

Evaluating the Quality of Architectural Heritage Reuse Projects Using a Well-Being and NEB Approach:
The Case Study of IPIM in Turin (Italy)

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Article

Evaluating the Quality of Architectural Heritage Reuse Projects Using a Well-Being and NEB Approach: The Case Study of IPIM in Turin (Italy)

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Abstract: International conservation approaches recognise architectural heritage as crucial in promoting sustainable development and enhancing human well-being. This has been highlighted by the recent New European Bauhaus (NEB) movement. As for the reuse of architectural heritage, this debate has led to the formulation of new guidelines that aim to maximise the tangible and intangible values of the assets from a long-term and circular economy perspective. In turning theory into operational practice, it is essential to reuse heritage structures while keeping these principles in mind and remaining within the boundaries of conservation objectives. To achieve this, evaluation tools that can aid in the decision-making process need to be identified. This research presents a novel model of indicators that can monitor and evaluate the quality of architectural heritage reuse projects, proposing a perspective that considers both the concept of well-being and the NEB principles. The proposed model is tested on Turin's IPIM (Provincial Institute for Childhood and Maternity). This structure has been transformed from an uncomfortable heritage into a cultural centre for contemporary art called Flashback Habitat. The case study tests the model's practical applicability and demonstrates its effectiveness in identifying the most challenging principles to apply in practice.

Keywords: well-being; NEB; adaptive heritage reuse; uncomfortable heritage; ethics; evaluation tools



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1. Introduction

Over the last few years, international guidelines on architectural heritage conservation have given heritage a key role in promoting sustainable development and improving the quality of life [1]. Heritage is a catalyst for multidimensional value production shared by the community [2]. This change in approach is highlighted by Janssen et al. [3], who reveal an evolution from a view of heritage as a “sector” to one as a “vector”; while, in the first interpretation, heritage is understood as an asset to be preserved detached from the social context, the second attributes to heritage a role of inspirer of development processes in tangible and intangible terms. As such, it can benefit the community through an active dialogue with civil society actors. This paradigm shift implies a processual and “cyclical” vision, in which the project and interventions on the heritage generate impacts throughout the life cycle, with a broader look at a plurality of stakeholders. The European and international guidelines relevant to architectural conservation for academics and practitioners today are mentioned below. These guidelines also play a strategic role in choosing research programmes and projects to be funded in that field.

To guide interventions that impact cultural heritage, the European Quality Principles selected seven fundamental criteria to be met, as identified by ICOMOS (knowledge-based, public benefit, compatibility, proportionality, discernment, sustainability, and good governance). The principles are designed to preserve the physical asset and its intangible components. This involves giving particular attention to the quality of the entire process and involving multiple stakeholders from the decision-making phase to the management phase [4].

but as the simultaneous presence of positive physical, mental, and social factors in a framework of solid social relations and environmental quality [7].

The inclusive approach focusing on well-being issues is also at the heart of the New European Bauhaus (NEB) movement, launched in 2020 by the European Commission [8]. This movement involves the realms of built heritage, public space, and promoting the well-being and sustainability of heritage actions as a key objective for the EU [9]. The initiative is based on an integrated approach that responds to the core values of sustainability, inclusion, and beauty [10]. Specifically, it is the focus on the quality of life emerging from the current guidelines converges with the 2030 Agenda for Sustainable Development [5,6], responds to the desire to adopt a more holistic approach to the issue of health, conceived not exclusively as the absence of disease but as the simultaneous presence of positive physical, mental, and social factors in a framework of solid social relations and environmental quality [7].

The inclusive approach focusing on well-being issues is also at the heart of the recent New European Bauhaus (NEB) movement, launched in 2020 by the European Commission [8]. To operationalise the NEB approach, a specific document was also drawn up to illustrate the meaning of the critical values expressed and to provide evaluation tools capable of helping decision-makers/project managers to strengthen projects from an NEB perspective. These tools are articulated according to this orientation, the project's beauty lies in its ability to contribute to the physical and mental well-being of communities and encourage the creation of new social and cultural values. To operationalise the NEB approach, a participatory process (the involvement of knowledge and professionals from different disciplines) [11] (Figure 1). For each value and working principle, three different levels of ambition are proposed; they correspond to three degrees of achievement in heritage projects aim to achieve. The first level represents the primary step, the second and third levels are more incisive contributions to meeting the aspirations identified by the NEB approach. Table 1 summarises the ambitions achievable for each value and working principle.

