the 16th century and the middle of the following century, it was further transformed according to the new architectural and urban schemes.

Starting in 1602, in fact, San Lorenzo was divided into two halls, the first open to the worshipper and larger, the second reserved for cloistered nuns. The dividing altar is unusual because it is double-sided, allowing services to be held in both rooms. Only the façade remained unfinished, as evidenced by the brickwork still visible today.

**State of the Art.** The Church of San Lorenzo di Castello presented considerable conservation and static-structural problems, consequences of the inexorable passage of time and the actions of nature on the artefact.

The cognitive-diagnostic method used for the analyses, carried out mainly by sight or based on specific publications consultation, is divided into the three different components reading of stratigraphic sequences that made it possible to establish relations of relative chronology (antecedence-contemporaneity-posteriority) between the different material-stratigraphic units. Reading of material's phenomena degradation aimed at identifying its generative causes, and reading of the phenomena of instability underway, through the study of the manifestations of damage, was necessary to arrive at a concrete proposal for the recovery of the building.

It therefore becomes necessary to act by observing and design by knowing.

The analysis of the crack pattern essentially revealed two important phenomena of instability involving the load-bearing structure of the church. The first concerns the east wall, facing the canal, which is manifesting a slow mechanism of tilting outwards; the second concerns the plinths of the three arches of the central altar, which are slowly sinking due to

the excessive weight of the roof. This is due to the addition of massive prestressed reinforced concrete beams, the result of a restoration in the 1950s, when concrete was considered an avant-garde and versatile material.

The signs of the church's distress were already known during the last restoration in 2010, during which metal hoops with steel bars were also carried out: one at the height of the support of the wooden trusses (approx. 23 m) and one at the height of the impost of the nervometal vaults (approx. 15 m). Unfortunately, in spite of the remedies adopted, the crack pattern continues to be evident and to show further signs of structural failure.

**Considerations on the restoration project.** In having to rethink the Church of San Lorenzo di Castello, that is, finding ourselves interacting in a historical context with a pre-existence, it is necessary to take into consideration that moment of union between the outcome of the investigations linked to knowledge and the preparation of the operations of conception connected to that expression defined as cultural project.

By “*cultural project*” we mean the place of reflection within the project, where the relationship between the various possible theoretical approaches and what we are dealing with is brought into focus. The choice of theoretical direction is therefore not an *a priori* datum, which the designer imposes on the building, but the search for a harmony, a mutual adhesion between theoretical principles and the artefact as a restoration “*case*”. The theory must therefore be measured each time in relation to the work itself, not decided by the designer once and for all as a personal idea to be extended to all the cases that have to be faced. The cultural project is therefore prefigured as a necessary tool for the restoration work. Starting from the identification of the building's characteristics, with the help of the previously described methods of investigation, certain needs are identified, i.e. interventions aimed at resolving the problems that emerged following the first phase of analysis in order to express the expectations, specific to each case considered.

At the beginning of the research, the building seemed to have exhausted its vital aura and manifested itself in the state of a tampered ruin, at the same time as a broken construction site, interrupted by lack of resources. However, from the archaeological excavations conducted in it, signs of past childhoods, remnants of previous floor plans and volumetries different from the grandeur of the two rooms that remain today, appeared. These are elements that testify to the ancient value of this place and well represent the intertwining of natural and man-made action; the fragments evoke a past that comes powerfully to the surface and that still has much to tell.

The events that followed are symptom of a path, they cannot be ignored in favour of a return to a completeness that occurred in flashes at precise and isolated moments: while degradations and injuries are stains and wounds that make a building inimitable, irreproducible and for this reason worthy of interest.

The restoration project cried out for redemption, and this is precisely what the planned interventions were aimed at, so that San Lorenzo could at least partially have its revenge on time. The synthesis of the analyses is concretised in the identification of the ‘needs’ already mentioned, to be applied to the damaged structures and all the missing and degraded parts,

following a single thread of the conservative proposal, which focuses on the choice of a critical restoration. The ‘wrinkles’ of time are to be shown in the church, and for this reason the imperfections present are indeed integrated, but always trying to make the contemporary operation carried out evident, without distorting the monument.

In this way, San Lorenzo was able to regain its original wholeness and stability, respecting the architectural personality of the building and maintaining its current configuration as much as possible, while observing the practical requirements of structural and functional adaptation necessary for its conservation. Seeking the utmost respect towards the pre-existence, the reversibility of the intervention is still declared necessary, in accordance with the principles of critical restoration, to guarantee the eventual removal of the added parts without causing damage.

The work, whether of art or even more so of architecture, cannot disregard the effect of the inexorable passage of time. Time, whether architect, artist or second architect, depending on how one prefers to consider it, gives every piece of built architecture the character of an open work, giving it specific value and uniqueness. The designer can determine what colour the plaster will be, the type of windows, the texture of bricks, the roof frame, but cannot predict what the passing of the years are going to do, or where the golden patina of time will settle, speaking in Ruskinian terms.

The restoration project therefore finds itself having to compare the initial intention of the first architect with what time and nature have instead decided for the building. It becomes inevitable to reflect *hic et nunc* and to act by observing what is left, knowing the building's characteristics and its needs, understanding what it evokes and considering the expectations - in this specific case its destination as an exhibition space initially linked to the world cultural event of the Venice Biennale, later linked to Ocean Space.

In order to make the conversion into an exhibition pavilion possible, certain criteria in particular were taken into account, understood as a guiding thread of the restoration theory advanced in this context such as the tolerability of the intervention, through the choice of compatible techniques, but above all its legibility. It is the search for a “*syntony*”, between restoration work and place, which must translate into mutual attraction between the two components, intervention and building, without however confusing them by mimicry or lazy integration.

**Conclusions.** A spasmodic search for a state of finiteness that architecture itself may never have had proven therefore to be futile, risking losing its beauty and authenticity, that are result of the intervention of time, use and events. The project should embrace the balance that cannot be planned or foreseen, but is due to the natural succession of episodes in the history of an architecture, counteracting that incessant search for perfection, to which the work of art often cannot bend without ceasing to be a work of art. The intent becomes that of allowing the building to express its having existed in a given time and place, without undermining its genuineness. Here, then, is the meaning of “*rethinking the existing*”, giving back its own topicality to a building anachronistically at odds with its real belonging to contemporaneity.

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## Figures.

FIGURE 1 – The deconsecrated Church of San Lorenzo di Castello, today Ocean Space/TBA21-Academy

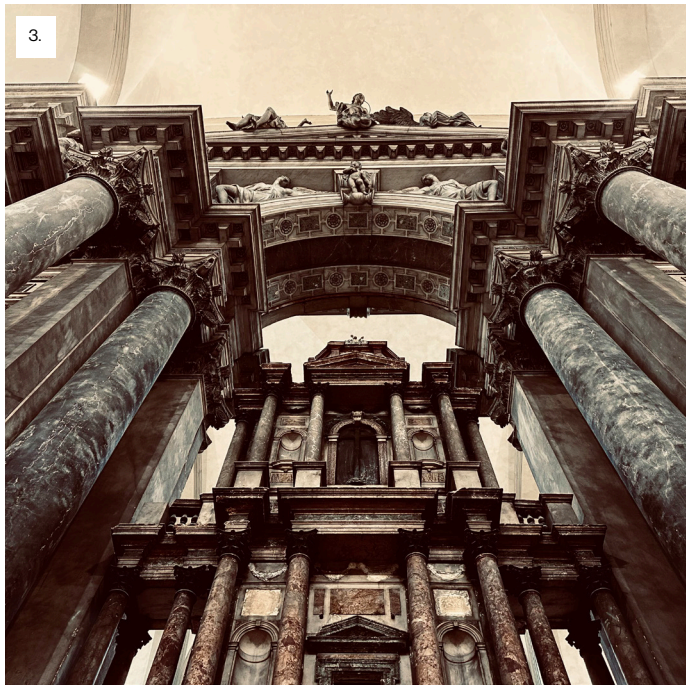
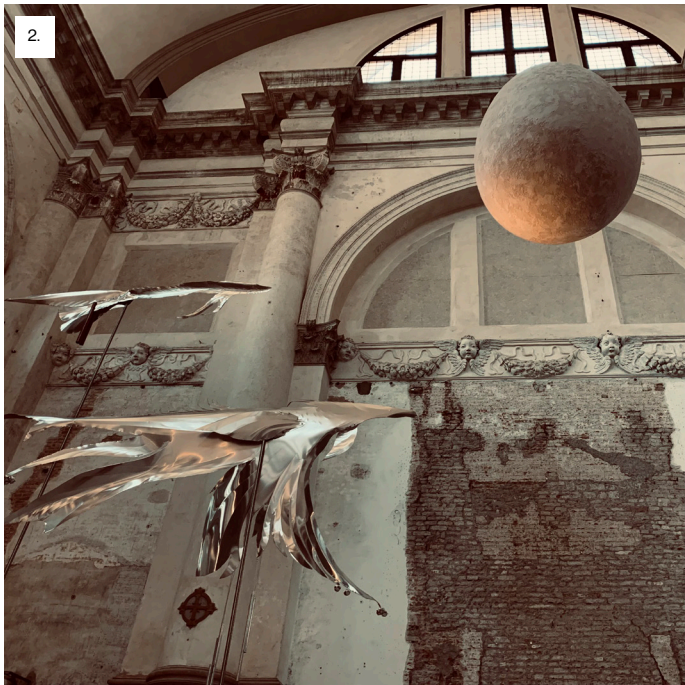
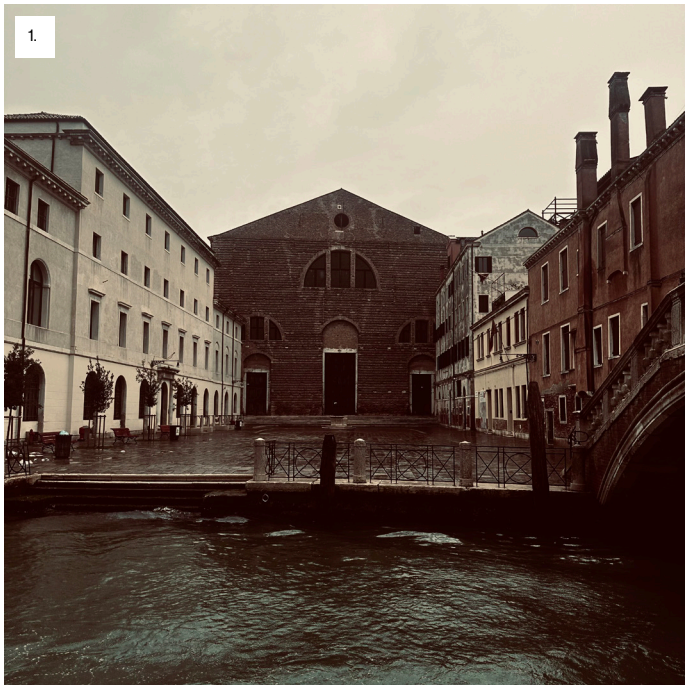
FIGURE 2 – Petrit Halilaj and Álvaro Urbano, *Thus waves come in pairs*, 2023

FIGURE 3 – The monumental central marble altar

FIGURE 4 – Luigi Nono's musical opera *Prometheus*, 2024

FIGURE 5 – *The Paradox of Conservation*









# MONUMENTAL RECONSTRUCTIONS IN FASHION SHOWS /

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**Abstract.** Within the frame of innovative exhibition practices intertwined with the contribution of creative industries, the paper focuses on fashion shows, scenography and scenic design. These examples of large 'ephemeral reconstructions' are magniloquent scenic tools for the success of the event, and also genuine museum and scientific devices that stage replica models of monuments or fragments of architecture that gain as much relevance as the collection itself. The contemporary project design for fashion events constitutes a paradigm shift concerning the theme of the project on the pre-existence and preservation of monuments, understood not as a direct intervention but as a cognitive tool in the form of scenic and interactive displays which may be seen as "*in-vitro*" reconstructions, in which the reconstruction of a monumental facies takes place thanks to the recomposition of architecture within controlled perimeters, understood both formally (i.e. large event spaces that accommodate the runway) and temporally (i.e. reconstructions that live the time of the unfolding of the event). An in-vitro reconstruction appears as an operation adherent to the reference form in which the reconstructed portion acquires the fullness of meaning by being perfectly adherent and recognisable to itself, with a minimum quantum of interpretive interpolation. The contribution formally studies these episodes of ephemeral reconstructions and how they contribute to developing a new exhibition model of architecture and monuments out of their context.

**Introduction.** The aim of this contribution is to highlight some relational dynamics that can be observed when architectural reconstruction interacts with the world of fashion. More specifically, when these reconstructions become the backdrop, and sometimes even active participants, in the events organized by fashion houses – runway shows foremost. In order to properly analyze these operations – which involve aspects of brand image communication as well as architecture, through the means and materials used to create these setups – it is necessary to start with some fundamental considerations and in-depth insights, which are addressed step by step in this contribution.

The first focus is on the role of knowledge transfer that can be attributed to reconstruction operations, through their individual processes. In this regard, particular attention is given to the processes involved in so-called "*in vitro*" reconstructions, where one or more parts of an architecture – of various scales – are reconstructed in an environment detached from the original, such as in a laboratory.

Having established the foundational understanding of reconstruction processes, the second focus is on the narrative systems used, especially in recent decades, by fashion houses, where the relationship between fashion

collections and cultural heritage, with particular emphasis on architecture, becomes increasingly evident. Architecture is involved both through the choice of specific locations and, as the focus of this analysis, through monumental reconstruction operations of architectural elements or entire structures. Despite some potentially negative aspects – such as the instrumentalization of places caused by the mere monetization of events – the attention is directed on the processes – ephemeral, above all – of interaction with cultural, architectural and monumental heritage.

The third focus is on the use of set design for the transposition of concepts within the scope of a show or event. Considering both the epistemic role of reconstruction operations and the potential of scenographic setups, it becomes clear that every reconstruction – and every set design that utilizes it – carries with it a specific set of contents and, potentially, meanings that enrich and shape the experience of the event. In this regard, at the end of the paper, several fashion shows (as case studies) are presented, specifically selected to elucidate some steps in this vast range of possibilities offered by the fusion of architectural reconstructions and fashion events.

Reconstruction as a cognitive tool. Whenever discussed as a tool for scientific investigations, reconstructive choices are linked to the satisfaction of emotional reactions and contextual reasoning linking the two dimensions of visible state of a monument and its invisible evocation [1]. Therefore if staged in an museographic oriented context, reconstruction is legitimized in dealing with interpretative solutions in the overall project design. Reconstruction of a building or a monument in a different and distant context does not attempt to falsify reality or the original state and historical or monumental values [2]; it is still the project of a new building, despite the historical forms, recognisable as such to contemporaries and identifiable as such in future generations [3].

In particular, scenography as an exhibition practice oriented towards different declinations for temporary or permanent solutions, in a borderline territory between distinct disciplines, opens up to contaminations from different areas of research. Nevertheless, scenography has always had a close link with architecture in that it represents a building or a portion of it according to rules of perspective [4], not only through the application of optical laws but also in accordance with the rules of architectural and spatial configuration of form. Architecture and scenography aim at creating a space; scenographic space is the illusory space of representation, a space that is constructed according to compositional rules proper to the discipline of architecture, articulating itself in a formal level that has a perceptible level of reality linked to its structure, and in a level of pure visibility, linked to its image. We speak of the relationship between scenography and architecture not only because elements traditionally belonging to the language of architecture are re-proposed on the scenic level, even in an ephemeral key, but above all because elements capable of composing and decomposing the scenic space are used.

The role of scenographic reconstruction is to bind these two dimensions, on the one hand examining the potential of the visual, spatial, material



environmental to shape performative encounters and to offer sites for imaginative exchange, and on the other as a means of receiving and communicating the artistic and architectural heritage, which, synthesised through selected and precise images, becomes a means of an immediate unprecedented experience of space. The contribution takes as its starting points reconstruction in a new expanded declination for stage design to analyse a wider notion of scenography as spatial practice.

“In vitro” reconstruction. From this perspective, scenography can be seen as a phenomenon of architectural reconstruction: the reconstruction of a form that is ‘extraneous’ to the container in which the event takes place, justifying its presence by narrative and compositional necessity. Scenography itself aims at the reconstruction, illusory or ideal, of the place in which a theatrical action sets up. For many years, the scenographer’s aim was to achieve an illusionistic construction for the spectator, who was emotionally involved in imagining himself in a reality different from his own. Therefore the peculiar case of fashion shows’ scenography may be investigated within the frame of ‘in vitro’ reconstructions which involve a paradigm shift in the field of ephemeral staging projects in relation to a pre-existing monuments, in light of their preservation and comprehension.

The term ‘in vitro’ is borrowed from the scientific language, which refers to biological processes occurring outside a living apparatus: in a laboratory, inside a test tube [5], and, in architecture, on a new structure. ‘In vitro’ process, therefore, takes place within an external system which allows in-depth studies. This kind of architectural operations represents one of the most debated issues, in fact it raises a crucial question about the authenticity related to the relocation and the visualisation of an architectural apparatus far from its original context. In light of an analysis of the temporal and figurative components of architecture, these reconstructions identify a form which is well-defined in a clear moment in time (e.g. the façade of a church or palace in a precise state of conservation) while the formal contribution can be interpreted even in an antithetical way: in fact ‘in-vitro’ reconstruction may appear, on one hand, adherent to the reference form (i.e. it is staged as it appears in the original context), on the other, the abstraction of architecture which selects only certain part of a wider environment may be interpreted as a project of invention, if not even as an ex novo project.

Actually, abstraction itself legitimates ‘in vitro’ reconstruction; when extracted from its context of origin, architecture acquires the status of a model in relation to a given image, recognised as existing outside the stage. Therefore the ambivalent relationship between monuments existing in external reality, permanent and stratified, and image-replica, vivified for the event alone, guarantees the authenticity of the reconstruction without any doubt of historical mystification. The origin of this practice can be traced back to the first ‘in vitro’ processes which took place in the 19th-century European cultural milieu in which archaeologists and architects conducted large excavations surveys in the area of the Mediterranean basin revealing traces of ancient settlements and monuments that later were re-assembled together in museum spaces with the desire to reconstruct architectural masterpieces of antiquity in their original dimensions, thus showing the actual proportions and giving the visitor an adequate sense of space.

Net of the political implications of these vast operations, interventions on compromised fragments and elements which lost their autonomous static function later recomposed allowed to regain a monumental facies within controlled structures (i.e. the case of museum displays) or in the urban and archaeological fabric (i.e. where an intact building or structure accommodates the recomposition of the fragments), therefore the cognitive and scientific issues legitimised the transport and relocation of fragments from the original fabric into new constructions.

One of the most exemplary cases of ‘in vitro’ reconstruction is the rescue of the façade of the church of St. Sebastian (Verona, Italy) and its recomposition on the unfinished fabric of the church of St. Nicolò. In the broader panorama of Italian post-World War II interventions, the historical events of this project concern the almost total destruction of the neoclassical church of St. Sebastian during 1945 shelling and the subsequent decision to dismantle the surviving façade and recompose the stone elements on the unfinished fabric of the near baroque church titled to St. Nicolò, within a spatial frame of architectural and monumental relevance. The operations eschewed any preconceived philological criteria, and the scenographic reconstruction of the surviving façade on an independent host structure is now presented as a didactic palimpsest; each layer is comprehensible in its formal sequence from the baroque structure to the neoclassical setting that opens towards the civic square.

The staging of a monument in a new environment thus acquires a status of truth that disregards history and its original conditions, reconstruction therefore reaches the true meaning of ‘exhibition’ which, from its original latin term ‘exhibere’, in fact defines a showing that is closer to the operation of ‘drawing out’, to ‘presenting’, ‘offering for viewing’, an operation of showing in which the action is assimilated to the result, in which the setting itself becomes the work of art [6]. By virtue of being a backdrop for fashion shows, these projects for monumental scenographies don’t aim to the same quantum of truthfulness which urban projects are endowed to, while actually existing in the ephemeral condition of stage and event-related necessities. Redefining a new value system between the set piece and its context/background implies the recognition of the scenographic architecture as a work of art, attributing to it a new exhibition value, whose function is no longer just to exist, but to be seen, made available for enjoyment [7].

**New reconstructions for new narratives.** Observing the major fashion events – what today would be reductive to identify as mere fashion shows – that the most prestigious maisons have put on in recent years, the desire to build a link with the world of heritage and, therefore, also with architecture, becomes increasingly evident.

Starting with the first presentations of clothes to potential customers that took place within the Parisian salons and moving on to some of the most famous shoots in places of great beauty (such as those of Dior at the Acropolis of Athens in 1951 and 2022), the relationship between the place where the collection is presented and the clothes themselves is becoming increasingly consolidated, in search of a communion of aesthetic values. Beyond the evidently existing economic dynamics and

the monetization of image return, the increasingly frequent choice by fashion houses to organise their flagship events in heritage sites seems to be driven by the desire to associate the image of their garments with that of the great beauties of heritage. These operations are not without criticism, particularly regarding the potential instrumentalization of places or their appropriation to carry out content and experiences entirely foreign to them. However, it is important to consider that these are always temporary and ephemeral operations, which, although they may at times detach from the true and authentic identity of the heritage, offer an interpretation confined to the course of an event – often, moreover, accompanied by economic or visibility benefits.

In the case of the Dior Cruise 2021, for example, the lighting setup created for the event was heavily criticized because it obscured the surrounding urban context. However, such criticism overlooked the fact that the lights are an integral and defining part of the very same context in its temporary dimension, during local festivals. The temporary dimension, in this sense, is not meant to be considered a “justification” but rather a fundamental key to interpreting ephemeral projects and installations [8].

When fashion meets heritage, sometimes the connection between a brand and a place is primarily linked to the proximity of the fashion house to certain places or cities of origin – as seen in the experiences of both Fendi and Valentino in Rome. Other times, the connection is directly related to the themes of the collection – as in the case of Gucci in the necropolises of Arles, where the theme of death and other funerary elements appeared within the collection. Or, in the case of Dolce & Gabbana at the Valley of the Temples in Agrigento, where architectural details stood out on the garments

We can thus say that the perfect scenography sometimes exists. While at other times, it is designed – or reconstructed. And in this latter case – when the scenography is explicitly created by proposing a total or partial reconstruction, but still a result of a designed concept, of architectural artefacts – the reflection on the design operation can take on even more significant nuances. Indeed, as previously illustrated, reconstruction is a tool of knowledge and, as such, is capable of conveying content and understanding.

It is particularly interesting to investigate how these issues intersect with the communicative goals of the fashion house and the fashion event – especially when these overlap with those of heritage. And therefore, what the added value of reconstruction is, and what its narrative role is within the event’s story.

Revisiting the concept of ‘in vitro’ reconstruction, we can assert that architectural reconstructions made within fashion events can belong to this category of reconstructions that reproduce architecture in a location far from the original, with the aim of creating a new narrative based on the scientific value of the entire operation. Similarly to what happens with ‘in vitro’ dynamics, the construction of a scenography that is both invention and reconstruction inevitably involves a new set of knowledge, which does not belong exclusively to either the values of heritage or those of the fashion house, collection, or fashion event. Instead, it belongs to the mechanisms and reflections triggered by the reconstructive operation, its realization methods, the quantity of elements involved, and the new interpretive perspective adopted.

By observing completely different scenographies, created in different contexts and eras for the setting of the same play, *Oedipus Rex* by Sophocles, we can focus attention on some fundamental design themes: the mechanism of transfiguration that allows the city of Thebes to be brought onto the stage, and the mode of representation adopted. In Vincenzo Scamozzi’s scenography designed for the inauguration of Teatro Olimpico (Vicenza, Italy) in 1585, the transfiguration mechanism brings on stage the “seven streets” of the city of Thebes, with highly detailed facades on multiple levels and architectural elements in the style contemporary to the project’s realization – and anachronic in relation to the original setting of the tragedy.

The mode of representation is absolutely central and dominated by the use of a perspective trick that intensifies the depth of the streets, which seems to pull the entire space of the theater, including actors and spectators, into the stage [9]. Indeed, the sixteenth-century scenography was not strictly linked to the unfolding or theme of the theatrical representation; rather, it tended to replicate an architectural space that became the background to a fixed urban reality, preferably of idealized ancient taste [10]. Differently, the scenography designed by Concetto Santuccio and Carmelo Minniti for the Greek Theater of Syracuse in 1958, the transfiguration mechanism reduces the city of Thebes to a single monumental entrance framed by two powerful walls, a sort of podium with a sequence of horizontal planes, ramps, and staircases leading to a colonnade of four cylindrical pillars, partially topped by an architrave and partially by a portion of a pediment.

The mode of representation is realistic in terms of the cyclopean texture detailing the lateral walls but decidedly essential in full rationalist style for the podium and monumental entrance, where the theatrical work effectively concentrates [11]. Also at the Greek Theater of Syracuse, a more recent scenography curated by Radu Boruzescu for the 2022 season takes the abstraction process to a much higher level, with the city of Thebes being synthesized into a single large staircase that serves as the backdrop for the entire scene.

Transfiguration and representation can thus be considered two design themes capable not only of shaping different scenographies but also of defining the audience’s experience, modulating interaction with the presented work, directing attention to the work, the actors, the scenography, but also to the existing “theater box.” And, clearly, of conveying different contents.

**Case studies.** The considerations presented so far about ‘in vitro’ reconstruction practice and the potential knowledge value of scenographic projects provide a useful set of references for investigating the experience of certain fashion shows that have included these design themes in their productions. This is especially true when considering the immense importance these shows have for brand communication – particularly when they engage with sites, objects, and representations related to heritage.

The analysis of these scenographic cases immediately draws attention to their intradiegetic dimension [9], where the audience finds itself first in a location-container, within which a second location-stage is set up/



reconstructed, linked to the narrative of the show and the collection.

In this regard, four emblematic cases were chosen, between 2009 and 2020, staged by the fashion house Chanel within the spaces of the Grand Palais in Paris: the Spring/Summer 2009 Prêt-à-porter collection, the Fall/Winter 2017-18 Haute Couture collection, the Spring/Summer 2017-18 Cruise collection titled “Modernity of Antiquity” – all under the creative direction of Karl Lagerfeld – and the Spring/Summer 2019-20 Métiers d’art collection, signed by Virginie Viard. Each case presents a particular scenographic selection of the monument staged, either opting for a totalizing and immersive representation of a space reconstructed in its full formal legibility, or a precise evocative abstraction where the study and understanding of the monumental system is entrusted to the presence of a few recognizable elements.

In the first case, the only scenographic element was the 1:1 scale reconstruction of the façade of the fashion house’s historic headquarters, located at 31 Rue Cambon in Paris. Thanks to a structure that expanded beyond the façade itself, declaring its temporary and ephemeral character. During the event, the models walked in and out of the building, creating a radical change in the perception of the building itself: no longer approached in a liminal way within the narrow streets of the 1st arrondissement, but rather from a frontal perspective, thanks to an unprecedented perspective avenue that allowed the full exposure of the entire façade [12], now appreciable in its rhythmic sequence, with a base and three tiers of windows, typical of late 18th-century Parisian architecture [13].

The second case – the Fall/Winter 2017-18 Haute Couture collection – was dominated by the presence of a reproduction of the Eiffel Tower, about 30 meters high, which rose from its powerful base towards the glass dome of the Grand Palais, disappearing under clouds of dry ice. Consistently, at its base was recreated a sort of public urban ground, with the audience seated on green metal garden chairs, while the models walked on a gravel runway, surrounded by green flowerbeds. The representation was so close to reality that it was astonishing, like a giant trompe-l’oeil of an open space inside an enclosed space [14]. Beyond the symbolic aspects related to the use of the Eiffel Tower in a show for a hyper-français brand, from an architectural perspective this reconstruction breaks the usual dimensionality of the space, bringing the entire city of Paris, personified by its tower, to the center of the stage.

In the case of the “Modernity of Antiquity” show, the setup focused on evoking the peristyle and cella of a ruined Doric temple. This was not a precise formal reference, but rather a collectively shared image of a classical scenario where the ruins themselves serve as both trace and testimony. Lagerfeld himself had stated, regarding the lack of a true historiographical ambition, that reality was not of interest to him and that his Greece was his own idea [15]. While not referring to a specific spatial experience, this reconstructive setup allowed to trace, through the rules and codes of classical architecture, a system of signs and proxemics: the show took place within the ruins of a Greek temple that established its own relationships between the interior and the context, regardless of its completeness or its reference to a specific monument.

The final case investigates the reconstruction of an otherwise invisible part: the system of rooftops and coverings typical of Paris. The Parisian urban landscape is inseparable from the presence of zinc, slate, verdigris-covered roofs, and small clay chimneys that emerged from the mid-19th century onward. The entire reconstruction of the rooftops of a city block reveals the compositional system of a part of the city otherwise hidden from the sunlight. The different levels of walkways, the different connections, and moments of continuity of mansard roofs belonging to otherwise distinct buildings at street level can only be understood when the entire system is reconstructed and reconfigured as a catwalk for the fashion show.

**Concluding remarks.** Monumental reconstructions staged for fashion events become ephemeral setups of ‘external’ artifacts, for which, however, there is a sense of permanence. This discrepancy opens up a comparison between the didactic nature of a precise reconstruction, which must refer to design tools and surveying methods specific to architecture, and its dreamlike character, where the needs of a short-term installation may allow for a higher degree of formal invention. Within the very particular category of fashion shows illustrated, where multiple layers of heritage and cultural values coexist – the places where events are held, the objects staged, and the collection presented – it is therefore possible to affirm that reconstruction not only serves as a cognitive tool but it also maximizes the communication of the values brought to light through the definition of a narratively effective and theatrically stunning design.

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## Figures.

FIGURE 1 - Detail of the new reconstruction setup of the façade of the Church of St. Nicolò, Photo by Pietro Brunazzi.

1.



## CULTURAL HERITAGE AS A COMMON SPACE/

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**Abstract.** This article explores the relevance of common space in the context of cultural heritage conservation, emphasizing the stimulation of collective memory awareness regarding cultural heritage. In their work, Michael Hardt and Antonio Negri argue that there are currently two main types of commons: natural commons and social commons, which they further subdivide into five distinct categories. Among these, cultural heritage is classified as an intangible common good of ideas and cultural products.

Furthermore, Stavros Stavrides explores methods to stimulate collective perception of cultural heritage, arguing that collective memory can be stimulated and reconfigured. These methods involve creating an emotional attachment of people to cultural heritage, thus facilitating increased awareness and a deeper appreciation of it.

The article employs a mixed methodology, combining the theoretical analysis of the works of Hardt, Negri, and Stavrides with empirical studies to investigate and verify the effects of methods that stimulate collective perception of cultural heritage. This approach involves examining public space projects where these methods have been integrated into the design process, demonstrating the importance of strategic use of common spaces to enhance awareness and conservation of cultural heritage. The conclusions emphasize that a strategic use of common spaces can lead to a deeper appreciation and conservation of cultural heritage.

**Introduction.** In the past two decades, interest in the concept of common space has grown significantly, alongside increasing concerns for the development of urban communities. This interest has emerged against the backdrop of rapid urbanization and population growth in major cities worldwide. In this context, the theme of community involvement in urban planning and development has become increasingly relevant, highlighting the necessity of active resident participation in decision-making processes related to the built environment.

Thus, the concept of common space has gained a more prominent presence in the discourses of architects and urban planners. Traditionally associated with the idea of collectively owned resources or spaces, common space is now reinterpreted as a way of perceiving and interacting with urban public space. It is no longer viewed as a static entity but as an artificial construct composed of knowledge, traditions, and practices, defined by the dynamics of human interactions and collaborations. [1]

In their work *Assembly*, Michael Hardt and Antonio Negri argue for the existence of two main types of commons: natural commons and social commons, which they further subdivide into five distinct categories. Among these, cultural heritage is classified as an intangible common good, consisting of ideas and cultural products. [2]

Therefore, this article aims to explore the concept of common space in the context of cultural heritage conservation, highlighting the importance of raising awareness of the collective memory associated with it.

**Common Space.** This re-symbolization of common space is reflected in the ability of a public space to become common through its active use by people. Through constant interactions, individuals develop an attachment to these spaces, which drives them to actively engage in or, at the very least, show interest in their management and transformation.

However, spaces are not inherently common; rather, they become so through a dynamic process of interactions and use. This process generates emotional attachment and community involvement, which are essential for the management and transformation of public space. Unlike other processes oriented toward a final outcome, the creation of common space represents an open process, characterized by continuous participation and constant transformation. Therefore, the primary goal lies in developing methods capable of stimulating and supporting this dynamic process.

**Methods of Stimulation.** In his work *Common Space: The City as Commons*, greek architect Stavros Stavrides proposes three methods to stimulate this process: defacement, image-thought spaces, and threshold spaces. Through these methods, Stavrides not only redefines the way we view and understand the city but also provides concrete tools to influence people's perception, enabling them to identify urban spaces as an integral part of their cultural heritage.

This article aims to analyze and test the hypotheses associated with the method of defacement. Stavros Stavrides argues that the process of creating common space can be facilitated through a shock to collective memory, a process he terms defacement. This method involves interventions that disrupt traditional meanings of public space, altering the representations that shape its perception. Through such interventions, the façades of buildings, places, or sites are blurred or completely transformed. More than mere physical modifications, these gestures create disruptions in collective memory, prompting comparisons between the initial state of the space and its subsequent transformation.

In some cases, it is demonstrated that collective memory can be illustrated and redefined through actions that reclaim public space, reinforcing it as a common good. [3]

In his research, Stavros Stavrides interprets collective memory as being closely tied to specific places where the community recognizes traces of past events. This collective memory perceives space as a repository of meanings, accessible to those familiar with navigating a place marked by socially recognized and accepted signs. [4] In his endeavor to define the concept of collective memory, Stavros Stavrides draws inspiration from Marc Augé's studies, which assert that memories are shaped through forgetting, much like water sculpts shorelines. [5] For Stavrides, this metaphor reflects a profound perspective: memory not only relates to space but also transforms and metamorphoses it.

*"We can thus use Augé's metaphor to actually describe the relationship of space and memory. Hidden in this metaphor might be a potentially interesting knowl-*



*edge: memory, while being contested, not only employs space but also transforms space. If it is always a matter of struggling to define the porous border between memory and oblivion, then space too is created through a kind of heightened awareness about the role that outlines play, outlines defined again and again in practices of appropriating, inhabiting and evaluating space. And it is on the spatial as well as temporal intermediary zones (like the beach in Augé's image) that the temporary meaning of spatial outlines is at stake."* [6]

Through this approach, Stavros Stavrides explores the logic of the specific memory process that contributes to the formation of these intermediary zones. He considers this distinct process to involve actions and gestures aimed at influencing the perception of public space, a process he terms defacement. Thus, defacement has the potential to temporarily transform public space into common space, generating forms of collective reinterpretation. To evaluate the effects of the defacement method, this article analyzes two public space projects, Rooftop Walk and The Podium in Rotterdam, designed by MVRDV. These projects integrate the method into the design process, highlighting the importance of strategically utilizing common spaces to enhance awareness and conservation of cultural heritage.

**Above the City: Rooftop Walk, Rotterdam.** A compelling example for verifying the effect of the defacement method in stimulating collective perception of cultural heritage is the Rotterdam Rooftop Walk project, created in the spring of 2022 by the Dutch architecture firm MVRDV. Essentially, this installation was part of a festival of the same name, reflecting a long-standing intention of the architecture firm related to the strategy of urban densification and the multiplication of urban spaces.

In an effort to “conquer” an otherwise inaccessible space, typically reserved for the private sphere, the architects transform and make available the rooftops of the city to its residents, thus redefining the boundaries of urban accessibility.

The architects argue that the desire to explore the city from above precedes the means by which this desire can be fulfilled. In this spirit, they designed a series of temporary, suspended platforms made of metal, connecting the rooftops of several buildings in the central area. [7] (FIGURE 1)

Therefore, the Rotterdam Rooftop Walk can be considered an act of defacement as it temporarily transforms the perception of buildings by radically altering the way people experience them. The installation not only adds a new dimension to the rooftops but also visually changes the appearance of the buildings, temporarily reconfiguring their aspect and significance within the urban landscape.

Visitors benefit from a spectacular perspective of the city from a height of 30 meters, with views overlooking one of Rotterdam's main streets. At the same time, they are offered a unique opportunity to participate in interactive activities spread over a 600-meter walkway. These activities include gardens, installations, innovative technologies, and original art exhibitions.

In this dynamic space, various artists, designers, and architects challenged conventions by imagining ways to integrate rooftops into the perception of urban space. Through this endeavor, the architects aimed to raise public awareness about the challenges of contemporary cities, initiating a spatial

discourse focused on climate change, the housing crisis, and the transition to renewable energy sources. (FIGURE 2)

The primary objective of the project—to change residents' perception of the city—was undoubtedly achieved through the collective experience offered by the panoramic perspective. The sensation of visually dominating the territory, the joy of exploring the city's geography together with others, and the sharing of common stories and histories most likely contributed to raising awareness of attachment to the city and its public spaces.

According to data provided by the organizers, the Rooftop Walk event achieved significant success, attracting over 200,000 visitors during its 32-day duration. This impressive number highlights not only the popularity of the initiative but also the impact that such urban interventions can have on people's perception of urban space. In this context, Rooftop Walk not only redefines how people interact with urban space but also amplifies awareness of their connection to the city they live in. Thus, the project contributes to the development of collective consciousness and the strengthening of a sense of belonging to the urban community.

In conclusion, the Rooftop Walk project by MVRDV illustrates the potential of the defacement method in raising awareness of attachment to the city and its cultural heritage.

**The Suspended Square: The Podium, Rotterdam.** Another relevant example that demonstrates how the defacement method can stimulate people's awareness of the city as a common space and as part of their cultural heritage is The Podium project. Designed in 2022 by the Dutch architecture firm MVRDV, this project consists of a temporary installation that provides public access to the rooftop of Het Nieuwe Instituut. Initially conceived to draw attention to the exhibition MVRDV: The Living Archive of a Studio, the project became a central element of the Rotterdam Architecture Month 2022.

After June, the space was transformed into a venue for community activities, offering people the opportunity to explore the city from a novel perspective and to reflect on their connection with the urban environment.

The shape of the Het Nieuwe Instituut building, designed by Jo Coenen, was temporarily altered by the addition of a 600-square-meter platform placed on the building's distinctive pergola. Access to the platform was provided via an external staircase with 143 steps, as well as through the exhibition on the lower floor. To enhance the visibility of the installation, the architects chose to paint the platform pink, making it a distinctive feature. [8]

During its operation, the installation hosted a wide range of events, such as concerts and children's camps, offering visitors a unique perspective of the city. At the same time, it facilitated new forms of interaction with the urban space, strengthening the connection between the community and the built environment. (FIGURE 3)

The installation radically transforms the perception of the Het Nieuwe Instituut building, not only through the addition of the pink platform but also by opening up a new perspective on the city. This temporary intervention disrupts the traditional meanings associated with the building, inviting visitors to reevaluate their relationship with this space. The process of deface-

ment redefines both the physical and symbolic dimensions of the building, creating a new dialogue between it and the community. (FIGURE 4)

Through this intervention, MVRDV recontextualizes Het Nieuwe Instituut, transforming it from a conventional cultural institution into a dynamic urban space that acts as a catalyst for common space. In this case, defacement goes beyond merely altering the building's form, extending its function and highlighting the potential of public spaces to be reinterpreted and repurposed to meet collective needs.

Thus, MVRDV not only temporarily transforms the appearance of the building but also redefines its rooftop, converting it into a common space accessible to all. This intervention initiates an ongoing dialogue between visitors and the city, encouraging new forms of interaction and strengthening the sense of belonging to a space previously perceived in a different way.

In conclusion, The Podium demonstrates how the defacement method can enhance people's awareness of the city as a common space and an essential element of their cultural heritage. By transforming existing urban spaces, as illustrated by this installation, new opportunities for experiencing and interacting within public space are created. Such interventions play an important role in fostering a sense of belonging and connection with the city and community, redefining the relationship between people and the urban environment.

**Conclusion.** In conclusion, the research highlights the potential of the concept of common space in the context of cultural heritage conservation, emphasizing the importance of raising awareness of the collective memory associated with it. While traditionally linked to the idea of collective ownership or the shared use of natural resources, a new manifestation of common space has emerged, re-symbolized as a way of perceiving and interacting with urban places and their cultural heritage. Thus, it is no longer understood as a static entity but rather as an artificial common, composed of knowledge, traditions, and practices—a dynamic outcome of interactions and collaborations between people. This re-symbolization suggests that a public space can become common through active use, encouraging people, through constant interaction, to become aware of their cultural heritage, develop an attachment to these spaces, and engage in their management and transformation.

However, cultural heritage, defined as an intangible common good composed of ideas and cultural products, does not automatically generate awareness but requires stimulation through various methods. The case studies of the Rooftop Walk and The Podium projects in Rotterdam have demonstrated the effectiveness of the defacement method in fostering this awareness. Nevertheless, the main challenge of such an ongoing process lies in developing innovative methods that support and amplify both community awareness and attachment to the city and its cultural heritage.

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## Figures.

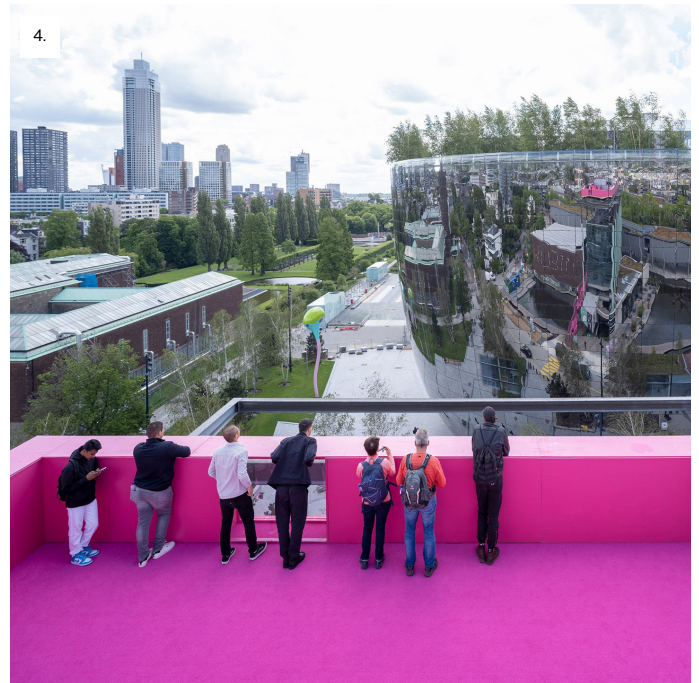
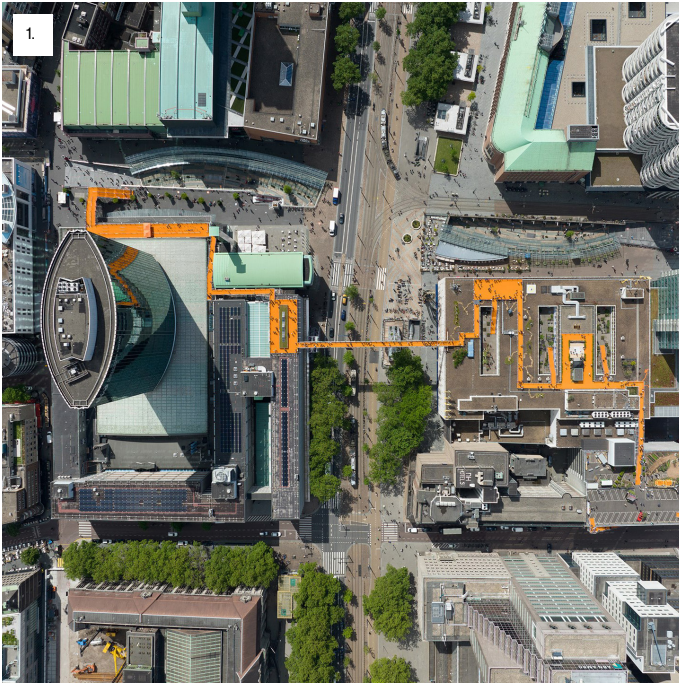
FIGURE 1 – Image Rooftop Walk, Rotterdam. Source: <https://mvrdrv.com/projects/857/rotterdam-rooftop-walk>

FIGURE 2 – Image Rooftop Walk, Rotterdam. Source: <https://mvrdrv.com/projects/857/rotterdam-rooftop-walk>

FIGURE 3 – Image The Podium, Rotterdam. Source: <https://www.mvrdrv.com/projects/878/the-podium>

FIGURE 4 – Image The Podium, Rotterdam. Source: <https://www.mvrdrv.com/projects/878/the-podium>







## A DIPLOMA JOURNEY/

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**Abstract.** A city is more than the sum of its physical spaces; it is a repository of individual and collective memory. As Italo Calvino beautifully stated, a city consists of "*the relationships between the measurements of its space and the events of its past*". Infused with our emotions and experiences, the spaces we live in become the places of our existence. Endowed with meaning, these loci are where our lives, social relationships and cultural practices are rooted. Based on a theoretical concept belonging to Professor Augustin Ioan -, a term that refers to those sites that already contain heritage information about their past, unfortunately hidden in the present and still waiting to be retold, we initiated, for the UAUIM Diploma Session 2024, a collective student research project that recalls an area of the former Jewish quarter of Bucharest. Starting from the memory of the sites and the generative element of the study - the Beth Hamidrash Synagogue - the project proposes an urban intervention that brings together a series of buildings (mostly architectural monuments located along Calea Moșilor) in a possible pedestrian route that will reactivate the Jewish quarter and that will today host functions appropriate for such a central area. Given the advanced state of disrepair of the buildings, the project starts with their restoration and also proposes a series of architectural interventions that will integrate them into the socio-cultural context of the city. The pedestrian route, detailed by specific morphological elements, will be the main element to coagulate the public interest in the area. The paper will focus on our one-year research journey, from the first moments spent on-site to the final Diploma Project defense (July 2024). Our architectural experience is described as an emotional and thought-provoking process that we went through together—tutor and students—not only to rehabilitate a part of Bucharest's heritage but also to unveil its hidden, silent memory.

