

## 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.