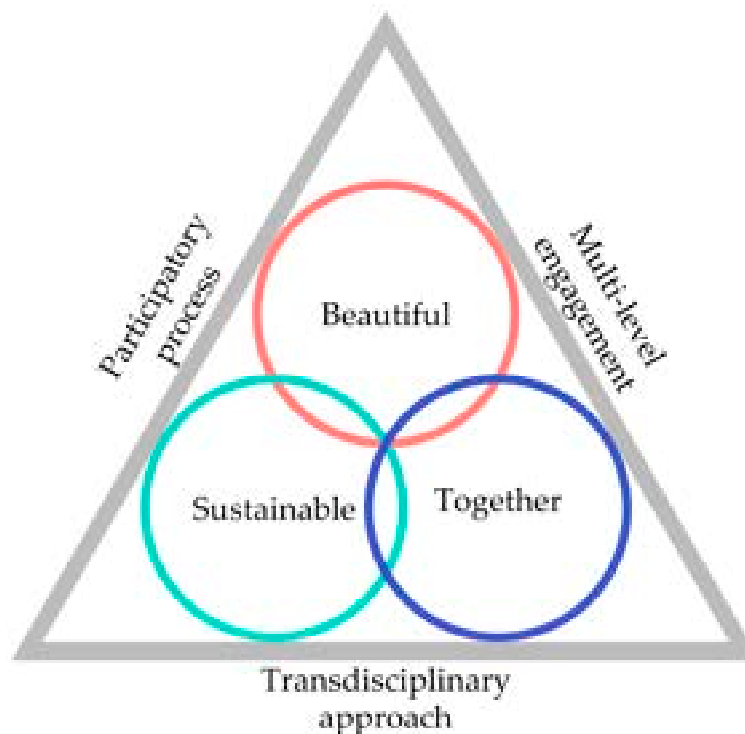


Figure 1. The scheme of NEB values and working principles. Source: created by the authors based on the NEB Compass [11].

Table 1. Levels of ambition of NEB values and working principles.

Values/Working Principles	Ambition I	Ambition II	Ambition III
Beautiful	To activate	To connect	To integrate
Sustainable	To repurpose	To close the loop	To regenerate
Together	To include	To consolidate	To transform
Participatory process	To consult	To co-develop	To self-govern
Multi-level engagement	To work locally	To work across levels	To work globally
Transdisciplinary approach	To be multidisciplinary	To be interdisciplinary	To be beyond multidisciplinary

Regarding architectural heritage reuse, the evolution of the scientific debate has led to the definition of new guidelines in the context of the involvement of civil society. They aim to maximise the tangible and intangible values of the asset from a long-term and circular economy perspective [12]. This is highlighted, for example, in the Leeuwarden Declaration [13], drafted in 2018 by the European Federation of Fortified Sites (EFFORTS), Europa Nostra, and the Future for Religious Heritage (FRH), in conjunction with the European Commission’s creation of a European Framework for Action on Cultural Heritage [14]. The charter establishes the role of adaptive reuse as a tool to increase the economic, social, cultural, and environmental value of disused heritage; with this in mind, reuse is understood as “a new, adaptive approach to shaping our built environment [...] that is rooted in culture, builds social cohesion, ensures environmental sustainability, and contributes to the health and well-being of all” [13].

The current guidelines related to conservation also focus on the project’s ethical question on the existing heritage [15] and, in this specific case, on reuse [16]. The asset does not have to adapt to new functions. Still, it is the protagonist in a co-evolutionary [17] and symbiotic process [18] in which reflections shift from function to use, also understood from the triple aspects of direct and indirect use and “non-use” [19]. As pointed out by Sulfaro, whereas the first two are related to the object, the third pertains to the subject’s sphere and the asset’s mode of use [20].