**Introduction.** In Non-Referential Architecture — a text conceived by Valerio Olgiati and written by Markus Breitschmid — it is stated: "*the purpose of a building is to encourage people to think*", "*it is best to understand the building as an object that makes people creative*", and the building "*helps its occupant to construct sense*" [1] in what they undertake. Therefore, we can conclude that the thinking and creativity of people living in meaningful buildings bring added value, contributing to global development and evolution of our world. This could be one of the simplest yet most meaningful tasks of contemporary architecture.

Architectural education produces the future creators of such spaces. Teaching architecture is about cultivating deep conceptual thinking, pushing boundaries, and fostering creativity in design. Moreover, one of the biggest challenges of a diploma project is developing an original solution to a real-world architectural problem. The design must go beyond mere functionality, striving to be innovative, visually striking, and seamlessly integrated into its context.

Based on a theoretical concept that belongs to Professor Augustin Ioan - texterritories, a term that refers to those sites that already contain heritage information about their past, unfortunately hidden in the present but still waiting to be retold" [2] we initiated, for the UAUIM Diploma Session 2024, a collective student research project that recalls an area of the former Jewish quarter of Bucharest.

**Revival of Historic Jewish quarters.** Jewish quarters in Central European cities were historically vibrant centres of Jewish life, rich in cultural, religious, and social significance. However, the devastation of the Holocaust nearly obliterated the Jewish population in the region, leaving behind empty synagogues, cemeteries, and cultural sites. Under communist rule, the remnants of Jewish heritage were largely neglected. Many of these areas fell into disrepair, with buildings repurposed for non-religious uses or left abandoned. The suppression of religious expression by communist authorities further contributed to the erasure of Jewish cultural identity in the urban landscape.

After 1989, the collapse of communism opened up opportunities for cultural and historical projects that had previously been suppressed. Democratic governments began to recognize the importance of Jewish heritage as part of the broader cultural fabric of Central Europe. Since the early 1990s, there has been a growing focus on Holocaust memory and its historical sites, contributing to this renewed engagement. Numerous museums, festivals, and commercial venues have started to highlight lost Jewish traditions, making this heritage increasingly visible in urban landscapes. In many cities, Jewish religious and secular culture is now recognized as an integral part of local and national heritage, history, and identity, even in places where Jewish communities have dwindled or disappeared entirely.

The Kazimierz district in Kraków is one of the most notable examples. Once a centre of Jewish life, it fell into disrepair after the Holocaust and during the communist era. Starting in the 1990s, significant efforts were made to rehabilitate the area, restoring synagogues, museums, and cultural centres. The town was established in 1335 as a separate area from Kraków, initially not as a Jewish district. Jews were invited to settle here after being expelled from Kraków in 1495. Divided into two main parts — the Christian section to the north and the Jewish district to the south — by the late 15th and 16th centuries, the town became an essential centre for Jewish life, with many synagogues, study houses, and other public institutions being built. The district was incorporated into Kraków in the 19th century, leading to urban modernization, such as the building of new roads and squares.

The houses in Kazimierz were typically narrow and deep, reflecting the original medieval urban fabric. Many featured arcaded courtyards, with ground floors used for shops and workshops, while the upper floors served as residences. Public mikvahs (baths) were essential communal buildings. The district also housed numerous yeshivas (Jewish schools), hospitals, and charity houses, often built in a functional style to meet the community's needs. During World War II, the Jewish community of Kraków was decimated. After the war, Kazimierz fell into disrepair, with many buildings abandoned or poorly maintained. In the early 1990s, Kazimierz was considered the slum of the city.



Since the fall of communism in Poland, there has been significant interest in reviving Kazimierz's Jewish heritage. Major efforts have been made to restore and preserve synagogues, cemeteries, and historical buildings. The Old Synagogue now functions as a museum, showcasing the history of Kraków's Jews, while the Tempel Synagogue hosts concerts and cultural events. The Jewish Culture Festival in Kraków has become an annual event that attracts visitors from around the world. Today, Kazimierz is a vibrant district blending its Jewish heritage with a modern cultural scene. It has become a popular area for locals and tourists, featuring numerous cafes, art galleries, and cultural centres. It serves as a poignant reminder of the once-thriving Jewish life in Kraków, even though there is no substantial ethnic community to represent it.

While Kazimierz has experienced a cultural and tourist-driven renaissance, the Jewish Quarter in Bucharest is still in the process of rediscovery and far for its restoration. The two districts illustrate different paths of urban development and cultural preservation, shaped by their unique historical experiences and the impacts of WWII and subsequent political regimes.

The Jewish Quarter of Bucharest was a residential area situated on the left bank of the Dâmbovița River, with its central axis along Calea Văcărești and the beginning of Calea Dudești. During the interwar period, the Jewish community constituted the largest ethnic minority in the city.

The first documented mention of Jews in Bucharest dates back to 1550, when records list eight Jewish individuals, two of whom were noted as shop owners. The oldest part of the Jewish Quarter is believed to be the Popescu District (Mahalaua Popescului), located around the Sfântul Gheorghe area. By 1798, this district housed 155 dwellings.

The first synagogue in Bucharest was built during the reign of Constantin Brâncoveanu, but in 1715, Prince Șerban Cantacuzino ordered its destruction and banned the practice of Jewish religious ceremonies. The synagogue was eventually rebuilt after Prince Nicolae Mavrogheni restored religious rights to the Jewish community in 1787.

Following the Great Fire of 1847, the Jewish residential area expanded southeastward, extending to the Văcărești-Dudești area and along Calea Moșilor. After the unification of the Romanian Principalities in 1859, the Jewish population grew significantly. Ashkenazi Jews from Moldavia (originating from Poland and Galicia) settled near the Sephardic Jews along streets such as Sf. Vineri, Văcărești, Udricani, Mircea Vodă, Anton Pann, and the beginning of Calea Dudești. In the latter half of the 19th century, dozens of synagogues were built, mostly around Calea Văcărești.

The architectural style of Jewish homes introduced a new layout: dual-purpose buildings serving both residential and commercial needs. These structures typically featured a storefront on the ground floor or in the front rooms, with living spaces at the back. The built heritage of the Jewish community also included schools, synagogues, social institutions such as asylums and hospitals, and luxurious bank buildings owned by affluent Jewish families. During the interwar period, Bucharest's architectural landscape was strongly influenced by avant-garde works by Marcel Iancu and the modernist designs of Jewish architects like Marcel Maller, Rudolf Frankel, Jean Monda, Isak Mahler, Herman Clejan, and Boris Zilberman.

In the 1930s, census data indicated that Bucharest was home to approximately 70,000 Jews, a number that swelled to 140,000 during World War II due to an influx of refugees. Between 1938 and 1944, the Jewish population faced severe antisemitic legislation, leading to widespread loss of rights and social exclusion. Jewish properties were confiscated, professional practices were banned, and Jewish students were barred from universities and schools.

During the communist era, the Jewish Quarter was marginalized and neglected in terms of infrastructure and real estate investment. After the 1977 earthquake, the area became a target of Nicolae Ceaușescu's aggressive urban restructuring policies, resulting in extensive demolitions during the 1980s. This transformation erased much of the original architecture and drastically altered the street network.

Many synagogues were destroyed due to various historical events: some were set ablaze during the 1941 Legionnaire Rebellion, others were damaged in the 1977 earthquake, and still others were demolished under the communist regime in the 1980s. Today, only six synagogues remain in Bucharest, with just two still functioning as places of worship, representing the surviving architectural heritage of the Jewish community. Currently, the Jewish population in Bucharest is estimated at around 2,000, primarily elderly individuals, most of whom are retirees.

Calea Moșilor, previously known as Podul Târgului din Afară (The Outer Market Bridge), has been one of Bucharest's most important thoroughfares since its early days, even before the city's official founding. This road was part of a major trade route that connected the city to the eastern parts of the country, passing through Moldavia and reaching as far as Lviv (Lvov), as well as leading to the old ports of Galați and Brăila.

Podul Târgului din Afară began near the Royal Court, in the area known as Piața Sf. Anton, similar to other royal roads (Podul Uliței Mari, Podul Calicilor, Podul Beilicului). It led to the market outside the city, where Bucharest's animal fair took place. As the market was relocated to various locations (eventually to the current Obor area), Calea Moșilor gradually expanded eastward. The importance of this road can be seen in the Purcel (1789) and Ernst (1791) maps, where it stands out as the most densely built of all Bucharest's radial roads, a vibrant commercial artery filled with shops, taverns, and inns. It is no coincidence that in 1825, this road became the first paved street in Bucharest and had one of the first electric tram lines (1894-1899), connecting Obor Square to Sf. Gheorghe Nou Square and Cotroceni.

The changes between 1936 and 1943, following the adoption of the "*Bucharest Urban Planning Master Plan*" of 1936, extended Colței Street, which became I.C. Brătianu Boulevard, reaching the square at the foot of the Mitropolie Hill. This extension affected the cohesion of the old commercial centre of the city, splitting it in two on either side of the boulevard. Expropriations and demolitions led to the disappearance of many shops and stores. The completion of the final section of this new artery, between Sf. Gheorghe Square and Unirii Square, inaugurated on November 27, 1943, had a modernizing but also destructive effect. Some streets disappeared, while others were shortened (Gabroveni, Șepcari, Bărăție, Carol, etc.), disrupting the connection between Sf. Anton Square and Calea Moșilor.

Unfortunately, the war and the communist era halted the natural restructuring and development of the area. The systematization projects of the 1970s led to its decline. Between 1978 and 1983, part of it was demolished and widened, with old houses being replaced by 8-10 story apartment blocks. In contrast, the portion where buildings escaped demolition was neglected and fell into ruin. Altered built heritage, dysfunctions in property usage, and large unused residual spaces caused the accelerated degradation of this part of Bucharest's historic centre, which continued even after 1989.

**Texterritories. Between 53 Calea Moșilor and Sfânta Vineri Street.** Our diploma journey started last October, with a simple walking tour along Calea Mosilor. Liana Gavrilă, one of the students knew that somewhere in the area, hidden between the trees, there is a small abandoned synagogue.

The synagogue built in 1830 have an interesting history, but the most remarkable fact is that during the Bucharest pogrom (January 1941) it was burned and almost completely destroyed. Additionally, it is worth mentioning that among the 125 victims of the Bucharest pogrom, 11 people lived in the area near the synagogue.

Based on the historical significance of the site, we decided to develop a project that proposes an urban intervention. This initiative connects six buildings, mostly architectural monuments, into a potential pedestrian route aimed to revitalizing the Jewish quarter. The route, characterized by unique morphological features, is designed to draw public interest to the area. By integrating passages through buildings and interior gardens reminiscent of old Bucharest, the project aim to establish an alternative pedestrian path, away from the heavy car traffic on Calea Moșilor.

Considering the advanced state of disrepair of the buildings, the project began with their restoration and also includes a series of architectural interventions to reintegrate them into the city's socio-cultural fabric.

The first site is located at 53 Calea Moșilor. *"Unfinished Section Studio"*, Andra Urzică's proposal, focuses on the adaptive reuse of an abandoned, unfinished structure - a modern ruin - built in 1996. Rather than demolishing the building or allowing it to deteriorate further, the project aims to embrace its incomplete state as an opportunity for creative freedom and growth. The project offers a thoughtful critique of the modern obsession with completion and perfection, suggesting instead that unfinished spaces—like unfinished ideas—are ripe with potential. [3]

*"As I began researching for my thesis, I quickly realized this wouldn't be a typical project. This building symbolized a larger movement, and I knew I had to explore the concept of a modern ruin. This discovery launched me on an incredible journey, not just to design a structure but to rethink how we might reinvent spaces deemed unworthy of attention. In the end, I feel I've grown, not just as a designer but as a person. This journey took me through every stage of the learning process—excitement, fear, frustration, satisfaction, and joy. I wouldn't change a thing. It taught me that even though the path may be difficult, hard work, perseverance, and the support of my professor and colleagues, can lead to personal and creative growth."* Arch. Int. Andra Urzică

The second building, located at 84 Calea Moșilor and historically known as Neculescului Inn, has a rich architectural and historical background. Built in 1817, the building has undergone significant transformations in its function and appearance over time. Mădălina Rizon's proposal is to convert this historical structure into a Cultural Center with a multimedia hall in the basement—an excellent way to preserve its legacy while giving it a new, modern role. [4]

*"For me, the course of the project was an experience marked by strong emotions. The beginning was filled with uncertainty, but the confidence we had in the project pushed us to find solutions. As we progressed, we encountered both challenges and moments of joy, and the emotional investment in the project brought us closer, creating a bond that went beyond mere academic collaboration. Over these months, we learned important lessons together about perseverance, adaptability, and the importance of clear communication. The challenges we faced shaped our journey and taught us that success often comes from overcoming obstacles. Looking back, the experience was transformative, and this project became more than just an academic requirement; it was a profound journey of discovery, collaboration, and personal growth."* Arch. Int. Mădălina Rizon

The next building, Gheorghief House, located at 82 Calea Moșilor, also has a fascinating history. Hrisov Gheorghief, its original owner, was a Bulgarian merchant who later became a prominent banker and co-founder of Bucharest's stock exchange. He built this house in 1867 as his residence. Diana Pascu envisioned a School of Fine Arts and Good Manners here, presenting an intriguing way to breathe new life into the building by linking its past with an educational and cultural future.

*"I will never forget the day of our final presentation. After months of work, we gathered with our professor outside the university, feeling a deep sense of accomplishment. It wasn't just about presenting our findings - it was about the journey we had taken together, and the belief that our project had real potential. We had poured so much of ourselves into this work, and in that moment, it felt like we had achieved something meaningful. I genuinely believe that our project can serve as a source of inspiration for the rehabilitation of the area, and I hope, in some small way, we've left a lasting impact."* Arch. Int. Diana Pascu

The most significant site, encompassing the synagogue building, the structure at 74 Calea Moșilor, and the adjacent parking area, has been transformed into the Bucharest Pogrom Memorial. A brief history of the Beth Hamidrass Synagogue reveals its establishment in 1812, initially operating in a house basement before moving to a building donated by an elderly woman named Tanube. Constructed in 1830, the synagogue was destroyed in the Great Fire of 1847 but was rebuilt in the latter half of the 19th century. During the Legionary Rebellion, the synagogue was set on fire again, leading to its complete destruction. Tragically, 23 Jews attending a religious service were arrested and later executed in the Jilava Forest. The synagogue was restored in 1947 with a modified facade, but likely due to damage from the 1977 earthquake, it was converted into a warehouse in 1978. Today, the building remains closed to the public and is inaccessible for visits. As Liana Gavrilă points out, over time, urban gardens have become an integral part of Bucharest's built environment, serving as historical witnesses. These spaces should not be viewed as uncontrolled remnants but as areas with

potential—a void defined by its enclosures. This idea forms the foundation of her proposal, which reimagines such spaces not as empty voids waiting to be filled with meaning but as places enriched by the interactions and relationships of their users. (5)

*"My desire to study this site began at the start of the academic year with a walk along Calea Moșilor, where I discovered the Beth Hamidrass Synagogue. I didn't know what function I would approach, but I knew I wanted that site. What followed were weeks of research during which I experienced various emotions, primarily uncertainty.*

*It was the largest project I had undertaken in all my years of university, on a site that was quite difficult to manage, and for the first time, I started with no prior knowledge about it. Confidence came only very close to the end, when I started to see the results more clearly, and all the elements of the project began to come together. It was quite a long journey."* Arch. Int. Liana Gavrilă

From the commemorative public space, a system of passages will lead to Stela Spătaru Square, a very intimate place, formerly the site of the Stela Church, which burned down in the great fire (1847). Here stands the House of Guilds, completed in 1862 by architect Luigi Lipizer. Irina Melinte proposed for this site a multicultural bookstore. Since the courtyard of the building is adjacent to the courtyard of the Coral Temple, we could consider, why not, a pedestrian passage between these two public spaces. (6)

*"The development of the project was both rewarding and demanding. It required a careful balance between research and creativity, as well as a deep understanding of both the technical and cultural aspects of heritage conservation. Each step pushed me to grow professionally and personally.*

*I learned to navigate the difficulties inherent in working with historical buildings, adapting modern construction techniques to preserve and extend their lifespan while respecting the city's identity. In the end, what began as an experiment evolved into a deeply meaningful journey, a project that not only expanded my knowledge and skills but also strengthened my bond with a city. I am proud to be a part of."* Arch. Int. Irina Melinte

Crossing Sfânta Vineri, we find ourselves at Baia de Fier Street, where another historical building monument awaits rehabilitation. This street was originally named Lazar after the famous Taica Lazar, a Jewish merchant of second-hand clothes who became a landmark for street vendors. Here Alina Alexandru wants to propose a small commercial complex featuring recycled objects.

**Conclusion.** The communist period that followed the war amputated Bucharest's collective memory in two essential ways:

(a) the distortion of historical truth by erasing the notion of the Holocaust from the national historical chronology, and (b) the demolition, mutilation, or neglect of Bucharest's built heritage, particularly in the area of the former Jewish quarter. By the time of the 1989 Revolution, the city's collective memory was in a state of amnesia. Thus, our diploma project transcends the demands of a complex architectural proposal. Our urban intervention is meaningful not only because its concept, form, materiality, or spatial qualities align to create an experience that is logical, unique, and self-contained, but especially because its territories (Augustin Ioan's

concept) gain materiality through TerriStories (a pedagogical approach that combines the exploration of spatial atmospheres with social-spatial inquiry through storytelling), a term introduced by Klaske Havik, professor at TU Delft University of Technology. (8)

The city is a vessel of memory. *"Like empty shells on the shore after the sea of living memory has receded"* (9), the spaces we pass through daily are silently waiting to reveal their stories—this time, through the architectural vision of the younger generation.

### Acknowledgements.

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More information about the projects (site memory, concept, design, technical details, etc.) can be accessed through the references listed in the bibliography.

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8. K. Havik, "TerriStories. Literary Tools for Capturing Atmosphere in Architectural Pedagogy", *Ambiances* 5, 2019, <http://journals.openedition.org/ambiances/2787>
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### Figures.

FIGURE 1 – The multicultural route

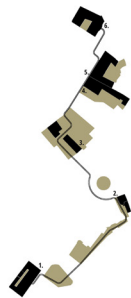
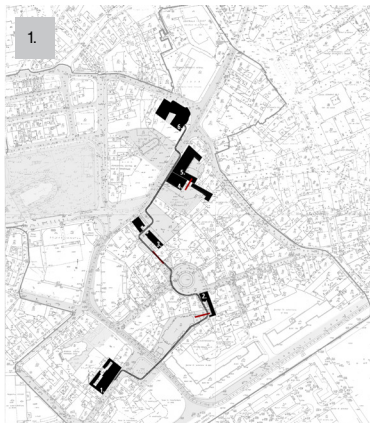
FIGURE 2 – A. Urzică, "Unfinished Section Studio" - interior perspective

FIGURE 3 – M. Rizon, "Revitalization of the Neculescu Inn" – courtyard perspective

FIGURE 4 – D. Pascu, "School of arts and good manners – Gheorghieff House" - courtyard perspective

FIGURE 5 – L. Gavrilă, "Memorial Museum of Bucharest Pogrom" - interior perspective

FIGURE 6 – I. Melinte, "The house with ogives" - interior perspective





4.



5.



6.



# ARCHITECTURE FOR THE ARCHAEOLOGICAL LANDSCAPES OF THE INNER BALKANS. NARRATIVE SEQUENCES IN THE RE-DISCOVERY PROJECT OF MUNICIPIUM S IN MONTENEGRO/

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**Abstract.** The theme of architecture for archaeology is at the center of a heated debate, within which recent orientations seek a response that tries to combine design, heritage and landscape, in order to re-signify forgotten archaeological fragments through the addition of a contemporary mark. The proposal to rediscover the countryside of Pljevlja moves from these premises: it's a city in the north of Montenegro, characterized by an extractive vocation but with also interesting archaeological fragments under excavation, that refer to the Roman settlement of Municipium S. The design intervention aims to create a system of territorial relations within which new centralities stand out and constitute a possibility of economic-cultural revival through the care for local heritage. The first intervention involves a new gateway to the area, a visitor center that crosses a stream and projects itself towards the excavations, constituting a path towards knowledge through a first rectilinear block behind which other two volumes takes place, creating an introvert yet public central space. The path within the archaeological park proceeds towards the excavation area, where the architectural sign is minimal but recognizable, driven by the intent to make the area accessible and understandable to the visitor, who can rediscover the settlement by recognizing its peculiar traits. To conclude the sequence, there is the landscape arrangement of the necropolis, which acquire new relevance thanks to an archaeological walk articulated on terraces. The intervention does not exclude the addition of a small pavilion and a structure that, developing in height, configures itself as a landmark. What the project seeks to do is to rediscover the ancient history of Municipium S through the dual lens of archaeological excavation and design action, in order to find a new yet ancient identity for the local populations, which roots in a past that emerges from forgotten soils.

**Introduction.** Reflecting on the theme of architecture serving archaeology is not only a conceptual but also a practical and operational action, at the centre of an ongoing debate that originates from the now consolidated Western view of ruin as the tangible result of architecture's passage through time, simultaneously both absence and presence (Settis, 2004) [1], a dynamic representation of history and collective memory (Franciosi, Casadei, 2016) [2], not a mere and mute heritage.

Recent trends aim to find a design approach that combines built space, nature and history, providing a response to present needs and offering a new perspective on the ancient through the addition of a contemporary mark, on whose modes there is currently a lively debate. It is believed that architectural intervention achieves greater effectiveness when, rather than contributing to the isolation of the ruin, it creates connection

strategies between the architectural and urban project (Di Palma, 2014) [3], which collaborate to the overall regeneration of the intervention site and its surrounding area for public use of archaeology (Volpe, 2021) [4]. This is exemplified by successful projects such as the musealization of the archaeological site of Praça Nova in Portugal, by Carrilho da Graça and Gomes da Silva, or Lola Domènech's intervention on the Forum of Empuries in Spain, which, though working with minimal and recognizable acts of reconfiguration of space, restore an archaeological landscape enriched by pathways and internal crossings, where contemporary actions and functions unfold, breaking the idea that ruins require isolation. In fact, it appears rather true that isolating a monument to ensure its preservation in reality only contributes to giving it an idea of marginality in relation to the urban context, in some cases even relegating it to the role of rubble (Augé, 2004) [5], neglected and forgotten remains, incapable of telling the ancient stories of the urban settlements that once existed.

This is precisely the condition of the archaeological landscape examined in the present article, which was the subject of a master's thesis at the Department of Architecture (DiARC) of the University of Naples "Federico II", forming part of a bilateral project between the Institute of Heritage Sciences (ISPC) of the National Research Council of Italy (CNR) and the Historical Institute of the University of Montenegro (HIM-UoM). The site, named Municipium S, located in the inner Balkans, lies scattered in what Capuano would describe as a "ruined landscape", (Capuano, 2014) [6] where the ruin is not integrated into urban enhancement circuits, and where public space is virtually nonexistent. The strategic aim of the project is, therefore, to promote and integrate the ruins with contemporary needs, where active protection of landscapes moves in parallel with the conservation of the archaeological artifact and the development of the urban area in which it is located.

**An unknown archaeological landscape.** The area of interest is located in the peri-urban countryside of Pljevlja, a province in the far north of Montenegro at the border with Bosnia-Herzegovina and Serbia, a territory contested from a geopolitical standpoint but unexplored by an audience beyond its strong industrial vocation, which is still changing its character. The landscape of Pljevlja undeniably possesses natural power, yet is contrasted by the extractive plants that increasingly erode the territorial morphology, dominating the surroundings with the towering presence of chimneys and cooling towers, a constant reminder of what for many of the inhabitants is the sole defining identity. In this damaged, almost brutalist landscape, forgotten archaeological remains lie in the subsoil, partially uncovered since the 1970s and still under excavation, pointing to the unity of an ancient Roman settlement of the 4th century, renamed Municipium S in reference to its political status – a municipium, an autonomous province of the Roman Empire – and to the initial letter of the name found on one of the numerous tombstones uncovered in the necropolises. Situated near the Vežišnica River and mount Velika, probably recognized as strategic defensive boundaries for the initial founding nucleus, today the archaeological settlement is surrounded by the rural village of Komine. The archaeological remains revealed so far are scattered fragments in the landscape, comprising structures such as defensive towers and a block

consisting of a small basilica and various craft shops, renamed Edificio Termini (Mircović, 2012) [7]. Alongside these remains, which suggest the presence of a town centre and city walls, two extramoenia necropolises from different phases of the city's development have been found, dated to the 4th century A.D. It is assumed that the settlement was much larger than what has already been uncovered, but as it lies on private land, the rediscovery of the site is proceeding with less invasive methods, such as geophysical surveys, which have so far revealed the presence of other square blocks similar to those found in other archaeological areas of Montenegro, but the research prospects are broad and still open.

**Nodes and sequences in the territory.** Beginning from the reading and interpretation of such a fragmented territory, the proposed project aims to provide a form of care for both the local heritage and the landscape, which is currently at high risk, both in relation to its potential destruction and its possible oblivion or erasure. The archaeological remains, in this case, due to their fragmented nature, become the occasion to build an extensive system of territorial relations that integrates the built heritage with the landscape and the local history.

If, as Tortora asserts, ruins speak while rubble is mute (Tortora, 2006) [8], the project's aim thus becomes to return a historical interpretation to the forgotten archaeological remains, giving them new meaning through the dialogue with contemporaneity, ensuring that the area, in this case the inland Balkans, gains a new perspective, aimed at a cultural rediscovery that echoes over the long term. The proposed intervention aims to achieve this by creating both spatial and programmatic sequences (Tschumi, 1983) [9] that traverse the area, reconstructing the territorial and historical patterns that have been loosened by events, and to give a place lacking prospects a new identity rooted in the past. Building urban continuities, even partial ones, becomes the main goal of the project, to integrate the archaeological fragments with the city and the surrounding urban areas (Miano, 2014) [10].

The proposed relational system, tasked with narrating the features of the area through specific sequences (Barthes, 1977) [11], is materialized by new centralities, nodes of connection, and intersections that constitute attractive places for visitors and provide additional opportunities for development and identification for the residents. The sequence of nodes defined by the project begins with a reflection on the relationship between archaeology, open space, and new insertions, thus generating dialogue among these elements. In addition to the need to intervene on the two archaeological areas uncovered, there was also the urgency to define a third project node, responding to the need for attractive features, which would function as a visitor center, serving as both the beginning and the end of the tour, a recognizable centrality within a sequence (Di Palma, Ottavino, 2024) [12]. The design network will be conceived as a closed, circular spatial sequence, therefore, capable of continuously referring to its internal spaces but also opening outwards towards the territory—such as adding insertions on mount Velika to provide a new viewpoint on the archaeology, or the definition of a riverside park near the Veznišnica river—maximizing the potential for new “events and movements” [9] for the visitor. (FIGURE 1)

### Three project for the archaeological landscape of Municipium

**S.** The first intervention concerns a new entrance to the site, a visitor center that crosses the river and projects prospectively towards the excavations, creating a tangible and physical pathway towards knowledge, through an open courtyard composition that occupies the triangular plot of intervention, delimited by a strengthened westward road axis and by the hydrological mark to the east, studying and proposing different mobility solutions within the visitor center's grounds. The new visitor center addresses the theme of sequence through the compositional tension primarily between the architecture and the context (Purini, 2000) [13], as well as within the three blocks of intervention. The first block takes on a linear shape to continue the main pedestrian path, acting as an infrastructure to pass through, and at the access, welcomes voids and variations at the thresholds. Behind it, volumes are arranged in a way that creates a central, sheltered but always passable space at ground level, where public functions and those oriented to the community are projected inward, while secondary services and activities are placed at the borders or in the rear. The functional autonomy of the various blocks meets the need for functionally enclosed spaces, addressing a broad range of users, from visitors to workers, archaeologists and residents of nearby communities, yet connected by suspended shelses and projecting elements at an upper level, directing specific flows through semi-public or even private areas located on the first floor (FIGURE 2).

The visitor center's functional program is vast and includes both museum and laboratory spaces, as well as reception functions and accommodations for archaeologists, so that the excavation site can be continuously experienced by those working on it, while also responding to the limited cultural offerings in the city of Pljevlja. A more detailed focus was placed on the museum area inside the visitor center, conceived to be the first of the exposition rooms installed, both internal and external, scattered throughout the project area, aiming to spread awareness and knowledge of a currently forgotten site. The museum in the visitor center's function is to narrate to the user what they will visit spatially afterward, aiming to do so through the display of finds discovered during excavation campaigns of the necropolis, including valuable inscriptions and sculptural stone artefact's (Colosi, 2020) [14].

The path through the archaeological park then proceeds to the excavation area, where the architectural sign becomes minimal but always recognizable and stated, driven by the intent to make the area both accessible and comprehensible to the visitor, who can rediscover the ancient settlement, recognizing its distinctive features and moving through various pathways within the topographical consistency that shaped the locations. At this node, the project aims to present itself as a formal prefiguration, since the context we are working in is the on evolving excavations, where future campaigns might lead to further discoveries and consequently to the removal of architectural additions. The intervention conceptualizes the excavation of the Edificio Termini as a sequence of “outdoor rooms”, defined by insertion elements such as podiums, walkways, metal sheets, and exhibition walls, which highlight the characteristic typological features, but without aiming to be a definitive or



rhetoric intervention. The setup of this open-air archaeological space thus provides an opportunity to propose a new part of the city, aligned with the principles of reversibility, which are perfectly integrated into the urban transformation era we live in (Branzi, 2002) [15] (FIGURE 3).

The excavation will be crossed by a dual system of pathways: an external one, accessible to users of all mobility types, which follows the natural slope and circumnavigates the finds, and an internal one, which cuts through the two excavated sectors, retracing the road that originally separated them, and even descends into the nave where it is assumed there was an entrance portico, as evidenced by the column bases incorporated in this facade. Complementary to this reasoning is the addition of a semi-covered pavilion near the first of the two defensive towers: the base of the pavilion is a podium imagined as a platform that lands near the tower and serves to overcome the height difference on which the excavation stands, while also emphasizing the strategic role this element plays in defining a programmatic sequence that connects the two archaeological nodes to the architectural and urban one of the visitor center. On the podium stands an element with a strong linearity, an exhibition wall, carved and engraved to be an additional narrative and architectural device, but capable, like the insertions in the Edificio Termini, of evoking ancient archaeological presences through a contemporary language (FIGURE 4).

The overall intention of the project was to make architecture and archaeology dialogue, as well as the past and the present, also prefiguring the future developments of the intervention. Thus, it considers potential additions, such as temporary, modular, and dismantlable pavilions, to support the excavation and offer privileged use for archaeologists, providing them with shade, water, refreshments, material storage and artefact conservation. Once the excavation is complete, these structures could remain as a testament to the campaigns that already took place, symbolizing the rediscovery of the place's past and its reinterpretation in contemporary terms, and could become additional resting areas for visitors.

The sequence of narrative locations in Municipium S ends with the intervention on the ancient necropolis, which is reached via a direct path starting from the two defensive towers. In antiquity, this route likely held symbolic significance as it was the path leading from the city centre, the city of the living, to the city of the dead outside the walls, the so-called Via Sacra. However, today, it appears as an indistinct line of tombstones directly placed on the ground, exposed to the elements, completely neglected and unappreciated, situated in the midst of the rural fabric of the village of Komine. The intervention arises from the need to propose a landscaping solution for the necropolis tombstones, enhancing the terraced topography of the area and offering a reinterpretation of the site based on the extraordinary historical finds uncovered here. However, the intervention does not exclude the addition of an architectural element with accommodation and resting functions, composed of a low building – a foundation that adapts to the elevation difference, measuring it – and a rotated block that, rising in height, serves as a landmark, constantly guiding the user through the various stages of the visit route. This new structure also references and reinterprets the archetype of the tower, which permeates the spirit of this place both in its ancient, archaeological sense,

and in its contemporary, industrial context (FIGURE 5). Access to the site is provided through this small visitor center – replacing the current archaeological depot, which was designed to blend in with the local homes – and as an endpoint, it aims to engage in dialogue with the intact tombs that close the path. In this case as well, the theme of the sequence is explored through new architecture made of elements in tension with each other, defining a compulsory passage to archaeology, but especially through new paths that circumnavigate the remains, sometimes getting close and nearly touching them, crossing a variable topography (FIGURE 6). The archaeological walk is enriched not only by the artefacts, carefully set up in specific categories, but also by their display cases, which can either be thickened portions of the pavement at different levels of the terraces, preserving the picturesque image of the site, or special display boxes attached to the embankment, which will protect and highlight the most valuable finds. These display cases will also serve as guardrails for the upper level of the terrace and as informational elements with engraved or raised inscriptions, ensuring a three-dimensional visiting experience for a wide variety of users.

**Conclusion.** Therefore, the proposed project aims, through all its components, whether urban or architectural, to integrate into the rural and peripheral context of the city of Pljevlja, directly responding to the implicit demands of the territory, and defining differentiated experiences for the local community through a spatial and programmatic system – the sequence – that is capable of designing both space and time (Molinari, 2018) [16]. What currently appears as a neglected area, which has spontaneously evolved without services, would, thanks to the architectural intervention, become an attractive part of the city, full of opportunities for learning, provided not only by the rediscovery of the excavations but also by the numerous activities possible in the spaces supplied by the project, constantly alternating between the ancient and the new, the private and the public. The creation of an archaeological and urban park could become a real driving force for the entire surrounding territorial structure, narrating a new feature of the city, strongly cultural, which would complement the industrial and extractive face given by the thermal power plant that dominates the landscape and the local economic panorama.

The approach followed here, although deeply rooted in the history of Municipium S and the current characteristics of the city of Pljevlja, represents a methodology of broader validity, which sees the rediscovery of ancient and forgotten settlements at risk as an opportunity for territorial enhancement through the dual lenses of archaeological excavation and design action, but also as a instrument of economic and cultural revitalization for the local populations. This will allow them to find a new identity that is rooted in an ancient Mediterranean and European past, a past that emerges from hidden soils, tasked with shaping the present and foreseeing a new future for the affected territories.



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## Figures.

FIGURE 1 - Design atmospheres of the narrative sequences

FIGURE 2 - Drawings of the visitor center project

FIGURE 3 - Design atmospheres of the intervention on the archaeological excavations

FIGURE 4 - Drawings of the intervention on the archaeological excavations

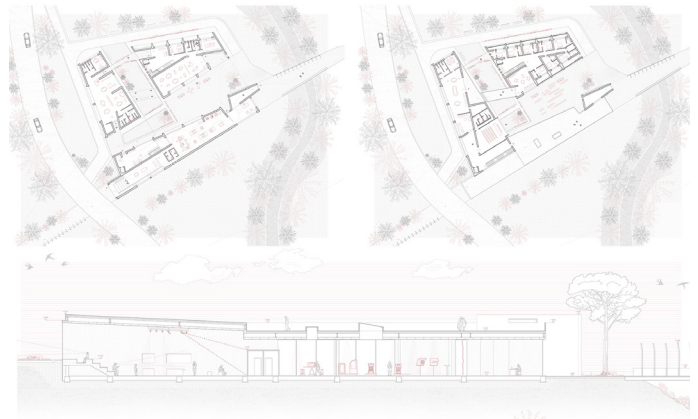
FIGURE 5 - Drawings of the intervention on the necropolis

FIGURE 6 - Design atmospheres of the intervention on the necropolis

1.



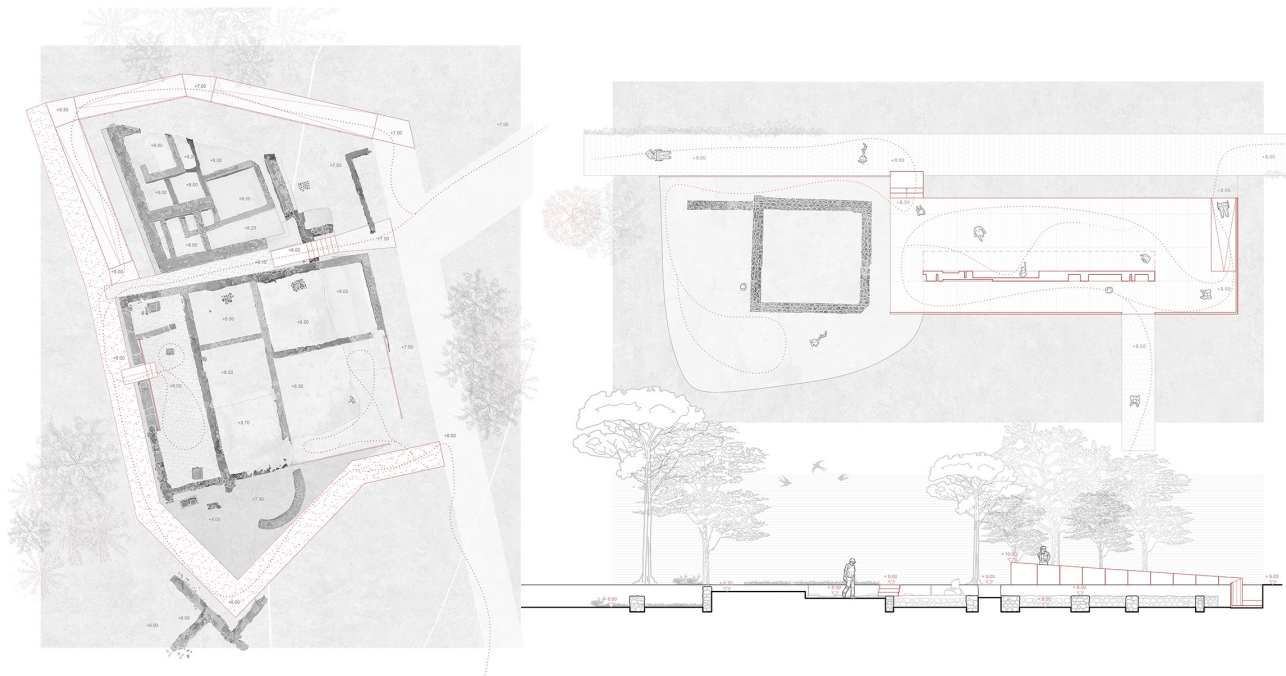
2.



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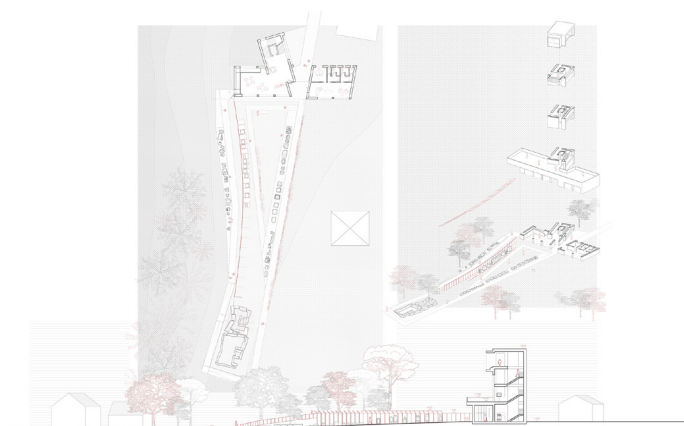


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## PROMOTING ROMANIAN SOCIALIST SPORT HERITAGE: A CASE STUDY/

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**Abstract.** The objective of this paper is to advance the academic discourse on the Romanian socialist sporting heritage and to examine potential avenues for enhancing its visibility in the public domain. This heritage encompasses a range of sporting facilities, including multi-purpose and gymnastic halls, as well as outdoor spaces such as stadiums and parks. Despite their construction during the socialist era, some of these buildings defy the prevailing norms of the period, representing experimental projects that combine concrete structures and architectural elements in new ways.

In the course of my doctoral research on the architecture and politics of sports in Romania during the socialist era, I have identified a significant challenge: the distorted perception of these buildings by the public. These structures are typically regarded as obsolete buildings and emblematic for the communist era, despite their continued utilization by local sports teams and communities.

An illustrative case is the Sports Hall in Bacău, designed in 1971 and built the following year. The building, which is an excellent example of late modern architecture, a popular style in Europe during that period, has remained largely unchanged over time. It continues to serve as the city's only sports hall. Until the new and larger sports hall is completed, this will remain the sole option for local teams. The question thus arises as to what will become of this building when it is no longer the only option. Will it be demolished first, as has occurred in other similar cases across the country?

This paper initiates a discussion about the socialist sports halls, which remain a contentious architectural presence in public spaces, and how we as a society can understand and utilize them.

**Introduction.** This article employs a case study approach to examine the development of sports architecture in the socialist period, with a particular focus on multi-purpose sports halls. The architectural programme, constructed between 1960 and 1970, resulted in the creation of numerous buildings with architectural merit within the context of the contemporary urban environment. However, the lack of funding and the neglect of the authorities over the last three decades have created a challenging situation for these buildings, resulting in a negative perception by the public and other users. Consequently, there is no impetus for local authorities to intervene, which leaves the fate of these buildings in the hands of the owners.

In the context of the socialist regime's utilisation of sport as a propagandistic tool, the sports architecture that persists in urban areas to a considerable extent constitutes a testament to that historical period. In light of the persisting negative perception of the communist era among a significant portion of the population, this text explores the potential

for promoting this architectural style and its contemporary relevance. It traces the context of their construction during the communist era and subsequently analyses their current state, highlighting the challenges they face. Last but not least, the article presents some strategies for promoting socialist-era architecture.

