

ADAPTIVE REUSE OF BUILT HERITAGE FOR PUBLIC USES. A CREATIVE AND CONSTANTLY EVOLVING DESIGN PRACTICE./

Francesco Chiacchiera - DICEA UNIVPM, via Breccia Bianche 12, 60131 Ancona (AN), Italy

f.chiacchiera@staff.univpm.it

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 — *tradere* — 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 Plevoets 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 nodes 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; Castelvecchio 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, Chiostrì 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).



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