Recognising the needs and expectations of communities that inhabit heritage sites has been an essential aspect of conservation debates since the late 19th century. Recent studies have shown that the theoretical and cultural discussion on the conservation of architectural heritage, starting from Ruskin and Morris, offers significant reflections on preservation in a broader framework that considers economic and social aspects. This approach to conservation aims to enhance the quality of life [12,21].

Critical issues can arise when transitioning from theoretical principles to practical interventions. First and foremost, it becomes fundamental to orient the reuse of architectural heritage according to these principles, improving well-being and quality of life and leading interventions on architectural heritage through a virtuous process consistent with the cultural premises of conservation [2,22]. Furthermore, it is strategic to identify evaluation tools capable of supporting and guiding the development of the decision-making process in a more conscious way, translating the guiding criteria into a series of indicators that respond to a more democratic and inclusive logic [12]. The ex ante and ex post phases are necessary to ensure the achievement of objectives and identify consequences unforeseen by the guidelines [23]. It is also required that a model that is easily applicable and has some degree of flexibility be identified by promoters and proponents to facilitate the effective monitoring and evaluation of the interventions carried out [2].

Research Aims

This paper presents the outcomes of multidisciplinary research involving the disciplines of conservation and the economic evaluation of projects. It aims to define a tool capable of monitoring and evaluating the quality of reuse projects of architectural heritage while remaining within conservation objectives. This issue involves developing a project to preserve a heritage site's tangible and intangible values while considering the long-term economic, social, and environmental impacts on the community. From this point of view, a dashboard model of indicators is a crucial evaluation tool. These are multicriteria models based on a list of qualitative and quantitative indicators, as defined by Camoletto et al. [24]: on the one hand, they are easy to apply; on the other hand, they enable the capturing of all valuable components by integrating qualitative and quantitative variables.

We, therefore, define a dashboard model of indicators starting from the model proposed by Dabbene [21]. This model was created to assess the quality of reuse interventions from a well-being perspective compatible with conservation principles. It contains a set of indicators/descriptors organised by dimension. These dimensions correspond to the 12 dimensions of well-being identified by the BES (Equitable and Sustainable Well-being) index, which is included in Italy's national economic planning tools [25].

In the present research, these indicators are compared with the NEB values and the ICOMOS Quality Principles to expand the proposal of indicators considering the earlier documents. The model thus implemented, consisting of 50 indicators, is applied to the case study of the IPIM (Provincial Institute for Childhood and Maternity) in Turin, which was transformed into a cultural centre for contemporary art named Flashback Habitat. The chosen case study represents an example of adaptive reuse to maximise the asset's tangible and intangible value and produce positive externalities. The project is, therefore, consistent with the current approaches highlighted in the introduction and is suitable to be evaluated through the dashboard model. Consequently, we conduct a case study to test the model and verify its practical applicability. Furthermore, we aim to identify the principles that are most challenging to put into practice.

2. Literature Review

In scientific studies and national and international policies, it is now widely recognised that there is a need to shift attention from the sole variable of real income to a set of components capable of representing the plurality of the individual's needs. Specifically, the GDP (Gross Domestic Product) index is recognised as a partial perspective of the plurality of factors that influence human well-being [26]. The process of rethinking the indicators adopted to measure social progress found an essential moment of reflection, for example, in 2008 with the establishment of the Stiglitz, Sen, and Fitoussi Commission. The final report, drawn up in 2009 [27], reiterates the need to select a plurality of indicators capable of describing the phenomenon, as the variables measured directly influence the subsequent operational strategies to be implemented [28].

Over the past decade, studies have increasingly systematised and compared research experiences in measuring well-being, supported by national and international political agendas [29]. At the same time, there has been a growing interest in investigating the correlation between well-being and cultural heritage [30], which has resulted in research focused on selecting suitable indicators to assess the impact of heritage on this sphere.