**Sports halls in the socialist period.** The sports movement and the building of the 90% sports infrastructure in Romania today began after the Second World War, when the Communist Party came to power. Sport and sport development became a constantly promoted topic at all societal levels. From the working class to children and students, everyone was involved in some form of sport [1]. They just needed the space to do so, as the existing sports equipment was quickly deemed inadequate [2].

In this context, the sport hall was a rather new type of building, that represents a significant and valuable investment for the city, serving not only as a venue for sporting activities but also as a facility capable of accommodating a range of other events that require a relatively large audience. From the 1960s onwards, this type of investment became a priority for the development of sports activities in urban areas, resulting in the construction of a significant number of multi-purpose sports halls in a considerable number of Romanian cities. Since 1963, the Institute for the Design of Typical Constructions (IPTC) has been responsible for the study of sports facilities, including multi-purpose sports halls, which have been constructed in a series of buildings in various cities in Romania. Notable examples include those in Cluj Napoca, Iași, Pitești and Deva. It should be noted that these instances are not isolated occurrences; in some cities, architects from the local design institutes were responsible for the design of the sports halls and new sports complexes [3].

Indeed, the primary objective of the National Council for Physical Education and Sport, the main beneficiary of all sports investments and the coordinating authority for physical education and sports activities at the national level, was to ensure that by 1989, each county seat would have at least one stadium, a multi-purpose hall with a seating capacity of 1,300 to 3,000, a swimming pool, and an artificial ice rink[4].

The necessity for contemporary, multipurpose facilities in the rapidly developing urban centers of the 1950s and 1960s, coupled with the availability of funding, led to a remarkable advancement in integrated architectural and structural design at both national and local levels, as a result of the sports halls program.

But it wasn't just a matter of quantity. It was also a matter of quality of architecture. Even though architecture in the communist period was controlled by the state mainly in terms of style and meaning, the sports halls were a terrain open for experimentation. Beside this, giving the large investment that such a building required, the novelty of the program and the fact that it required special structures, architects and engineers were encouraged to be creative and come up with new images for the socialist architecture. Given the novelty of the program and the specific problems posed by the need for large openings, the structural solutions for the sports halls are the result of combined architectural and structural experimentation. Finally, the number of multipurpose sports halls built

according to standardized designs is actually quite small compared to those built according to one-off designs.

Depending on the internal capacity of the sports hall, a number of typologies of interior design were outlined by a group of architects from the Institute for the Design of Typical Constructions. Based on those typologies and the rules and regulations for this type of buildings, the architects were able to create unique spaces of the sports hall, even used today.

For the city, the sports hall becomes more than just a space for sporting events. Given the nature of the investments, they are designed from the outset to allow for other activities in addition to sport. In addition to the large number of sports that can be played in the hall - the court is mainly designed for handball (20 x 40 m), basketball (14 x 26 m), volleyball (9 x 18 m) and tennis (10.97 x 23.77 m) - a minimal interior design can extend the hall's capacity for larger events with a larger audience, so-called cultural-educational activities such as shows, conferences, meetings and even film screenings. However, according to the standards, cinema screenings are not indicated in a sports hall due to the overloaded schedule of competitions and training, the small number of sports halls, low comfort and poor projection quality. This type of building, which has local significance but could be of national importance as part of a wider program, is difficult to discover - it is hidden in the oblivion of generations and there is little information to be pieced together. In this respect, local histories published in newspapers or online are very important as a starting point for finding out the details behind the building.

**“Communist” Sports halls today.** Following the collapse of the Communist regime in 1989, the economic, legal and ideological context in which sports halls operated underwent significant transformation. These changes coincided with another significant shift in public perception. In contrast to other public edifices erected with state funding during the communist era that were subsequently privatised, the majority of sports complexes and facilities, including multi-purpose sports halls, remain under state ownership and are overseen by the Ministry of Sport and Youth. However, in the 1990s, there was a notable decline in investment in sport compared to the period under communism. The existing material base, which would have required repair, was the first to suffer as sport was no longer a priority of the new system of government.

In this context, sports halls underwent a variety of interventions to ensure their continued use, even with limited funding. In some cases, however, these halls were completely demolished to make way for new structures. In the most favourable instances, following a lengthy period in a state of disrepair that posed a risk to their continued use or even led to their closure, these facilities have undergone a significant refurbishment process.

Another issue is that the facilities and annexes for athletes, which were constructed over 50 years ago, no longer meet current standards. Furthermore, the heating and ventilation systems are also outdated, and the pursuit of energy savings has resulted in alterations to the architectural design. It is evident that certain modifications to sports halls have been implemented in an attempt to rectify inherent design flaws through the most cost-effective and straightforward means possible. Such issues also

engender a negative perception among the general public. The absence of maintenance of indoor and outdoor spaces, coupled with the lack of basic facilities, gives rise to subjective reactions such as the suggestion that the structure should be demolished and replaced with a new one. This, in conjunction with the continued prevalence of a predominantly negative general perception of the communist period, can result in detrimental consequences for sports halls in the absence of explicit guidance on the appropriate course of action.

Furthermore, it is essential to contemplate the large dimensions of these structures, the wide openings, and the fact that they were constructed five decades ago, necessitating specialised maintenance. Such an undertaking cannot be accomplished without substantial financial and technical resources. The continued responsibility for these facilities of the Ministry of Sport, rather than the local authorities, is becoming increasingly problematic. A never-ending chain of interaction exists between municipalities that are unable to intervene over these structures and the central authority, which lacks both the necessary resources and a clear plan of intervention.

Probably the most damaging effect of the lack of care is on the people that actively use the spaces of the sports halls – athletes and spectators. Because the buildings are spread all over the country, for this study the negative perception was assessed through comments from social media platforms and google maps. By using this tool, one can find comments and impressions from people that visited the sports halls. Such examples are listed below, together with the images of the sports hall that they refer to.

Table 1 shows three examples of sports halls together with comments that refer to the state of the buildings, the amenities and the lack of care from the municipalities. The comments were originally in Romanian and they were translated trying to keep the original topic and punctuation. Because of this, they might sound strange in English but I think it is important for the understanding of the whole situation. For example, about the sports hall from Bacau (FIGURE 1) one can find comments from people that recognize the importance of the buildings at a local or even national level, but don't appreciate how the ones in charge took care of the building. In the other two cases, the sports hall from Iași and Pitești (FIGURE 2 and 3), people aren't that understanding. Their opinion is that the sports halls should be demolished as they are too old to be still in use. These remarks show that some people understand the importance of the past, while others don't see any other solution than tearing down the buildings.

The lack of funding and the absence of intervention from the authorities have resulted in the deterioration of the sports halls, despite their continued use by the public for indoor sporting activities. The poor condition of these buildings has fostered a negative perception among the population, which has led to calls for demolition and rebuilding. However, the reuse of existing structures would be a more appropriate approach in line with current ideas of reuse. Unfortunately, without pressure from civil society and NGOs, these buildings, which are important for local histories and communities, are likely to be neglected until it is too late.

In order to break this vicious cycle, firstly the local communities have to be informed about the value of the buildings near their homes. Social

media is a great way to inform and create a better public perception. For example, a recent study showed how social media can be used to promote late modern socialist architecture from Balatonalmádi, a Hungarian city on the outskirts of Lake Balaton [6]. By using social media platforms, the researchers discovered that archive images were the ones that reached the most people, as many were curious about the original intentions of the architects and how the buildings used to look like. Online communication together with on-site presence and programs could be used to raise awareness of the local community about this subject.

Beside their importance to the local communities, socialist architecture can also become touristic attractions. For example, a study from 2018 [7] analyses whether buildings from the socialist era could become tourist attraction in Warsaw. This study takes into consideration the perception of both tourists and the locals in order to assess the importance of the buildings in the city. As some of these buildings are part of the city's identity, such as the Palace of Culture and Science, they are a reality of everyday life no matter the general perception of the population. With proper restoration the buildings could be integrated in the contemporary city. The study aims to promote the idea of creating a city brand of Warsaw through the buildings from the socialist period, an image that would make use of already existing elements that are part of everyday life. Nevertheless, some residents might not agree to the use of the socialist period in creating a brand of the city due to their negative perception of the past. The same would be available for the Palace of Parliament from Bucharest, a building mostly visited by tourists than by residents. As Ochkovskaya and Gerasimenko put it, *"the architectural sites and other artefacts from this era are magnetic for those who have never experienced it in reality."*

**Conclusion.** The necessity for contemporary, multipurpose facilities in the rapidly developing urban centers of the 1950s and 1960s Romania, coupled with the availability of funding, resulted in a notable advancement in integrated architectural and structural design at both national and local levels, as a consequence of the implementation of the sports halls programme. As long as sport remained a significant aspect of communist society, investment in sporting infrastructure continued to grow. Following the collapse of the socialist regime, the role of sport as a propaganda tool diminished, leading to a decline in efforts by officials to maintain existing infrastructure. Furthermore, the economic difficulties encountered during the transition period resulted in a gradual deterioration of the sports halls due to a lack of maintenance and investment.

While some of the numerous buildings erected during that period were privatized, sports halls and other facilities intended for sporting activities remained in the property of the state, specifically under the ownership of the Ministry of Sports. Over time, this proved to be a significant issue, particularly for the sports halls, which gradually deteriorated due to a lack of adequate maintenance. The current situation can be described as a vicious cycle, whereby the public perception is negative due to the poor state of repair of the sports halls. This has led to a lack of action on the part of the municipalities and the state, in the absence of pressure from the public.

The practice of social media promotion and the formation of local action groups has highlighted the potential for this approach to break the aforementioned vicious cycle. By raising public awareness and encouraging activism, it may be possible to stimulate local authorities to become involved in the reconstruction process.

It is a challenging task for architects to identify and address the flaws encountered in the daily use of these buildings through efficient interventions that maintain their architectural value. However, it is a crucial step towards creating a more optimal urban space.

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## Figures.

FIGURE 1 – Sports hall from Bacau. Source: Author's archive.

FIGURE 2 – Sports hall from Pitesti. Source: Author's archive.

FIGURE 3 – Sports hall from Iasi. Source: Author's archive.





*“A special opportunity. A hall built in the communist period in the specific style, perfect for sporting events at a national level. About the maintenance, things aren’t bright [...]. The Sports Hall should be the pride of the city, so its maintenance should be a priority for the authorities. Some people died building it. “*



*“A big hall, but obsolete. It wasn’t renovated in a very long time, a lot of mess. Broken chairs, everything fails expectations.”*

*“A place where time stood in place. A renovation is necessary in order to bring this place closer in time.”*



*“Horrible, not a single investment, it looks the same as in Ceaușescu’s times. In 30 years, they really didn’t find any funds for renovation. Intentionally they want to destroy it, Romania governed by thieves. I understand that you steal, but at least do something good for Romania.”*

*“Like the Stadium this sports hall should be demolished and built a new, modern one, according to the standard of the century in which we live in! The old construction from the communist period hangs heavy from the shoulders of the athletes of this amazing city.”*

## ARCHITECTURAL BACKBEAT: REINTERPRETING THE TRANSFORMATION OF VILLA LAURI IN MACERATA (ITALY) /

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**Abstract.** This study explores the concept of ‘backbeat’ in architecture, analysing buildings that subvert the natural progression of forms to align with ideologies, styles, and histories that twist reality. These buildings often produce mimetic architectures serving not as witnesses of their time but as fictions of a past era. Inspired by Achille Bonito Oliva’s notion of the ‘traitor’ who modifies an unacceptable reality, this research focuses on the ‘deformation’ of architectural forms as expressions in counter-time. This ambiguous concept encompasses both negative and positive meanings, akin to backbeat in music, creating vibrant notes. Villa Lauri has undergone numerous extensions and alterations over time, resulting in a heterogeneous complex. After a period of neglect, the villa is now being restored. The eastern portion, the most compromised, has been declared of ‘no cultural interest’ by the Superintendency, allowing demolition of incongruent buildings and their replacement with an auditorium. The proposed renovation project aims to re-establish the villa’s architectural balance and symmetry while introducing contemporary elements. The new auditorium will be inserted between the historic villa and the original small end building, maintaining a harmonious dialogue with the existing architecture. The double-tiered portico and set-back glass façade echo the restored left wing’s proportions, while the cladding, pillar shapes, and added volumes give it contemporary character. The foyer features a suspended volume containing the hall and evoking shapes reminiscent of a musical instrument. By integrating modern construction techniques such as steel prefabrication, the project ensures seismic resilience and construction efficiency. The structural elements and materials respect and reinterpret the villa’s historical aesthetics, emphasizing the value of architectural dialogue as a creative force. The restoration of Villa Lauri shows how intervention can transform historic buildings into functional, vibrant spaces, respecting their heritage and contributing to the dynamic preservation of history, offering new life to structures.

**Introduction.** The objective of this article is to present a design intervention that enhances, through a contemporary approach, an ancient asset that over time has undergone numerous modifications, eventually losing part of the identity that historically characterised it. The intervention on Villa Lauri, a historic residence located in Macerata, in the heart of the Marche Region, involves the demolition and reconstruction of one of the wings that, during the early 20th century, expanded this significant 19th-century mansion originally intended for leisure and recreation.

The villa, a significant example of 19th-century Italian neoclassical residential architecture, has recently been the subject of targeted interventions aimed at preserving and redeveloping the building, with the intent of restoring it to the community and preparing it for new functional uses.

Following various changes in ownership from the original family who inhabited it, the villa first came under military control, later transitioned to public ownership for use as a hospital, and is now under university ownership.

History and context. Villa Lauri occupies a position that embodies the typical characteristics of 19th-century Italian suburban residences. Situated outside the historical centre of Macerata (an Italian municipality and the capital of the province of the same name in the Marche region) and away from areas that have subsequently experienced urban expansion, the villa originally benefited from isolation and tranquillity—qualities ideal for a countryside residence. Designed in 1841 by the architect Ireneo Aleandri, also renowned for the famous open-air theatre, the “*Sferisterio of Macerata*”, Villa Lauri was conceived as a country residence. However, over the decades, it underwent numerous transformations and expansions that, at times intrusively, compromised its original integrity. After a period of splendour, the villa was abandoned for many years until, in 2002, the University of Macerata acquired the property with the aim of preserving its history and renewing its function. The villa represents a significant example of Italian neoclassical architecture. The central structure, protected under heritage legislation since 1920, retains characteristic elements such as rusticated masonry, mouldings, decorated cornices, stone balustrades, Doric columns, recessed pilasters, and porticoes. The complex is surrounded by a botanical reserve spanning over 44,000 square metres, hosting tree species protected by the Cultural Heritage Authority.

Throughout its history, Villa Lauri has served various purposes, reflecting the changing needs of its owners. After the death of Count Lauri, the sole heir of the family, the villa was repurposed as a shelter for soldiers afflicted with smallpox during the Great War, and later as a sanatorium for tuberculosis patients. Abandoned in 1982, it remained unused until it was purchased by the University of Macerata. In 2021, the central body and the right wing were restored, returning to their former glory. Today, they house the Confucius Institute and the China Centre, which feature libraries, classrooms, meeting rooms, laboratories, offices, and a student residence with twenty-four beds.

**Project Objectives.** The intervention on Villa Lauri was driven by the need to recover and enhance an important historical complex, complementing it with a new architectural volume designed to meet contemporary functional requirements.

Previous modifications and expansions of Villa Lauri did not always adhere to a coherent design approach, particularly in the eastern wing, which evolved into a series of superimposed structures resulting from immediate functional needs, lacking formal consistency with the architectural complex. For this reason, the Cultural Heritage Authority authorised the demolition of the eastern portion of the building, deemed disharmonious and lacking cultural significance, to make room for a new auditorium serv-

ing the villa's current role as part of the university's facilities.

The new structure has been conceived as an innovative element fostering dialogue between historical and contemporary architecture, addressing modern functional and structural needs while enhancing the park and offering new opportunities for community use. The project strikes a balance between preservation and contemporary reinterpretation, aiming for a design that reflects the present without disregarding the historical context.

The new building, though employing contemporary materials and forms, integrates harmoniously with the 19th-century villa and represents a significant case study in dynamic architectural heritage conservation. The intervention seeks to engage with the historical architecture through a modern language and innovative construction techniques.

The auditorium, based on a modern interpretation of the volumes and proportions of the historic villa, is located between the main building and the terminal structure. It echoes the proportions and details of the villa without resorting to mimicry.

### Compositional and Structural Solutions

**Design Choices.** The design of the new auditorium serves as an example of dialogue between contemporary architecture and historical heritage, with particular attention paid to harmonious integration within the existing context. The intervention is characterised by a two-level portico featuring a recessed glass façade, which reinterprets the original proportions of the historic villa in a modern key.

This design choice, which respects heights, rooflines, and volumetric hierarchies, ensures that the original central structure remains the focal point, preserving its visual clarity despite previous alterations, such as the addition of an extra storey on the left section. The auditorium itself has been conceived as a suspended volume, with forms that evoke a musical instrument—a symbolic reference to the building's cultural function.

On the northern side, the stage extends outward into the surrounding park, creating a direct connection with the landscape and enabling the space to be utilised for summer events. This design element strengthens the relationship between interior and exterior, highlighting the interaction between architecture and its natural surroundings.

The extension of the stage into the park, along with the reinterpretation of proportions and volumetric hierarchies, represents a synthesis between respect for historical heritage and the desire to create a space suited to contemporary needs. The use of contemporary materials and forms, such as modern columns and cladding, was designed to engage in a harmonious dialogue with the historical architecture, while deliberately avoiding the replication of its stylistic features. This meticulous attention to detail ensures the preservation of the architectural complex's historical identity, while simultaneously introducing elements of innovation.

The two-level portico, with its recessed glass façade, not only respects the historical proportions but also serves as a visual and functional link between the new and existing spaces. The internal spatial layout was designed to ensure a rational and functional use of the various areas, with

particular emphasis on the foyer and the auditorium, which represent the two central elements of the intervention. The double-height foyer creates a spacious and welcoming environment, facilitating connectivity between the building's different levels. The auditorium, by contrast, appears as a suspended volume, underscoring its centrality from both an aesthetic and functional perspective.

From a technological standpoint, the project employs modern construction techniques, such as steel prefabrication, which ensure both construction efficiency and seismic safety.

In summary, the project aspires not only to be a conservative restoration but also a reinterpretation that enhances the dialogue between past and present. The intervention aims to restore the original architectural balance while integrating new functionalities and formal languages that enrich the complex without compromising its identity.

**Structural and Material Choices.** The project addressed various challenges related to the construction of a building that met functional, aesthetic, and sustainability requirements. From the feasibility stage, multiple structural solutions were considered, including reinforced concrete, timber, and metal. The final choice fell on a steel structure for the following reasons:

- Compact dimensions of structural elements, allowing greater flexibility in the internal spatial layout.
- Seismic resistance and durability, due to the elastic properties of steel.
- Compatibility with lightweight infill systems, such as dry partitions, which reduce overall weight and enhance the building's seismic performance.

The use of steel point elements for the columns allowed for an optimisation of the internal spaces, avoiding the dimensional constraints of other solutions, such as timber. All metal components were treated with intumescent coatings and plasters to ensure REI 60 fire resistance.

The external infill walls were constructed using a stratified dry system with high-performance fibreglass-reinforced gypsum boards (Siniat AquaBoard type). These boards, supported by metal substructures, provide increased flexibility and consistent behaviour with the main structure during thermal expansion and seismic events. The system incorporates high-density mineral wool panels to optimise thermal and acoustic insulation, fully complying with NZEB (Near Zero Energy Building) standards.

For the exterior cladding, a combination of materials was chosen:

- 2 cm-thick terracotta strips, applied to a reinforced fibreglass base to give the main façades a traditional appearance. The strips are fixed with adhesive systems and supported by metal frames (AQB M100 6/10, spaced 60 cm apart), reinforced every 3 metres.
- Special cork and potassium silicate-based plaster, applied to other parts of the building to ensure durability and a tactile quality.

### Description of Components and Technical Details.

#### Fixtures

The external windows were selected with a differentiated approach de-



pending on the building section. In the new auditorium, thermally broken aluminium frames were chosen to ensure structural lightness, resistance to weathering, and adequate energy performance. In contrast, the windows in the historic building are made of wood, designed in a “*historic centre*” style to align with the architectural characteristics of the building and the conservation-focused restoration. This distinction reflects the dialogue between tradition and modernity that defines the entire project.

#### Cladding

The external walls are clad with Solidtex Outdoor XT BA13 fibreglass-reinforced gypsum panels, capable of supporting a total load of up to 55 kg/m<sup>2</sup>. The terracotta strip cladding has a weight of 49 kg/m<sup>2</sup>, including adhesives and sealants, ensuring full structural compatibility. The wall stratigraphy includes cavities insulated with high-density rock wool, modulated to meet thermal and acoustic requirements.

#### Warping and bracings

The supporting metal structures are integrated with bracings designed to provide stability and resistance to lateral loads, essential for compliance with seismic regulations. The framing elements for the infill panels are dimensioned to support the cladding loads and facilitate the installation of insulation panels. The system’s overall lightness helps to reduce the seismic mass of the building.

**Energy and Acoustic Performance.** The project incorporates advanced solutions for thermal and acoustic control, achieving high standards of thermal insulation through layers of mineral wool positioned within the metal structures. For acoustics, a scientific approach was adopted, calculating reverberation times and applying targeted solutions to ensure optimal sound intelligibility, as required for the auditorium’s use.

#### Thermal insulation

The external infill wall system delivers high performance with reduced thickness compared to traditional systems. Insulating rock wool panels, placed between the metal studs, are designed to ensure stability and durability, meeting NZEB (Near Zero Energy Building) requirements for public buildings.

#### Acoustic insulation

The acoustic design complies with the requirements of DPCM 5/12/1997, with calculations performed to reduce reverberation time ( $TR < 2$  seconds) and improve intelligibility ( $C50 > 2$  dB). Internal walls, also constructed using dry systems, optimise seismic performance and acoustic insulation.

#### Roof and Foundation

The roof is designed as a multilayered system comprising vapour barriers, high-density rock wool panels, and an aluminium sheet finish to support the photovoltaic system. The foundation is insulated with extruded polystyrene, improving the building’s overall energy efficiency.

**External Layouts.** The project also includes interventions in the external areas to ensure usability consistent with the new building and the historical context.

Perimetral pavements will be made of fibre-reinforced concrete with exposed aggregates and a smooth finish, bordered with terracotta to recall traditional materials. Pedestrian paths will use gravel over compacted sub-bases, while the parking area, featuring 20 car spaces and 4 for motorcycles, will be constructed using grassed paving blocks to maintain soil permeability.

At the eastern edge, a pedestrian ramp with a 7.5% gradient, constructed of concrete with terracotta borders, will ensure universal accessibility. The landscaping will be enhanced with new native species, including *Quercus ilex*.

**Elimination of Architectural Barriers.** The intervention on the public building was developed in compliance with Italian regulations, particularly D.P.R. 24 July 1996, no. 503, which establishes rules for eliminating architectural barriers in buildings, spaces, and public services. Additionally, reference was made to D.M. 236/89, which defines technical specifications to ensure accessibility, adaptability, and visitability, aiming to overcome architectural barriers.

The newly constructed structure is designed to ensure full accessibility. Internal horizontal pathways comply with suitable widths for wheelchairs, with spaces allowing for turning manoeuvres. At ground level, flooring is set at a single elevation without steps, except for a 2 cm threshold at entrances. An accessible toilet is included, designed for full wheelchair rotation, with furnishings and fixtures conforming to Article 8.1.6 of D.M. 236/89. Primary doors provide a clear width of at least 80 cm, as required by regulations.

In the conference hall, characterised by an inclined seating area with steps, access for individuals with reduced mobility is provided at the stage level, where two wheelchair spaces are designated, ensuring visual continuity with the seating rows.

The first floor is accessible via two internal staircases with 120 cm-wide treads, 30 cm depth, and 16.7 cm risers, as well as a lift. Horizontal pathways ensure easy movement and turning, with adequate space in main areas, including connective spaces, toilets, and staff offices.

For windows, handles are positioned at 115 cm height, and glazed surfaces feature opaque sections only up to 60 cm above the floor, allowing visibility for seated individuals in wheelchairs, as specified in Article 8.1.3 of D.M. 236/89. Internal doors have a clear width of no less than 80 cm, with fore and aft spaces dimensioned according to regulatory diagrams.

External pathways are designed to ensure full accessibility, with minimum widths of 120 cm (never less than 90 cm), frequent widening for turning manoeuvres, and longitudinal slopes contained within 8%, in line with Article 8.1.11 of D.M. 236/89. The overall configuration of external pathways also adheres to Article 8.2.1 of the same decree, providing universal accessibility and an inclusive experience for all users.

**Conclusion.** The design approach draws inspiration from the concept of “*betrayal*” described by Achille Bonito Oliva, wherein the architect modifies and transforms an unacceptable reality, creating new narratives. The project embraces change and innovation without losing sight of

the surrounding historical richness. Finally, the architectural concept of “*backbeat*”, borrowed from music, was applied to explore the deformation of forms as a way to express a unique architectural rhythm. This approach enabled the creation of new spatial experiences, establishing a dynamic dialogue between tradition and innovation.

Villa Lauri stands as a virtuous example of how architecture can balance past and present, creating a harmonious synthesis between history and modernity. The project highlights the importance of a critical and innovative approach to heritage preservation, offering a vision for the future that respects and enhances the memory of the place.

This intervention demonstrates the potential of contemporary architecture to foster harmonious dialogues between tradition and innovation, providing historical heritage with new opportunities for use and enhancement aligned with technological innovation and sustainability.

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#### **Figures.**

FIGURE 1 – Territorial context of Villa Lauri.

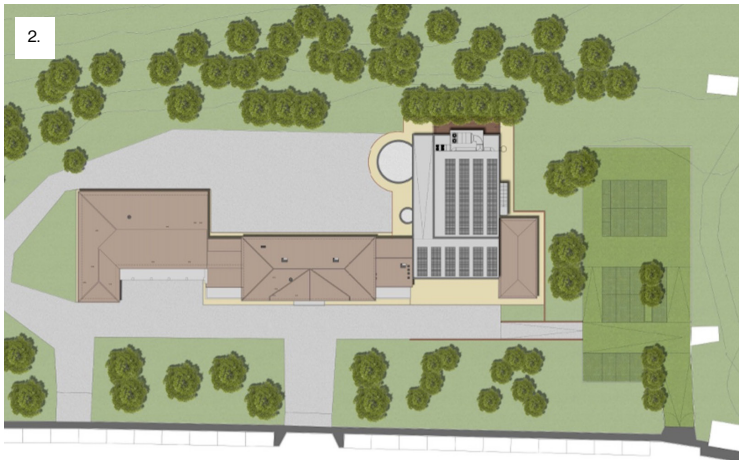
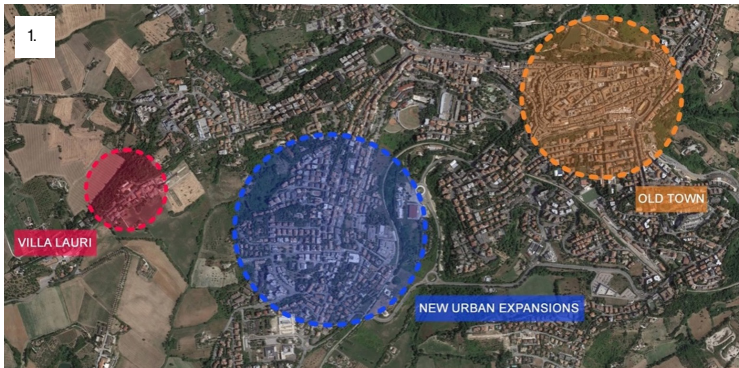
FIGURE 2 – General project planimetry.

FIGURE 3 – Design choices from the historical building reinterpretation.

FIGURE 4 – South and north elevations and longitudinal sections of the auditorium.

FIGURE 5 – Ground floor plan and south elevation.

FIGURE 6 – Auditorium view from the back courtyard.







## HOME AND WORKSPACE IN THE TRADITIONAL URBAN FABRIC OF BUCHAREST/

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**Abstract.** Working from home has been present in the majority of the historical city centres, the house with shop or workshop being one of the most common types of urban dwelling over the centuries. Some of these buildings, which made up a big part of the built environment, are still preserved today, but most of the time they go unnoticed. Following the Covid-19 pandemic there has been a major shift towards working from home. This had direct implications especially on urban housing which had to also accommodate the workspace, making it difficult to handle all the new challenges that appeared trying to balance the complex relationship between them. In this context, the historical buildings that managed to incorporate both hypostases may represent valuable resources for building resilient housing and workspaces in the future. The study will be based on some local works, as well as some case studies from the Bucharest's urban space, relying at the same time on both bibliographic and archival research. Therefore, the paper outlines some typologies present in Bucharest, exploring the houses of the traditional urban fabric that combined the home and the workspace in search of a better understanding of their organization, characteristics, and the potential that they can have in defining alternative approaches in the current post-pandemic context in which a significant number of people is working from home.

**Introduction.** With the increase in recent years of the number of people working from home or with the adoption of a hybrid system in which the time spent at the workplace alternates with working remotely, also encouraged by the technological development which has influenced many aspects of the daily life, it becomes necessary to reimagine the workspace in relation to the home. The urban dwelling space has undergone the most transformations [1], including activities that usually take place outside the home. This led to numerous problems, which originate primarily from the fact that these spaces were not designed for this purpose.

Even if such trends existed before, they were much lower, the Covid-19 pandemic triggering a significant increase in the number of people working remotely [2]. Although the pandemic has ended, studies show that the phenomenon continues and the number of people working from home or in a hybrid system is still considerably high [3]. The development of technology and its use in more sectors and by more people will continue to support these ways of working [4], a fact also highlighted by people's preferences for the advantages brought by working from home [5]. The stabilization of these trends has been observed in recent years, and remote working, even for only part of the week, seems to continue [6], hence the need to find solutions that better adapt to the current and future situation.

However, working from home is not a new concept. On the contrary, it has been very present over time in most urban centres [7]. Although these

forms of housing differ according to the territory and culture in which they appeared, they share many common characteristics [8]. The study of these buildings that combine living and working and that have functioned throughout the centuries becomes relevant in the current situation, being able to constitute a basis for defining new approaches.

Working from home has always existed to a certain extent. It was very present in most cities until relatively recently when, with the industrial revolution and functional zoning, the separation between home and workplace became more pronounced. Things began to change starting from the '80s with the development of the digital instruments that led to the emergence of new possibilities in terms of working remotely [6], but these trends were quite low until 2020 when, because of the pandemic, a large part of the population started working from home [9].

Frances Holliss refers to this type of construction that combines the home and the workplace as *workhome*, in the absence of an established name. Although one of the most common types of housing throughout time, it has gone largely unnoticed [7]. These constructions have been present all over the world since ancient times. Even if they take different forms depending on the culture in which they appeared, they have many common characteristics: they are located in areas where trade has developed and favoured a high density, they connect the commercial or manufacturing activity to the street and provide greater privacy to the residential spaces, they contribute to diverse and lively neighbourhoods and have a certain degree of flexibility over time [8].

**The traditional urban fabric.** Groups of this type of buildings, which include the workspace on the ground floor and the living spaces on the upper floors, are still preserved today in the historical centres of the cities. They are also often found across the Romanian territory, in cities that were once important for commercial activities. This is also the case of Bucharest, where the traditional urban fabric superposed on the historical core of the city is described as preserving a large part of the 19th century commercial centre, consisting of buildings aligned to the street in a closed arrangement with a commercial ground floor and one or more residential levels [10].

Within the Romanian territory, we can talk about local commerce of transit, the important connection was both with Transylvania and the Ottoman Empire through the Danube ports, the Romanian Principalities being outside the main routes of the European space. The road went along the Dâmbovița River and connected the towns over the mountains through the Rucăr-Bran Pass [11]. Market towns developed along this route, one of them being Bucharest, which became an important place to stop between the Danube and Târgoviște and encouraged strong economic growth [12]. The merchant's and craftsmen's houses appear around the Princely Court, with shops and workshops on the ground floor [13]. This is where the first core of the city is formed, this central part with an urban character contrasting with the immediate neighbourhoods that will retain a rural aspect for a long time [14].

These buildings can still be found today following the oldest streets, the radial ones such as Calea Moșilor, Calea Griviței, Calea Rahovei, Calea Șerban Vodă, Calea Calărași, Calea Plevnei, Calea Văcărești or the circular

ones such as Lipscani, Sfinții Apostoli, Sfânta Vineri, Doamnei, which are still present in the structure of the city [15]. The successive stages of urban development also contain the previous phases, and their analysis can represent a basis for understanding the current situation and formulating responses to subsequent circumstances [16].

Towards the end of the 19th century and the beginning of the 20th century, an extensive process of modernization of the city begins, with numerous new regulations that influence the built environment, urban restructuring, and new construction types. Industry development changes the urban structure, and the new working-class districts are very different from the existing ones [15]. Along with this, the concept of housing also changes, more apartment buildings are built, the new typology of multi-family housing spread, and, at the same time, the trend of vertical development [17]. Moving the workspace mainly outside the home had a strong impact on its configuration.

**The house with a shop or workshop.** Analysing the spatial organization of these 19th century buildings that combine living and working spaces, we can identify certain types and operating principles based on the relationship between the two types of spaces, those dedicated to domestic activities and those related to work. In the archive plans, we can see how they were originally designed and the way that they were functioning in that time. Even if they have preserved their specific character to nowadays, they often have undergone modifications due to changes in functions and ownership, which also demonstrates the flexibility and resilience over time of this type of construction.

Studying their original configurations, the first type that we can identify is the one in which the access to the residential spaces, usually located on the first floor and accessed via a staircase located deep inside, is made through the workspace, generally a workshop or a shop at the ground floor, this being closely connected to the public space (FIGURE 1). The second type is the one in which there is a separate access from the street for both residential and work-related spaces, while still maintaining good internal communication (FIGURE 2). Another type is the one in which the access to the residential spaces is through a side courtyard, at the end of which there is a staircase leading to the upper floor, the workspaces on the ground floor retaining direct access from the street but also a connection with the domestic part of the house (FIGURE 3). Finally, there is also the situation in which the access to the residential spaces is through a central passageway, with the workspaces being accessed mainly from the public space, but also from the more private area (FIGURE 4).

Even though these types present different spatial configurations (FIGURE 5), there can be observed many common characteristics such as having different spaces dedicated to the various functions, the combination of living and working spaces and good communication between them, the strong connection of workspaces with the public space and a gradual transition from public to private, as well as a great flexibility, the spatial organization allowing for different scenarios of use over time. The functions are mainly divided by different levels, the work-related spaces on the ground floor and the domestic ones on the upper floors, like in the first example, and where

they are also horizontally juxtaposed the workspace is always closer to the street and the residential spaces withdraw to the more distant parts of the plot, allowing for a gradual transition from public to private. The separate access to the domestic area allows for a greater delimitation of different functions, and even if the spaces communicate, there is a clear delimitation of the residential spaces and the workspaces. Also, where there is not a continuous front like in the third example, the courtyard also becomes the access to the residential spaces. In all cases the workspace is placed on the ground floor, with direct access and large windows to the street, the main façade at this level being entirely dedicated to it, as in the first and third examples, or divided into a smaller area for the private access that leads to the residential spaces and a larger area that corresponds to the shop/workshop, as in the second and fourth examples, establishing a strong connection with the urban space. This also allows for a wide range of activities that can be carried out in the workspace, being separated from the home and also on the street level, as well as convertible to domestic spaces if needed, due to the fact that there is always an internal communication between them, even when there is separate access to the residential spaces, thus further supporting the idea that they were originally meant to function together.

**The current situation of the home workspace.** During the communist period, radical changes took place regarding housing. Large complexes of apartment buildings were built, developed vertically, and organized according to new principles, which, together with changes in the organization of work, led to important transformations in the structure of the city and society [15]. In addition to the workspace, many more activities were externalized, the home ended up having minimal dimensions [18]. Analysing the plans of the typical apartment buildings of this period, it can be observed that no workspace is provided within the home. This still represents the situation for a great part of the population and the reality they face when the issue of working from home arises. In Bucharest, over 80% of homes are located in apartment blocks built during the socialist period [19]. In terms of new residential buildings, compared to the previous period, a shift can be observed from large housing complexes to smaller projects, both individual and collective housing, based on private investments [20]. New construction after 1990 was limited to the few vacant lots inside the city, but especially outside it, on the outskirts, in the so-called “*residential parks*”, especially dedicated to those with high incomes [19]. This led to disconnected neighbourhoods, sometimes even lacking in basic services, isolated communities, and a strong association with a certain social status [21].

Regarding the home workspace, the most common scenario nowadays is the one in which it is integrated into existing domestic spaces, most often by using a space that also has other functions, like the dining area or the bedroom, or, in some cases, by transforming a space in the home into a dedicated workspace. On the other hand, in the case of new homes, based on the analysis of different project plans, there has been an increased concern in recent years for providing a separate space for working from home in response to the contemporary changes, but this is still a small case reported to the largest part of the population. However, regardless of the situation, the home workspace is found today in the private sphere,

losing contact with the outside, both in the case of individual homes and especially in the case of collective ones, a fact also favoured by new working methods based on digital tools that allow for virtual communication. Working from home has become an exception in the last century, which is reflected in today's spaces. Thus, most people now live in spaces that were not designed for work and often with a low degree of flexibility, which leads to numerous problems related to the integration of the workspace into the domestic setting. Having a dedicated workspace at home is still an exception and not the norm.

**Working from home in the past and nowadays.** Significant differences can be observed between working from home in the past and today. First, technology has made it possible to work from anywhere, without the need for a separate space, which has led to the emergence of various problems related to the overlap of contrasting activities and the confusion of boundaries between various aspects of life, to the detriment of a clear separation of different functions. The contact between the home and the outside space has been significantly reduced compared to previous periods and that gradual succession from public to private, with all the intermediate layers, has been lost. In the case of traditional housing, the public space on the ground floor becomes an extension of the street, and the street becomes an extension of the interior space where people can meet and interact. The juxtaposition of these buildings and the relationships that form, together with the all-day habitation of the neighbourhoods has led to a strengthening of a sense of community, intimacy, and belonging [7], in contrast to the sense of isolation and loneliness many feel today, this being identified by many studies as the main problem when it comes to working from home in the current situation [22]. The traditional shop/workshop dwelling exists only in proximity to others and only functions as part of a distinct urban context [8]. Also, in this case, greater flexibility of the spaces can be observed, allowing different usage scenarios over time, the limits between which the spaces can adapt today being generally much narrower. Finally, working and living spaces were designed together, in contrast to the current situation, where they are mostly designed separately.

**Possible new approaches.** Following this analysis, we can identify possible principles to follow in designing homes and workspaces that are more suitable for current and future needs in the case of remote working, such as a clear delimitation between the different functions, as well as a greater flexibility of the spaces, the proximity of the home and the workspace and its close relationship with the public space, which also implies the capacity of these spaces to support human interaction and communities. In this regard, given the problems people face in the current situation, especially the feeling of isolation and loneliness, one of the main differences between working from home today and in the past is represented by the lack of real contact with other people and with the public space, so a central element in defining better solutions may be to encourage human interaction and the coagulation of communities. The capacity of the spaces to accommodate and protect the human experience [23], to create opportunities for meeting other people and supporting communities, as well as reestablishing the relationship with the urban space could constitute a response to the challenges generated by the reintegration of the workspace into the home today.

**Conclusion.** The period before 1900 was the one when working from home was the most common, with the workspace gradually disappearing from the home in the following century. Thus, the analysis of the traditional urban fabric seems to be the most relevant in searching for solutions that combine living and working spaces, as well as the qualities of these constructions and the principles according to which they work may constitute a basis for defining future approaches. With the development of technology, especially after the pandemic, we can talk about a return of the workspace within the home, hence the need to analyse and understand the complexity of the current situation.

Analysing these 19th century buildings that combine the home and the workplace, certain types of spatial configuration can be identified depending on the relationship that the two types of spaces have, such as the one in which the access to the residential spaces is through the workspaces, the one in which there is separate access from the street for each of them, but still maintaining internal communication, the one in which the access to the residential spaces is through a side courtyard and the one in which the access to the residential spaces is through a central passageway, in both last cases the workspaces also keeping an access directly from the street. Within all these spatial configurations, common operating principles can be observed, such as the joining of dwelling and working spaces and good communication between them, the existence of different spaces dedicated to different functions, as well as greater flexibility of use, the spatial organization allowing for different usage scenarios over time, the strong relationship of the workspaces with the public space, and a gradual transition from public to private.

Comparing these observations with the current situation, significant differences can be noticed. Given that the feeling of isolation has been identified as the main problem when it comes to working from home today, a significant difference is represented by the decrease in real-life human interactions and reduced contact with the public space. Thus, an essential element in shaping better solutions would be represented by the capacity of the spaces to encourage human interaction and to support the coagulation of communities, which highlights the importance of the relationship between the architectural space and community dynamics and between the interior space and the urban context, very present in the traditional urban fabric.

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## Figures.

FIGURE 1 – House on Stavropoleos Street, 1874. Source: Arhivele Naționale, Fond PMB-Tehnic, File 11/1874.

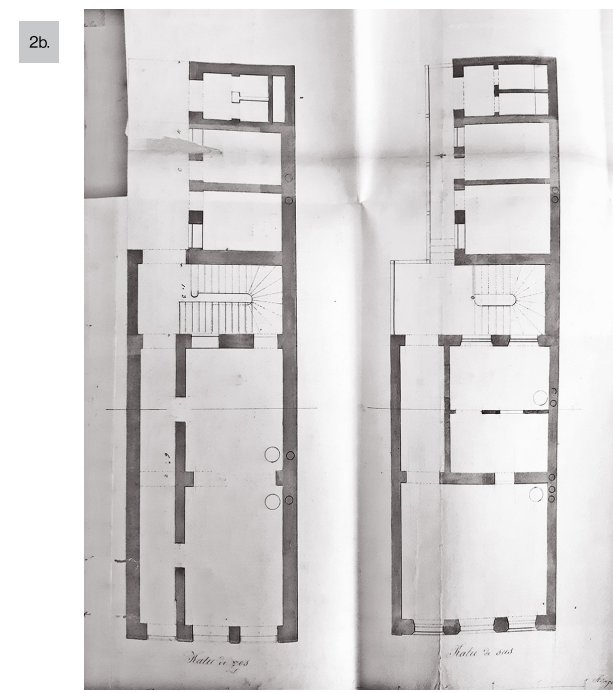
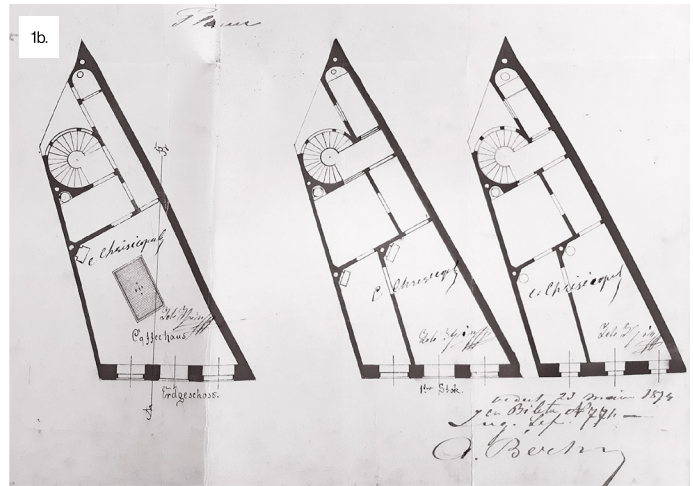
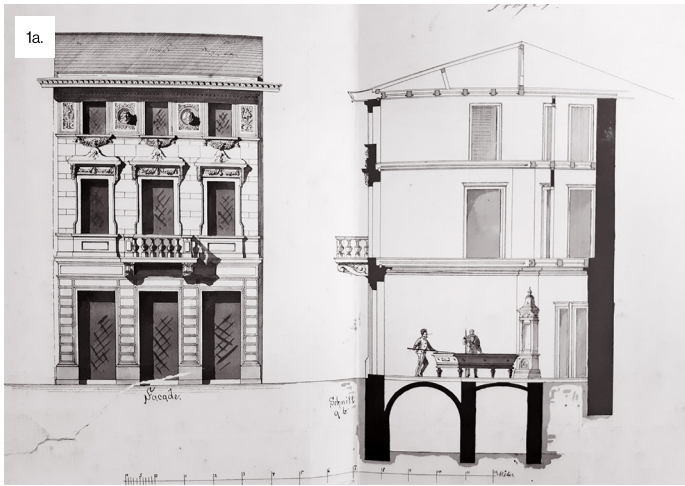
FIGURE 2 – House on Calea Moșilor, 1860. Source: Arhivele Naționale, Fond PMB-Tehnic, File 33/1860.