Specific attention to the evaluation of the impacts of the conservation/regeneration of cultural heritage on the well-being of the community is at the centre, for example, of Nocca's study, which underlines how well-being is linked not only to economic wealth but also to parameters that consider the satisfaction of human needs [31]. The study proposes a set of indicators that can reflect the relationship between cultural heritage practices and sustainable development, identifying nine dimensions of investigation, including well-being.

To better analyse the relationship between well-being and cultural heritage, Historic England's report entitled *Well-being and the Historic Environment* confirms the need for a shift from a purely economic assessment model based on GDP to one focused on the role of

physical and mental well-being as an impact factor on the quality of life [32]. The study proposes a framework that provides evidence of the relationship between well-being and heritage. This framework is articulated based on six key themes (“Heritage as Process”, “Heritage as Participation”, “Heritage as Mechanism”, “Heritage as Healing”, “Heritage as Place”, and “Heritage as Environment”) that can be translated into specific indicators of well-being. The research also defines strategic objectives to support an implementation proposal that aims to improve understanding of the role of the historic environment in promoting well-being.

Finally, the relationship between well-being and cultural heritage is at the heart of the study conducted by ESPON and entitled Cultural Heritage as a Source of Societal Well-being in European Regions [33]; it aims to measure, on a European scale, the impacts generated by cultural heritage (tangible and intangible) on the sphere of social well-being, reflected in material conditions, quality of life, and social cohesion. The study also contains a comparative reading of current research on measuring social well-being, further underlining that most research does not consider cultural heritage as contributing to collective well-being.

Referring to the reuse of architectural heritage, the selection of criteria and specific indicators can be applied both in the *ex ante* phase to evaluate different design strategies and in the *ex post* phase to monitor and evaluate the impacts generated by the projects. The research considered most relevant for a multidimensional approach to heritage is mentioned here. The first area of investigation can be attributed, for example, to the study by Coscia, Rubino, and Lazzari et al., who applied the CSV theory to the case of the former industrial complex of the Officine Piaggio in Finale Ligure (SV) [34,35]. The study proposed exploratory methods to identify the values and preferences attributed by citizens to the asset to address design solutions from a perspective that does not conflict with the asset’s intrinsic value. Such attention to the social dimension of reuse is also central to the research conducted by Rossitti et al. [12]. Starting from theoretical reflections on the theme of reuse, it proposes a hybrid methodology for evaluating alternative reuse projects in which a fundamental weight is attributed to the social impact of the projects. Finally, Cucco et al. [23] conducted an interesting study in which the need to select new functions for disused historic buildings was solved by proposing an innovative analysis model that considers both the objectives of the 2030 Agenda and the ICOMOS Quality Principles.

Shifting the focus to the *ex post* phase of the evaluation process, Fusco and Gragnuolo investigated the relationship between the intrinsic value of assets and the new scenarios of the use of architectural heritage [36,37], identifying a set of criteria for the evaluation of interventions from the perspective of the circular economy. The interest in the *ex post* identification of criteria for the evaluation of the reuse of disused or abandoned heritage was further developed in the study by Bosone et al. [38]. Their research highlights the lack of suitable tools to assess these interventions’ impacts and orient them from a circular economy perspective. Therefore, it proposes a set of strategic criteria, including intrinsic value.

Finally, Dabbene et al. [2] suggested a group of indicators to evaluate the quality of adaptive reuse interventions for architectural heritage according to a multidisciplinary approach involving conservation disciplines and the economic evaluation of projects. These indicators focus on enhancing well-being and ensuring that interventions on existing architecture align with the guidelines of heritage conservation. This study has been further refined by Dabbene [21] by explaining the selected indicators through rating scales.

3. Materials and Methods

The present research implemented the dashboard model of well-being indicators proposed by Dabbene [21]. This was accomplished by comparing the indicators with NEB values and principles (beautiful, sustainable, together, transdisciplinary approach, participatory process, multi-level engagement) and the ICOMOS Quality Principles (knowledge-based, public benefit, compatibility, proportionality, discernment, sustainability, good governance).

A comparison of these three documents resulted in a new list of 50 indicators/descriptors, shown in Table 2. Specifically, 33 indicators were taken from the dashboard model proposed by Dabbene; they come from an in-depth analysis that took into account the indicators contained in the BES index [25], the indicators already proposed in the literature, and the indicators now used by promoters in Italy to monitor and evaluate funded projects [21]. The remaining indicators in bold were added by comparing the model above, the ICOMOS principles, and the NEB approach. They represent the translation of the operative questions formulated in these documents into measurable indicators according to the indicator definition by Bosone et al. [38]. Our research aims, therefore, to propose a more comprehensive evaluation tool that considers indicators in line with current theoretical guidelines in the field of heritage conservation.

Table 2. Dashboard model of indicators.

Well-Being Dimension/ Criterion	N°	Indicator/Descriptor	Goal Achievement Level	NEB	ICOMOS
Economic well-being	1	Economic/financial self-sustainability	An increase in the asset's economic/financial self-sustainability in the management phase		Sustainability
Economic well-being	2	Long-term management strategy	The promotion of a long-term strategy for the management phase following the completion of the project		Sustainability
Economic well-being	3	Incremental approach	The promotion of an incremental approach in the implementation of the project (temporary reuse, adoption of consequential phases of experimentation and development)		
Economic well-being	4	Sources of funding	The attraction of sources of funding for reuse (private capital, crowdfunding, tax credit)		
Economic well-being	5	Investments	The attraction of investments at the local level (local banks, ethical banks, foundations)		
Economic well-being	6	Reinvestments	The reinvestment of profits in social impact actions		
Economic well-being	7	Number of visitors/tourists	An increase in the number of visitors/tourists		
Economic well-being	8	Real estate values	An increase in real estate values in the area		
Economic well-being	9	Revenues from activities	An increase in revenues from activities in the area (construction, culture and creativity, tourism, commerce, etc.)		
Economic well-being	10	Cultural economy	The establishment of new activities in the area (culture and creativity, tourism, commerce, etc.)		
Economic well-being	11	Number of residents	An increase in the number of residents in the area		
Work and work-life balance	12	Jobs	The creation of new jobs (direct, indirect, and induced)		
Environment	13	Traditional materials	The minimisation of resource consumption (use of local, bio-eco-friendly, or recycled materials)	Sustainable (ambition I)	

Table 2. Cont.

Well-Being Dimension/ Criterion	N°	Indicator/Descriptor	Goal Achievement Level	NEB	ICOMOS
Environment	14	Construction management	The sustainable management of the construction site (use of dry technologies, reuse of waste materials, reduction in waste disposal in landfills, containment of noise and air pollution)	Sustainable (ambition I)	
Environment	15	Water saving	An increase in water savings (flow reduction systems, timing systems, grey water recovery systems) related to the reuse of the asset	Sustainable (ambition I)	
Environment	16	Energy saving	An increase in energy savings (improvement of the energy class, renewable energy sources, energy-saving systems, systems and plants with improved characteristics compared to current legislation) related to the reuse of the asset	Sustainable (ambition I)	
Environment	17	System circularity	A reduction in or the transformation of linear processes into circular ones	Sustainable (ambition II)	
Environment	18	Nature-based solutions	The conservation, enhancement, and regeneration of biodiversity through the adoption of nature-based solutions	Sustainable (ambition III)	
Subjective well-being	19	Perception	The improvement of the subjective well-being of users/visitors related to the reuse of the asset	Beautiful (ambition I)	
Innovation, research, and creativity	20	Projects	The activation of new projects in the spaces following the reuse of the asset		
Innovation, research, and creativity	21	Cultural offer	An increase in the cultural activities and events offered		
Education and training	22	Capacity building	An increase in intellectual capital through the activation/strengthening of innovation and skills related to planned conservation	Sustainable (ambition I)	Discernment/Good Governance
Education and training	23	Communication and dissemination	Increased communication, dissemination, and transfer of design and managerial skills		
Education and training	24	Sensitisation	The improvement of the level of education and training of users/visitors	Beautiful (ambition III)	
Education and training	25	Accessibility	Increased physical and cognitive accessibility of the asset	Together (ambition I)	Compatibility
Landscape and cultural heritage	26	Architectural compatibility	The preservation of historical, architectural, and artistic values with new use values		Compatibility/proportionality
Landscape and cultural heritage	27	Intrinsic value	An increase in the “intrinsic value” of the asset related to reuse		Public benefit/proportionality
Landscape and cultural heritage	28	Proportionality	The minimisation of transformations related to reuse		Proportionality