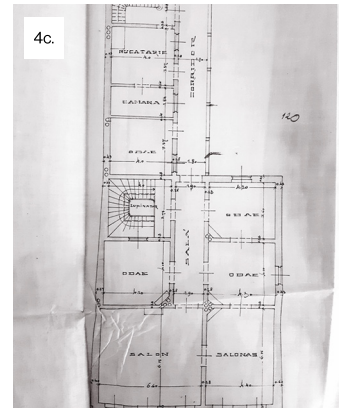
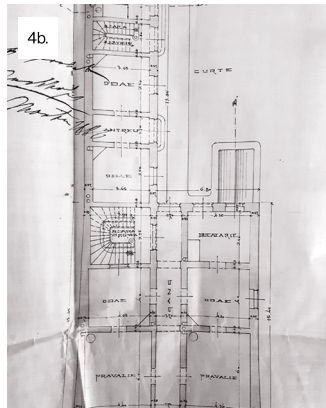
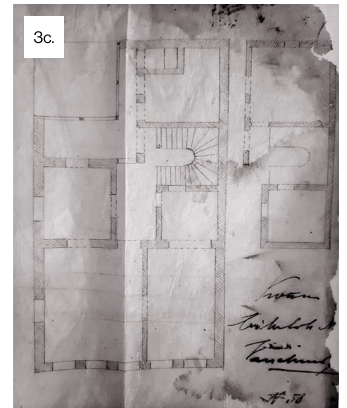
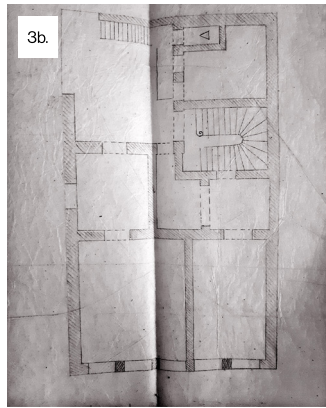
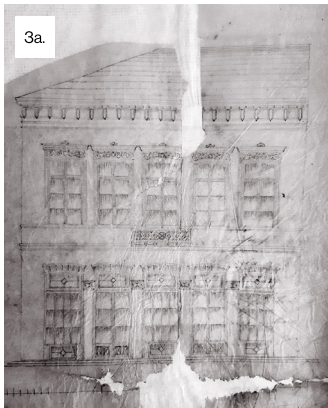
FIGURE 3 – House on Calea Moșilor, No.74, 1864. Source: Arhivele Naționale, Fond PMB-Tehnic, File 35/1864.

FIGURE 4 – House on Calea Griviței, No.74, 1886. Source: Arhivele Naționale, Fond PMB-Tehnic, File 16/1886.

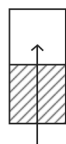
FIGURE 5 – Types of 19th century buildings that combine residential spaces and workspaces. Source: the author.







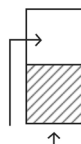
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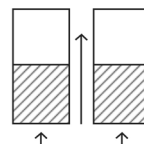
access to the  
residential  
spaces through  
the workspaces



separate access  
to residential  
spaces from  
the street



access to the  
residential  
spaces through  
a side courtyard



access to the  
residential  
spaces through  
a central passageway

## TRACES OF THE PAST AS STARTING POINTS FOR INNOVATION

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**Abstract.** We identify in Romania an urgent need to recover the materials, the techniques of working and processing of finishes, objects, buildings and to collect the few remaining authentic elements of the world of the city, the village or the way of life of the mature generations, referring here to the way of socializing, to their belonging to a community/group, to the way of working more manual/physical. We try to unravel the process of craftsmanship and appreciate the work of rare crafts in our world. All these searches make us associate this period with the 60s, after the thaw, after socialist realism is no longer imposed, but the openness to what was happening in the West is still too weak. The need for modernization makes artists and architects realize that the old will gradually disappear, so they start to collect old objects and exhibit them in their workshops, at which time they reflect on what they have collected and better understand the continuity of tradition and the need to innovate through a thorough knowledge of the details of an object. Today, to further enhance what was said at the beginning, there is The Ambulance for Monuments project in different regions and other non-profit organizations that fight for the preservation of old traditions, without freezing them in time, helping them to survive through innovativeness, through understanding the principles and applying them in a contemporary manner and through demand, creating the need, which is essential for the survival of any craft. We will talk about the socio-economic impact that emergency interventions on monuments have, but also about how an ongoing site such as the restoration of the Petre P. Carp's Manor House, the main part of the Crafting the Iron at the Manor! project (Batem fierul la conac!), can evolve.

**Introduction.** The subject of the article has been on my mind since I was a student, 12 years ago, when I was trying to construct an ethical way of relating to context, to the past, and to be able to carry forward what the new site of any intervention offered me. In this way, I became passionate about the concept of critical regionalism, a concept that has been theorized most by Kenneth Frampton, although he is not the author of the association between the two terms, he took the phrase (new term) from Alexander Tzonis and Liane Lefaivre and gave it his own interpretation.

Studying the concept of critical regionalism as defined by Kenneth Frampton, we can ask ourselves about its relevance today and about how a nuance of critical regionality could be born in recent architecture in Romania, and if this would happen, what would be the reason. A possible answer about the reason for the formation of a critical regionality would be the need to save and secure historical and cultural assets and to coagulate a community around them. The primary need involves both

professionals and locals. It should be stated from the beginning that there are not all types of professionals with whom it would be possible to restore a historical monument, for this reason training/educating some of them is an objective that can be quite difficult to achieve when the work of such craftsmen is seasonal, very expensive and not attractive for young people in the old-fashioned form of working only in a workshop.

The new community would ideally be made up of people who have been close to the architectural monument and have witnessed it in its moments of functionality and its phases of deterioration, as well as people from outside the local community who become part of the community through a desire for good, through their enthusiasm to bring the architectural monument to the present and the future, to work and learn a craft involving hands and the arts, and trying to open up to the contemporary world in which the objects created by craftsmen become consumer goods or in which tourism is an important part of a region's economy.

**The paradox of critical regionalism.** Without attempting to define the concept of critical regionalism, we can say that it is becoming a peripheral architectural practice, kept on the margins because of the brake lever which it acts in the face of the rapid advance of universal technology which standardizes architectural space and transforms it into a constructed space with few qualities. In the applied framework of the concept advanced technology is used to collect data, process it and make the work of architects, engineers and archaeologists easier, so it does not resist progress, but it resists an easy way to solve, in our case, a restoration.

We are at this point of addressing the question why do we use the concept of critical regionalism in the same sentence with the words as restoration, craftsmanship, tradition? A short answer would be Kenneth Frampton's [1] repeated introduction of Paul Ricoeur's quote: "There is the paradox: how to become modern and to return to resources; how to revive an old, dormant civilization and take part in universal civilization." [2]

It is essential to understand the paradox proposed by the theory of critical regionalism and to see how it is applied today, through what kind of projects.

**Romania and summer schools.** In a Romania where things have deteriorated and encouraging craftsmen to preserve their craft was not an administrative, political or educational desire, in the first years after 2000 the lack of these crafts was felt in the heritage and architecture sector, so architecture schools were planned for the summer period in which amateurs or professionals could train in working with traditional techniques and materials in the first phase and then in working with experimental techniques. These schools were set up by individual individuals, with their own funds and the contribution of participating volunteers, not run by a cultural/educational administration. Currently, there are 37 schools of architecture and crafts on the Romanian territory (according to the Summer Schools Map platform - <https://hartamesterilorconstructii.ro/#scoli-de-vara>).

Alexandra Mihailciuc and Șerban Sturduza, the founders and coordinators of the Crafting the Iron at the Manor! (Batem fierul la conac!), talk about the network formed by these summer schools, which are like active points, nodes that have developed spontaneously, out of need and/or the joy of



sharing their craft with others, but which are located in places that are more or less advantageous in terms of Romania's infrastructure. [3] There are a few aspects to point out within the network, aspects that are taken into account by all or at least most of the active nodes:

- (a) the setting up of these summer schools is not by chance, but is part of a degree of rurality found in a place, that traditional rurality [3] that you feel in the way of living, in the care of the inhabitants for the details, for the hospitality with which they welcome a guest in their community, for the way they have known how to decorate their houses, take care of their household and the fields around the rural settlement;
- (b) trying to enter into a sustainable cycle and to generate an advanced rurality (an adaptation of living spaces for greater comfort, but without losing the qualities of living in a small community);
- (c) attracting young people with specific professions or city dwellers to capitalize on living in the village;
- (d) the formation of local production hubs - producer and outlet;
- (e) targeting the needs of people with limited access to education and information in order to lessen the firm boundary between those with jobs in the cities and the lack of opportunity in the village, which has resulted in massive depopulation and a very ageing present population;
- (f) working to be able to absorb cutting-edge technologies.

For this article, two examples of summer schools were chosen (Crafting the Iron at the Manor! - Batem fierul la conac! and The Ambulance for Monuments project - Ambulanța pentru Monumente), which have two different types of activity profile, first of all, the range of action, given that one school is static - located in Țibănești village - Crafting the Iron at the Manor! (Batem fierul la conac! - and a mobile one - covering a large part of the country, about 60% [4] - The Ambulance for Monuments. Secondly, the mode of action - one passes from one year to the next in a new stage of restoration of the architectural monument and within it so far it has been possible to experience pottery workshops, stove and oven building workshops, craft charters, exchange of experience in the blacksmithing workshops run by French companions of the program Les Compagnons du Devoir, workshops for children, carpentry workshops, encouragement of local products and community involvement in their production, workshops in traditional plastering with clay and dung, metal-plastering workshops, technical painting in secco, fresco workshops, and workshops in wood-polishing [5]. So the first advances in experimenting with techniques and working out details, while the second acts punctually enough to make a monument safe enough to avoid the unfortunate event of its collapse.

**Profile of the Țibănești summer school.** Crafting the Iron at the Manor! - Batem fierul la conac! project as launched in 2007 by Maria Association in Tibanesti village, Iasi county. It is a project with a specific place, which has turned into an alternative school with many opportunities to learn and practice crafts. It started here with the restoration of Petre P. Carp's manor, which is slowly being done through workshops open every summer.

This project with its workshops is aimed at both amateurs and professionals. They use the blacksmith's workshop space for small objects (object design) as well as for architectural pieces (metalwork and wrought iron furniture, restoration, interior and exhibition design). (Figure 2; Figure 3; Figure 4) In addition, it is open to corporate events and team building.

Moreover, the project Crafting the Iron at the Manor! - Batem fierul la conac! deepens the craftsmanship, tells the story of the art and the community in which these activities are carried out through architectural publications and cultural periodicals, and seeks answers for contemporary residential architecture and develops an architectural research center. It answers several needs and this helps the project to be always active. [6]

In an interview with the architect Șerban Sturdza, the founder of Prodid office, he confessed to me that his main purpose is not to restore the building, but to activate the community, which is why he brought a press to make brick from earth, both for restoration, but also for the villagers to make this material themselves to use in their own households. The community is also involved in the restoration process when exhibitions or cultural events (such as concerts, Sonoro Festival) are organized. These sorts of actions open the monuments to a much wider range of public.

**Profile of The Ambulance for Monuments project.** The Ambulance for Monuments project was founded in 2016 by the Vaida couple, architects Veronica and Eugen, and is part of the Monumentum Association. An interesting thing would be to tell about the intervention kit they have prepared for each rescue action (making cultural heritage safe in collapse and pre-collapse phases) and how there are actually several ambulance cars that are equipped with the necessary materials and tools [7]. This project was a winner in 2020 in the category Education, Training and Awareness in the awards given by the pan-European organization Europa Nostra (founded in 1963 in Paris).

The Europa Nostra Awards bring to light favourable cases in the practice of restoration in Romania where not only the architectural object needs restoration, but moreover the community that can maintain it needs to be (re) shaped and (re)thought to the current needs and flexible, easily adaptable to a survival in a changing world.

This type of project needs trained volunteers who are trained in summer schools like Țibănești. So the type of local school is deepening some techniques, some crafts to help the larger, mobile type project. At the same time, the Monument Ambulance has clear stages it has to go through in order to be able to act. Historic objects and sites need to be studied and documented, involving architects, engineers, archaeologists, historians, chemists, biologists, geographers, and these documents need to be approved. Then it is necessary to be able to cover the cost of materials, have accommodation and meals provided. A big help can come from local and county authorities, for approval of the necessary documentation and funding, and from benevolent locals, for accommodation and meals.

There is also no shortage of technology on the documentation side, with drones and geo-radar being used to identify things on the archaeology side and 3D scans being done. (Figure 1)



In brief, this type of intervention is dynamic in space, with many places of intervention, but is limited in time. This type of intervention produces a network to which circuits are activated and in favorable cases the monument comes to new life by activating the community to maintain and enhance it.

Emergency intervention on monuments makes the younger generation more aware of the value of the building, more involved, eager to put a material into practice and to get to know its properties by actually working with their hands, with the tactile, weight, rigid or plastic geometry of the material, thus perpetuating a craft and innovating based on a good understanding of the working technique and socio-economic basics to maintain the art of craftsmanship. [8]

**Innovative ways.** We have identified three main ways to use a material to be innovative, but there are definitely more because these approaches can hybridize:

-Firstly, adding an ancient element (a familiar, local material or a traditional technique or both) in a contemporary context. So taking it out of a known context, where the viewer is able to assimilate it easily because it is familiar. For example, the wattle (braided sticks fence) is placed as part of a contemporary landscape, used indoors or used as a balcony in an urban context. (Figure 2; Figure 3)

-Secondly, the manner/technique of implementing a material. (Figure 3)

-Thirdly, the way of taking the specific form of one material and assigning it to another material (brick vault - concrete vault, sculptural details in wood - volumetric details in concrete, weaving a shingle roof - roof of recycled glass cut into rectangles like a shingle; Zenithal skylight) (Figure 5)

**Conclusion.** To sum up, knowing yesterday's village, its values, the quality of life in a community and learning the crafts ensures a better way of thinking about tomorrow's village, but also about contemporary architecture, whether in the village or in the city, by the fact that we have acquired a type of knowledge that helps us to generate a change in the space we live in. To be innovative does not mean to break with tradition, but to know how to bring it into the present in relation to current needs. [9]

**Acknowledgements.** I want to express my gratitude to National Institute of Heritage, especially Maria Degeratu, the some of the Prodid Office's members, especially Serban Sturdza, Alexandra Mihaiciuc and Ruxandra Vasile, The School of Bunesti founders and the coordinators of The Ambulance for Monuments project.

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## Figures.

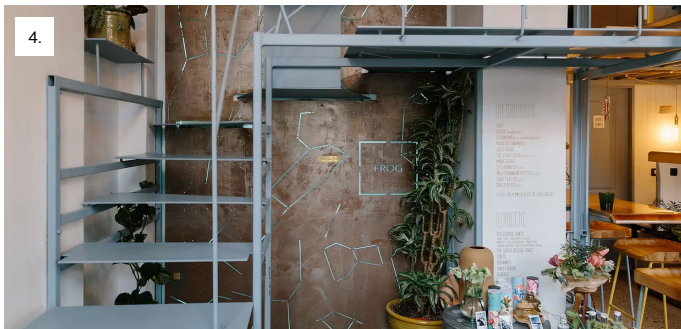
Figure 1 – A part of volunteers for The Ambulance for Monument project. Source image: facebook page of the project - <https://www.facebook.com/photo.php?fbid=869895311943773&set=pb.100067699361083.-2207520000&type=3>.

Figure 2 – The braided sticks fence in rural context, Sinca Veche monastery landscape designed by Serban Sturdza. Source image: <https://www.stiridecluj.ro/travel/locul-misterios-din-ardeal-unde-se-afla-templul-dorintelor-se-spune-ca-aco-lo-toate-dorintele-se-indeplinesc-foto>.

Figure 3 – The metal structure of staircase and the braided sticks parapet in urban context, Cotroceni, Bucharest. Designed by architect Serban Sturdza and realised in the Tîbanesti workshop. Source image: <https://batemfierullaconac.ro/portfolio/feronerie-si-artizanat/>.

Figure 4 – The metal structure of staircase and the intermediate platform. Frog Bistro designed by Ioana and Dan Cioclu and Serban Sturdza. Photo credit Vlad Albu. Source image: <https://www.f-r-o-g.com/bistro-vasile-lascar-24>.

Figure 5 – The newest intervention at The School of Bunesti. A roof of recycled glass cut into rectangles like shingles. Source image: <https://www.facebook.com/photo/?fbid=1021376350030142&set=a.465035205664262>.





## MINOR SPACE AS CULTURAL HERITAGE. THE CASE OF WAGON HOUSE

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**Abstract.** When discussing heritage in architecture, we often focus on buildings or areas with overtly valuable characteristics, such as historical age, urban context, cultural significance, or intrinsic aesthetic value. However, there exists a less apparent heritage, often overlooked because it lies concealed within the depths of urban plots. In the context of dwelling, the architectural heritage of cities includes diverse modes of living that have evolved, persisted, and transformed alongside the buildings that house them. For the historical fabric of Bucharest, one of the most significant typologies is the wagon house, a model that emerged during the late 19th and early 20th centuries. While the construction period represents a fixed moment in time, the associated ways of living evolve gradually, reflecting the latent imprints of the city from different historical periods. The prominent spaces within these houses, those visible from the street, are complemented by a network of minor, hidden spaces that are essential for their functional and formal coherence. This study examines the vulnerability of wagon houses and especially of minor spaces within them through selected case studies, analysing patterns of urban densification that have impacted them. By revisiting these examples, the paper proposes an alternative approach to urban densification, emphasising the significance of minor spaces as cultural heritage in sustaining the character and of historical urban fabric.

**Introduction.** The study highlights contemporary intervention methods on the minor spaces within dwellings, adopting a critical stance towards the usual practices of dissociating parts of a construction. It advocates for a conscious and integrative approach to minor spaces as cultural heritage of the city in the process of densification.

Minor spaces emerged with the need for the hierarchical organisation of rooms within dwellings, in the local context, with the architectural compositional principles specific to the late 19th and early 20th centuries and the living protocol of privileged classes. These spaces, often overlooked in architectural history, exhibit boundary-negotiating characteristics, versatility, and a formal dilution capacity that endures over time.

The concept of minor space has been addressed only tangentially in the scholarly literature, often associated with service or auxiliary spaces. Within descriptions of Bucharest's urban dwelling architecture, it is rarely mentioned, typically only on functional reasons. Moreover, plans of houses where such spaces are most prominent, such as basements, are often omitted from specialized publications.

Minor spaces, as a term developed specifically for this doctoral research,

refer to secondary or service spaces within dwellings. These spaces often serve marginalized groups, such as domestic staff or, in the case of underprivileged households, the women of the family. However, this study explores minor spaces as a valuable resource for addressing contemporary urban development challenges, particularly within the wagon house typology. This typology itself emerged as a result of urban expansion, city growth, and the subdivision of large estates.

The current investigation explores the methods of transformation and resilience of minor spaces through case studies that exemplify trends in the city's evolution. To this end, the study analyzes both the initial and modified states of wagon houses. The research employs visual documentation, including architectural drawings, on-site photographs, and historical and contemporary plans of the context. Through these materials, the study observes the changes undergone by minor spaces and the wagon house typology, tracing their transformation and, in some cases, their disappearance from the urban fabric.

This study does not aim to provide an exhaustive account of the phenomenon of minor space transformation within the city. Instead, it is based on a selection of phenomena observed through case studies and acknowledges that these are not the only ways minor spaces may be altered. The conclusions drawn are a set of observations based on these specific examples and do not claim general applicability.

The need to adapt minor spaces is evident in the context of the contemporary city. Amidst the current housing crisis and growing real estate pressures, the city has begun to incorporate minor spaces organically, transforming them into living spaces with intrinsic property value. In the case of small and medium-sized urban dwellings—ranging from rudimentary wagon house typologies to more refined variants—housing pressure often leads to extreme outcomes, such as the fragmentation of the house into distinct segments. This results in the elimination of minor spaces in favour of new construction.

This inversion of spatial hierarchy allows new structures to gain height and economic value, while the primary building faces the risk of becoming a “museum piece.” This study examines the resilience of minor spaces as cultural heritage within the context of Bucharest. By highlighting current practices and their implications, it aims to promote a more thoughtful and conscious approach to the preservation and adaptation of these spaces.

### **Wagon House. Cultural Relevance and Specificity of Minor Spaces.**

The wagon house emerged as a result of urbanization and densification processes, representing a fundamental typological model that served as the basis for later housing typologies. Its narrow façade conceals an unexpected depth along the plot, with a sequential arrangement of rooms positioned in close proximity to either mirrored wagon houses or blind walls. The spaces created by this elongated and narrow configuration fostered a distinctive mode of living, sometimes peculiar but undeniably fascinating within the city's fabric. The specific plot shapes associated with this typology remain preserved in the urban fabric but are now occupied by alternative forms of wagon houses, such as multi-level apartment buildings. Despite their vertical expansion, these new structures continue to maintain

these new structures continue to maintain the same intimate spatial proximity, with only a shift in scale.

In late 19th-century Bucharest, French influence and the Parisian urban model were prominently reflected in both administrative policies, such as urban building regulations, and in societal lifestyles. Architecturally, the Beaux-Arts ideology heavily influenced private commissions, shaping both the aesthetic and spatial organization of homes. While Theodor Rădulescu [1] associated this type of dwelling with the marginal population, a reinterpretation of the rural peasant house adapted to an urban setting, this characterization does not entirely fit the wagon house. The basic form consisted of a minimum of three rooms: an entryway and two salons. The house exhibited a clear symmetry along a perpendicular axis centered on the entrance, even though the progression through the rooms followed a linear path.

The organization of domestic space as a cohesive architectural project brought about a clear separation of functions and spatial hierarchies, aligning with evolving family roles and rituals [2]. This reorganization also facilitated the proliferation of minor spaces, which were increasingly specialized to meet new needs. Initially, kitchens and cellars were appended to the three-room configuration, followed by corridors or verandas to improve circulation, alongside latrines and additional secondary rooms. This core layout was sometimes replicated, with supplementary, rudimentary annexes, such as sheds, added to the property.

The house layouts adhered closely to the plot boundaries, with minor spaces complementing the main spaces and often intricately woven into the overall design. These spaces catered to both new aspirations and the constraints of irregular plots characteristic of Bucharest's spontaneous urban development. The city itself was "minor" in comparison to its Western models, rooted in a Balkan-Byzantine cultural framework that resisted full assimilation of imported models. Instead, it distorted or imitated them without access to their original sources, which in itself introduced an element of modification.

The Beaux-Arts model was adapted to the local context, resulting in wagon houses that progressively adopted more complex and refined forms. However, by the early 20th century, Bucharest's building regulations began to discourage this typology, citing it as economically inefficient and unsanitary [3]. In some extreme cases, wagon houses were demolished, either due to public health concerns or to facilitate higher-density construction [4].

**Cases of Densification in Wagon Houses: The Vulnerability of Minor Spaces.** The following analysis explores several typical scenarios concerning the alteration of the spatial configuration of wagon houses. Through representative case studies from Bucharest, we will examine the modification and disappearance of minor spaces, as well as the complete replacement of wagon houses in some instances.

The first significant phase of lot densification associated with wagon houses occurred during the interwar period. During this time, the push for modernization, driven by new regulations and rising living standards, reshaped the urban fabric. The rear sections, or "tails" of wagon houses were often replaced by modernist buildings, effectively increasing the density of

the lots.

The removal of the minor space "tails" remains a contemporary practice that, especially in protected areas, often accompanies the replacement of buildings with larger structures, while imitating the decorative elements of the original façade. Unlike the replacement with an entirely new typology, as seen in the previous case, this approach replicates not necessarily the characteristics of the secondary body, but rather those of the main volume facing the street. This process leads to a superficial homogenization, but in reality, it creates an inverse hierarchy, as the new volume gains height, overshadowing the original structure.

In both of the cases mentioned above, despite the replacement of the minor space, the plot and the general layout of the buildings on the land maintain their original arrangement. The replacement of minor spaces with new constructions fundamentally alters the lot's length, occupying its full width while preserving the appearance of a wagon house at the front, but compromising its specific depth. This situation is particularly unusual within the urban fabric, as it obstructs the characteristic depth of visual penetration that is a defining feature of the wagon house. The new constructions effectively divide the lot into two distinct courtyards: one in the front and one in the back, thus masking the unique features of the original plot.

The romanticization of the past, coupled with the demand for densification, has given rise to a new phenomenon: the treatment of a building as merely a façade. This practice involves preserving only the minimal outward appearance of the house, a process akin to museification. Not only is the "tail" of the minor spaces erased, but the very essence of the original structure is compromised, with the street-facing room and its façade being retained as a mere shell. In the rear, a completely new building is imposed, permanently altering and distorting the original spatial hierarchy, resulting in a disconnected and disjointed architectural narrative.

A typical scenario in the 1990s and 2000s involved merely mimicking the façade of the wagon house, while a new building was constructed solely facing the street. If this small structure retains any memory of the old fabric, it is unclear whether this is intentional or a result of mandatory urban planning regulations. At the rear, however, a completely new design, characterized by a different scale and aesthetic, occupies the full length of the plot in a striking manner. This case can be described as the "elephant in the urban fabric," being highly unusual, not only because of the enormous scale difference but also due to its completely alien configuration in the Bucharest landscape. The new construction, with its rounded shape, appears to expand, seemingly covering the entire width and length of the plot, further distorting the spatial continuity.

The most extreme case is that of the complete disappearance of the original structure, which is becoming increasingly common. The total elimination of any distinction between the façade and the rear of the plot simplifies the complexity of the urban fabric through a uniform, entirely undifferentiated construction act. In this final case, the length of the plot becomes indistinguishable from the uniformity and height of the façade. This lack of nuance, almost modernist in nature, results in a sterile urban



environment, where the courtyard serves only as a sanitary space or a vehicle circulation area, stripping the plot of its original identity and character. This extreme homogenization of the urban tissue reduces the diversity of architectural types and weakens the connection to the historical fabric of the city.

**Conclusion.** Minor spaces, understood either as a sum of service rooms, secondary to the core part of a dwelling, or as a distinct part in the form of an annex, secondary body, or dependencies, are, as the cases highlighted reveal, certainly the most vulnerable in the face of densification. Moreover, the wagon house, by its very length characterized by the arrangement of minor spaces in depth and even the repetition of the formula, is itself minor in relation to the “valuable” fabric of the city, becoming vulnerable and in danger of disappearing.

At the urban context level, the intrinsic value of the minor spaces as cultural heritage of the city is at risk of being forgotten, erased, bringing buildings back to a form of restoration approached by Eugène Viollet-le-Duc to its originally imagined, ideal form, where the construction gains autonomy outside of its absolutely necessary, utilitarian spaces. The malleable character of these constructions allows fine negotiation of boundaries and the occupation of land, sometimes to the point of excess, allowing, encouraged by the building regulations of the period, either extremely small ventilation courtyards (in the case of medium and large-scale buildings) or a surprisingly narrow courtyard that forms between two lots (in the case of wagon houses).

The current tendency to replace these buildings with new constructions with more stories primarily leads to hyperdensification of the plot and raises the issue of natural lighting, where it was already problematic. Current regulations allow the retention of the current land occupation percentage, only on the condition that the existing boundaries (even the minor space) are preserved. Under the pressure of the street and the related regulations, buildings maintain their street-facing representative body, undergoing either minor or considerable modifications, leaving freedom for the “back” which takes on a new form, following the same footprints. This aspect is also influenced by some historical studies, which allow extensive modifications to minor spaces, considered “worthless.”

An integrative approach to this aspect is to treat the building as a single body, one that cannot be fragmented, and which was formed in this way precisely for this reason. The small, fragmented spaces work together with the main space of the house in the scenario of its use as a whole, and amputating them harms the very way the house functions. Far from offering an intervention solution in these cases, we rather advocate for an understanding of the building and its service apparatus as a whole, which, precisely because of its human scale, can easily be adapted to the new housing standards of the time.

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archival plans, which have been instrumental in the study of wagon house typology.

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## Figures.

FIGURE 1 – The interwar densification. Case study on Dacia Boulevard, no. 129, Bucharest (A. Localisation of the plot, B. Street façade, C Visual captures oriented toward the plot’s rear boundary, D. Plot plan showing the initial condition, E. Overlay of the plot plan in its current condition with the initial one, F. Volumetric representation of the current condition).

FIGURE 2 – Extinction of the ‘Tail’ and Pastiche. Case study on Plantelor Street, no. 21, Bucharest, idem.

FIGURE 3 – Dissimulation of the Plot. Case study on Silvestru Street, no. 53, 57, Bucharest, idem.

FIGURE 4 – Is a Façade a Building? Case study on Rosetti Street, no. 4, Bucharest, idem.

FIGURE 5 – The Elephant in the Urban Tissue. Case study on Domnița Ruxandra Street, no. 12, Bucharest, idem.

FIGURE 6 – Disappearance and Extrusion. Case study on Popa Petre Street, no. 5, Bucharest, idem.

1.



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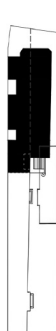
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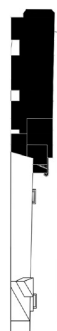
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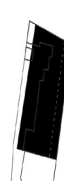
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6.



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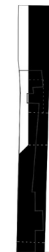
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# INTEGRATING OBSOLETE MILITARY BUILT HERITAGE INTO URBAN LIFE. A COMPARATIVE ANALYSIS OF COMMUNITY ENGAGEMENT WITHIN THE VALORIZATION OF BRIALMONT'S FORTIFICATIONS IN ROMANIA AND BELGIUM.

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**Abstract.** Architectural obsolescence acts as a catalyst in the process of abandonment, exerting a considerable influence on the destiny of built heritage. In the context of military edifices, this concept pertains to the decommissioning of a building, due to its inability to remain aligned with the fast-paced advancements in technology. Military built heritage is frequently the subject of abandonment due to ignorance of its patrimonial values, the absence of adequate protection measures and a lack of community engagement. The consequences of this type of anthropogenic disaster affect both the tangible and the intangible values of these structures, leading to: fragmentation, collapse, vandalism, loss of symbolic identity and disconnection from the urban fabric. The current state of the Bucharest Fortress, designed by H. Brialmont, reflects the narrative of an unfulfilled destiny. The disarming of the fortifications in 1916 marked the commencement of decay and decline, resulting in the abandonment of the majority of the ensemble. Conversely, the defense belts built by the same general in Belgium, during approximately the same period, have been revitalised as a result of community involvement. In the light of the aforementioned cases, this essay aims to showcase a comparative analysis between the current state of Brialmont's fortifications in Romania and Belgium, with regard to the role that community plays in the valorization of built military heritage. The paper will be developed by means of bibliographic, historical and comparative research, focusing on how participatory initiatives, linked to preservation and adaptive reuse, can instill a sense of ownership and facilitate the cultural integration of the Bucharest Fortress, based on the successful examples of Liège, Namur and Antwerp. This study is essential for highlighting the vital role that communities play in the fate of abandoned military built heritage, representing the pivotal factor, able to revitalize the Romanian fortification belt.

**Introduction.** Military constructions that have become redundant are oftentimes affected by the anthropogenic disaster, represented by abandonment, as a consequence being disregarded by the community and excluded from the urban life. The complexity of each constructive typology, the relationship with the topography of the site and the historical traumatic imprint make buildings, specific to this architectural programme, unique in their morphology and memorial value [1]. Military buildings are capable of evoking a profound representation of national identity, encompassing the geopolitical, economic and social factors that have shaped the construc-

tion techniques employed for defense purposes. Emanating a certain atmosphere which is more challenging to address, a sensitive approach is required when implementing an adaptive reuse project. The manner in which these edifices are presented to the public must take into account the symbolism of the site within the collective memory, and thus convey a positive and respectful perspective for its future use [2].

The decommissioning of the defensive structures, built by the Belgian general, both in Romania and Belgium, led to the scission of the ensemble, each fort being owned by a different stakeholder. As time passes, the materiality of the buildings was affected by fragmentation, decay, contamination and vandalism, arriving in a state in which their identity is unrecognisable. Consequently, it is difficult for the community to perceive in a coherent manner the immense value of each military complex in the absence of a holistic action plan [3]. Oblivion frequently takes over the immobile military heritage assets, being rooted in the fact that the individuals do not identify on a personal level with the site in question. The underlying cause of this situation can be attributed to the lack of public engagement initiatives, which are essential for fostering a strong emotional connection between humans and the built environment.

With regard to the valorization process, the inclusion of a civic participatory component into the redevelopment of obsolete military heritage is essential, as this is a crucial factor in ensuring the long-term viability and contextual relevance of the building within the urban fabric.

In the framework of the subject highlighted above, when addressing the case studies of military built heritage management in Belgium, in comparison to Romania, it is noticeable that the role of community engagement has a significant impact on the success of rehabilitation programmes (Figure 1). With regard to the management of Brialmont fortifications in Antwerp, Liège and Namur, this revitalisation tool is employed in an appropriate manner in accordance with the type of ownership specific to each fort, always focusing on the inclusion of citizens' needs and desires.

The objective of the present paper is focused on the following research question: how can the valorization of the Brialmont forts in Belgium be used as a good practice model in the case of the Bucharest fortifications?

This article addresses the underexplored analogy between the present state of the fortifications in these two instances through a comparative analysis, focused on the effectiveness of resident involvement strategies. It aims to highlight the possible actions that can be considered in order to bring the defensive ensemble of Bucharest to the state of the Belgian ones by identifying a set of success factors, based on the application of the Communication Model of Built Heritage Assets (COBA).

**Weaving the bond between the community and the immobile military heritage.** Attaining a profound connection to a building, moreover to an abandoned one, assures the commitment of the individual in the quest of safeguarding and raising awareness to other residents as well, being convinced by an optimistic glimpse into a thriving future destined for the built heritage. The necessary basis for obtaining such a result is grounded in the process of identifying with the military built asset on both a social and personal level.

When using the comparative analysis research method, the case studies will be discussed in analogy with the principles of the Communication Model of Built Heritage Assets (COBA), defined by Matthias Ripp and Susanne Hauer [4]. This strategy is centered around the integration of the objectives presented by the World Heritage Committee, precisely the “Five Cs”: credibility, conservation, capacity-building, communication and communities [5]. The success of the public engagement initiatives, part of the valorization process of the Brialmont forts in Belgium, is a result of an effective management of the five steps proposed for the development of the identification process: definition, awareness, exploration, participation and transfer [6]. Each type of interaction between the public and the built heritage asset changes progressively the perspective of the citizens. According to the COBA model, it is essential to involve a multisensorial approach in this strategy in order to form memory bonds and engage the human in the process of comprehending the layers of history and the potential of the site.

Starting from the initial state of oblivion and ignorance, the attitude of the individual is gradually shifting as a result of taking part in several initiatives meant to inform, raise awareness and encourage the exploration and participation (Figure 2). Consequently, reaching the final stage of individual commitment to the building’s revitalisation means that the gained experience is transferred to the other members of the community, acting as a catalyst for change.

The social identity is addressed in the scope of the first two ways of engaging, mainly consisting of identifying and understanding the history and importance of the site in question. The next phase, destined to create a connection with the personal identity, is oriented towards gaining information and actively participating in events related to heritage preservation. Lastly, once the final aim of the community engagement methods is reached, the level dedicated to communication and dissemination is attained, the residents are now being able to form a local network which gains its own power of raising awareness on the discussed topic [7].

The success of this entire process of binding the community and the built heritage is influenced by the way in which information on the subject is showcased. This aspect is highlighted in the guidebook of the acclaimed educational theorist, Étienne Charles Wenger, which stresses the importance of constantly updating the education tools in order to adapt to the interests and needs of the residents [8]. It is therefore crucial to include technology assets as components which have the potential of adding value to the visitors’ experience, attracting the attention of all age groups.

**The role of community engagement in shifting the destiny of the forts.** Depending on the architectural programme, specific to the built heritage asset, as in the case of the fortifications designed by general Brialmont, the community has a different attitude, being involved in a more direct or indirect manner, according to the role these edifices play in the cultural life. When it comes to the current relationship between the Bucharest Fortress and the residents, the research shows that many of the forts and batteries of the defense belt are inaccessible to the public, due to their assignment of military functions or being a private property.

Visitors do not derive any benefit from these generous and monumental spaces, with the exception of the sole structure that can be explored as a tourist attraction, Fort 13 Jilava, which is set to be transformed into a memorial museum [9]. With regard to the majority of the fortifications, they are explored and valued by small groups of individuals with a keen interest in military history. These citizens are willing to take considerable risks in order to gain access to the sites, which are in a state of advanced disrepair, overgrown with vegetation and some of them even being flooded.

The only initiative of engaging community in the revival of the Bucharest defense belt was the organization of the exhibition entitled *The capital’s forts*, 30 images from the future, having the aim of raising awareness on the subject [10]. Unfortunately, this event did not have a lasting impact on the public, due to its singularity and lack of visibility for diverse categories of people.

Addressing the actual state of the Belgian fortification belts, it is evident that the impact of the Second World War on the integrity of the forts is significant. The original form of these forts has been irrevocably altered as a result of the armed conflict. In the post-war period, the fate of the Brialmont-designed forts was determined by the Ministry of Defence and the cultural associations that took possession of them. In contrast to the Bucharest Fortress, a considerable number of forts have been utilised according to their memorial and historical significance, many of which have undergone restoration, conservation, and subsequent adaptive reuse. Some of the functions of the Brialmont fortifications include: museum, adventure park (Fort de Chaudfontaine), military device testing laboratory (Fort de Liers), accommodation and cultural events (Fort de Lantin), nature reserves, recreation area, event and coworking space (Fort 5 Edegem), exhibition and performance space (Fort 8 Hoboken), but also a playground for children (Fort Duffel) [11]. None of those actions would have been possible in the absence of a practice that highly values the civic involvement.

The intense sense of ownership that people have towards the built heritage asset is possible due to the presence of a diverse range of activities which address each step of the COBA model, in all three cities of Belgium. These initiatives are organized with the aid of heritage and environmental organisations, local municipalities and cultural institutions.

The definition and awareness phases are experienced with the aid of didactic exhibitions and flyers, and with the use of the latest technology advancements, the gamification is possible by using specialised apps (Fort de Saint-Héribert) and virtual reality platforms (Figure 3a). The guided tours, organised by the fort preservation associations, encourage people to explore and engage with both nature and the hidden historical symbolism of the site.

The participative component is materialized through creative endeavours, the most notable being: the organisation of Open Monument Day (Antwerp) and Occupation artistique d’un fort (Fort d’Emines, Namur) (Figure 3b) and FortBom Festival (Fort 4, Antwerp) [12]. These initiatives demonstrate the capacity of artists to revitalise and recapture the identity of defensive buildings, as well as to foster appreciation for the built heritage among the general public. Ultimately, the most important step which



ensures the continuity of the preservation actions towards the military ensembles is the transference. The multi-sensory approach is observed in the hosting of interactive activities such as workshops, local forums and volunteer events dedicated to conservation and restoration. One relevant example is the Summer in the Fort practice, taking place on the grounds of Fort Lier, which has gathered more than 1000 visitors. This represents an occasion for people to participate actively in the ever-changing process of adaptive reuse within the fortification belt of Antwerp, especially through the “dream the fort” exercise, in which more than 600 ideas from the community, envisioning the future functions of the building, were registered and publicly displayed [13]. With the involvement of local residents in these activities, the future cooperation with the cultural associations is strengthened and the network of NGOs is constantly developing.

**Conclusion.** Assessing the present situation of the valorization process of the Brialmont fortifications both in Romania and Belgium, it is obvious that the fortress of Bucharest is underutilised and currently hosts incompatible and damaging functions because people don't perceive its value and are not connected on a personal level with the heritage asset. Therefore, the only solution that could change the present situation is civic engagement with the help of volunteering organisations and cultural institutions, as well as applying the necessary legislation of preserving the military built heritage.

On the other hand, the case of Belgium, displaying a wide range of effective means of engaging the public, illustrates a set of success factors which serve as good practice examples for the “salvation” of the Bucharest fortress. The key elements of this strategy were: the involvement of all age groups, offering accessible and free information, activities which make use of all senses, focusing on the memorial and cultural values of the site in order to create identity bonds and following the five steps of the COBA model. These components are essential in the process of creating a shared memory and a community around the fortifications [14]. In this manner individuals will want to protect the buildings because they represent a significant part of their cultural life, as is the case with the powerful association Les Amis du Fort de Lantin, which is run by residents and old war prisoners since 1980 [15].

The positive outcomes of applying the COBA strategy include: the transfer of useful knowledge to the future generation, ensuring continuity of the preservation actions, value creation on a social, cultural and economical level in relation to the heritage asset and overall, generating a functional network of communication between private stakeholders, the residents and public institutions.

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## Figures.

FIGURE 1 – Fort 6 Afumați. Source: <https://forturi.ro/2022/09/04/fortul-vi-afumati/>.

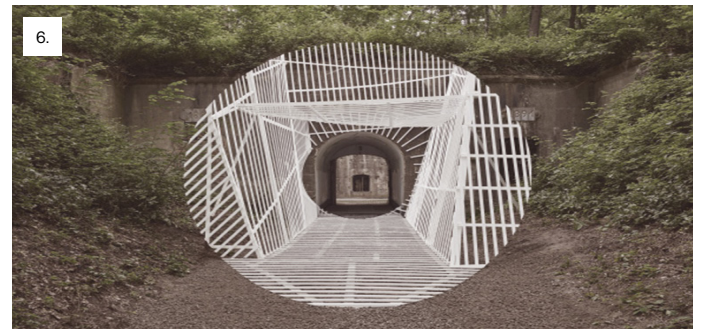
FIGURE 2 – Bicycle route connecting the Brialmont forts in Antwerp. Source: <https://www.pasar.be/artikel/fietsen-met-de-fiets-langs-de-brialmontforten>.

FIGURE 3 – Informative materials for all ages at Fort van Lier. Source: Masterplan Fort van Lier <https://www.lier.be/wonen-en-leven/stadsvernieuwing/projecten/patriomonium/fort-van-lier/masterplan>.

FIGURE 4 – Guided tours at Fort de St. Héribert. Source: <https://belgiumbattlefield.be/fr/node/52>.

FIGURE 5 – Virtual reality visit at Fort Flémalle. Source: <https://www.visitezliege.be/en/offre/fort-de-flemalle-et-son-musee>.

FIGURE 6 – Artist installation made by Georges Rousse for “Occupation artistique d’un fort” in Namur. Source: <https://www.province.namur.be/?rub=evenement&id=1403>.





## FORMS OF MEMORY. ARCHITECTURAL DESIGN FOR THE ANCIENT MURVIEDRO IN THE CONTEMPORARY CITY OF SAGUNTO

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**Abstract.** The relationship between old and new is one of the main theme of contemporary architecture. The comparison between the contemporary city, the ruins of archaeological complexes, the myth of their, is however a controversial theme. It's always destined to find a new balance, since the Modern time, when archaeology was defined as an autonomous discipline with respect to architecture. Since then we suffer for the 'fatal separation' between architecture and archaeology: united by the same desire to question time and shapes, but separated due to the outcomes of their researches. If the first, in its most enlightened expressions, proposes to carry on the deep meaning of crumbling shapes through new logical-syntactic compositions, the second limits itself to "reconstructing the history and art of remote times through the remains of the past, on which it bases a series of reflections, reconstructions, interesting conjectures, highly scientific, but absolutely infertile for life". The most orthodox interpretation of archaeology leads to the conservation as a static form of knowledge, crystallizing the event in the suspended time of a still-image. But when architecture applies in the concrete of a layered site, it should instead lean towards a perspective of renewed knowledge that admits the re-construction as a tool to reach the intelligibility of the underlying potential shape.

In order to the main topic of this conference this contribution aims to show how it's possible today work on the relationship between old and new not only for conservation reasons, rather to add 'something new' that can explain 'something old'. One of our recent project is a paradigm which thinks on the ontological relationship between architecture and archaeology. The goals of the project is understand and renew the urban and landscaping relationships that have historically characterized the image of these sites.

**Architecture and Archaeology after the 'fatal separation'.** In a conference held in November 2009, Francesco Venezia discussed the 'fatal separation' between architecture and archaeology, related disciplines that, starting from the early 19th c. have taken different paths. Until then, architecture held a sort of primacy in arts and construction, as it was the guardian of drawing. The decline is precisely represented by the gradual affirmation of modernity and the cultural changes it induced, which sanctioned the diaspora of knowledge classically understood – fragmented into sophisticated specialisms entrusted to various disciplines – exacerbating the conceptual and operational divergences even among traditionally related fields of thought and production. For example, in the case of the relationship between architecture and archaeology, it is the recognition of a different sensitivity towards the ancient and its maturation over time-parallel to the definition of antiquarian culture – that leads to a changed

perception of the ruin, primarily aesthetic: the ruin is no longer approached as a potential form to be interpreted and renewed but rather as an autonomous form endowed with its own expressive value. Since then, architecture and archaeology, once united by the same will to interrogate forms, diverge in their instrumental use of drawing – inventive in the first case, objective in the second – and evidently in the outcome of their research. While architecture, in its most enlightened expressions, aims to perpetuate the deep meaning of ruined forms through new logical-syntactical compositions, archaeology limits itself to "reconstructing through the remains of the past the history and art of remote times, overlaying them with reflections, reconstructions, and highly scientific conjectures, but absolutely unfruitful concerning life itself." [6] From this 'original sin' all subsequent disciplinary splits concerning architecture derive: 'restoration' and 'conservation' are just some of the direct offshoots.

Le Corbusier, just over a hundred years ago, tried to reconcile the antinomy between the old and the new by proposing an analogical reading that placed the achievements of the classical world – exemplified through the harmonious form of the Parthenon – on the same level as those of early modernity, embodied by the automobile, which, like the Greek temple, was recognized as a unit of elementary parts composed according to a predetermined syntax, thus exalting the idea of a possible 'new order' not modern because it was situated outside of time.

Especially concerning contemporaneity, the relationship with the ancient often appears insolubly suspended between innovation and conservation, equally necessary acts whose imbalance risks anchoring the terms of the debate towards a sterile dichotomy suspended between the idolatry of the ancient – not very profitable in terms of innovation – or conversely, in the opposite direction of an equally vacuous mystification of the new with the risk of obliterating memory. In this sense, both the practice of pure conservation and uncompromising innovation devoid of historical consciousness and continuity deny the process of sedimentation and modification of forms over time. Dissatisfaction with these approaches has led our research towards alternative experiences and points of view, seeking not only a coexistence between different aesthetics but a real genealogical relationship of derivation and descent that once again places architecture as a point of intersection between knowledge and skills. The reference is to that tradition of thought – strongly rooted in Western architectural culture and particularly in Italy – that still understands the forms of architecture and the city as facts of civilization and fields of study and interpretation. Therefore, our attention has turned to the heritage of research and contributions that, even in contemporary times, have pursued the enhancement of historical buildings as cities and landscapes transform, with the goal of reaffirming a specific operational line founded on the relationship between architecture/city and architecture/landscape (in general, architecture/context), on the theme of typology, and on the issue of built form. Or, returning to the words of Francesco Venezia, it has focused on those good practices that have been able to "evaluate the action of design as almost inherent to the world of stratigraphy of ruins." [6]

The privileged field for testing this research is the areas of fracture in the fabric and the zones of dissolution between the constituent parts of the

city and the landscape, those places where, in the void, all the inconsistencies of the sedimentation of different settlement principles over time, sometimes even alternative to each other, are more evident. In each of these contexts, architecture is called to act not so much in terms of recomposition but rather of revelation, making understandable through the project what would otherwise remain hidden in the syncopated stratification. In this sense, complex and archaeological areas are notable places where this line of research can be experimented with, aiming to investigate the validity of the architectural project on a simultaneous ambivalence of references: on the one hand, with the city and the landscape and their stratification, and on the other, with aspects more closely related to the constitutive identity of their parts.

Regarding the experience carried out in Sagunto, conscious of the impossibility of interpreting the uniqueness of the constituent parts of the ancient Roman city – also due to the obliteration of traces as in the case of the Circus destroyed in the 1960s – we intended to explore the complexity of the entire Roman layout, hidden by the modern fabric, which – besides the Theater already rehabilitated in the Grassi and Portaceli's project (1984-1993) – still survives in sporadic episodes detached from the original unity. Our approach relies more on memory than history: memory is exaltation of recollection without scientific rigor, but founded in history.

**Sagunto. Construction of a city.** Sagunto represented a key-point for connecting the North and South of the peninsula due to the presence of the port and the connection with maritime routes. Near Sagunto Via Augusta deviated from its route to reach the entrance to the city from the Northeast. In this area, beyond a few silent remains, the current toponymus still preserve the ancient memory of the place. Carrer Pont Romà – just beyond the river – and Plaça Antiga Moreria – in the historic center – tell of the complex system of access to the city: a Roman bridge – of which the ruins of the piers still resist in the riverbed – continued towards the hill, the path of the Via Augusta's branch that, just beyond the river, reached the monumental entrance to the city constituted by a gate – identifiable with the ancient Puerta Ferrisa – and a porticoed street, proposing a solution found in other Roman cities as well.

To those who traveled this stretch, a monumental urban scenography opened up, articulated on several terraces ascending towards the mid-slope Theater and the Forum at the top of the hill. This suggestive urban landscape was also captured by some artists visiting Sagunto: van den Wijngaerde portrayed the view of Murviedro (fig. 1), as did Laborde, who redrew the urban plan (fig. 2a), reporting in detail the remains of the monumental apparatus of the city, including the now-vanished Circus, whose construction would alter this system of access to the city.

**The city scene and the monumental apparatus.** The Circus occupied the space between Calle de Los Huertos and Avenida de Los Santos de Piedra. Until the mid-1970s, it was almost entirely preserved, as reported in the *Guía de los monumentos romanos y del Castillo de Sagunto*. Then, the necessary protection ceased and the entire area was converted into building land and saturated, erasing almost every trace of the Roman monument. However, it is possible to hypothesize a reconstruction based on

the work of Bru i Vidal and his detailed descriptions, confirmed by recent excavations. The construction of the Circus can be dated to around the mid-IInd c. BC on an area outside the city, probably used for burials. Its placement radically altered the system of access to the city from the Northwest, defined in the Republican era, as it interrupted the continuity of the Via Augusta's branch, which may have already been in a state of abandonment.

The study of aerial views from the 1930s (fig. 2b) and the detailed analysis of recent archaeological findings in Plaça Antiga Moreria have raised the hypothesis of the presence of an Amphitheater near the Circus. This complex is mentioned in the *Disertación sobre el Teatro y Circo de Sagunto* by E. Palos Y Navarro (1793) but finds no confirmation in the texts published by Chabret at the end of the 19th c.: this suggests that it was already lost. Taking as a reference the urban plan of Murviedro by Laborde, it's possible to hypothesize the location of the Amphitheater in the orchards just behind the curve of the Circus: however, Laborde's meticulous plan doesn't report any reference to the presence of an Amphitheater in this area: if these hypotheses were confirmed by evidence of traces, the set of public entertainment buildings in this part of the city would be completed.

The Theater is located halfway up the hill that descends from the Castle to the plain where the town of Sagunto is located, dominated by its mass. Archaeological studies place its construction just after the completion of the Forum, supporting the hypothesis of a complex designed as a unit to redesign the urban scene of the city. Its construction combines the idea of the Greek Theater, with the seating area resting on the slope, with the Roman Theater type, which presents the scenafrente raised to close off and exclude the view from inside to outside. This solution, while simplifying the construction of the seating, required the building of the stage body on an imposing terrace to overcome the slope below the complex. The appearance of the Theater until the early 1970s was that of a romantic ruin, although already in the early 1950s, the Theater's Museum was built against the eastern walls, contributing to concealing some portions of the ruins. Also, part of the scenafrente was hidden by a structure far from ephemeral, built in the early 1970s as support for theatrical activities, with no morphological or dimensional coherence with the Roman structure. A lot of restoration campaigns have been carried out continuously since the 1930s; however, they were poorly documented and followed mimetic criteria – in line with the trends of the time – that emphasized the picturesque character of the structures. A. Almagro Gorbea, tasked with continuing the consolidation and restoration operations in 1976, reported the impossibility of distinguishing the original parts from those already restored, precisely because of the gaps in documentation and the use of ancient materials and techniques. Before his photogrammetric survey conducted between 1977 and 1978, knowledge of the Theater was based on numerous textual descriptions – which, although contemporary, often contradicted each other – and the drawings by Laborde and Chabret, which, although precise, lacked scientific rigor. After the rehabilitation intervention by Grassi and Portaceli, the Theater has returned to express its role as an organizing element in the urban landscape of Sagunto, directing the view and the ascent path towards the hill.



The hill that marks the southern boundary of Sagunto is dominated by the Castle, a defensive complex composed of eight walled enclosures that extend along an East-West axis for about 800 meters. The layout has undergone several modifications over the centuries, primarily because its defensive vocation often led to the demolition of buildings and the reuse of materials to meet new needs. The discovery of remains from the Iberian and Roman periods on the western and southern slopes suggests that the limits of the fortress, as redrawn in the Islamic era, have little to do with the previous ones. The first settlement was the Iberian one, traces of which remain on the southern and western slopes of the hill. The Republican-era urbanization involved a significant expansion of the built areas, including the Northeast sector. The hill was topped by two enclosures: one to the west, where the oppidum would have been concentrated, and one to the east with the first official Roman-type buildings. Between the Punic Wars, the ancient oppidum improved its defenses, and a further enclosure was built east of the first. The II Punic War also favored the expansion of the city's perimeter with the construction of another sector in the current Plaça de Armas, perhaps the most interesting enclosure of the Castle, both for its history and the quantity of Roman-era remains found here. This area is the site of the Republican Forum, whose construction began after the victory in the II Punic War, when the city gained importance as a symbol of resistance against Carthage. To create the Forum, it was necessary to lower the entire area, demolishing some pre-existing Islamic-era buildings: this allowed the configuration of an open central space – respecting Vitruvius' proportion – surrounded by a porch on four sides. During the Middle Ages, the Roman-era buildings were demolished to their foundations; however, the analysis of these structures allows a plausible reconstruction of the original dimensions of the complex and the layout of the buildings. On the eastern side, a series of quadrangular rooms opened: the *tabernae*, spaces dedicated to commercial activities. Only the foundations of four of these rooms remain; however, it is plausible that these continued along the entire length of the square, interrupted only to allow passage from the Forum to the current Plaça de Almenara. The southern side was closed by a rectangular cistern: the presence of large water tank often denotes the nerve centers of the Roman city and confirms the importance of this enclosure in the urban layout. The most imposing building that faced the open central space of the Forum was certainly the Basilica, which delimited its western edge. This was the seat of the stock exchange and the court and served as a public meeting place for citizens. Today, only the foundations of this complex are appreciable, from which we can deduce the typical layout. On the northern side of the square, the portico – set on a raised base about a meter high – was interrupted in the middle by a building, whose importance is emphasized by its central position relative to the Forum's plan. It was probably a temple predating the construction of the Forum, later included in the new complex. In the northeastern corner was another building, also raised on a base, internally divided into two rooms, accessed via a staircase leading to a sort of *pronaos*. It is likely that the entire Forum system was designed simultaneously but that some buildings, like the Basilica, were built later.

**Forma Urbis Sagunti.** Sagunto is the result of a complex stratification of different historical epochs overlapped without interruption and sometimes

alternately, one compared to the other, and so dense as to make it difficult to distinguish the few remains. Paradoxically, even in the Theater, where the construction is contemporary and has not undergone overwriting except in modern times, the rehabilitation project by Grassi and Portaceli clashed with the inconsistency between the remains of the original Roman layout and the most recent modern restoration works, carried out with excessively mimetic techniques and materials.

In our research, the Roman layer was isolated and studied both in its singularity and in its relationship with previous and subsequent urban transformations: in this sense, the premise of the project's was the reconstruction of the *Forma Urbis Sagunti* (fig. 3) between the Republican and Imperial eras. Through the study of this complex and incomplete system it was possible to identify the formal determinants of the territorial and urban structure, the permanences – the Forum-Castle hill, the Theater, the Río Palancia, the Via Augusta, and its branch – and the elements missing or incomplete today, to recompose the majestic scenography capable of qualifying the city's image and guiding the view and the path as one proceeds from outside to inside up to the hill to reactivate a visiting route and start a real large-scale enhancement process capable of combining the complex relationships between the monument and the ordinary fabric.

The first intervention concerns the access to the city from the Northeast along Carrer Pont Romà and beyond the Río Palancia, at the site of the ancient Roman bridge, marked only by the presence of four incomplete piers. This was the 'pronaos' of access to the city before the system of porticoed street discovered under Plaça Antiga Moreria; from here, it was possible to perceive and admire the Forum-Castle hill as a whole and the imposing composition of public buildings rendered in the juxtaposition between the Forum and the Theater. The second area is directly located within the Forum's area, the administrative and religious center of the Roman city.

In the different contexts of this proposal, our research has been conducted through the project in a continuous interplay between different scales: from the urban scale – in wanting to rewrite the relationships between parts, including those today most unusual – to that of the individual artifact – solving local situations within the Forum or near the access on the Río Palancia – up to the detail scale – in defining the way in which new volumes emerge to reaffirm their being a monument and thus their otherness compared to the fabric, today as in the past.

**The Archaeological Promenade.** The proposal for an Archaeological Promenade (fig. 4) is configured as a sequence of diffuse and articulated places within the consolidated body of the city, also reconnecting ancient relationships between different areas and parts that were once connected and today are fatally separated.

The route begins to the northeast in Carrer Pont Romà, just outside the urban center naturally bounded by the Río Palancia, and ends on the hill of the Forum-Castle, crossing a portion of the modern city, today entirely without continuity until the edge of the slope. The intention is to restore formal autonomy to the scattered and decontextualized fragments to recompose the memory of the imposing urban scenography that was offered from the monumental Northeast access: "In Sagunto, the hill is the city of

a palace; the city is a sequence that unfolds from the base of the hill to the top, passing from the Theater to the Castle,” says Manuel Portaceli Roig.

Beyond the specific programmatic contingencies, the project becomes an opportunity to recognize the Forma Urbis Sagunti and enhance the notable elements of the Roman city – the Bridge and the Via Augusta’s branch; the Circus and the presumed Amphitheater; the Forum and the Castle – and to reaffirm on the urban scene the dialectical relationship between public building and ordinary fabric in terms analogous to what happened in antiquity. The approach to the theme, however, cannot disregard a dimension of thought that considers the necessity of concretely reconnecting the past time of the ruin with the present time of its possible use, also in relation to some of the Sustainable Development Goals identified by the UN Agenda 2030. The intent is theoretical when it aims to affirm the terms of a working method of a particular discipline as well as practical, proposing a possible formal and programmatic definition consistent with the premises.

**The new Bridge as a ‘Monumental’ Gate.** By its ontological nature, the ‘inhabited bridge’ combines the act of crossing with the possibility of accommodating other functions of various kinds. In this sense, in our proposal, the suggestion of a new ‘inhabited bridge’ can, therefore, reasonably constitute both a physical connection between different and divided portions of the same urban fabric as well as a ‘metaphorical’ connection between the contemporary city and the ancient one. The opportunity to establish communication also conceals the opportunity to bring to the surface the idea that supported an urban and territorial design, now lost, with the construction of the Circus and the demolition of the Bridge but which has inevitably continued to influence the very form of the city, as it is indelibly imprinted on the urban plan. The new Bridge manages to justify and substantiate all the monumental constructions that dot the hill of the Castle and its slopes, putting them back in the right scale compared to the ordinary fabric.

The ruins of the Roman bridge are taken as the formal and dimensional matrix of the new structure, determining the position and rhythm of the new supports for the newly constructed deck. Furthermore, the plan at the city’s level – designed to ensure the proper physical continuity for pedestrians and cyclists between the opposite banks – is also conceived in relation to the very presence of the ruins, allowing them to be viewed from above, even though the new volume overlaps exactly with the site of the ancient Roman bridge.

Reinserted into the urban syntax, this element is visually continuous with the ruins of the Circus, the funeral monument of the Gens Sergia, the Theater, the Hill, and the Forum-Castle. The importance of this visual axis is emphasized by the placement of a privileged observation point: the southern elevation is characterized by a large loggia that directs the observer’s gaze precisely towards the hill. However, the new bridge is a very introverted construction, open towards the outside only in relation to the city.

There are three distinct but related levels of movement, although its height is always within the height of the surrounding buildings: it distinguishes and qualifies itself for being an urban infrastructure rather than for its bulk.

The new volume, although appearing monolithic, is characterized by a

high degree of fragmentation, expressed to the fullest in the city-level plan conceived for autonomous nuclei and in the large cleft that characterizes the upper volume. This cleft is made at the three central piers to chip away at the formal perfection of the artefact and accentuate the presence of the ruins. Towards the Rio, the Bridge shows a split-face cladding of the walls and abstract surfaces. Inside – at the ends and in correspondence with the large central void – the ‘unfinished’ form of the architecture is balanced by the use of a polished stone slab cladding.

In the two volumes generated by the cleft, an exhibition space is located, where the model of Roman Sagunto, along with other artifacts, is presented; a center for archaeologists equipped with a stepped conference room, a double-height library, four classrooms, and a small patio.

While the upper levels’ public opening is connected to the activities carried out there, the city-level plan remains always accessible and hosts various functions mainly concentrated on the northern front, typologically configuring itself as a fragment of a porticoed street, recovering the memory of the ancient monumental access. The ruins-level plan at the river’s height is conceived as an Urban Park: this level is accessible from the street by long and contained ramps that simulate slow progress in coherence with the dimension of otium generally associated with park use.

**The new Forum.** The intervention in the Forum focuses on the necessary signs to bring out the open and bounded central space of the Roman Forum. This system is evoked through the (re-)construction of partitions that propose the original layout without ever directly affecting the ruin. Each structure is, in fact, supported by stone curbs founded superficially in the soil only where the ruin is no longer present and cannot, therefore, constitute a prejudice to the underlying archaeological substrate, with the aim of a completely reversible and temporary intervention.

The same constructive philosophy is pursued in every area of the project, even in the Temple, the only intervention that – facing directly outward from the Forum’s site – aims to restore a logical and plausible volumetry of the previous building based on a proportional study returned through the measurement of the site. This choice is directed at the will to restore the memory of the Forum’s monumental front and the hill towards the city.

The new Temple is articulated on three successive levels, starting from a slightly elevated level compared to the Forum – like in Grassi and Portaceli project (not realized) – considering the threshold space as an initiatory moment of mediation between the outside and inside. This level aims to evoke the Temple type according to the reconstructions provided by archaeological studies: the tetrastyle pronaos is recalled by the relocation of the two remaining column bases and the construction of two lateral vertical walls; the cella is instead described by an enclosed environment whose cover rises slightly above the perimeter partitions, cut only by a horizontal slit on three sides that allows the view outwards. The intermediate level houses an exhibition space from which it is possible to observe the ruins from above; the top floor is located right at the foundation structures’ level.

The remaining sides of the Forum are redefined locally to underline the Forum’s enclosed and confined space condition. To the west, the (re-)construction of the Basilica wall is proposed, while to the east, the (re-)

construction of the tabernae front is carried out. The southern side, originally delimited by a large cistern extending also to the underground level, the only trace still surviving today, is closed by a new volume in which a perspective relief is inserted, literally staging the reconstruction of the Forum's porticoed front. This is realized using the technique of perspective relief, working with slight and progressive subtractions from material from a massive stone block wall: in this way, it was possible to recreate the perception of a portion of the portico (about 18 meters) in a reduced thickness. This artifice contributes to providing a full understanding of the Roman Forum and the aspect it must have had around the 1st century BC.

The portico around the Forum is also described through the pavement that proposes the rhythm of the colonnade with slight variations in level and colour in correspondence with the columns.

Excavations carried out in Plaça de Armas between the nineteenth and twentieth centuries resulted in some areas being at a level nearly 4 meters lower than the site's average level. These areas refer to Iberian stratification since the Roman Forum was built on the foundations of previous buildings. It seemed appropriate to preserve this diversity without, however, renouncing to uniform the Forum's level. At the portico's location, walkable covers have been placed in continuity with the rest of the parterre's design, while for the square, the solution involves a non-walkable cover treated on top with stabilized earth. In this way, it was possible to highlight the stratigraphic succession of the Forum area and create a suitable environment for exhibiting Iberian-era remains.

Part of the project is located in the overlying Plaça de Almenara, which is already the subject of Grassi and Portaceli's proposal. Even in our proposal, it is considered necessary to confirm the hypothesis of intervention along the path of the Arab walls with the intent to gain a privileged viewpoint on the Forum, to appreciate and understand its space.

**The right construction.** The complex of these interventions, despite the heterogeneity of themes and specific physical application contexts in which they were developed, represents, if not a theory, at least a plausible contemporary trend in the architecture project that, starting from the recognition of a specific operational tradition of intervention on heritage, moves towards a renewed form of synthetic elaboration of knowledge capable of reestablishing the role and meaning of architecture within the complex process of project elaboration, from the ideation phase to realization, which today necessarily cannot disregard multidisciplinary. Beyond the intrinsic quality of the individual proposals, these hypotheses are an example of a process to refer to in reaffirming a central role for the architecture project into the wide panorama of knowledge. In relation to the multidisciplinary dimension of the project, a significant part of these projects has been applied to studying the most appropriate construction technologies in relation to the different areas, both to limit the risk of intersection with the archaeological site and to try to translate into concrete form the idea of reaffirming the volumetric presence of the monuments within the fabric, evoking their ancient form in the scene of the contemporary city.

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## Figures.

FIGURE 1 - View of Murviedro (A. van den Wijngaerde, 1563)

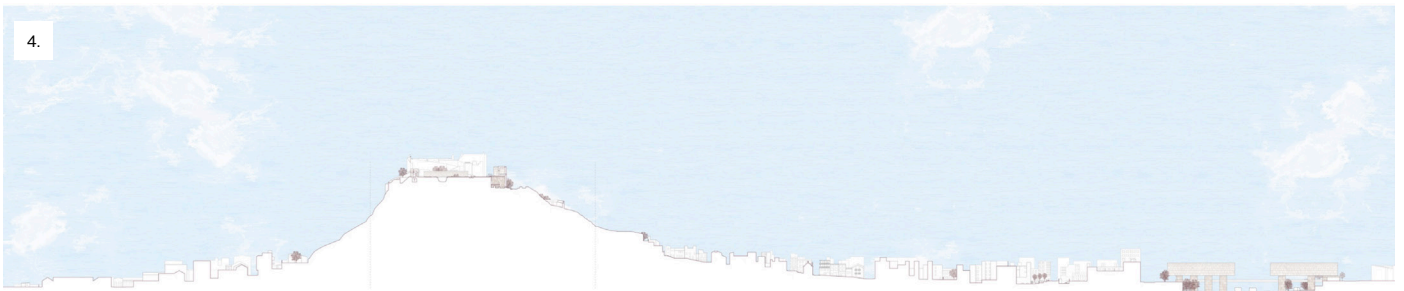
FIGURE 2 - Planta de Murviedro (A. Laborde, 1811) compared with an aerial view (1937)

FIGURE 3 - Forma Urbis Sagunti and the Archaeological Promenade (part of the research work by B. Barile, A. Bertasini, L. d'Onofrio under the supervision of prof. V. Tolve and dott. E. Hernández Hervás, 2018)

FIGURE 4 - The Archaeological Promenade (part of the research work by B. Barile, A. Bertasini, L. d'Onofrio under the supervision of prof. V. Tolve and dott. E. Hernández Hervás, 2018)

FIGURE 5 - The new Forum (part of the research work by B. Barile, A. Bertasini, L. d'Onofrio under the supervision of prof. V. Tolve and dott. E. Hernández Hervás, 2018)







## LIMINAL SPACES OF THE ANCIENT CITY. REDEVELOPEMENT PROJECT FOR THE SANT'AGOSTINO COMPLEX IN COMACCHIO

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**Abstract.** What is the meaning of “tradition” and what role might it serve in contemporary practice? Trying to answer these questions, the text explores the interplay between tradition and innovation in the context of architectural regeneration. The discussion focuses on the Sant’Agostino Complex in Comacchio, Italy, a competition project aiming to redefine the relationship between historical preservation and contemporary intervention. The design integrates the site’s historical elements with new, context-sensitive architecture, creating a multifunctional space that bridges urban, cultural, and social needs.

The competition highlights the duality of architectural contests in Italy: their potential for interdisciplinary creativity versus systemic inefficiencies. Despite these challenges, the project leverages the competition as a critical tool to propose alternative visions for urban regeneration. It emphasizes the role of architecture as a medium for cultural dialogue, sustainability, and innovation.

The design strategy incorporates historical and morphological analysis of Comacchio, respecting its canal-based urban fabric and monumental heritage. The program features a theater, cultural spaces, a hostel, and artisanal workshops, linked by a cohesive architectural language and sustainable materials. Phased construction ensures feasibility while addressing environmental and social needs.

By critically reinterpreting the competition framework, the project transforms constraints into opportunities for experimentation. It underscores architecture’s role as a transformative force, offering a sustainable, tradition-conscious model for urban and cultural renewal.

**Introduction.** Tradition is a matter of much wider significance. It cannot be inherited, and if you want it you must obtain it by great labour. It involves, in the first place, the historical sense, which we may call nearly indispensable to anyone who would continue to be a poet [...]; and the historical sense involves a perception, not only of the pastness of the past, but of its presence; the historical sense compels a man to write not merely with his own generation in his bones, but with a feeling that the whole of the literature of Europe from Homer and within it the whole of the literature of his own country has a simultaneous existence and composes a simultaneous order. This historical sense, which is a sense of the timeless as well as of the temporal and of the timeless and of the temporal together, is what makes a writer most acutely conscious of his place in time, of his place in

time, of his contemporaneity» [1].

These words by Thomas S. Eliot clearly and effectively summarize the measure through which historical heritage—and, more broadly, tradition—should be understood. Every writer, poet, artist, musician, architect—every composer—must comprehend not only the belonging of ancient works to the past (their temporal dimension) but also their belonging to the present (their timeless dimension), as “present” entities rich with significant-non-temporal – values that still contribute to shaping the contemporary world.

It is within these terms, and according to this vision, that the competition project for the urban redevelopment of the Sant’Agostino Complex in Comacchio was approached [2]. The pre-existing elements of the ancient city, which are intended for substantial preservation, undergo a process of re-signification through the insertion of a contemporary sign. In this way, historical heritage is returned to the present with a new meaning, actively participating in the construction of the city’s contemporary image (Figure1).

**Architectural competitions in Italy.** To clarify the strategy adopted for this competition, it is essential first to understand the critical framework within which the project was developed.

In the panorama of contemporary architecture, competitions represent a condition of ambivalence: on the one hand, they provide a horizontal platform for the development of original solutions through interdisciplinary dialogue; on the other, they suffer from evident contradictions that limit their effectiveness. These include, as in this case, the structural deficiencies of the competition system itself, often stemming from persistent technical-political and bureaucratic-legal-economic approximations. The lack of strategic vision in drafting calls for proposals and the absence of a shared commitment to innovation inevitably lead to outcomes disconnected from the needs of the territory and its communities. Competitions thus risk becoming formal exercises, detached from an authentic vision of urban and social regeneration, reflecting a broader crisis in the relationship between architecture, institutions, and society.

In this context, the project for the Sant’Agostino Complex in Comacchio emerges as an emblematic case that transcends merely responding to the call for proposals, positioning itself as a critical and manifest exercise. Fully aware of the intrinsic shortcomings of the competition structure, this opportunity was embraced as a chance to question the present and the very role of architecture in contemporary society. Here, the project becomes a narrative tool, presenting a programmatic vision regarding the relationship between architecture and history.

**The project as a manifest and critical tool.** The proposal for the Sant’Agostino Complex in Comacchio was conceived as an exercise in architectural critique – an effective opportunity for self-reflection rooted in prior project experience, such as the “Mare Culturale Urbano” artistic and cultural production centre in Milan. That project had already addressed many of the themes at hand, not only in terms of functional program articulation but also regarding a strategic vision embedded in the project’s regenerative potential.

Far from being merely repetitive, this approach allowed for refining and expanding research based on real issues and a careful reading of the context. The project does not simply comply with the requirements of the competition but leverages it as an opportunity to test ideas, challenge conventions, and propose an alternative vision of the relationship between urban space and cultural production within a built environment rich in historical pre-existences. The project's manifest value lies in its ability to use the competition as a critical narrative: rather than adopting a rhetorical and self-referential approach, the work for the Sant'Agostino Complex serves as a form of experimental verification. Through a thorough study of the context and the competition's guidelines, the project does not passively adhere to them but reinterprets them as constraints (rather than rules), proposing alternative solutions that respect but challenge their rigidity. This approach finds historical precedent in numerous examples where architectural innovation arose from critical reinterpretations of existing rules.

Every design choice was guided by a commitment to coherence with available resources and the ambition to withstand the test of time. The aim was not to produce a self-serving work but an architecture that dialogues with the existing city, addressing present needs while envisioning a sustainable future. In this sense, the project becomes an act of resistance against the wear of time, not only in material terms but also culturally and socially.

The competition here becomes an opportunity to delve into fundamental questions such as the boundary between interior and exterior, the complementarity of functions, and the value of urban space as a place of relationships. It thus acts as an exercise in listening, capturing and reinterpreting the signs of the context to propose a vision that transcends bureaucratic and technical-formal rhetoric.

### **Morphological and geographical specificities of Comacchio.**

From an urban perspective, the project considers the entire *forma urbis* of Comacchio, characterized by a strong morpho-typological imprint and a clear geographical orientation. The project aims to culminate this system, aspiring to be a formally "qualified and qualifying" [2] intervention – a clarifying role in the city's urban matrix, particularly concerning the large void of Piazza Roma, located near the intervention site.

Morphologically, the city is structured along a linear east-west axis (Corso Garibaldi), intersected by an urban fabric composed of continuous building fronts, cut perpendicularly by various water channels.

Walking along the main axis from west to east, one encounters a series of significant monumental buildings (Figure 2) around which the urban structure unfolds, culminating in the Sant'Agostino Complex area: Santuario di Santa Maria in Aula Regia; Cattedrale di San Cassiano; Chiesa dei Caduti o del Suffragio; Loggia del Grano and Torre Civica; Chiesa del Rosario; Ospedale degli Infermi; Palazzo Bellini; Ponte Pallotta or Trepponti. With its network of canals and peripheral condition, Comacchio provides a unique context for reflecting on the destiny of Italy's historic-artistic centres. The city exemplifies territorial fragility, where urban regeneration faces challenges related to preserving architectural heritage and enhancing local resources. The decision to launch a competition for a multifunctional complex centred on artistic and cultural production reflects an attempt

to address these issues, though the operational modalities of the call for proposals betray a somewhat approximate and non-strategic vision.

The Sant'Agostino Complex project addressed these territorial specificities through an in-depth analysis of Comacchio's morphological and geographical characteristics. The objective was to integrate the new intervention into the existing urban fabric, proposing a system of functions that would meet local community needs while also attracting a broader audience. This focus on context translated into a design that aims to establish a dialogue between historical pre-existences and new insertions, avoiding dissonant contrasts while embracing a contemporary language.

**The project - Design strategy and functional program.** The Sant'Agostino Complex is located at the end of Corso Garibaldi, at the eastern end of the urban longitudinal axis. It was built between the 6th and 7th centuries and initially dedicated to Saint Mauro. Over time, it underwent numerous invasions by Venetians and Saracens, falling into ruin before being reactivated in 1622 by the Augustinian Fathers. In the early 1700s, it was transformed into a military fortress by the Austrians, but later, the religious community restored its original function. Since then, the church has seen various uses, becoming a school in the 1920s until its complete abandonment around 1967.

From the programmatic point of view, it is possible to trace the integration of the different elements of the new complex, organized according to an appropriately articulated distribution scheme (Figure 3). These functions relate to each other through a collaborative logic that allows the entire complex to operate simultaneously and complementarily, adding hospitality and accommodation functions to the main theatrical purpose. This includes not only spectators but also artisans, artists, and resident companies. The importance of residential spaces in such a structure is demonstrated by the main similar experiences in contemporary theatre.

The entire complex's distribution backbone on the ground floor includes a large linear covered foyer, which connects all the main functions and links the courtyard-garden with the bar-bistro and restaurant (Figure 4). It also connects to the outdoor staging area (cinema, scenic setups, outdoor concerts, performances, installations, etc.). Longitudinally, there is access to the kitchens and staff areas for the bar-restaurant, as well as service entrances for scenic warehouses and workshops. The theatre is equipped with a wardrobe and ticket offices, which are centrally located and serve as distribution points, information desks, and monitoring stations for the entire complex. In addition to numerous dressing rooms, the theatre includes a makeup room and laundry facilities. Near the pedestrian bridge, there is a bookshop.

On the opposite side of the foyer, with independent access from Piazza Roma, is the reception for the hostel, overlooking the small "Corte delle Betulle" (Birch Court). This wing also houses several classrooms for educational purposes, which open onto another garden area with seating. This space faces a series of duplex ateliers designated for various forms of sustainable craftsmanship. On the first floor, above the restaurant, are the administrative offices, a technical volume for soundproofed systems, and a large auditorium that occupies the church's volume. The linear foyer is

intended as a large rotating exhibition space and artist residence workshop. Additionally, a rehearsal room, remote audio-video control room, and costume storage are located here. In the opposite wing, there are hostel rooms, while the perimeter volume accommodates artist residencies. A structure with such an articulated program increases the performance capabilities and opportunities for use, favouring evident positive effects on the entire urban sector. The main idea of the project is to redefine the site perimeter starting from a long, variable-section volume (Figure 5), capable of enhancing the figurative impact of the intervention by evoking an ancient dimension, making it easy to perceive the Sant'Agostino Complex as a fortified mass, the ultimate result of Comacchio's morphological system. Urbanistically, the project includes a connection to the road network via a bridge that extends the lateral road at Piazzale Roma towards Via degli Agostiniani, crossing the Marozzo Canal. A pedestrian bridge is also planned to accentuate the longitudinal essence of the city of Comacchio and offer access to the complex from outside the city.

**Materials and architectural language.** The project adopts an architectural language that harmoniously interacts with the historical context of the city, reinterpreting it in a contemporary way with the clear intention of "recovering its beauty" [3]. The choice of materials was guided by sensitivity to local tradition and the desire to ensure environmental sustainability and durability. The edge volume is designed with small brick blocks arranged on edge. The theatre volume, with its facade facing the large green courtyard, is envisioned with backlit glass blocks. The connecting volumes with the existing structure are made of cement conglomerate in olive-grey-green tones, while the linear foyer is clad in galvanized sheet metal to establish its own linguistic autonomy. All floors are made of pigmented concrete in various shades that reference the materials of the construction (Figure 6).

**Sustainability strategies.** Environmental sustainability is a central element of the project. Solutions include ventilated facades and thermal insulation systems that ensure high energy efficiency. Natural ventilation is facilitated by the strategic placement of openings, while heat pump systems and photovoltaic panels reduce overall energy consumption. Rainwater recovery is integrated into the water resource management system, with collected water used for irrigation of green areas. These solutions not only reduce environmental impact but also contribute to creating a virtuous cycle of resource management.

**Construction phases.** The project serves as an exemplary model of how architecture can respond to the challenges of urban and cultural regeneration. Its strength lies in the ability to integrate tradition and innovation, proposing solutions that engage with the historical context and meet contemporary needs. However, some challenges, such as costs and construction timelines, require particular attention to ensure the success of the intervention. For these reasons, the complex functional structure of the new buildings, in addition to being traceable in the evolution of its different uses throughout history (the complex has functioned as a fort, monastery, educational complex, etc. since the 16th century), sees a possible realization through a phased construction program divided into three distinct stages: the first phase includes the construction of the 480-seat

theatre and its accessory spaces, the restoration of the Sant'Agostino complex for entrance and bar/bistro functions, securing all existing buildings, and the creation of the new restaurant block; the second phase includes the restoration of the Sant'Agostino wing for the new Comacchio Hostel (with classrooms), the construction of the new covered linear foyer and exhibition space, and the new volume for the suspended hall; the third phase involves the creation of the atelier-laboratories block and the artists' residency accommodations.

**Conclusions.** The desire to combine a critical approach with a programmatic and sustainable vision is concretized through a constant dialogue between tradition and innovation. The project proposes an architectural model that does not merely respond to functional needs but questions the role of the project as a tool for social and cultural transformation. Architecture can still represent a means to explore the future possibilities of our places. The confrontation with history and tradition was addressed starting from the elements present on-site, envisioning their contemporary reinterpretation for the city of today. The thoughtful use of resources, attention to environmental sustainability, and the search for a language that withstands the test of time were the cornerstone principles of the project. The competition can still be an effective tool for questioning the present and proposing alternative visions. Far from academic or speculative logics, the project stands as a critical and constructive act, capable of transforming the limitations of a brief into opportunities to explore new possibilities. This experience underscores the fundamental role of architecture as a critical and manifest narrative, capable of impacting not only physical space but also our way of living and interpreting the world. The contents of this essay have been fully discussed, structured as a whole, and shared by the authors. Specifically, the paragraphs "Introduction" and "Architectural competition in Italy" were written by Andrea Valvason; "The project as a manifest and critical tool" and "Morphological and geographical specificities of Comacchio" by Carlo Gandolfi, while the entire section titled "The project" was co-authored by both authors.

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- [2] The project was developed by Bunker Arc studio in Milan in 2017. Architectural design: Carlo Gandolfi, Roberto Molteni, Matteo Donghi with Andrea Valvason. Acoustic design: Dario Paini. Landscape design: Atelier de Molfetta Strode. Model photos: © Marco Menghi.
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- [4] See, in this regard, Paolo Marconi, *Il recupero della bellezza* (Skira, Milano, 2005) pp. 37 et seq.

## Figures.

FIGURE 1 – Composition with a view of the project (right end) featured in F. Felletti, processional banner of San Cassiano, detail with view of Comacchio, 1865, Chiesa di San Cassiano, Comacchio (Ferrara).

FIGURE 2 – Axonometric view of the city of Comacchio highlighting the monumental pre-existing structures (in yellow) and the project (in red).

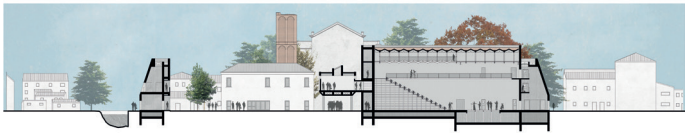
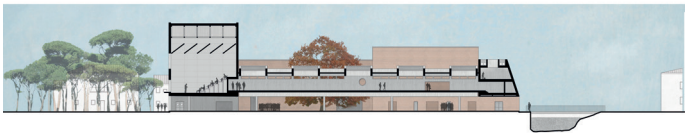
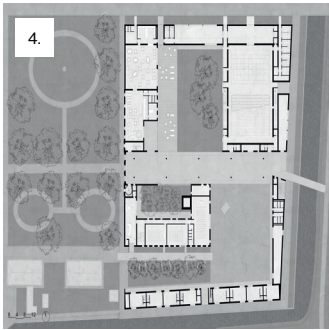
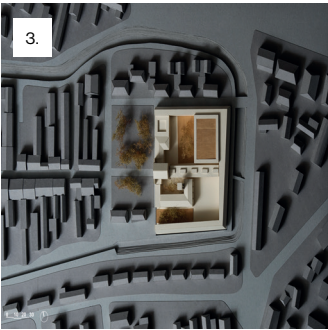
FIGURE 3 – Architectural model, top-down view. (Ph. © Marco Menghi)

FIGURE 4 – Ground floor plan.

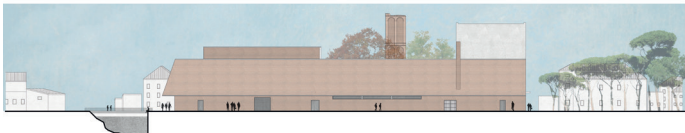
FIGURE 5 – Cross-sections.

FIGURE 6 – Elevations: West; North; East.

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## GIUNTI ODEON IN FLORENCE: AN HYPERTOPIA CHALLENGING THE BOUNDARIES BETWEEN HERITAGE AND INNOVATION

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**Abstract.** The Giunti Odeon in Florence is a remarkable case study when rethinking the relationships and boundaries between heritage and innovation. The contribution will deal with a modern heritage and the concept of innovation will refer to its technical aspects but above all to its cultural and theoretical dimensions. Due to the Covid-19 pandemic, the former Cinema-Theatre housed in Palazzo dello Strozzi underwent a financial crisis. The latter has represented the opportunity to reinvent this place, a heritage protected by the Ministry of Culture and deeply rooted in the collective memory of the inhabitants of Florence who fought to defend the cinema's function. Following its opening to the public in 2023, the majestic space restored by Studio Benaim houses in an almost sacred atmosphere a cinema and a bookshop that seem to define an extension of the outdoor public spaces. The complexity of the proposed programme, addressed through a project that appears rigorously elementary, is the strength of a proposal capable of combining economic sustainability, social demands and above all architectural values. The two functions overlap in the central space of the ancient palace inducing silence and respect for the users while working, eating, shopping, reading, watching films or just wandering. Considering that the uncontrolled diffusion of streaming platforms for movies and series has put the Foucauldian heterotopia of cinema currently at risk of disappearing, beyond the various and valuable adaptive reuses of underused architectures as movie theatres, Studio Benaim's Giunti Odeon appears as a spatialisation of the concept of “hypertopia”. In this sense, the case study will be discussed to demonstrate how a different and innovative approach to the modern heritage of heterotopias is possible if the boundaries of design are challenged through a complex design approach that demonstrates a cultural innovation that enhances differences and promotes coexistence.

**Introduction.** This paper is part of research concerning the obsolescence [1] of those recent heritages conceived with a strong relation to progress (e.g. industrial heritage [2]), functions (e.g. cemeteries [3]), norms (e.g. asylums [4]) or technological innovations (e.g. temporary post-emergency residences [5]).

Within the complex contemporary urban reality in which, on the one hand, the pace at which the relationships between supply-demand and need-possibility change seems unstoppable and, on the other, living has an increasingly nomadic character [6] also due to the pervasiveness of the virtual, the process of producing “former-something” [7] has become extremely fast and widespread. This system of very diverse heritages in terms of size, types and materiality represents indeed a complex and wide-ranging problem if we agree on the need to go “against the throwaway city” [8] and to

experiment with strategies of regeneration, reuse and reactivation [9].

One of the first effects of obsolescence at the urban scale is the decommissioning of these former something. And yet, assuming on the one hand the impossibility of physically removing a building – unless in specific and rare cases – and on the other the reticent approach to demolition – rooted above all in the Italian cultural and therefore regulatory panorama –, this process of decommissioning results in terms of urban form almost always in the creation or reinforcement of closures, fences and enclosures [10]. In fact, either in order to protect these places or to protect the surrounding urban system from these places themselves, such obsolete artefacts are isolated – turned into islands – atomising them within the urban system. Interestingly, such isolation sometimes, when in the most fortunate conditions it escapes oblivion, becomes a premise for the germination of new communities, actions, desires and values. In this sense, this modern and contemporary heritage that becomes a former-something can be considered a critical heritage to be reinterpreted in relation to the critical contemporary context [11].

Through the case of the Giunti Odeon, the paper intends to show how, by adopting paradigms and design approaches aimed at favouring the concepts of coexistence and co-presence, these former-somethings can represent opportunities for innovation in which the term ‘heritage’ addresses the future and the attribute ‘critical’ relates positively to the condition of ‘crisis’, understood as a moment of choice and therefore of origin.

In this sense, design action should counter the paradox of protection. The enucleation of these encapsulated, hidden and forgotten urban organisms ends up defining cysts in the body of the city instead of providing new resources, even temporary ones, and opportunities for experimentation for new design and management models. In fact, a project aiming at the valorisation of these urban resources should not enclose but open up and make available, enable existing social forces and interests, design with what already exists [12], ultimately act against protection understood as a mantra necessary for conservation, and as a factor sometimes concurrent to obsolescence and thus negation.

At this end, the article interprets the cinema as a modern architectural type conceived as a heterotopia [13] subject to a sudden process of obsolescence over the last decade and, through the case of the former Cinema Teatro Odeon in Florence, shows how a contemporary design approach to the heritage valorisation can innovate both the memory and the new urban value of these former-something.

**The cinema nowadays.** The cinema was considered by Michel Foucault, together with the garden and the theatre, to be one of the heterotopias most representative of the third principle of heterotopology, namely the capacity “of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible. [...] The cinema is a very odd rectangular room, at the end of which, on a two-dimensional screen, one sees the projection of a three-dimensional space” [13]. However, the cinema today is an architectural type whose *raison d'être* is being questioned because there is a progressive “loss of darkness” [14], that is, a loss of one of the elementary physical and spatial conditions for the architectural composi-

tion of these facilities. Also, “to make one’s way into the Wagnerian darkness of a cinema is an aesthetic experience of extraordinary power and intensity. In that moment we are not merely entering a space within a building, we are also entering a place elsewhere” [15]. The question therefore arises as to whether the darkroom, although challenged by the ways of inhabiting and receiving the film product, continues to live on and can maintain its identity despite the transformation.

Today, film products reach us everywhere, offering themselves for - even more - mass consumption, and this distances us from those buildings that over the last century have created bridges between local and global as well as between present, past and future. This is a building type that has progressively sought its own character: first starting with the travelling shacks of the cinematograph that acted as temporary and wandering pavilions, then hybridising places in the city previously designated for other uses such as cinema-bars, and then reaching and transcending the theatre model [15]. In conclusion, what can be observed over the last twenty years or so is a progressive estrangement from cinemas, a progressive loss of that social ritual that saw in dark halls a moment of encounter - a threshold - between the real and the imaginary, the individual and the community. The obsolescence of these architectures, conceived in the second half of the last century as specialised buildings, sometimes leads to the ruin or loss of ordinary heritage, but in many cases it is possible to recognise interesting design experiments belonging to a prolific history of the relationship between architecture and cinema that is closely intertwined with the history of cities and forms of life in the modern and contemporary metropolis [16].

Today in Italy there are hundreds of cinemas awaiting new visions. Yet in cases where the process of decommissioning due to obsolescence has not led to complete demolition, all too often it has been preferred to up-root the relationship with the uses, communities and rituals proper to those places. Take, for example, the fate of the Ariston in Pisa, on the site of which new residences have been built, the Maestoso cinema in Milan, which will house a Virgin fitness centre, or the shopping gallery that will fill the Odeon Cinema. In other cases, by virtue of the cultural value of the function, actions of resistance have led to a rethinking of the cinema in terms of uses but not of spaces: the Modernissimo in Bologna, for example, which integrates projection spaces with spaces for workshops and exhibitions [17].

**Cinema Teatro Odeon: the heritage of a heterotopia.** The Odeon Theater cinema is believed to represent an example of interest within this history of cinemas in Italy [18].

The Art Deco hall of the Cinema Teatro Odeon was designed by Adolfo Coppedé then completed by Marcello Piacentini as part of the Palazzo dello Strozzi, a Florentine Renaissance building conceived by Filippo Brunelleschi and built by Michelozzo. In 1922 it was opened under the name Cinema Teatro Savoia and then with the Germani family a transformation of the historic building was proposed including the introduction of a projection room, a dance floor and two floors for offices [19].

The building has performed its role as a heterotopia of fiction within the city of Florence for decades. Yet although the Odeon Cinema Theater represented an important history of the second half of the 20th century, the

crisis in the film industry did not spare it. With the Covid-19 pandemic, it became necessary for this heritage, too, to search for new economic and management models as it was no longer sufficient for the film activity alone to make it sustainable.

Initially, the design concept completely denied the projection hall function, and this transformative prediction was called into question by the most devoted customers who took part in a public-private discussion process. This set the stage for a project that negotiated both the monofunctionality of the venue and the heterotopic essence of this building physically defined by the presence of a distinctly separate interior and exterior.

The active citizenship intervention in addition to showing the audience’s affection for it, seems to validate what Francesco Casetti wrote in reference to the current dual role of the cinema device: “reality can be threatening; hence the need for a physical enclosure that works as a sort of shelter and for screened images that work as a sort of filter [...] Once we look at cinema from this point of view, an entirely new perspective surfaces. Cinema is not primarily a medium that expands our senses, an “extension of man”, as Marshall McLuhan famously states. On the contrary, it is a dispositif of protection that spares individuals direct exposure to the world – or at least the world in which they usually live – without interrupting their interaction with reality” [20].

**Giunti Odeon: the innovation of a hypertopia.** The Giunti Odeon project in Florence demonstrates how it is possible to allow cinema to preserve its identity despite its transformation [14].

The project realized by Studio Benaim first of all emphasized the decorative apparatus by restoring the space to its former charm. The restoration and valorization project was careful but not restrictive to the transformation of this iconic place: the decorations on the columns, light fixtures, pavements, fountains, and glass in the dome were restored consistently in accordance with the Ministry of Culture’s protection constraint [21].

In particular, the study of historical documents confirmed that the sloping slab was subsequent to the construction, and this made possible the most significant de-composition act, i.e., the deconstruction of the inclined structure that allowed the design of the bookshelves on the ground floor. Therefore, the most innovative valorization measure went through an act of partial demolition that reconfigured the space making different uses possible in terms of accessibility and flows. Thus, through this removal of the inclined slab on the ground floor it was really possible to interpret the large projection hall as the interpenetration of two spatialities that offered themselves to different uses and users.

The design of the furniture crowns a careful study of details that renders a strong synergy between preservation and innovation, for example, while on the ground floor the bookshelves were adapted to the lighting needs arising from the coexistence of the two functions, so on the upper floor additional steps were used to integrate some of the disassembled armchairs in the stalls. Moreover, in addition to the cinema hall and bookstore that coexist in the generous empty space, many are the annexed spaces and temporary activities that enrich the offer proposed by this venue to the city. The typological variety of spaces adjacent to the great void of the hall allows for

the recreation of spaces available for solitary or group activities, stationary or dynamic, cultural or recreational (book presentations, study spaces, concerts or reading workshops, etc.).

It is evident that conservation, valorization and innovation have found great design expression in the Benaim studio's project. This is evident as much in the expertise with which all the plant systems have been skillfully integrated into the mobile and fixed structures of the architecture, as in the refinement with which the history of the place has been brought to value, as was the case with the design of the restrooms that refer to the aesthetics of theater dressing rooms. Still, the innovation of the largest LED wall in Italy is certainly a diriment factor in relation to the possibility of rethinking the heterotopic character of the projection room space.

Design, art, and technique find a valid synthesis here. In this sense, the Giunti Odeon designed by Studio Benaim seems to make manifest the contemporary character of the cinema described by Casetti: "Cinema's migration toward new environments implies many new elements. While the darkened theater appeared to be a space mainly oriented to the film viewing, and was recognizable as such, today sites of viewing – domestic spaces like my living room, or urban spaces like public squares of the hall of a train station, or exposition spaces like galleries and museums – take on a more complex status. In these sites, cinema is no longer an exclusive presence, but rather is placed alongside other points of interest; it is not a permanent presence, but often closely tied to specific occasions; it is thus not something that we can rely on finding consistently in the same place, but rather something that seems to "take place" from time to time" [14].

Indeed, the majestic space restored by Studio Benaim houses in an almost sacred atmosphere a cinema and a bookstore that seem to define an extension of the outdoor public spaces. The complexity of the proposed programme, addressed through a project that appears rigorously elementary, is the strength of a proposal capable of combining economic sustainability, social demands and above all architectural values. The two functions overlap in the central space of the ancient palace inducing silence and respect for the users while working, eating, shopping, reading, watching films or just wandering.

**Conclusion.** The Odeon cinema in Florence is considered a good example of a project on a critical heritage, where design capacity has been demonstrated in innovating a heritage that has been revalued and re-mantized without obliterating its history. Also through the central consideration offered to communities, desires and values established over time, the Odeon cinema instead of becoming a former something has rethought and reintroduced its history into the contemporary city by employing new design and management models. Central in this specific case was the role played by the "save cinema" rule of the Florence Municipality which requires the private owner to maintain the cinema activity on at least 60 percent of the total surface area of the property in case of transformative actions [19]. Thanks to the expertise of the Benaim study, this rule did not become merely a restrictive and protective constraint but rather the essential premise for a balanced design innovation.

The case study demonstrates how continuity and negotiation are two

necessary approaches to heritage valorization in order to counter obsolescence, negation, and pure conservation. In this sense, hypertopia has become an interpretation of cinematic space that allows one to go beyond the univocal use of the space: the transformation has thus defined a space that is open even beyond the projection hours and that is offered to a wider and more diversified audience that can make this heritage alive and contemporary. Thus what used to be a heterotopic space where people entered to be in the dark of the cinema is now a hypertopic space where different flows manage to coexist in an unprecedented dimension of socio-cultural aggregation, combining cinema, books, art and theater into a single experience.

Recalling Casetti: "it is no longer something that "is there"; it is, if anything, something that "intervenes", "complements" or even "intrudes" [...] there is no longer the opening of a "here" toward an "elsewhere", but rather an "elsewhere" that arrives "here" and dissolves itself in it. I call this new spatial structure hypertopia, in order to underline the fact that rather than taking off toward an "other" place, there are many "other" places that land here, to the point of saturating my world [...] Hypertopia does not necessarily make an absolute of the "here". On the contrary, thanks to a sense of articulation and alterity that it brings with it, it can emphasize how this "here" is a space ready to open itself, to transform itself, to renew itself - no matter how full it already is" [14]. Thus, Studio Benaim's Giunti Odeon appears as a spatialisation of the concept of "hypertopia". In this sense, the case study demonstrates how a different and innovative approach to the modern heritage of heterotopias is possible if the boundaries of design are challenged through a complex design approach that demonstrates a cultural innovation that enhances differences and promotes coexistence.

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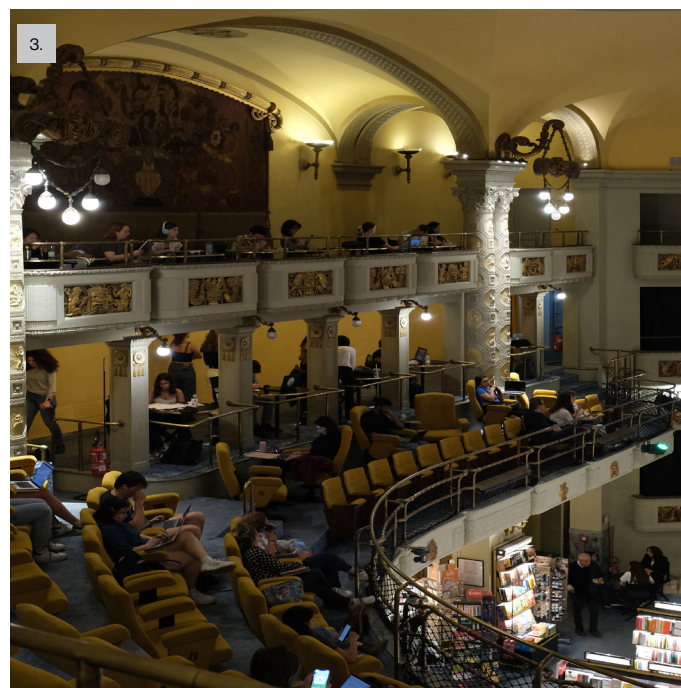
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## Figures.

FIGURE 1 – The cinema and the bookshop. [photo by G. Vannelli]

FIGURE 2 – The LEDwall and the bookshelves. [photo by G. Vannelli]

FIGURE 3 – Layers and uses. [photo by G. Vannelli]





# IDENTIFICATION OF SUSTAINABLE MANAGEMENT PRINCIPLES APPLIED TO ARCHITECTURAL HERITAGE-PROTECTED FOCAL POINTS/

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**Abstract.** Safeguarding architectural heritage is a pivotal concern for professionals within the architectural domain. Particularly in Romania, discussions surrounding this issue are prevalent among experts. However, the effective management of heritage assets - including implementing strategic political frameworks for their development and valorisation, consistent financial support, and cultural promotion - remains challenging and needs improvement. This article aims to contribute an academic perspective on managing heritage sites through the lens of sustainability, thereby highlighting both conventional and contemporary methodologies that support specialists in historical monument management in their endeavours to preserve and enhance heritage assets. The article will analyse both national and international literature, as well as introduce case studies exemplifying best practices to substantiate the need for a comprehensive and sustainable approach to heritage management. This approach necessitates a thorough consideration of intricate factors that influence sustainable practices. The primary objective of this study is to delineate the principles essential for redefining critical elements in the management of heritage sites. It seeks to illustrate that sustainable management of heritage properties extends beyond traditional methods and requires adaptation to innovative strategies. This shift not only ensures the preservation of cultural and historical integrity but also promotes the integration of these sites into contemporary societal contexts, enhancing their relevance and accessibility. Moreover, the article will discuss the role of technology and interdisciplinary collaboration in fostering sustainable heritage management, underscoring the importance of integrating scientific research, stakeholder engagement, and public policy to conserve and utilise heritage assets effectively.

**Introduction.** The preservation and sustainable management of architectural heritage pose significant challenges and responsibilities for contemporary society. Architectural heritage not only serves as a testament to cultural and historical identity but also acts as a valuable resource for fostering social cohesion, education, and economic development. Currently, the protection and valorization of architectural heritage assets are subjects of ongoing debate among professionals, academics, and public authorities. However, effective management of these assets remains inconsistent, often hindered by fragmented policies, limited financial support, and insufficient integration into contemporary societal frameworks.

As the discourse surrounding sustainable development gains momentum, the need to apply sustainability principles to heritage management be-

comes increasingly clear. Traditional approaches to heritage conservation, which focus primarily on physical preservation, are no longer adequate to address the complex realities of modern urban environments and societal expectations. There is an urgent need to adopt comprehensive and adaptable strategies that ensure the long-term viability, relevance, and accessibility of heritage sites.

This article explores and identifies sustainable management principles relevant to architectural heritage-protected focal points. The objective is to demonstrate that sustainable management involves more than just following traditional conservation methods; it requires an interdisciplinary approach that leverages technological advancements, engages stakeholders, and promotes coherent public policies.

Thus, sustainable management of heritage assets goes beyond merely protecting physical structures. It involves fostering cultural continuity, encouraging community engagement, and integrating heritage into modern societal and economic frameworks. This approach allows heritage assets to maintain their cultural significance while contributing to sustainable urban development.

**Theoretical framework of management.** The sustainable management of heritage-protected buildings is a complex and evolving task that extends beyond technical preservation. It requires a strategic application of both classical management principles and contemporary frameworks that account for uncertainty, competing interests, resource allocation, and long-term cultural relevance.

The foundational management functions (Planning, Organizing, Staffing, Leading, and Controlling) provide a structured basis for managing heritage assets. When aligned with models like Paul James' Circles of Sustainability (that will be later discussed), these functions empower practitioners to address cultural, environmental, economic, and social concerns in a balanced manner.

Planning in this context involves more than scheduling interventions; it entails envisioning a future where heritage sites actively contribute to community identity and sustainable development. Organizing translates strategic intent into coordinated action, facilitating interdisciplinary collaboration and participatory governance. Staffing is essential for building a team of professionals equipped with both technical skills and cultural sensitivity, while also promoting continuous professional development. Leading implies cultivating a shared vision rooted in ethical responsibility and inclusion. Finally, controlling ensures ongoing evaluation of actions through monitoring, risk assessment, and adaptive feedback mechanisms.

Several theoretical frameworks enhance this understanding. Stakeholder theory, as outlined by Koning and Avramoski [1], emphasizes the importance of involving all parties affected by heritage conservation. Methods such as the Analytic Hierarchy Process (AHP) and Analytic Network Process (ANP) [2] offer structured approaches for balancing various priorities and fostering transparent, evidence-based decision-making.

Other relevant perspectives include knowledge management, which aids in the transfer of expertise and institutional memory [3], and systems theory,

which contextualizes heritage within broader socio-ecological networks [4]. These approaches emphasize that conservation is not a linear process but a dynamic system that necessitates strategic foresight and interdisciplinary coordination.

Among the theoretical aspects of management theories, the Organisational Reputation represents a critical intangible asset within the field of heritage management. It reflects not only institutional credibility but also a capacity to foster stakeholder trust, attract public and policy support, and enhance long-term sustainability. In heritage contexts, reputation serves as a strategic resource that mediates the relationship between institutions and their communities. Wang and Chaudhry [5] further suggest that a strong reputation enhances an organisation's responsiveness to external pressures, allowing for the effective implementation of strategic change—a necessity when adapting to evolving sustainability standards and regulatory frameworks. Moreover, the intersection between reputation and ethical conduct is increasingly recognised. He and Li [6] emphasize that corporate social responsibility (CSR) is closely linked to positive public perception, especially when institutional values align with community needs. In the realm of heritage conservation, such alignment enhances credibility and secures long-term stakeholder engagement. Thus, socially responsible management does more than preserve cultural assets—it elevates institutional reputation as a key driver of continuity, relevance, and support.

Collectively, these functions and frameworks provide heritage professionals with a toolkit for navigating complexity, cultivating resilience, and ensuring that conservation practices are ethically grounded and future-oriented.

**Extended triple bottom Line.** A key conceptual framework guiding the sustainable management of architectural heritage is the extended Triple Bottom Line (TBL). Originally designed to assess sustainability through economic, environmental, and social dimensions, the TBL model has evolved to include a fourth and equally vital pillar: cultural sustainability. This broadened perspective recognizes that heritage assets are not merely tangible structures but also possess intrinsic symbolic and identity-forming value.

From an economic perspective, cultural heritage has significant potential to stimulate local development. As Vegheş [7] highlights, heritage can drive tourism, create employment, and contribute to revitalising communities. Incorporating heritage into sustainable business models enables institutions to diversify funding and stay aligned with their cultural missions [8].

The environmental dimension focuses on minimizing the ecological footprint of conservation practices. Environmentally responsible interventions—such as using green technologies, sustainable materials, and energy-efficient techniques—support ecological stewardship while maintaining cultural significance [9].

The social component emphasizes equity and inclusivity. Engaging communities in decision-making ensures that heritage initiatives reflect diverse perspectives and local priorities. Macheka [10] and Giliberto & Labadi [11] argue that this engagement fosters a sense of ownership, strengthens governance, and promotes long-term sustainability.

Perhaps most distinctively, the cultural dimension safeguards intangible values, traditions, and meanings. As emphasized by Axelsson et al. [12] and Vegheş [7], cultural sustainability reinforces community identity through practices such as cultural mapping and the preservation of local knowledge. This pillar elevates heritage from a static artifact to a living cultural resource.

These four dimensions provide a holistic framework for evaluating heritage interventions. As Nocca [13] emphasizes, multi-dimensional assessment tools are crucial for capturing the complete spectrum of heritage's contribution to sustainable development, facilitating informed and inclusive decision-making.

**Principles of Sustainable Development adapted to heritage.** Sustainable management of architectural heritage is an evolving, multidimensional field that goes beyond simply preserving historic structures. It includes ecological responsibility, economic feasibility, and social inclusivity. At its core, it acknowledges that heritage sites represent far more than their physical and aesthetic qualities; they convey cultural narratives and offer significant economic, social, and environmental benefits to today's society. As Bajçinovci and Thaçi [14] emphasise, the physical integrity of historical buildings and material culture is essential for sustainability. However, effective preservation necessitates an integrated management strategy that is both socially and economically viable to ensure long-term resilience.

Central to contemporary heritage management is the re-evaluation of vernacular architecture and traditional/indigenous knowledge systems. As highlighted by Hu et al. [15], vernacular architecture embodies centuries of practices and environmental adaptations, offering valuable lessons in sustainable building techniques that are uniquely attuned to specific climatic and cultural contexts. Salman [16] further argues that integrating these traditional design principles into modern conservation and development practices not only preserves cultural identity but also promotes environmentally responsive solutions. In rural areas, the conservation of vernacular architecture directly contributes to sustainable community development, reinforcing local identity and ensuring continuity in the cultural landscape [17].

Adaptive reuse stands out as one of the most effective strategies within the broader framework of sustainable heritage management. By repurposing historical buildings for new, contemporary functions, adaptive reuse promotes both the conservation of physical structures and the revitalization of communities. Mısırlısoy and Günçe [18] emphasize that this approach bolsters local economies while increasing public appreciation of heritage sites. Furthermore, the adaptive reuse process closely aligns with the principles of the circular economy by minimizing waste and reducing the environmental footprint typically associated with new construction [19]. Multiple authors underline the significance of balancing historical authenticity with modern functionality, ensuring that such projects preserve the character of heritage assets while addressing contemporary needs. Importantly, successful adaptive reuse requires meaningful stakeholder engagement to integrate community perspectives and encourage broader acceptance of conservation initiatives [20] [21] [22].

In recent years, technological advancements have significantly enhanced the capacity for informed and sustainable heritage management. Among these, Building Information Modelling (BIM) and its heritage-focused application, HBIM, have emerged as vital tools. Liu et al. [23] demonstrate how BIM facilitates the accurate documentation and assessment of heritage buildings, enabling better planning and conservation strategies that are data-driven and sustainable [24] [25]. The ability of BIM to analyze lifecycle information ensures that interventions can be carefully planned to minimize environmental impacts and extend the longevity of heritage structures [23]. Complementing BIM, a range of advanced digital surveying techniques such as LiDAR (Light Detection and Ranging), 3D laser scanning, and photogrammetry are increasingly utilized in heritage conservation to capture highly accurate spatial data and generate detailed digital models of complex historical structures. These technologies facilitate comprehensive condition assessments, enable virtual reconstructions, and support precise documentation, thereby contributing to more effective and minimally invasive conservation practices. Ferrer-Pérez-Blanco et al. [26] argue that accurate and comprehensive graphic documentation - whether achieved through traditional methods or enhanced by digital technologies - forms the foundation for informed decision-making and ensures the preservation of a building's architectural and material significance.

Energy efficiency has also become a crucial consideration in the conservation of architectural heritage. Efforts to improve the energy performance of historic buildings must be approached with sensitivity to their cultural and architectural values. Mehr and Wilkinson [27] and Xu et al. [28] highlight the delicate balance required between enhancing building performance and safeguarding heritage authenticity. Hashim et al. [29] emphasize that integrating energy-efficient solutions necessitates a nuanced understanding of both technical advancements and the philosophical foundations of conservation practice. Akande et al. [30] further assert that optimizing energy use in heritage structures contributes to reducing their environmental impact while meeting modern standards of comfort, thus aligning heritage conservation with broader sustainability goals [20].

Economic considerations are inseparable from the discourse on sustainable heritage management. Effective policies and legal frameworks are essential for balancing conservation objectives with the socioeconomic needs of local communities. Nushi and Jashari-Kajtazi [31] advocate for legislative reforms that integrate sustainability principles into heritage governance, addressing contemporary challenges such as environmental degradation and urban development pressures [32]. Sigmund [33] similarly calls for the inclusion of heritage refurbishment within broader sustainable development goals, emphasizing that policy frameworks should support adaptive reuse practices as part of comprehensive urban planning strategies [34]. Sustainability assessment tools, as Gonçalves et al. [35] note, can provide systematic evaluations of conservation projects, ensuring that they deliver socioeconomic and environmental benefits.

Equally important is the role of community engagement in heritage management strategies. Involving local populations in the conservation process strengthens community identity and pride while generating economic opportunities through cultural tourism and local enterprises [36] [24]. Active

participation by stakeholders fosters a sense of ownership over heritage assets, essential for the long-term success and sustainability of conservation initiatives. Education and public awareness campaigns further reinforce these efforts. Balçık and Yamaçlı [37] and Eybye [38] highlight that informing and educating the public about the cultural and environmental value of heritage sites is vital for garnering community support and promoting sustainable conservation practices.

In summary, sustainable management of architectural heritage is a complex and evolving process that involves integrating vernacular knowledge, adaptive reuse strategies, technological innovation, energy efficiency, and inclusive policy frameworks. It acknowledges the essential role of community engagement and education in ensuring that heritage assets remain relevant and accessible in the contemporary social and environmental context. As the field continues to progress, it is evident that successful heritage management relies on a holistic approach that balances preservation with innovation, tradition with modernity, and cultural significance with ecological stewardship.

**Circles of sustainability** . Achieving sustainable heritage management requires frameworks that can address the interdependence of cultural, social, economic, and ecological dimensions. Paul James' Circles of Sustainability model offers such a framework, promoting holistic thinking by integrating four key domains: economics, ecology, politics, and culture [39]. This model empowers heritage professionals to move beyond fragmented approaches and adopt systems that are inclusive, context-sensitive, and oriented towards the long term.

Implementing this model necessitates robust assessment tools and strategic frameworks that can balance competing priorities. Ren and Han [40] illustrate how sustainability indicators, when applied to built heritage sites, offer a comprehensive foundation for evaluation. These indicators facilitate the integration of various dimensions, thereby enhancing transparency and effectiveness in conservation planning.

To complement this, multi-criteria decision-making frameworks are particularly useful for navigating complex stakeholder landscapes. Rudan [41] underscores the value of such flexible methodologies, which facilitate negotiation among various actors and help achieve balanced outcomes. By embedding these tools within the Circles of Sustainability framework, heritage management can remain adaptive, accountable, and oriented toward shared value.

Ultimately, this model reinforces the view that heritage conservation is not an isolated task but part of a broader socio-political ecosystem. It encourages decision-makers to engage with sustainability as a multidimensional process, one in which heritage assets serve not only as carriers of memory but also as agents of social, cultural, and ecological transformation.

**Technologies and Tools in Heritage Management.** While strategic frameworks lay the groundwork for effective heritage governance, digital technologies have become vital instruments for documentation, conservation, and public engagement. These innovations are not just additional tools; they transform how we comprehend, manage, and share cultural assets.

Geographic Information Systems (GIS) are essential tools for spatial analysis, enabling professionals to interpret heritage in relation to its urban or territorial context. For instance, in Santiago de Compostela, Parcero Oubiña et al. [42] illustrate how GIS improves planning and encourages public interaction through dynamic, user-friendly platforms.

Similarly, as mentioned earlier, Building Information Modelling (BIM) and its heritage-specific adaptation, HBIM, support multi-layered documentation and facilitate collaborative decision-making across disciplines. Rodrigues et al. [43] illustrate how BIM-based web applications improve the accessibility of technical data, while Khan et al. [44] highlight HBIM's role in integrating historical values with contemporary management tools.

Advancing this capacity further, digital twin technologies—often paired with extended reality (XR)—enable real-time monitoring and predictive simulations. Guo et al. [45] argue that these tools empower heritage managers to anticipate threats and plan interventions without compromising material integrity.

Public engagement is being transformed through Virtual Reality (VR) and Augmented Reality (AR). These immersive technologies foster emotional and intellectual connections by enabling participatory experiences. Yu and Ren [46] explore how VR enhances the appreciation of intangible heritage, while Bekele and Champion [47] demonstrate its educational potential in pedagogical contexts.

Moreover, web-based platforms and mobile applications have democratised access to heritage knowledge. As demonstrated by Collado et al. [48] in their study of Cantón Nabón, Ecuador, digital geovisualization tools promote transparency and empower local communities by integrating heritage information into daily life.

Emerging technologies like blockchain are being studied for securing provenance and documentation, particularly in the management of intangible cultural heritage. Lvping [49] highlights the benefits of blockchain in enhancing traceability, reliability, and long-term data integrity.

At the heart of these innovations is the art of 3D modelling and interactive visualisation, increasingly supported by open-source tools. Guarnieri et al. [50] affirm that digital reconstructions enhance scholarly analysis while creating new pathways for public interpretation and co-creation.

Finally, social media and online platforms play a crucial role in expanding cultural dialogue. Permatasari et al. [51] illustrate how integrating information and communication technologies (ICT) into heritage promotion enhances visibility and enables real-time global interaction.

Together, these technologies not only enhance conservation outcomes but also reinforce community connections and interpretive opportunities. They bridge the divide between memory and innovation, as well as between professional stewardship and public ownership—core principles of sustainable heritage management.

**Sustainable Tourism and the Preservation of Heritage Values.** As heritage assets increasingly serve as focal points for local development and global tourism, the concept of sustainable tourism has become integral to

long-term heritage management. Grounded in the principles of environmental care, economic equity, social inclusion, and cultural preservation, sustainable tourism aims to harmonise the interests of visitors, host communities, and the heritage itself.

At its core, this approach promotes tourism practices that are regenerative rather than extractive. As Aswita et al. [52] argue, sustainable tourism requires a coordinated effort to reduce environmental degradation, create fair economic opportunities, and uphold cultural integrity. The environmental dimension involves conserving natural ecosystems and minimising resource consumption. Economic sustainability focuses on generating long-term, equitable benefits for local populations. The social aspect demands inclusive governance, ensuring that the rights and voices of community members are respected. Lastly, cultural sustainability safeguards the intangible values and traditions that give meaning to heritage sites.

Realising this vision requires more than just technical measures. It relies on creating collaborative networks that involve public institutions, private stakeholders, and civil society actors. Regulatory frameworks, community-based initiatives, and awareness campaigns are essential components in ensuring that tourism supports rather than undermines conservation efforts.

Sustainable tourism is not a parallel agenda but a strategic extension of heritage management. When properly implemented, it enhances the relevance of heritage in contemporary life while supporting the ethical and inclusive development of local communities.

**Conclusions.** Sustainable heritage management requires more than just technical expertise or regulatory compliance; it demands a fundamental change in how we perceive, engage with, and govern cultural assets. This article seeks to advance that change by outlining a conceptual framework that incorporates sustainability principles, strategic management, digital innovation, and responsible tourism into the stewardship and development of heritage sites.

Anchored in the extended Triple Bottom Line and informed by models like Paul James' Circles of Sustainability, the discussion highlights the need to balance environmental, economic, social, and cultural dimensions in all heritage-related decision-making. The application of core management functions—from planning and stakeholder engagement to adaptive and risk-based strategies—reveals the value of organizational thinking in ensuring long-term resilience. Furthermore, exploring digital tools such as BIM, GIS, HBIM, digital twins, and immersive technologies shows how innovation can preserve and disseminate heritage more ethically and effectively. These practices, when aligned with the four pillars of sustainable tourism, ensure that heritage remains not only protected but also meaningfully connected to the lives and landscapes it inhabits.

Together, these components emphasize the urgent need for interdisciplinary, systemic, and context-sensitive approaches to heritage conservation. This need is particularly pronounced in a world marked by ecological uncertainty, cultural fragmentation, and growing social demands for equity and inclusion. Although the reflections shared here are largely theoretical, they lay the groundwork for further empirical research, cross-sector collab-



oration, and policy innovation.

In closing, the sustainable management of architectural heritage should not be seen as a static objective; instead, it should be viewed as a dynamic and evolving practice—one that honors the past, engages with the present, and thoughtfully anticipates the future. In this vision, heritage transforms from merely a site of memory into a space of possibility.

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## HIDDEN FIGURES OF BUCHAREST/

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**Abstract.** Based on archival research and theoretical studies this paper addresses the problem of the multi-storey apartment buildings in Bucharest of the 1930's, highlighting them as one of the most significant typologies in European urban housing history. Following clear principles that incorporate the new ideas of modern architecture along with the mentalities and the morals of the time, these buildings reveal a subtle relationship between tradition and innovation, that is to be discussed.

Concerning this matter, a work-in-progress collection of remarkable buildings, exponents of the open courtyard typology, will be reviewed centring the discourse on their typological autonomy and relationship with the urban space. The buildings to be discussed include Luterană 3 & Calea Victoriei 122 (by arch. Tiberiu Niga), Luterană 5 & Nicolae Bălcescu 24 (by arch. State Balosin), Vasile Conta 7-9 (by arch. Eugen Botez).

The courtyard, along with the distribution system, will be subjected to analysis through the utilisation of vectorised plans. This analysis will serve to identify and recognise the courtyard as a fundamental spatial device, operating at the level of building composition and plot insertion.

The architects explored various formulas for the courtyard, imagining it as a garden, entrance or street, double-crossing courtyard, terrace or other combinations that have the potential to generate a variety of forms and paths. These qualities were no longer considered in housing projects carried out following the postwar years.

Making no distinction between public and private, placed in the extension of public space, the courtyard experienced its final moment of glory through this typology, after a tremendously, long history.

This paper aims to draw attention to the hidden figures of modernist architecture, encompassing the buildings themselves, the courtyards as distinct elements and the architects behind them. Furthermore, it seeks to highlight the worrying phenomenon of a significant architectural typology (multi-storey apartment buildings with courtyards) becoming devoid of its original meaning at the level of urban practice and human consciousness.

**Introduction.** This work is part of an ongoing study started 3 years ago which proposes to revisit the typology of the inter-war multi-storey apartment buildings or block of flats in Bucharest of the 1930's. This constructive type is identified in the palimpsest of the city as a particular layer, a distinct topography in which one can identify a series of fundamental ideas of modern architecture in a hybrid version where tradition and modernity coexist.

The project involves an archival research and on site visits on discovering the buildings concerned. The aim is to contribute with new information to the writings on Bucharest's residential architecture as well as to get to know from a new perspective some of the architects who realized these projects. Among them are State Balosin (1885-1953), Tiberiu Niga (1906-1979) and Jean Monda (1900-1987).

Unlike the typology of collective housing as defined by the Modern Movement, the inter-war block of flats did not require a change of plot, rather being the result of a progressive evolution of the individual home, based on density and rentability within which the courtyard is addressed by the architects as a structuring spatial element. It is the case of the constructive type to be discussed here, the open courtyard building or the double building, a typological formula that first appeared at the dawn of the 20th century in Western Europe which was not to be resumed by architects in the following decades.

**The open courtyard building in Bucharest.** The open courtyard building is characterized by the arrangement of the built mass along an axis of symmetry, usually with an U-shaped courtyard in the middle, subtly mediating the rule of the alignment. The typology of collective dwellings with open courtyard is differentiated in the built urban fabric by the duality it shows in terms of the independence of the volumetric proposal in relation to the site's conditions and its adaptability to the context, through which, without giving up its essential characteristics, negotiates its position in the context.

In the beginning, the study proposes a quantitative approach. This implies the identification of a significant number of inter-war collective buildings with open courtyard in Bucharest. In order to ensure the relevance of the results obtained we highlight visible and noticeable characteristics such as: the geometric rigor at plot level inscription, plan typology, the complexity of the ground floor access device, the distributive structure and its relationship with the exterior, current floor organization, architectural materials and details such as fittings, staircases, banisters, flooring materials, numerals and lettering, details of the combination of finishes, stereotomies, etc.

Therefore, we have identified a number of 18 such examples of collective buildings with open courtyard, all located in the central area of the capital – Bucharest. Our research entails documenting the original building plans in the archives of the Municipality of Bucharest, digitalizing them and analyzing and processing the information. In this process, we have at this moment 5 completed case studies: Luterană 5 (1932, arch. State Balosin), Luterană 3 (1934, arch. Tiberiu Niga), Nicolae Bălcescu 24 (1934, arch. State Balosin), Vasile Conta 7-9 (1940, arch. Eugen Botez).

Until now, following our archive research, we have found only data on the personality of the owners of these buildings but not on the strategy they are pursuing with such investments, nor information about the architect's perspective on choosing this particular typology. Even if we are talking about a particular typology of settlement on the plot and of dwelling, so far no statement made by the aforementioned architects have been identified to argue the architectural gesture. If we were to time and place this type

of intervention, the building on Luterană 5 apparently opens the series of open courtyard buildings in the case of Bucharest in the year 1932 and is being ended with Vasile Conta 7-9 in the year 1940.

From a qualitative perspective, our study takes into account the information obtained from the archive research, alongside with a series of writings, previous studies with reference to this type of building, mostly belonging to French authors. In their opinion the appearance of the open courtyard denotes the interest of architects for hygienism and its principles, offering solutions that favor the sunlight and the views. [1]

The open courtyard is seen as a palliative solution to the haussmanian housing block courtyard. [2] At once, as can be easily noticed, this version allowed the architects to multiply the opportunity for windows using the architectural language of the modern times. Therefore, more apartments could have equal access to the street.

A notable forerunner in the history of modern architecture is the building at 25a Rue Franklin (1903) designed by architect August Perret in Paris. This apartment block marked the transition from “the city of constraining boundaries, the city of the sidewalk”, to the city as landscape [3]. In this project where all the rooms converging on the spectacle of the city, Perret hybridized “the maison à loyer, or apartment block, product of a capitalist economy, and the villa, product of an individualistic society”[4].

Retaining the reference above we focused on Romanian historiographical research and, until this stage of the study no specific records of the open courtyard building in the Romanian historiography have been found. On the other hand it is known that the first decades of the 20th century was an extraordinary period of invention and diffusion of new models for the urban housing originating from Western Europe.

Nonetheless, the analysis is also concerned with the interior spatial organization of the buildings, apartments and common parts of the documented apartment blocks reveals two aspects: firstly, the link with the specific spatial composition of 19th century bourgeois apartments and secondly the carefully chosen relationship of the interior spaces to the exterior courtyard.

If we were to make an analogy with these analyzed apartments and their spatial organisation, we have identified this courtyard space as having the qualities of an open air Hall, a room for representation specific to the plans of the bourgeois apartments. This type of courtyard, open to the street, has the quality of offering passers-by a fragment of private space without restraint, enriching the street atmosphere. However, depending on the depth of field of each courtyard, a scenographic effect is manifested, more or less pronounced depending on the situation or the context.

The analogy with the Hall, such as Luterană 3 or Nicolae Bălcescu 24 (Figure 1), is suggested by the presence of either a fine low-height transparent fence or the elevation of the access platform which a few steps as in the case of Vasile Conta 7-9. Here the courtyard more than the Hall room, have an pronounced urban character, literally being a city-oriented scene which is not necessarily seeking for privacy and intimacy, but rather showing its beauty and importance in relationship with the city (Figure 2).

Even if it differs from the recognized typology of the open courtyard block

of flats, the building located on Calea Victoriei 122, designed by Tiberiu Niga, caught our attention and was included in this study for its relevance to the underlying ideology. From a typological point of view, the presence of an interior courtyard in the middle of the plot, refers to the previous century building type. The study confirmed that Tiberiu Niga worked here on the footprint of a previously existing building and under very strict regulations. [5]

Essentially, Calea Victoriei 122 is a typological interpretation of a former building (owned by Maria and Christu Simionescu). The decision to completely replace it with a new construction (the one that can be seen today) was a result of the failure of the two intervention projects that attempted to adjust the old building to the regulations imposed by the Alignment Plan for Calea Victoriei. [6]

The remarkable urban qualities of the inner courtyard (Figure 3), however, demonstrate an interest in connecting the depth of the plot with the city. In this sense, there are two passage ways that connect the street with the inner courtyard. The interest in connecting the depth of the plot with the city is an idea that Tiberiu Niga would also experiment on Luterană 3, a hybrid project that anticipated the abolition of the street in the collective housing projects that proliferated in the post-war period. Thus, we could talk about a type that furthers itself from the strict relationship with the plot limits that we see in the case of the haussmanian housing block and proposes a courtyard that is in close contact with the city, an urban and public space.

In addition to the pronounced public character of the ground floor, which constantly aims to involve an enclosed courtyard in the public atmosphere of the street, our analysis of the plans highlights the regulatory lines underlying the spatial composition of the plan. The research included a graphic study of the documented plans, which revealed the existence of a set of geometric figures that communicate, explain the sequence of operations at the level of the projected plan. The results were presented in the expanded version in a catalog dedicated to this research published in 2024. [7]

Above, an example within our methodology of research in which we retrace the hidden geometry of both built and unbuilt space and its relationship with the urban space and the distribution path through the building from the most public space to the most private one, can be observed (Figure 4).

**Conclusion.** If we were to come to a preliminar conclusion, buildings with open courtyard convey the idea of liberation from the duality of street-house. The courtyard of these buildings is not so much a space in opposition to the public urban space, but rather a place capable of making a series of connections between the domestic universe of the dwellings and the city.

During the research process, the functioning of these courtyards seemed to be closely related to the architectural, cultural and economic context of their appearance. For decades the architecture of the block of flats generally speaking is confronted with the rapid evolution of lifestyles. Making no difference between public and privat, placed in the extension of public space, the Bucharest courtyard experienced in the 1930's it is the final moment of glory through the typology of the double apartment building.



Today, most of these open courtyards, regarding the way the inhabitants relate to them, manifest a form of autonomy and passivity: they do not reveal any interest in everyday uses or activities on the part of those who live in these buildings, going unnoticed by most passers-by. In a few examples, nature appears, giving the street a picturesque touch, such as the Luterană 5 by State Baloşin and Luterană 3 by Tiberiu Niga (Figure 5, a, b). In other examples, open courtyards come as a continuation of the street towards an in-between space (Figure 5, c). Overall, the fascination with these architecture stems from the tension in its relationship with the street, the way it simultaneously engages and disengages the existing urban fabric offering an optimistic model of city densification while preserving its original qualities.

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4. Op. Cit.p.95
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6. Mihaela, PELTEACU (ed.). 3 Imobile Remarcabile. *Caiet de Însemnări*. Editura universitară “Ion Mincu”, 2023.
7. Mihaela, PELTEACU (ed.). Imobile de Raport: E. Botez, S. Baloşin, H. Delavrancea-Gibory, M. Maller, T. Niga. Editura universitară “Ion Mincu”, 2024.

## Figures.

FIGURE 0 - Case studies located on the map of the center of Bucharest.

FIGURE 1 – Luterană 3 ground floor. The original drawing can be found in the archives of the Municipality of Bucharest, nr. of file: 433/1934 IV Green, Nicolae Bălcescu ground floor. The original drawing can be found in the archives of the Municipality of Bucharest, nr. of file: 95/ 1934 I Yellow.

FIGURE 2 – Vasile Conta ground floor. The original drawing can be found in the archives of the Municipality of Bucharest, nr. of file: 222/ 1940 I Yellow.

FIGURE 3 – Calea Victoriei 122 building façade, taken from the authors' personal archives.

FIGURE 4 – Hidden geometry analysis on Calea Victoriei 122, drawings made by Mihaela Pelteacu.

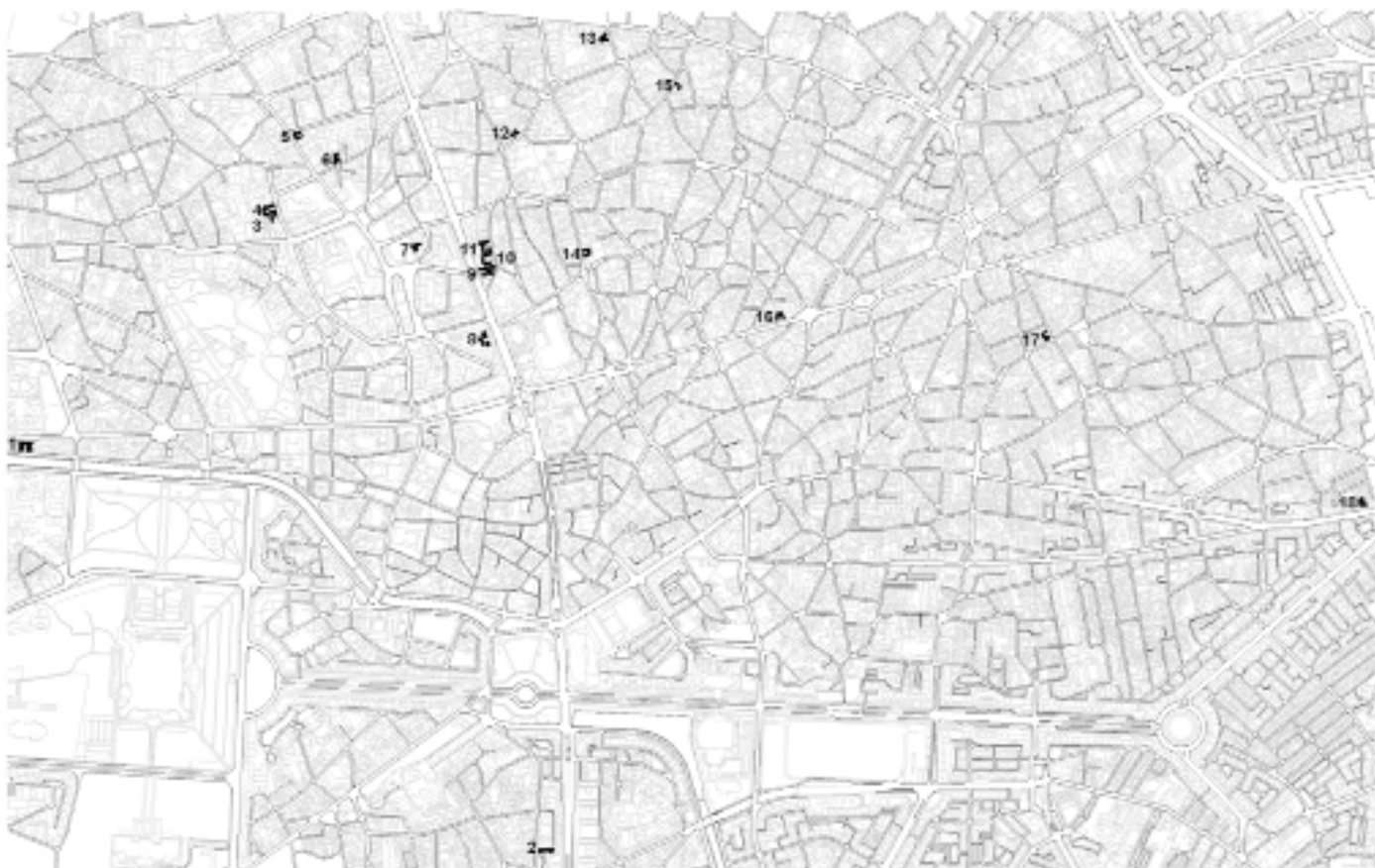
FIGURE 5 – Open Courtyard perspectives from Luterană 3 (a), Luterană 5 (b), Nicolae Bălcescu 24 (c), taken from the authors' personal archives.

## Locations on the map of Bucharest.

The map shows all the study cases included in the project, although this article showcases only a couple of them.

1. Independence Blv. 86;
2. Şerban Voda Street 39;
3. Luterana Street 3;
4. Luterana Street 5;
5. Calea Victoriei Street 122;
6. George Enescu Street 7;
7. Boteanu Street 3;
8. Nicolae Balcescu Street 9;
9. Nicolae Balcescu Street 24;
10. Vasile Conta Street 3-5;
11. Vasile Conta Street 7-9;
12. A. D. Xenopol Street 3;
13. Aurel Vlaicu Street 39;
14. Louis Calderon Street 36;
15. Icoanei Street 38;
16. Carol I Blv. 57;
17. Popa Nan Street 32;
18. Calarasi Street 319a.

0.



1.

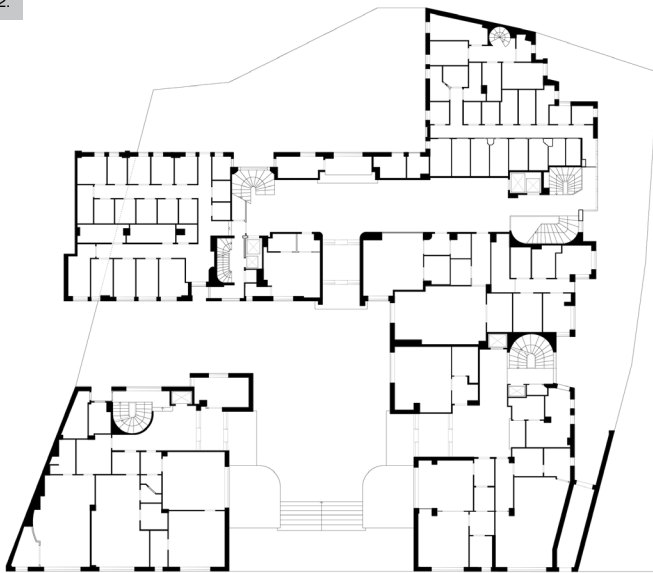


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2.



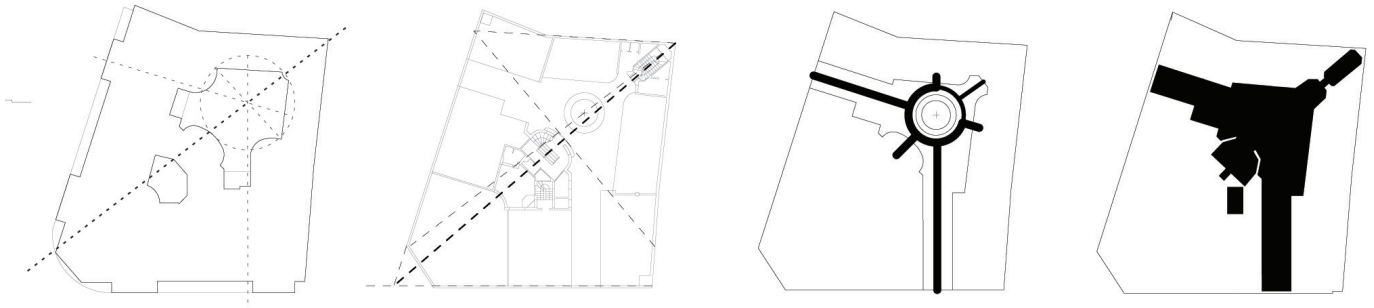
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3.





4.



5.





## NICOLAE GHICA-BUDEȘTI – A PIONEER OF FURNITURE DESIGN IN ROMANIA

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**Abstract.** This article is part of a series dedicated to highlighting the value of the national movable heritage, with a special focus on furniture created by Romanian architects during the 19th and 20th centuries, a crucial period for the formation and consolidation of the furniture design profession in Romania. The research is based on a rigorous analysis of primary sources, including field research, archival documents, and period publications, providing a comprehensive perspective on the evolution of this field. Although furniture represents a significant element in the history of architecture, it has often been overlooked compared to architectural works, due to both its perishable and movable nature, and the prioritization of other aspects of built heritage. This study aims to address this oversight by offering a systematic evaluation of the contributions made by Romanian architects to the field of furniture design.

One of the key figures in this research is Nicolae Ghica-Budești, an architect recognized for promoting the revival of traditional Romanian architecture and the affirmation of the Romanian style in architecture. He was also a pioneer in furniture design, having a major impact on the development of this profession in Romania. The article provides a detailed index of his initiatives, analyzing various types of furniture and highlighting the essential role of the architect in the creation of design objects.

The paper incorporates both period images and the author's sketches to illustrate Ghica-Budești's contribution, who is considered the first Romanian architect acknowledged as a designer (Pittsburgh, 1943), thereby emphasizing his significance in the development of industrial furniture design in Romania.

**Introduction.** A central motivation for this research is inspired by Victor Margolin's discussions on the fragility of design history [1], particularly regarding its relatively late emergence as a formal discipline in the 1970s. Building on this premise, this article introduces the concept of “design history isolation” to emphasize how, in this particular case, the significance of design history is frequently overshadowed by the achievements of architectural history. This study is part of a more significant research effort that seeks to shift the perspective towards a more horizontal axis in research by examining all furniture design examples that were achieved by Romanian architects in the period of the crystallization of the designer profession, aiming to both structure a cohesive history of Romanian furniture design and enhance the broader context of architectural history.

Nicolae Ghica-Budești, a key figure in this study, is renowned for his significant contributions to Romanian architecture and monument restoration discipline. While his architectural achievements are well-documented in the available literature, this paper emphasizes a lesser-studied aspect of his

multifaceted work, which is his contributions to furniture design history. The analysis will concentrate on three main functional directions in his body of work: ecclesiastical furniture, household furniture, and institutional furniture, each of which significantly enriches the field of design history. Besides his architectural contributions, Ghica-Budești demonstrated the same passion and care for movable heritage through his work, restoring or recreating new objects while considering the original spirit of the interior spaces he addresses. His efforts transcend projects for building restoration, reflecting a unified design language in which furniture is honoured with the same respect as architectural spaces. This approach, which emphasizes the preservation and redefinition of Romanian-style values, fosters a true sense of connection with tradition and continuity through modern movement in the furniture design industry. Ultimately, his work embodies the harmonious integration of architecture and furniture design within a comprehensive artistic vision. By examining Ghica-Budești's contributions, this research seeks to deepen our understanding and enrich the broader narrative of Romanian design history, offering the audience a deeper appreciation of the depth of his work.

### **Pioneering the furniture design throughout the Romanian-style period.**

N. Ghica-Budești (1869–1943), graduated from the École des Beaux-Arts in 1901. Like Ion Mincu, Ghica-Budești played a significant role in the development of the Romanian-style in architecture, advocating for formal explorations enriched by their symbolic meanings and influenced by his extensive experience as a researcher of historical architecture, as well as his work as a restorer and practicing architect. He described his approach as follows:

“I sought to give a place of honor to the essential forms of noble Byzantine architecture, from which our Romanian forms are derived, both logically resulting from the technique of brick, which was, in the past as in Byzantium, the most widespread and affordable material. It was the only viable option for universal use.”[2]

A contemporary of the most important Romanian architects, N. Ghica-Budești did not achieve the same level of popularity among followers of the Romanian style. Nevertheless, his originality lay in his synthesis of Byzantine and Gothic influences, combined with the impact of french academism, who shaped his technique of historic model synthesis [3]. He also extended his creative pursuits to interior design, a field further elaborated in the following sections.

In an article published in the “Arhitectura” magazine in 1909, architect N. Ghica-Budești presents a critical perspective on the art of the autohton furniture design, highlighting its growing tendency to imitate classical styles, a trend increasingly prevalent toward the end of the 19th century. He advocates for reintegrating Romanian furniture into the forefront of modern architects' and artists' concerns, emphasizing the need to define a distinct style, which he calls “Modern-Styl.”[4] This style is conceptualized as a rational, practical, and original expression, profoundly shaped by the national identity of each person. Ghica-Budești argues that architecture and decorative arts should simultaneously reflect modernity and tradition, thereby creating a form of expression that meets the needs of contemporary Romanian society:

“...the study of the principles upon which our art is based, and the investigation of how these principles are applied to various materials—wood, metals, fabrics, etc.—followed by the creation of new elements and motifs that, while preserving the spirit of tradition and respecting the character of past works, should never be servile copies and, at the same time, should be well-suited to the demands of our modern life.”[5]

In his effort to define the principles of this national style, the architect designed a set of furniture pieces intended for a living room. His proposal aimed to generate a movement among architects, encouraging the national industry to overcome economic challenges by supporting authentic design, free from foreign imports, costly or in poor taste [6]. The furniture, crafted from polished alder wood—a complex essence with a yellow-reddish hue—is characterized by simple volumes and decorated with floral cutouts that evoke traditional motifs from the porches of peasant houses. Beyond their aesthetic value, these cutouts visually lighten the furniture, allowing glimpses of the wall, covered with a light green wallpaper chosen to harmonize with the texture of the wood. The decorative motif of the flower with sinuous branches, inspired by peasant distaffs, is integrated not only into the furniture but also into panelling, picture frames, draperies, and the border of a white-centered carpet in the room. Although furniture pieces designed by Ghika-Budești are found rarely, they reflect his concern for integrating architecture with decorative arts. This example plays a vital role in overcoming “design history isolation” by showcasing the value of publishing furniture drawings (Fig. 1) and inspiring other architects to do the same. As a result, more individuals have started contributing their work, enriching the resources that can highlight the significance of Romanian design history.

Among the restoration projects undertaken by architect N. Ghika-Budești, a notable achievement is the restoration of the “St. George” – White Church in Baia, Suceava County. At the beginning of the 20th century, this edifice was in a precarious state of preservation, with only the brick walls and the tower remaining intact. Between 1907 and 1914, under the auspices of the Historical Monuments Commission, the architect oversaw the restoration work, relying on architectural clues and remnants preserved in situ, and utilizing the original masonry as the basis for the intervention. A particularly remarkable aspect of this project is the design of the furniture for the restored place of worship. Drawing inspiration from the only remaining original ornament—a relief on the frame of the entrance between the nave and the narthex—Ghika-Budești, assisted by master sculptor Anibal Spoldi from the Higher School of Arts and Crafts in Bucharest, designed several pieces: the iconostasis, the sidechairs, the pews, the tetrapod, and the screen. The ornamentation was derived from the relief motif of the stone portal, consisting of two intersecting perpendicular bands at the center of a circle of equal thickness. This decorative element was creatively reinterpreted, with the architect reshaping and enriching the motif through successive iterations.

Symbols such as the Moldavian coat of arms and the princely crown, featured on the princely trone, were faithfully reproduced based on historical documents. The simplicity of the church’s architecture, characterized by whitewashed interiors devoid of paintings or decorations, prompted the architect to adapt the furniture’s aesthetic to the space. As such, the

furniture was crafted from stained oak, finished with a transparent coating to emphasize its dark natural tones, foregoing the gilding technique often employed in similar projects. The execution of the works was carried out entirely at the Higher School of Arts and Crafts in Bucharest. The carpentry was performed under the supervision of master carpenter Emil Gerrechs in his workshop. The sculptural details were crafted in the workshop of master Spoldi, while the altar icons were painted through a collaboration between Ghika-Budești and painter Arthur Verona.

Another noteworthy example of furniture design is The Romanian Classroom furniture at the Cathedral of Learning, University of Pittsburgh, inaugurated in 1943, which stands as an expression of the cultural heritage and serves as a medium to promote the national character of Romania among American citizens. This initiative was part of a broader project comprising a series of “national rooms” dedicated to various communities that contributed to the growth and development of Pittsburgh. In 1929, the president of the organizing committee for the Cathedral of Learning, traveled to Romania to discuss the selection of architects and design concepts with the president of the Society of Friends of the United States in Bucharest.[7]

Although the architect G. M. Cantacuzino, a cousin of N. Ghika-Budești, was initially favored for the commission, the project is ultimately awarded to Nicolae Ghika-Budești, owing to his experience in restoring Romanian churches and the trust he enjoyed from historian Nicolae Iorga[8]. However, the inscription in the Romanian Classroom indicates that the two cousins collaborated on the project, with architect Balș serving as an advisor. What is evident is that all three architects are acknowledged on a wall inscription as “designers,” marking one of the earliest instances of the term being used in reference to Romanian professionals.

Drawing inspiration from the ecclesiastical architecture of the late medieval Romanian tradition, Ghika-Budești completed the initial designs for the Romanian Classroom in 1930. On March 22, 1931, the Romanian Committee convened in Youngstown to approve the architect’s proposed design. In 1936, during the president of the organizing committee visit to Bucharest, she spent hours with Ghika-Budești and his son Jean, meticulously refining the details of the revised drawings, including the design for the writing chair with an asymmetrical arm[8]. The chair, the models for paneling, and the entry doorframe are also commissioned from the Higher School of Arts and Crafts in Bucharest.

The rapidly deteriorating political situation in Europe following the 1938 Munich Agreement rendered transportation from Romania impossible, abruptly ending the collaboration with Bucharest. The Romanian consul in New York and commissioner of Romania’s pavilion at the 1939–1940 New York World’s Fair proposed completing the Romanian Classroom using artifacts from the Romanian Pavilion after its planned dismantling. Meanwhile, dramatic political shifts unfolded in Romania during the war. King Carol II is forced to abdicate, and power is transferred to General Ion Antonescu, whose government includes members of the Iron Guard. This created a delicate issue regarding national representation, as Romania became an ally of Nazi Germany, the United States’ principal adversary. Nonetheless, these events had little apparent impact on the project, and on November 20, 1940, Antonescu issued a decree transferring icons, wrought-

iron gates, and carved chair frames to the University of Pittsburgh.[10] Architect Albert A. Klimcheck was commissioned by the University of Pittsburgh to incorporate these materials into the reconstruction of Ghika-Budești's design. Comparing the original sketches with photographs of the completed room reveals a significant divergence in the student seating furniture. Klimcheck's solution combines Ghika-Budești's sketches with elements from the "Casa Românească" pavilion furniture designed by architect Octav Doicescu. The chair retains the general structure defined by Ghika-Budești—a solid wood seat with a concave form and an asymmetrical arm—but its backrest was reconstructed using dismantled components from the restaurant chairs of the Romanian Pavilion. Klimcheck retained only the uprights and crosspieces from Doicescu's design, incorporating them into the elements produced in Bucharest. With the functionality resolved and the structure reinforced by doubling the lower crosspieces, Klimcheck's solution lacked only the original decorative authenticity, which he transferred directly from one object to another. The result illustrates the resilience and adaptability of the design, embodying a very sustainable principle.

The furniture is not the only element diverging from the original project for the Romanian Classroom. The folding wrought-iron gates, with their lace-like transparency, reveal blue silk curtains embroidered in the Romanian manner with silver and gold threads. These curtains previously adorned the banquet hall of the Romanian Pavilion in New York, while additional wrought-iron panels, formerly used to separate the main dining room from the foyer, were repurposed to create the radiator cover in the classroom.

**Conclusions.** In summary, Nicolae Ghika-Budești's work reflects an artistic coherence that blends architecture and furniture design into a harmonious whole. His wide-ranging projects, from ecclesiastical restoration to the design of household and institutional furniture, illustrate his dedication to safeguarding Romanian cultural heritage while reinterpreting traditional forms to meet the demands of a modernizing society.

Ghika-Budești's interdisciplinary perspective defied the conventional boundaries between design and architecture history, as they were referred to by Victor Margolin. By combining historical inspiration with contemporary functionality, he developed a distinctive creative framework rooted in the Romanian style, showcasing a profound expression of national identity through integrating these disciplines. The Romanian Classroom at the Cathedral of Learning stands as a true testament to this approach. In the face of complex geopolitical challenges, his designs were adapted and brought to implementation, demonstrating the lasting impact and flexibility of his vision in representing Romanian heritage on a global platform.

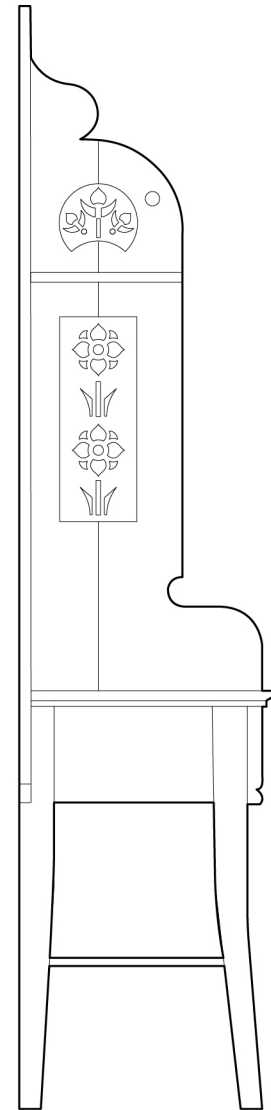
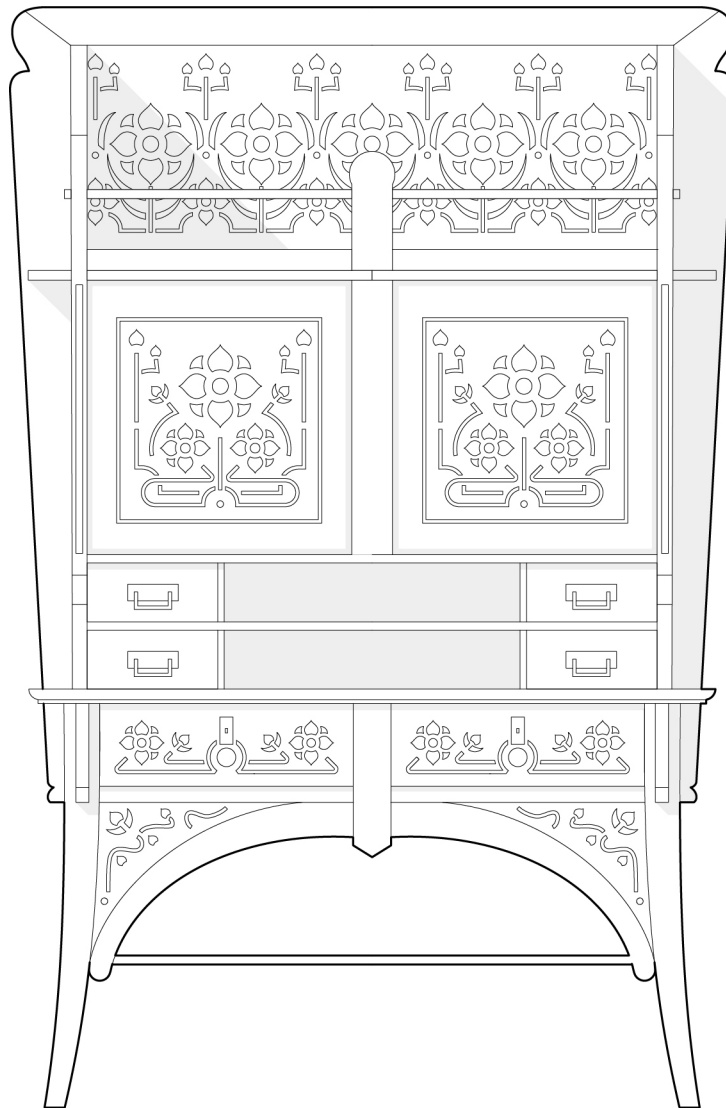
Through these contributions, Ghika-Budești emerges as a true pioneer in the history of furniture design, standing among the first architects to recognize the importance of engaging with object design. At a time when the concept of the architect-designer had not yet fully taken shape, Ghika-Budești's work advanced the clarity of this dual role. His efforts were firmly rooted in the principles of the Romanian style while being enriched by a society eager to explore and articulate its unique cultural identity.

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## Figures.

FIGURE 1. The author's illustration, created using resources from the Nicolae Ghika-Budești archives (drawings), is part of a broader research project by the author, focusing on the visual documentation of Romanian furniture history.





## DEVELOPMENT THROUGH HERITAGE: COLOMBIA'S COFFEE CULTURAL LANDSCAPE AS A REFERENCE FOR A NEW VALLE DEL CAUCA LANDSCAPE INITIATIVE

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**Abstract.** One fascinating element that characterizes landscapes is the intricate relationship between human-made and natural systems, which, when integrated, can foster new ecological relationships or unique vernacular cultures adapted to their environment. It is this special relationship between nature and humanity that UNESCO defines as Cultural Landscapes. Due to their composition, these landscapes are subject to specific risks, conditions, and opportunities related to a variety of factors, such as environmental conditions, historical backgrounds, or socio-economic dynamics, which are often organized in large territories in complex systemic structures. Therefore, after the recognition of cultural landscape as a typology of heritage in 1994, many societies have worked to identify, conserve, and valorize cultural landscapes within their territories. One example is Colombia, which in 2011 achieved the UNESCO recognition of the Coffee Cultural Landscape (CCLC), consolidating one of the country's most successful heritage valorization initiatives. This effort has produced important benefits both locally, for communities and ecosystems, as well as nationally and even internationally. However, in 2024, just a few kilometers from the municipalities that form the core of the CCLC, the proposal for a new cultural landscape in the southwest of the Colombian region of Valle del Cauca sparked significant controversy. Despite complex contradictions, especially due to the way in which the initiative was presented, this scenario could potentially contribute to the solution of existing historical regional issues. For this reason, the research analyzes this new cultural landscape initiative through the experiences of the CCLC, in order to discover the way in which these difficulties can be transformed into opportunities to consolidate, valorize and promote heritage role as a development tool in the southwest of Valle del Cauca region in Colombia.

**Introduction.** One interesting aspects of any society is the relationship it establishes with its environment, particularly with the natural characteristics of the territory it inhabits. While these features can favor certain types of development, they may also represent limits that communities often face creatively. This reality inevitably leads to unique adaptations, both from society, which develops physical and cultural elements to facilitate its integration with its surroundings, and from the territory itself, which is progressively shaped to meet societal needs, resulting in distinctive characteristics. This intricate relationship is described as a landscape [1; 2], and formed the base used by UNESCO, during the 1990s, to establish a new heritage category: cultural landscapes [3]. This designation protects the authenticity and cultural significance of the relationship between the

natural system, comprising all environmental and ecological elements of a territory, and the anthropic system, which includes the physical adaptations to the land, such as buildings, infrastructure, and the cultural constructs of the society [4]. This heritage framework has fostered the development of new conservation and valorization methodologies, that not only incorporate an understanding of the environment and its characteristics into the already established human reality, but also addresses expanded territorial realities connected systematically by typological, cultural, historical, or social structures. Over time, various experiences around the world have consolidated significant results, primarily linking heritage preservation activities to crucial environmental and social improvements [5; 6]. These experiences serve as best practices references, capable of guiding new heritage protection projects worldwide. Such is the case in Colombia, where, since 2011, an important cultural landscape initiative consolidated, generating profound cultural and economic impacts nationwide, which can significantly contribute to future experiences relating cultural landscapes.

**Coffee Cultural Landscape of Colombia.** The Coffee Cultural Landscape of Colombia (CCLC), included in the World Heritage List in 2011, is the only cultural landscape in the country recognized by UNESCO. This designation marks one of Colombia's most notable experiences in heritage conservation and enhancement with profound effects at local and national scales. In fact, the CCLC, concentrates a rich network of both environmental and social realities, that started to develop since the end of the Spanish colonial rule, in 1819, throughout the phenomenon known as "Antioquian Colonization" [7], until today, across 4 regions; Caldas, Risaralda, Quindío and the north of Valle del Cauca. As a cultural landscape, the CCLC is composed by two major systems, which arise from the very definition [3]. The first, is natural system that characterizes by the Montane Cloud Forest ecosystem, native to South-America, containing unique animal and vegetal species adapted to the high altitude and humidity of the Andes Mountains. Moreover, the area is also determined by agricultural practices that have adapted the territory, after decades of occupation, to contain by coffee plantations along with banana or plantain palms (*Musa Paradisiaca* L./ *Musa Balbisiana*) that provide shade and protection to the coffee bushes. Additionally, surrounding the plantations relicts of native guadua forests (*Guadua Angustifolia*) are often found, preserved by a deliberate decision of the inhabitants of the area [7]. The anthropic system, on the other hand, is composed by human infrastructure, which distributes in two different realities, a rural one, characterized by small traditional dwellings called "fincas" that present unique architectural traits and configurations, and an urban one, composed by historical cities, founded in during the second half of XX century following similar urbanisms and characteristics visible today, reflecting the social and economic developments the area has gone through [8; 9]. Since the early 20th century, both systems have been progressively addressed by different national and local initiatives that have enormously contributed to the development of experiences that have significantly improved the living standards of the local population through the conservation and enhancement of the territory's heritage assets, in fact, the

declaration of cultural landscape by UNESCO, demonstrates the articulated efforts of multiple organizations that have been able to position Colombian coffee as an excellence symbol, while promoting sustainable development strategies that involve environmental conditions and local traditional practices, while consolidating innovative management strategies that have assured not only the CCLC integrity but the development of its environmental, economic, social and cultural aspects. Some of the most relevant practices could be the National Coffee Fund, that has assured a common economical support, or the Federation of Coffee Growers association that has involved local communities in development programs. All these characteristics, have turned the CCLC into an exemplary case of heritage conservation and enhancement in Colombia, in which contemporary and future complexities and problems are tackled by a well-organized structure that provide significant contributions to the future while preserving the historic legacy of the region.

**Valle del Cauca Cultural Landscape Initiative.** Despite the presence of some CCLC protected areas at the north of Valle del Cauca territory, around the towns of Anserma Nuevo, Caicedonia, Sevilla and Trujillo, Valle del Cauca presents a different context, situation that was clear, in 2024, when an old initiative came out again to the public debate, promoted by some southern municipalities; Cali, Candelaria, Pradera and Florida, who declared their will to work for the declaration of the sugar cane agricultural area (*Saccharum officinarum*) as a new cultural landscape, to be eventually submitted to UNESCO under the name of “Sugar Cane Cultural Landscape”. The initiative was quickly and vehemently rejected by various sectors of society, including the national government, which led to its quick abandonment. Despite some clear issues, which will be addressed in detail below, the initiative is indeed promising, if treated properly, as it could not only represent an opportunity for the territory development, but also a chance to start serious debates regarding existing and historic complexities present today which initially justified the opposition to the declaration. In this regard, the CCLC could provide valuable experiences that could inspire innovative methodologies that contribute to the resolution of these difficulties while contributing to the conservation and enhancement of the existing heritage assets and the environmental biodiversity that characterizes region.

In order to better discuss the issues, the declaration of this landscape might entail, it's necessary to first understand the systems that could characterize this case as a landscape, so as mentioned before, the natural and anthropic systems. In first place, Valle del Cauca natural system is mainly shaped by the Cauca River geographical basin that extends from the Colombian Massif in the Andes Mountain Range towards the north, creating a mostly plane, flood-prone valley, contained both to the west and east by the peaks of the Andes, that extend from south to north following the river's flow. These characteristics have permitted the growth of a Dry Forest ecosystem, which present singular native flora and fauna structures [10] due to the warm temperatures and stable weather cycles [11]. These nurturing conditions, historically fostered the settlement of human societies throughout the Cauca River that have historically modified the environment according to their needs, leaving behind physical and archeo-

logical legacies that compose the anthropic system of the area. However, in terms of nature, Valle del Cauca original territory configuration presents a clear break at the beginning of the sixteenth century, with the arrival of Spanish colonial rule, which imposed a territorial organization and exploitation through function-drive towns as seats of power, agricultural villages, such as Cali and Buga, mining villages, like Cartago, or the so-called “Indian villages” which were settlements dedicated exclusively to the residence, often forced, of the indigenous population, such as Jamundí, Candelaria and Yumbo [12], all existing towns today. The gentle geography of the territory and the abundance of rivers promoted agriculture as a main economic activity during colonial rule, which was structured into large estates under the control of certain families of Spanish origin, who used to locate a central residence from where they controlled the activities and the labor force of the property. This building typology receives the name of “Hacienda”, and is one of the first constructive typologies widely spread throughout the territory. In fact, Colombian regulations recognizes 20 haciendas in Valle del Cauca as national assets of cultural interest. The productive dimension of the haciendas, configures a specific landscape unit that is composed of both residential and productive buildings of colonial style, born from the syncretism between indigenous and Spanish building traditions, remnants of the native dry forest, and large agricultural areas, or to a lesser extent, cattle raising areas. It's in this early context that the sugarcane crop consolidated as one of the main regional products, a prominence that is maintained even after the independence wars (1810-1819) and that gradually increased until the end of the 19th century when the hacienda model began to evolve into a more technified and broader agro-industrial system, involving new technologies, territory exploitation models, and social dynamics, that fully consolidated at the beginning of the 20th century, represented by a new industrial typology called Ingenios or Sugar mills. This new system, no longer formed by family orders, but rather by capital associations, experienced an remarkable expansion partly due to the increase in the demand for sugar during the war conflicts of the first half of the 20th century [12], conforming a new reality shaped by an industrial character architecture that arose in a systemic way along the production areas, and the routes that connected them to the distribution points in the interior of the country and to the Pacific Ocean, in the port of Buenaventura. One special building typology, that reflects this change is the railroad station, that was part of a whole national infrastructural project. Although the construction of the railroad in Valle del Cauca began in the first half of the 19th century, it was not until 1915 that the system fully consolidated in a decisive way, unifying the region under the Pacific Railroad system. Thus, railroad stations were built at strategic points, fostering the urbanization of previously rural areas or, at some cases, the emergence of new urban settlements. The railroad stations presented local architectural styles, such as the eclectic movement during the 19th century, due to the reinterpretation of European architectural styles that characterized Colombian architecture in the first hundred years of the republic, or the first modern styles trends during the 20th century [13]. This characteristic consolidates railroad stations as symbols of Colombian history and territorial development, adding new layers of cultural significance to the territorial reality. In fact, as with the Haciendas system, the Colombian

government has declared all 50 railroad stations in the region as national assets of cultural interest, all of them no longer in use after the closure of the railroad system during 1990. Their abandonment, and the eventual neglect has fostered a wide spread decay in both haciendas and railroad station, promoting its destruction, and in some cases their disappearance. These two architectural typologies represent the heritage dimension of the anthropic system of Valle del Cauca, containing high cultural and historical importance and significance, despite their precarious state. However, there's another and more complex, side of history around these places which configure new heritage conditions whose comprehension is fundamental for the discussion of heritage management in the region, specially in a cultural landscape scenario. One recurring element, around these buildings is the strong presence of contrasting narratives that do not view these sites as positive symbols of Valle del Cauca's history, but as legacies of difficult events that have characterized Colombian history, such as the slave trade economy in the case of colonial buildings, haciendas, or the violent land appropriation practices, implemented during the conflicts known as La Violencia (1948-1958) and the Colombian Armed Conflict (1960- today), during the industrial expansion of ingenios and railroad stations. These conflictive memories, especially those related to contemporary conflicts, are highly problematic as they are rooted in the intricate political violence and ideological struggle that characterized these events, and which resulted in heavy affectations in every aspect of the Colombian social life, and which are still highly sensible topics, as the country has tried, mostly unsuccessfully, in various ways to scape the viscous cycle of trauma and war. In Valle del Cauca, the relation between the atrocity of the conflicts and the patterns in which the territory was used, inhabited and modified, has been studied by different authors and organizations, [14; 15; 16] who have highlighted the role some of these dynamics had in the extension of the conflicts. Under this perspective, the existing heritage systems assets along with their systems, possess another layer of cultural significance, that it's inherently complex, and which has been conceptualized under the term of dissonance, specially linked to places of atrocity and war [17]. This dissonance is evident in Valle del Cauca's case, as any activity related to the conservation or enhancement of the already mentioned heritage is, and has been, interpreted as a deliberate attempt to erase the memory of the victims, and to hide the painful past under the cultural heritage denomination, which is believed to obliterate the responsibility of those who contributed to the developments of the conflicts. The complexity of this dissonance in transversal to all the elements of this case, in fact, the proposed name "sugar cane cultural landscape" was rejected, in part, as this plant also represents the difficult legacy the development of this industry had, in many cases at expense of local communities [18]. This situation, explains why this name hasn't been used to describe Valle del Cauca's reality in this research as it's considered to be problematic by its own.

**Conclusion, Opportunities within Complexities.** In conclusion, this possible new cultural landscape faces a multiplicity of complexities that prevent a generalized recognition of the value of the exiting natural and cultural assets, and eventually, its declaration as a cultural landscape. However, the definition, as understood by UNESCO, could represent an

opportunity to propose solutions through the implementation of innovative heritage conservation and enhancement strategies, many of which have successfully worked in similar scenarios not far, such as the case of the CCLC. In this regard, two key main complexities have been identified, the first one is the environmental impact the Sugar Cane production has over local ecosystems due to the high-water consumption, the usage of damaging agricultural practices and the continuous reduction of the size of the native dry forests [10; 19]. However, it's important to remember that the natural system makes a fundamental part of any landscape, and it's the sustainable relation between nature and humanity, that backups landscape as a heritage asset, which at the same time, makes the natural structures susceptible to restoration and enhancement strategies, as its optimal state contributes to the well-being of the whole landscape. In fact, some of these practices have already been implemented within the CCLC, which have fostered different activities to increase the knowledge of local ecosystems, create awareness in local communities and strengthen their presence and vitality. Some of these were, for example, arboreal censuses, studies on native fauna, or the implementation of integral ecological restoration projects that have united national parks and remnants of native forest through ecological belts, while creating sustainable tourism models related to environmental appreciation and conservation. The declaration of a cultural landscape in Valle del Cauca, as in the CCLC could also mean the possibility to start new research programs for the development of new sustainable agricultural practices that reduce its impact on local ecosystem and promote the consolidation of new or better agricultural products. The second complexity is the dissonant historical interpretation that links the sites to painful memories. Although the legacy of the conflict in the area is unquestionable and still has profound effects on local communities, the heritage declaration could be understood, instead, as an opportunity to preserve the memory and complex history of the area, opening spaces for discussion and contextualization within the same territory that was once scenario of conflict [20; 21; 22]. This could lead to the involvement of different sectors of society through different methodologies, which could promote the creation of a collective memory of the historic events that conform the past of these sites. These opportunities eventually, could solidified into a single proposal of creating a territorial historical consciousness by integrating important past memory exercises, such as the studies made, by the Historical Memory Center (CNMH) or The Colombian Truth Commission, after the peace treaty in 2016. These new and integral narratives, wouldn't act in detriment of the cultural value of the area, but would rather add new layers of cultural significance, while grating the area an active role both in the symbolic reparation of the victims, as ordered in the 2011 victims' law in Colombia, but also in the construction of peace in the territory [23; 24]. Although the CCLC doesn't have the same historical complexity linked to conflict, it's a perfect example of the involvement models of broad sectors of society through programs that integrate the population in cultural, agricultural and economic projects under the direction of public-private organizations. This same methodology could contribute enormously to Valle del Cauca's case as it would foster the creation of strong social structures that would actively work for the preservation of the existing heritage not only as a symbol of the past, but especially, as a motor for the

future promoting new a more innovative enhancement models for the sites, as has been done for the CCLC.

Thus, the consolidation of a new cultural landscape in Valle del Cauca can be seen as a unique opportunity to initiate new discussions and dynamics that promote actions addressing existing complexities, not only on environmental and interpretation levels, as previously mentioned, but also on economic, social, cultural, and infrastructural levels throughout the region. In this sense, heritage shouldn't be understood as a designation that seeks to anchor the region to its current state but, on the contrary, as a tool to identify the elements of greatest collective cultural significance and, through them, generate meaningful changes in its context. Even so, the new cultural landscape, before any official declaration must undergo extensive participation, research, and socialization processes to reach common agreements among all those who live in and are connected to it. However, while this process unfolds, it is essential, from a heritage perspective, to begin new and deeper analyses of the territorial built realities from a singular or systemic perspective. This would expand the available information, identifying new risks and threats but, above all, opportunities.

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## Figures.

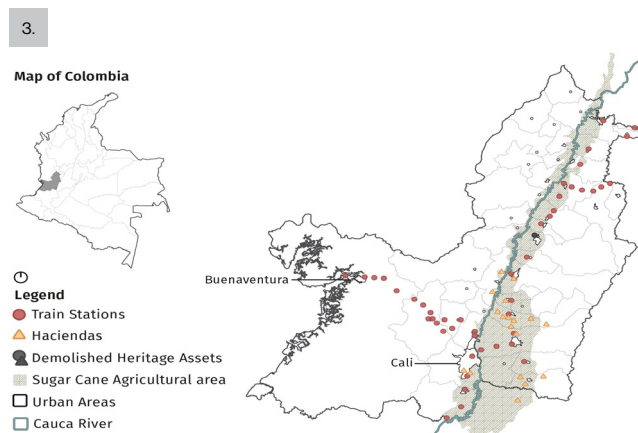
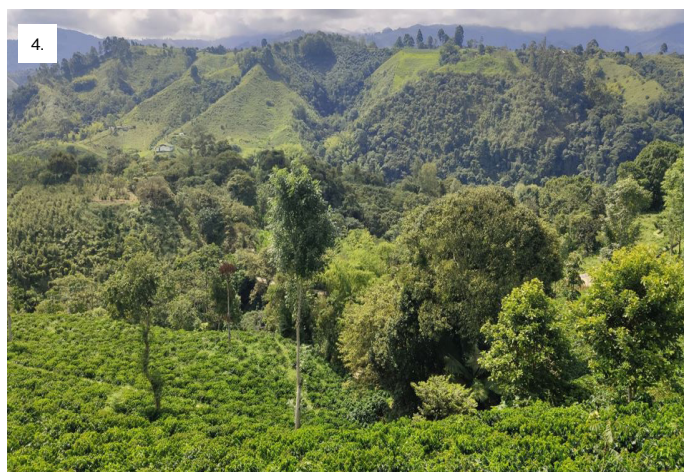
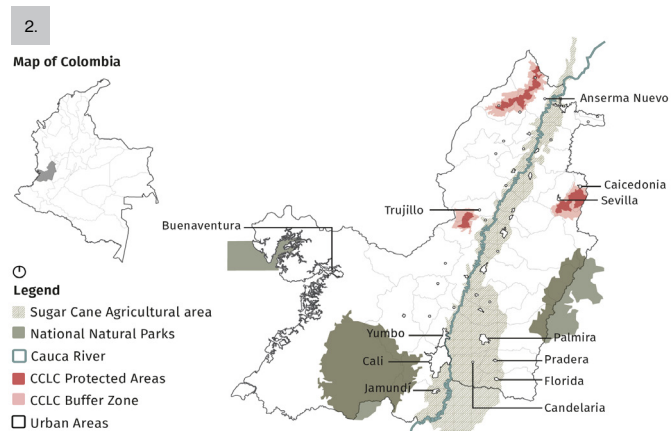
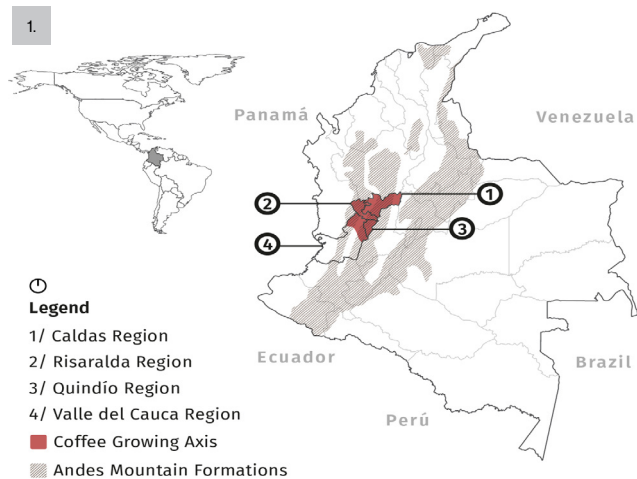
FIGURE 1 – Coffee Production Regions in Colombia, Containing CCLC Territorial Units

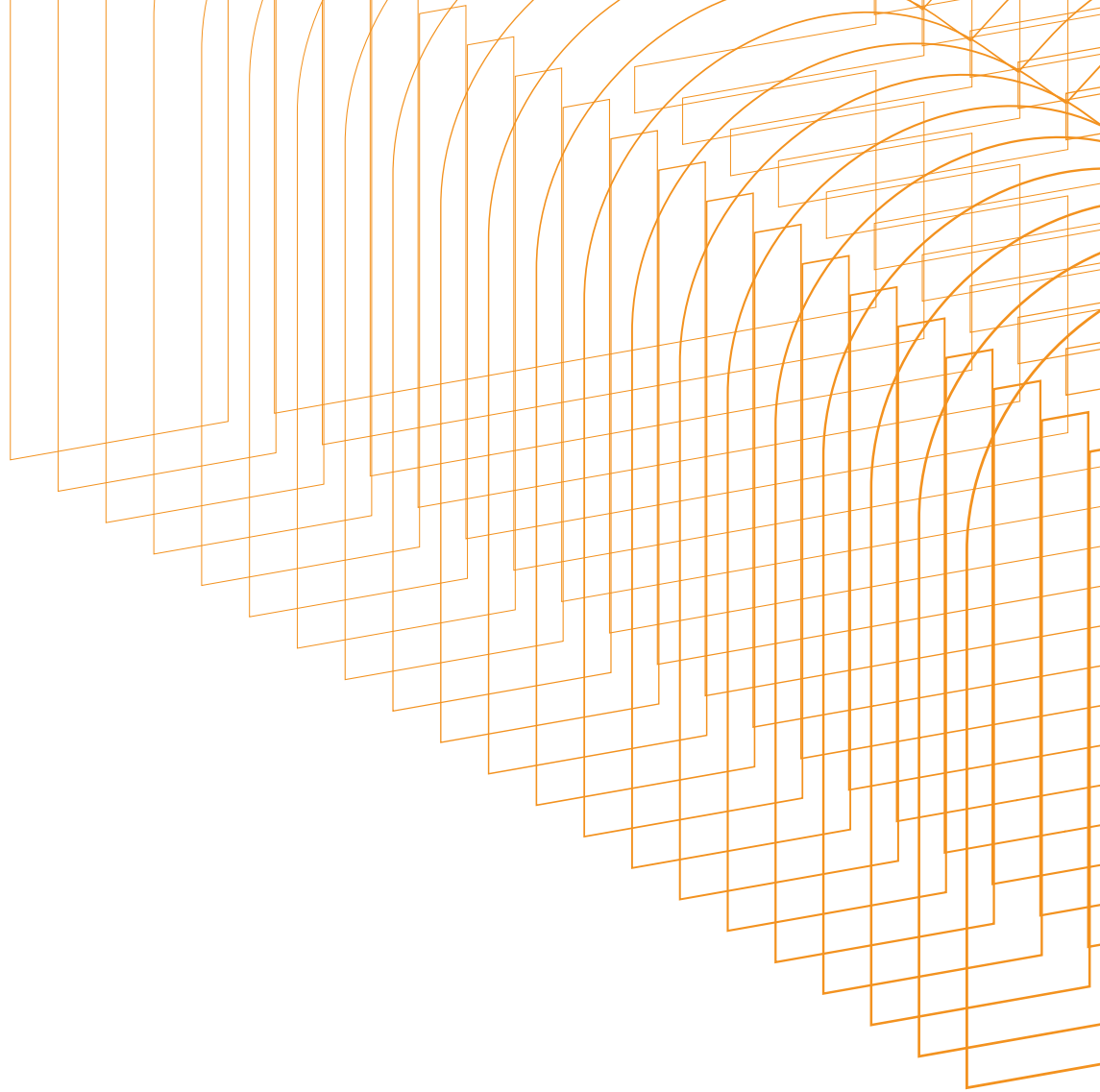
FIGURE 2 – CCLC View in Quindío Region, Displaying Coffee Plantations and pockets of Montane Cloud Forest. (Courtesy of Ana Lucía Ordóñez López)

FIGURE 3- Valle del Cauca Region, marking CCLC protected areas declared by UNESCO, Sugar Cane Agricultural Areas & National Natural Parks.

FIGURE 4- Valle del Cauca Region, marking The Haciendas and Railroads stations systems declared as National Heritage Assets







## SOCIALIST ROMANIA, HISTORICAL MONUMENTS AND EUROPEAN FRIENDSHIPS IN THE 1970S

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**Abstract.** This purpose of this review is to recreate the affairs surrounding historical monuments during the 1970s in the Socialist Republic of Romania – SRR, as described in The Bulletin of Historical Monuments – BHM after its resumption over a 25-year hiatus. Nicolae Ceaușescu's state leadership begun in 1965, and an apparent independent and Western-oriented foreign policy was formed, meant to individualize the SRR from the Soviet Union and the Eastern Block. The BHM contains substantial international activity reports: brief news, reviews of foreign publications, notable international events organized by the SRR, interactions with UNESCO, activities of ICOMOS, other international conferences, professional visits of Romanian experts in Eastern countries and contributions by foreign researchers to the BHM. The most important category of articles refers to the consistent collaboration with the Center in Rome. The Center was formed during the late 1950s, as one of the most influential international collaborative networks, that eventually evolved into ICCROM. SRR was one of the pioneer countries involved in practical and scientific collaborations in the field, alongside with the Rome Center. On one hand the articles addressing international affairs reveal that the Romanian professionals were highly involved and connected with their western peers. On the other hand, the most significant international legal agreements established between 1947 and 1989 were accepted in Romania only following the collapse of the Totalitarian Regime in 1989. From the international activity and the advancement of the field during that period, it emerges that, indeed, the quality of the works and professionalism in the field of restoration reached a peak, followed by a sudden interruption.

**The national activity in the field of historical monuments.** The communist regime (1947-1989) came with severe censorship and changes: the nationalization of real estate properties, the closure of the private economy and the subordination of architects to the state, that became the unique client as well.

The Directorate of Historical Monuments – DHM was the main state body that managed the historical monuments activities for the state between 1952-1977 and continued and enhanced the restoration tradition established since the last quarter of the 19th century [1]. After the major earthquake that occurred on March 4, the DHM was silenced and reorganized. Two main directions of restoration coexisted, the conservative and innovative, of Italian inspiration. The two leading supporters of the two directions were architects Ș. Balș and Horia Teodoru. Both obtained state scholarships at The Romanian Academy in Rome, amongst many other [2] and were educated to base their interventions on substantial art history research [3]. Many of the directors of DHM, were also highly trained as they were university professors: Duiliu Marcu, Richard Bordenache – became

chief [4] around 1953, Grigore Ionescu and Curinschi-Vorona, deputy director between 1963 and 1968, Bordenache from around 1970 and art historian Vasile Drăguț between 1971-1976.

The authorities restarted the publication of The Bulletin of Historical Monuments – BHM [5] interrupted for 25-years [6], with a singular number in 1958, of a dense political infusion. In the 1970s, the contents of the periodical publication reveal: historical researches and archeological findings and narratives of restorations works, the advancement of the fields of theory and practice (protection areas, rural heritage, displacement of monuments, micro-professional issues, innovations at a high-quality level) and the third category, drawn from the second but more extensive is the systematization of historic centers and areas and the fourth – the international activity. The main periodical publication renders the professional atmosphere in the 1970s.

The Commission of Historical and Art Monuments – CHAM [7] within DHM had weekly meetings for discussing, adjusting and approving restoration and intervention projects in the 1970s, showing similar preoccupations as the periodical publication: increasing interest in contemporary insertions into monastic assemblies and new construction in historic sites – schools, school groups, hotels, spas, car parks. In the secretariat of the commission, many significant restorations works and current repairs began to be approved without debates among the members of the commission. These changes reveal that great trust was placed in the specialists working in the DHM, and at the same time, the insertion projects were considered the most significant and in need of debates and adjustments.

In the same time, Nicolae Ceaușescu [8] aimed for international recognition. He continued the previous foreign policy of enhancing relationships with the socialist states but in the same time he cultivated illusions of friendships with western states. Due to the cult of his personality, the humanities and especially historians developed protochronism, that emphasized the idea of strong state identity and hence individuality and state independence from Moscow, ideologies that were reflected in the field of historical monuments. The November 1971 Party Plenary [9] decided a greater state interest in particular historical monuments with strong national identity features like: the fortresses of the Orăștiei Mountains, Alba Iulia, Turda and medieval monuments – such as the monasteries from Bucovina. A period of national reorientation of party politics was starting. Ceaușescu began to use national history and tradition, and especially in the Thracian origin of national identity in both internal and external affairs [10]. Cultural heritage became a propaganda tool and gained substantial financing.

**International affairs.** Prior the new edition of BHM – 1970, according to Curinschi's publication, the main source of information, G. Ionescu and Curinschi were designated to participate at many international events [11] such as: The 2nd Congress of architects and technicians of monuments, Venice, 1964 where the international charter of conservation and restoration was adopted, The constitutive Congress of ICOMOS, Warsaw, 1965 and other events after 1977. According to Curinschi, his book was praised at international level by Piero Gazzola - The first president of ICOMOS, coauthor of the text Charter from Venice, Ferdinando Rossi Engineer, director of Opificio delle Pietre Dure, Carlo Ceschi - Architect – important professor

from the restoration courses in Rome and Vahtang Beridze Academician from the Art Academy in Tbilisi. The author seems to have had cordial relations at least with professors Roberto Pane and Gazzola, authors of the text *Charter from Venice*. Pane even agreed to participate in a conference held by Curinchi in Vicenza on the History of Romanian Architecture. Gazzola handed him letters of recommendation, addressed to some famous personalities in the field from Spain Greece that facilitated his study visits in these countries and <in between the Pacific and Atlantic Oceans, The Baltic Sea and Sahara Desert>> [12].

Another DHM representative that had good external connections was Vasile Drăguț, member on the Rome Center Board since 1960. One of the first countries that received technical missions from The Centre was SRR, amongst France, the German Democratic Republic and Poland [13]. Jokilehto mentioned that Drăguț had a similar approach with that of Gertrude Tripp - Restorer at Bundesdenkmalamt and Johannes Taubert, Vienna, Director of the restoration atelier of Munich in Bavaria, Bayerische Landesamt für Denkmalpflege. They all foresaw good scientific outcomes in international collaboration. Drăguț introduced his country to The Centre, and organized seminars with their assistance – “a very difficult task in Ceaușescu’s Romania” [14]. Jokilehto remembers [15] that Drăguț was “the only person who, during his long membership in the ICCROM Council, made questions in the field of humanities. All the others made administrative questions”.

The most consistent international activity was the collaboration between DHM and the Roma International Center for Studies in Conservation and Restorations of Cultural Goods. The external frescoes from the north and Moldavia monasteries were brought to the attention of The Rome Center in 1969 due to unicity, complexity and urgency in conservation and restoration. The Center started to prepare a visit to SRR and requested information about humidity, temperature, wind, microclimate for each monument, pigment and binder analysis, detailed info about any conservation works previously conducted from their Romanian peers. The delegates of The Rome Center who visited the North Moldavia Monasteries in October 1971 were: Arch. prof. Raymond Lemaire (Belgium), Paul Phillipot (Italy) – art historian, arch. Paolo Mora (Italy) – mural paintings restorer, Gary Thompson (Great Britain) – chemist and scientific consultant specialized in humidity and air pollution problems, an international and interdisciplinary team due to the unicity and complexity of the subject. The monasteries in Humor and Moldovița were chosen for interventions. The international endeavors had two goals, to find optimal solutions and to train new specialists. The coordinator of the restoration works was the painter Constantin Blendea, who graduated fresco restoration in Italy in 1971, seconded by Nicolae Sava. Five students were delegated from the “Nicolae Grigorescu” Beaux-Arts Institute in Bucharest the class of monumental painting. And DHM delegated seven restorers, one chemist and one art historian – to assist the works. [16] Other professionals that participated were Emmerich Mahapp (Austria), team manager, Zbigniew Majcherowicz, restorer (Poland), Helmut Scholtz, restorer Fritz Buchenrieder, chief restorer (DRG). Several publications followed in BHM by V. Drăguț [17], P. Philippot and P. Mora [18] and half of the 3rd number from 1973 of BHM was dedicated to the external fresco restoration works in the international campaign at

monastery [19]. In 1975 The center offered numerous scholarships for the training of architects and painter restorers within DHM and also awarded a high qualification for the organization of the pilot site at Humor [20]. The other articles published in BHM in the 1970s about international relations contain: short news section, collaborations with Italians, The Centre in Rome – the most consistent category, ICOMOS affairs, UNESCO, activities in socialist countries, events organized in Romania and other. BHM in the 1970s often contained random, abbreviated articles that resemble an incomplete puzzle of the international random occurrences presented in condensed lines. The news-mosaic seems to be inspired by western and international periodical publications [21]. Important events were described, such as: international gatherings, synthesis concerning innovative conservation methods on universal historical landmarks, climatic related degradations and protection, important archeological findings in remote countries on cultural landmarks, iconic publications, open air museums of rural heritage or the foundation of professional or educational institutions, restoration awards, news about tourism and historical monuments. The international section was an innovative trend from the traditional edition of BCHM [22]. Tereza Sinigalia was the first author who wrote a brief section on foreign activity in 1970 [23] and two other authors continued the section Olga Mărculescu [24] and Nicolae Rădulescu [25]. In the beginning of the 1970s the section was solitary amongst national news, but was slowly being accompanied by large scale international relations articles. In time, the international sections became more and more consistent.

A few iconic publications were reviewed in BHM – Cypress Icons [26], Romanische Wandmalerei [27] and Architectural monuments in the Soviet Republic of Armenia [28], The International Repertoire of Medievalists [29] or the Albanian journal Monumentet Tirana [30]. Short articles from specialized foreign journals were reviewed: restorations in France [31] and the Research Laboratory of Historical Monuments at Champs Sur Marne, equipped up to date for the research of different artistic materials and techniques, similarities between English and Swiss architecture [32], the publication of a Romanian peer in an international periodical [33]. Significant international gatherings were held in RSR: The 9th International Congress of the Roman Frontier [34], Mamaia, 1972 with 160 delegates from 30 countries and The International Conference of the Committee EIRENE for classical studies in socialist countries formed in 1957, was organized twice in SRR [35] in Eforie, 1960 and in Cluj-Napoca, 1972. The last one was coordinated by academician C. Daicoviciu and the included linguistics, literature, history, history of philosophy, science and religion, archaeology, medieval and the survival of antiquity even epigraphy sections. USA and western European countries - UK, Austria, Belgium, Switzerland, France, Greece, Italy, Poland, Federal Republic of Germany participated. Another proof of the strong international relations in the field of historical monuments during the 1970s is the National Colloquium organized by DHM and the national ICOMOS, Suceava, 1977. P. Philippot was one of the keynote speakers, amongst delegates from Italy, Belgium, France, Portugal, Yugoslavia, The Czechoslovak Socialist Republic [36]. Romania is a UNESCO member since 1956, hence concerning activities were published as well. The final report of the meeting of experts on the training of architects and technicians in the conservation of monuments



and historic centers – UNESCO, Pistoia, Italy, 1968 [37] and the Report on the 15th General Conference of the UNESCO, Paris, 1968 [38] were published in the BHM. The publication mentions a UNESCO Mission in Romania [39] in 1975, that promoted the good governance of the world on problems raised by the preservation, restoration and enhancement of cultural heritage. Some of the DHM were delegated for professional exchanges in foreign countries. V. Drăguț [40] wrote in 1971 the ongoing restoration works and archaeological findings in Bulgaria. Adrian Corvătescu [41] visited The Polish People's Republic and wrote about the powerful organization of the activity in the field of historical monuments. A documentary trip on rural heritage to the Polish Republic was organized with international participation [42] in 1972 in the framework of documentary exchanges between SRR and the Polish Republic [43]. Sometimes foreign researchers published in BHM: Vlasta Dvorakova (Czechoslovakia), Peter Fister (Yugoslavia), Walter Miler Arendt (Federal Republic of Germany) [44] Silvio Curto [45]. Even P. Gazzola [46], the president of the Scientific Council of the International Institute of Castles – signed an article about the 11th Scientific Meeting, 1971, and the representative of the SRR was professor G. Ionescu. Several international gatherings were presented in BHM. The European year of Architectural Heritage, Zurich, 1973 It was the preparatory conference for the launch of the celebratory year. 300 delegates from 27 countries of different specialties discussed the programming of the year under the theme A future for our past. The article does not mention a Romanian presence [47]. Later on, the annual session of scientific communications of DHM, 15-17 of May, 1975 under the auspices of the same theme A future for our past was described, without mentioning any international presence [48]. Other events were described in the BHM. The seminar on the integration of contemporary architecture near ancient buildings, Kazimierz Dolny, 1974 was organized by the International Union of Architects in collaboration with the ICOMOS, Europa Nostra and the Polish Society of Architects described without mentions regarding the participation of SRR delegates [49]. The international colloquium Safeguarding the historical cities of Bruges, 1975 was presented by a set of principles for the rehabilitation of the historical city without mentions about the SRR delegation [50]. The Conference organized by the local authorities in Prague, 1975 about the historical monuments and surrounding areas from the city was attended by the Romanians Cristian Moisesescu (who rehabilitated the Voievodal Palace in Bucharest, the Gabroveni and Manuc Inns) and Marinela Daia, the deputy director of DHM and architect [51]. The International Council on Monuments and Sites – ICOMOS – was founded as a non-governmental organization in 1965, when a telegram sent to the Romanian delegation led by professor Curinschi, deputy director of the DHM forbade the engagement of SRR – considering the adherence <<an unwanted intrusion in the internal affairs>>, although no prohibition had been expressed prior leaving the country [52]. In a few years SRR became a member of ICOMOS. At the General Assembly of ICOMOS held in Paris in November 1970, Romania's adhesion was accepted, but there isn't information about the national delegation. It has also been established that the Romanian DHM professionals will contribute to the scientific periodicals

Monumentum and Bulletin de l'ICOMOS and there were discussions about organizing international ICOMOS events in SRR [53]. Soon the SRR formed its national organization after the state reconsidered its prior decision following the international activity in Bucovina [54]. The national members of The National Committee of ICOMOS were appointed within DHM and other cultural significant institutions: Richard Bordenache president, Ș. Balș secretary, Constantin Bălan, members - Virgil Bilciurescu, V. Draguț, Grigore Ionescu, Emil Lăzărescu [55]. National [56] or international meetings with active delegates from SRR [57] were briefly presented in BHM. During The 4th General Assembly "The Small Town", Rothenburg, Germany, May 1975 [58], Drăguț was elected as general rapporteur of the assembly and president of the Program and Budget Committee.

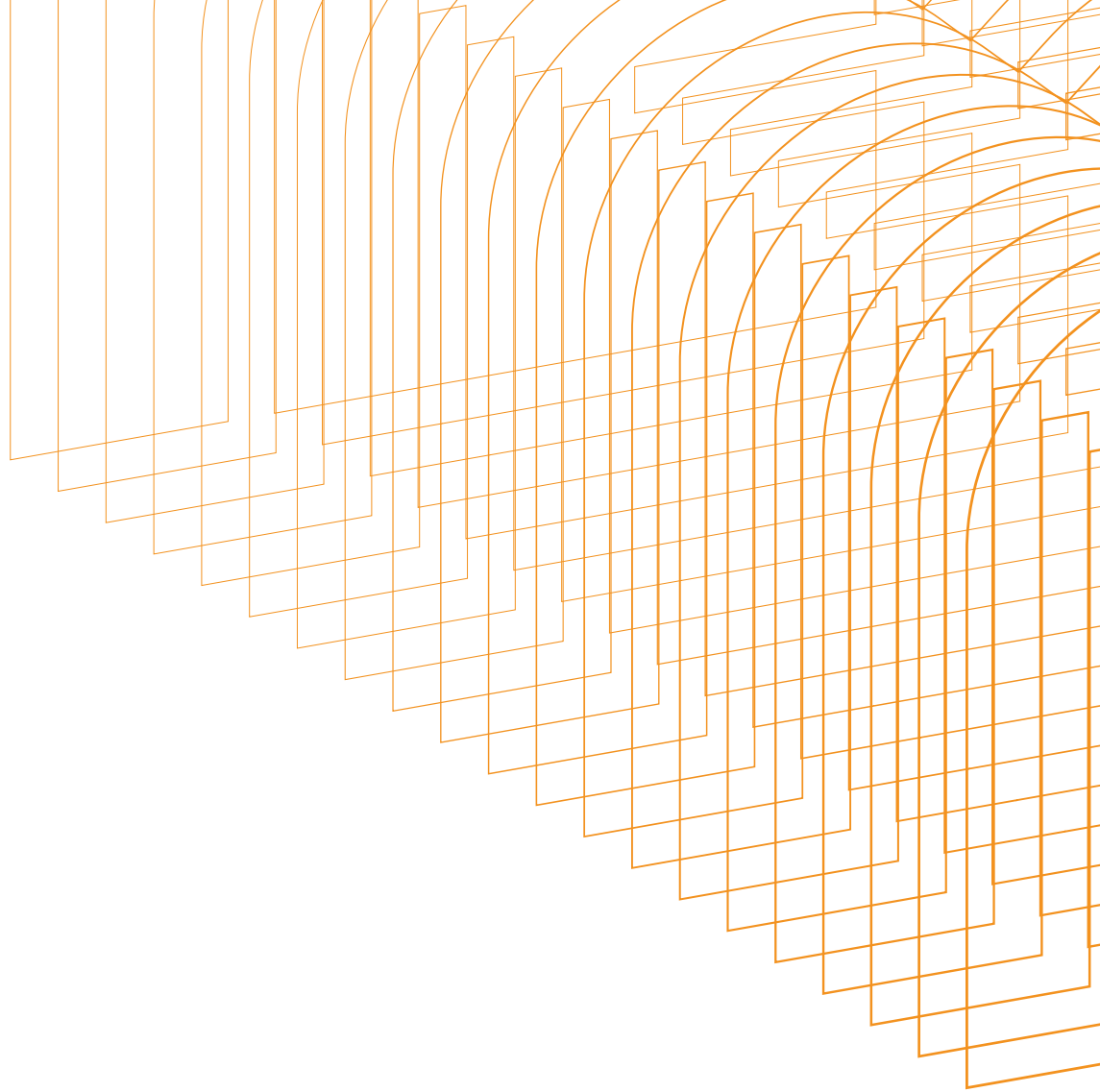
**European friendships.** Our research reveals both a considerable presence of Romanian specialists in the international environment, certainly broader than emerges from this research, but also a rich involvement in the activities of the SRR of some prominent specialists from Italy, Luxembourg, Vienna, Italy, the UK and other. Added to these are the international positions held by Vasile Drăguț and the international respect for the Romanian specialists that emerges also from other described contexts, as well as the importance of Gazzola and Philpott's personalities involved in the restorations on the territory of the SRR. The international relations of the Romanian specialists in the 1970s are remarkable, with all the constraints and restrictions imposed by the state regarding relations with Western Europe. On one hand the information on international relations published in BHM is extensive, addresses both western and eastern subjects, on topics such as international meetings, rural heritage, tourism, education, restoration of historic centers and cities, translation, restoration, archaeological discoveries, innovative conservation projects, field organization in other countries and significant publications. On the other hand, BHM was asymmetrical in its coverage, omitted details about Romanian representatives at global gatherings and displayed selective amnesia toward most of the international legal agreements launched between 1947-1989, that have not been adopted due to political restrictions. Most of them were signed, translated and published in the BHM only after the fall of the totalitarian regime, without any critical observations. For example, in 1972, Sinigaglia wrote that CHAM discussed a list of historical monuments that bared universal value [59], formed on similar criteria to the present classification requirements of The UNESCO World Heritage List. The article does not mention The UNESCO World Heritage Convention launched on 16 November 1972, that was adopted in Romania only in 1990, after the fall of the Communist Regime. Most of the national monuments displayed in Sinigaglia's article were enlisted in the World Heritage List gradually, only after 1993. The collaborations and activities between the DHM and the Center in Rome and with the Italian peers were amongst the most significant. What was behind the connection? Could it have been that the Romanians integrated the Italian approach after the second World War and the numerous scholarships the Romanian had in Rome? Professional affinity? Latinity? The Romanian scholarships in Italy? Did the personalities of V. Drăguț, G. Ionescu, Curinschi or others count? Were there affinities between the famous art historians Drăguț and Philippot based on professional respect? Was it

Drăguț and his diplomatic skills? Was it a good professional training inherited through the traditional apprenticeship system of several Romanian generations? Was it Ceaușescu's ambition to present a high scientific level as an external image of SRR? Was it the substantial financing? Was it the thorough research and scientific approach on the Romanian side? The entire activity of DHM presented in BHM demonstrates that the national professionals were aware of the natural international progression, were in synchronicity with the west and demonstrated a remarkable scientific alignment and recognition, in contrast to the state's official passivity concerning international legal agreements. The Romanian professionals aligned their knowledge with the theoretical and practical developments in restoration at international level. The works undertaken during the 1960s and 1970s were held in high regard by international groups and continue to reverberate in the professional Western society.

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# STRATIGRAPHY OF INNER SPACE - A METHOD OF INVESTIGATING PREEXISTENCES

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**Abstract.** Since the beginning of the last century, the term stratigraphy has been associated with archaeological research through various references to the analysis of all the layers constituting a pre-existence.

The historical monuments present this duality by which the exterior and the interior can initially be studied separately, to recompose the reading of the whole in a second phase. The stratigraphic method is defined as an overlapping relationship between the disciplines of architecture and archaeology with deconstruction, which becomes the analysis key to understanding how the interior space was designed. The process by which an element, structure or construction is initially decayed for examination and later recomposed is part of a quasi-repetitive, mathematical investigation system.

The present article intends to emphasise the analytical way each addition, completion or modelling of the original material may be revealed and interpreted by explaining and defining the stratigraphic method. Such an approach often appears in contemporary interventions associated with historical monuments, where the material limit of each layer is clearly demarcated. Like the hypothesis of Christian Norberg-Schulz, taken from the Swiss theorist Heinrich Wölfflin, Scarpian architecture, for example, does not consist of simple geometric shapes but starts from an overall spatial vision, a “topology”, in front of which the detail becomes a subordinate element.

In-depth knowledge of all the elements that make up the interior architectural space is comparable to deciphering an archaeological site. Using a grid that repetitively sequences any structure, it will be possible to identify each intervention’s meaning and importance over time by juxtaposing the negative (gaps in the material) and positive (traces in the solid), respectively, of memory and anti-memory spaces.

Thus, it can be considered that the interior architectural space is constantly fighting between the closed-tectonic Piranesian forms and the open, poetic ones represented by its original essence. We can associate the stratigraphic method with Franco Purini’s definition of the design practice as a composition of elements. It can be thus considered that the interior architectural space is constantly fighting between the closed-tectonic, Piranesian forms and the open, poetic ones, represented by its original essence. We can associate the stratigraphic method with Purini’s definition of the design practice as a composition of elements and implicitly an a priori knowledge of all the context fragments.

**Introduction.** Reuse and integration of a historic monument refers to the process of regenerating the vestiges, through a functional integration into contemporaneity, seeking to maintain unaltered its physical conservation. The preserved remains give the intervention scale of conservation and

establish the object-visitor relationship. Although considered and integrated as inner museum spaces, archaeological areas support: restoration, reinterpretation and reconstruction processes, transformations into a permanent source of excavation and research, constructive destructions and modernizations. The lack of connections with the city leads to the introspection of sites and the exclusive dialogue with the place topology. The preexisting connection with their context is often represented by tissue planning and social fragmentation. Starting from the principle of continuous use, the paper will present new ways of approaching archaeology through integrative vision and contemporary intervention. Archaeology operates by excavation, bringing thoughtful contributions to the territorial changes as design proposals induce physical and functional transformations of space. Daniele Manacorda explains that excavation is a stratigraphic “disassembly”, a destruction of previously generated order by each, intervention turns into open knowledge. Otherwise, the ruins absorb and change the whole context, becoming, through alienation, a conflict urban zone in which the structured city faces the archaeological gap. Contemporary materials, facilities or ephemeral scenography lead architecture to dialogue with its historical forms.

The close relations between humanities and computerized disciplines generate a new mechanism of analyses based not only on anthropological, historical and archaeological research but also on the introduction of digital theories, which seek “scientific” answers to issues related to the nature of dwelling. Generally, the visitor incurs difficulties while observing vestiges in reconstructing the antique representations mentally. The musealization process may use reconstruction as a didactic modality by which the monument presents its original image without destroying the existing remains.

**Archiving data – the Stratigraphic Method.** In archaeology, archiving the data represents one of the most important tools in researching a site.

Most often, such a detection may prevent many problems caused by excavation. In this manner, the result of determining stratigraphic relations and site prospection maps, achieves the charts anomalies. One of the usual methods represents the site introspection, named periegesis, which reveals land or vegetation surface diversity for new archaeological site discoveries. After the utilization of Earth’s first artificial satellite in 1950, photogrammetry became one of the basic instruments in the studies. These tools record information from the land surface through multispectral scanners [1] and panchromatic photos. Based on the presence of various phosphates, carbonates or nitrates, the soil indicates any dig-in, holes or channels that demand an excavation. The spectrozonal aerial photograms reveal these chemical phenomena [2]. Establishing the chromatic nature of a researched space may allow the identification of its archaeological potentiality. These non-destructive researches offer a real detection of a possible archaeological site.

The article will propose a series of specific terms for different disciplines aimed at understanding and interpreting the theoretical content. To this purpose, it may examine: the scientific base, the methodology evidence, the indicated disciplines and the report of various literature sources for a more complex acknowledgement. In this regard, the monument identity is associated with that type of representation that can keep alive a widely

recognized signified. Understanding a historical space means transmitting to public a series of information about the site, valuing and preserving it. Beyond the principles of (post-)processual archaeology, the stratigraphic method underlying the research will identify and systematize all the parameters of the context analysis.

The method is defined as an overlapping relationship between the disciplines of architecture and archaeology with deconstruction, which becomes the analysis key to identifying how the interior space was designed. Eduard C. Harris is the first archaeological researcher to find a stratigraphic investigation method (Figure 1). His surveys initiate from the entire area of the site. Previous researchers' theories (examples as Sir Mortimer Wheeler square analyses) decomposed the plan in various independent surfaces. It represents and functions as a unitary assembly, which uses digital instruments as the basis of its prototype model. The end of this process concludes with a 3D computerized model. From the field data, he operates with the horizontal and vertical sections of the whole complex. By this thinking, Harris eliminates the non-excavated zones, which results in the end of traditional digging. Through the method he describes a diagram sequence of all relations presented in a layer, without including other research parameters as the geographical and the anthropological ones. This approach represents the connection between the site, its limits and its possible reconstruction, through geophysical data. Sometimes, the prospection may encounter numerous problems due to excavation [3]. The most known method of remains analyzing is that of radioactive carbon  $^{14}\text{C}$  [4]. We experience a moment of denying the machinists, bionic and zoo-morphic architectural interpretation variants, by examining a computing system whose parameters can actually generate errors in appropriating and understanding historical civilizations. Quantitative methods for determining spatial coordinates and dissemination of cultural heritage are presented by the New Archaeology movement and Computational Archeology. GIS system archives provide for this purpose aerial maps, which show the connection of the site to the surroundings and presents the detailed study of different evolutionary habitation phases. A special form of investigation is "archaeological informatics" (archaeoinformatics or computational archaeology), which structures the site information as an algorithm. The Method of Edward Harris, which determines the so-called Harris Matrix, works for the first time with the tetra-dimensional space or Minkowski [5]. Any point from this plan is termed „event". A mono-dimension curve representing the „world line" underlines its history, defining its evolution along time by a succession of moments [4]. In this manner, the stratigraphic sequence is regarded entirely, as a sum of chronological relations. These do not refer to the ground's composition, but to the analyses of the contact surfaces between layers. Harris Matrix follows the four principles of stratigraphy: the superimposed elements, the original horizontality, the initial continuity and the stratigraphic succession. It is considered that the lower level is the oldest one. Due to gravity, all layers are initially horizontal; therefore, each mutation of earth surface is identified by this positioning. Various graphics present the relation between units based on the site data. Thus, Harris Matrix relates levels, interfaces and chronologies. "The conceptual maps" of GIS are, most of the time, the appropriate graphic instruments to synthesize the archived data and the site relations

(control method). Therefore, from an archaeological point of view, a Corinthian capital represents a singular stratigraphic unit; meanwhile, for the architect, it is important to analyze the relation between volutes and leaf levels or between abacus and echinus. An optimum division of the element's structure shows its proper nature. The research result corresponds to the fluid space that functions following the principles of the peer-to-peer network, regarding the equivalence of relations.

The lacunar and fragmented remains of the past periods become the research thesis on sites. For this purpose, regressive methods investigate the contemporary forms of the actual territory and identify, through stratigraphy, the present traces. GIS system is used from the microscopically to a macroscopically database. The method has the advantage of creating not only an information archive but also a thematic map with each one of the parameters that interest the stratigraphic unit. The Italian archaeologist Tiziano Mannoni said that there is no archaeology without archigraphy. He introduced „interpretation" as a new coordinate in the studying process. The information archive represents an unrepeatable practice, so the database should remain open to other research works.

**The internal archaeological space.** The character of the antique life and the importance of architecture in past periods are derived from trace studies, which determine space usage. During the Roman-Greek period, the streets were already conceived for "jus eundi", which indicated the right of passing, a Roman norm that regulated the urban areas. In that period the street was designed for strategic commercial reasons and presented important esthetical plan values. Through researchers, the Space Syntax British group provides a new methodology for studying the internal archaeological context. The observations identify a new layer, established by a series of categories of space relations, that condition, depending on distribution, the way of passing of individuals and the category of place manipulation. Built limits usually configure the internal connections of the site. The first analyses on edifices' signification for the city's life will establish the basic elements of the graph, as a schematic representation of existing trails. Space Syntax has developed an informatics graphic system that investigates the inner space of a site and the relationship between its morphological elements, by axial maps. The methodology found is that of representing all the convex spaces and the relation between similar units. The segments that unite them will underline paths, starting with the statistics to demonstrate that the straight direction (the visual one) suggests the followed itinerary. The axial space, the convex space and the "isovist" [6] one, are the three applied methods that explain the city street network, the distribution of the main buildings, their relations with the center and their functions. The study of movement in antique cities is fundamental because it reveals a series of new interpretations to the initial archaeological information. Fridell Anter and Weilguni detailed the method in their study of Pompeii's paths [7], offering qualitative data and quantitative evaluations (through distances). The interior of each building defines a convex space, no matter the wall divisions. The uses by superposing of all known paths excavated or not, identified various types of roads: orthogonal streets, spontaneous circulations and crossing site streets, to connect the forum with the city's gates. The union of more convex spaces through a singular axis configures

the initial design of a various environment, which visually interests the passenger [8]. The studies on integration and spatial segregation continue, relying by association the two moments of Pompeii: today and in the past, as visited and crossed.

Like the hypothesis of Christian Norberg-Schulz, taken from the Swiss theorist Heinrich Wölfflin, Scarpian architecture, for example, does not consist of simple geometric shapes but starts from an overall spatial vision, a “topology”, in front of which the detail becomes a subordinate element. Scarpa can be considered an anti-designer since he does not create architectures but unique prototypes whose details cannot be separated from the whole. He exchanges architecture from the post-war political issues, to a personal one, distanced from the late principles of the Italian rationalists and from previous -isms. Starting from Scarpian’s example, Giulio Carlo Argan considers that archaeology may live through its exhibition role. He seeks a type of restoration, in order to recover authenticity and search traces. Behind the walls of the enclosure facing the Adige River, Scarpa discovers medieval frescoes and a series of windows, which he opens, thus defining the plan of the internal staircase which connects the two levels. In the ancient walls facing the city, the discovery of the Morbio gate represents an element that facilitates the dialogue between the internal museum space and the pre-existing building [9].

Currently, spatial references indicate a variety of systems found in theatre thinking. This change is not related to the concept of place, as was seen by phenomenology, but to experience innovation and unpredictability. Attempts in achieving major scenography effects through an economy of means are made, via abstract forms, emphasizing trails, imagining backgrounds, organizing collections, valuing vestiges and controlling perspectives. Those details may be found in ruin to express the visitor’s emotions induced by the gestalt’s psychology effect. The entire visible space should be sequenced depending on perceptive modalities determined by expansion, distortion or emphasis processes. Based on the concept of scenography enunciated first by Vitruvius and after by Purini and Aldo Aymonino, there are compositional gestures which integrate the context through surfaces, verticals, enclosures, environments, figures, and recoils. New scenic forms follow the communication based on media technologies. For the same purpose of protecting patrimony goods and referring to their virtual reconstruction, UNESCO adopted the “Charter on the Preservation of Digital Heritage”, relying on the representation at the territorial scale of a DEM (Digital Elevation Model), used as an indicator of historical traces. One of the most representative projects is the virtual reconstruction of the ruins of Saint Mary of Tergu, a study conducted by Prof. Letizia Ermini Pani. DEM offered information about the achievable paths or indicated some historical traces. These operations gave the image of the stratigraphic layering and the correct identification of the ruins on the site [10]. With this information from 2003, the extensive excavation, the publishing of the research data and the musealization of the area, opening it to visitors, started. In this manner, it appears that the restoration from 1959 was done with concrete mortar, which degraded various structures, causing salt deposits. It was also discovered that there have been build ex-novo walls which didn’t appear in the old complex and that the mechanized digging ruined some monastery parts. The advantages of such a working process are the

immediate archiving of data, the conception of different evaluation models of all superimposed layers and the permanent identification of vestiges on a site. The end of the project consists of the integral musealization of the complex, starting with its history and continuing with aspects of quotidian life, which was totally neglected before. The communication manner is that of an installation, which puts together the entire archaeological divided fragments. As a procedure, the landscape is initially created through Technical Regional Maps, GIS, and high-resolution images such as satellite photos, aerial perspectives or stereoscopies. Starting from the 2D information, raster, the CAD programs draw a detailed mesh of the area, the equivalent of a DEM. A rectified photo will give the real texture to indicate a realistic image of the virtual model. This program works as the laser scanning both at a territorial and a detailed scale, reproducing interior objects or other elements meant to illustrate the ambience of a complex. Various sections present all data, from the geomorphic aspects of a zone to its vegetation, hydrology or paths.

Since 1970, the idea of a diffused museum has spread all over the world. In this way, the archaeological museum may integrate new exhibition functions through the on-site antiquarium during the excavations and also when the digging process is finished. Corbusier talks about the necessity of the diffused building. Any edifice should present a flexible composition that allows its extension. The divided modules define the space, which respects the requirements and necessities of the public. The taxonomy of stratification method uses extensive surfaces. In this way, Turin became, from April 2011, the first model of a “diffused museum” in Europe, functioning as a virtual city of museums connected by technological platforms. The stratigraphic superposition generated by its reconstruction may potentiate the archaeological value of a site and communicate those aspects that led to the occurrence of marks and the disappearance of some historical levels. For a long time, the simplest and most useful way to provide information to all users in a comprehensive way, simulating the scientific ambience of the numerous professionals involved, was the virtual reconstruction. The archaeologists and other professionals from the field do not accept any more the idea of the restaurateur architect, who, from a fragment, succeeds in recomposing the entire building, giving a personal image to the operation and offering a deformed perspective over the past. Archaeologist-architects like Italo Gismondi created the image of the Antiquity that we have today through their reconstruction. A continuous form of renovating concepts and critical thoughts defines the notion of history. The importance of vestiges derives from its original relation with the context. Thus, “opened museum”, as the city spaces that hold commemorative works, here should be quoted the case of the Alba Carolina Citadel, Alba Iulia, Romania, induce a new integration system, by its permanent and unconditioned presence of all participants that generates its dynamics, determining contemporary urban environment interaction with the history. On the site, there has been previously a Roman fortress, but the monument is better known for its Vauban model. The project managed to include the preexistences in an urban tour, revealing their best characteristics. Unfortunately, parts of the XVII century walls were lost, and in the restoration process a graph theory was needed. This procedure becomes, in this case, one of the most used ones to design or remodel an archaeological element

by a virtual process. The method is necessary to identify hidden parts of the original substance that were lost after the excavation [7]. Some researchers at The Hebrew University of Jerusalem implemented a computerized algorithm that generates all the meshes of an artefact so that it can be used directly by scanning during the site excavation. The sequence determines all the unseen scars and ridges of the object [8].

**Conclusions – Strategic usage of archaeological database.** In order to achieve an accurate knowledge of the archaeological goods, it is mandatory to emphasise differences between research information and reuse and between narrative forms of a survey experience and its authentic cultural values. The EngLald project, developed by Oxford University and the Strategic Environmental Archaeology Database Inter-linking Multiproxy Environmental [11], are one of the first programs to detect the continuity, transformation and identity of a landscape. In this sense, the reconstruction may begin from a story, not a report. The introduction of a digitalized system eliminates a number of inaccuracies, but it becomes accurately applicable only when linked to a subjective system generated by human nature. Its scope is to read archaeology by linking the artefact with its original environment, from climate to geographical characteristics, from ethnography to faunal properties. The studied element cannot be removed from its location before having a complex understanding of the process that generated it. For easier comprehension, it may be used the BugsCep Application [12]. It represents a Microsoft Access Application used to create various databases and taxonomies based on a SEAD information that connects more archives in the same time. The result is a realistic image of an archaeological remain from a certain historical period. This new manner of study led to the emergence of a new investigation field - Environmental Archaeology.

In 2007, the European Parliament adopted a directive called INSPIRED (Infrastructure for Spatial Information in the European Community), which became an international database for all Protected Sites. The benefits of the network are the publishing of the research data, its online access, the implementation of similar procedures in archaeology, and the development and sharing of new research projects by connecting similar sites [13]. The British and Scottish Parliament embraced the procedure from 2009, having ten years to accomplish the main processes. Unfortunately, in Romania the archaeologists represent an isolated community, where data is presented only in some enclosure environments and even if published, the studies are not shared with professionals. This attitude brings Romania to the limit of survival of heritage, a place where most of the monuments are at risk and where the digital theories are far away from their application. Following the law of museums and public collections, a new legal system was regulated. Ioan Opris emphasizes new perspectives in the research "Museum management and its applications". In Italy, however, legislative proposals have been replaced by charts. Three types of charts have changed the relationship of archaeology with the city: the constraints charts, archaeological charts, charts of archaeological potential and risk. These represent a way of revealing the preexistences after classifications related to typology, dating, and degree of conservation. They occur where there is a stratification of knowledge induced by the tutelage authority, as

well as that of planning.

The linguistic rupture of professionals involved in the heritage sector may induce numerous trauma to the buildings, many of them showing negative effects over time. The article is interposed as a form of reconciliation between archaeologists and planners, trying to restore discipline report to preexistences and the city. The stratigraphic research method applied both to the urban and inner levels of a site and will function like a database where information can always be integrated. The process is considered a flexible form of recovery, which increases the monument's value without affecting its essential parts.

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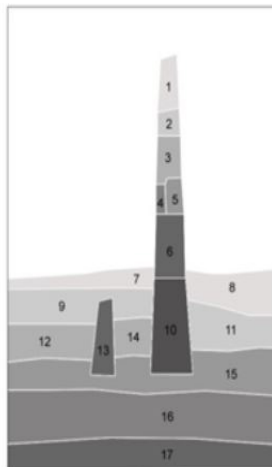
## Figures.

FIGURE 1 - The stratigraphic relations as presented by Edward Harris

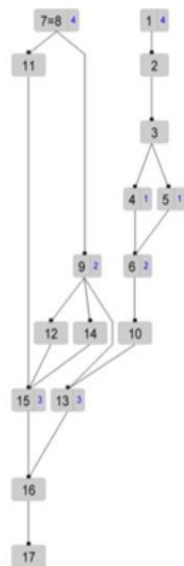
FIGURE 2 - The inner archaeological space, Carlo Scarpa



1.



Program used ArchEd Version 1.4.1



2.