Table 2. Cont.

Well-Being Dimension/ Criterion	N°	Indicator/Descriptor	Goal Achievement Level	NEB	ICOMOS
Landscape and cultural heritage	29	Reversibility	The maximisation of the reversibility of interventions related to reuse		Public benefit
Landscape and cultural heritage	30	Multidisciplinary knowledge project	The promotion of studies aimed at increasing knowledge of the asset from a multidisciplinary perspective (independent work alongside other disciplines dealing with similar topics)	Transdisciplinary approach (ambition I)	Knowledge-based/discernment
Landscape and cultural heritage	31	Interdisciplinary Knowledge Project	The promotion of studies aimed at increasing knowledge of the asset from an interdisciplinary perspective (collaboration with other disciplines towards a common goal)	Transdisciplinary approach (ambition II)	Knowledge-based/discernment
Landscape and cultural heritage	32	Beyond-disciplinary knowledge project	The promotion of studies aimed at increasing knowledge of the asset from a “beyond-disciplinary” perspective (integration of formal and non-formal knowledge to achieve a common goal)	Transdisciplinary approach (ambition III)	Knowledge-based/discernment
Landscape and cultural heritage	33	Conservation programmes	The allocation of resources to promote the planned conservation of the asset		Proportionality/ sustainability/ good governance
Landscape and cultural heritage	34	Planning tools	The adoption of tools aimed at facilitating the planning of interventions on the asset		
Landscape and cultural heritage	35	Awareness	Increased awareness of architectural heritage and active social protection		
Quality of services	36	Services	An increase in services in the area (health, social welfare, public utilities, mobility)		
Health	37	Cultural welfare	An increase in the psychological well-being of users/visitors through participation in cultural welfare activities.		
Health	38	Cleanliness and healthiness of the area	Increased cleanliness and healthiness of the area		
Safety	39	Area safety	Increased security in the area		
Social relations	40	Community cooperation	The creation/strengthening of an active civil society (heritage community) in the governance phase of the project		Public benefit
Social relations	41	Identity and memory	An increase in place identity/place attachment/place memory/sense of place related to the reuse of the asset	Beautiful (ambition II)	
Social relations	42	Socially useful initiatives and projects	Increasing social inclusion (minorities, migrants, and other disadvantaged groups) through participation in socially useful projects and initiatives	Together (ambition II)	
Social relations	43	Collective growth	The creation/strengthening of new ways of living together based on solidarity, cooperation, and the awareness of discrimination and injustice	Together (ambition III)	

Table 2. Cont.

Well-Being Dimension/ Criterion	N°	Indicator/Descriptor	Goal Achievement Level	NEB	ICOMOS
Social relations	44	Participatory process (consultation)	Stakeholder involvement in the information, dialogue, and consultation phase	Participatory process (ambition I)	Sustainability
Social relations	45	Participatory process (co-creation)	Stakeholder involvement in the co-creation phase	Participatory process (ambition II)	Sustainability
Social relations	46	Participatory process (self-governance)	Stakeholder involvement in the self-governance phase	Participatory process (ambition III)	Public benefit
Politics and institutions	47	Multi-level engagement (work locally)	The creation of horizontal connections between informal networks (groups of individuals, neighbourhoods, etc.) and/or formal institutions (sectoral departments, policy groups, etc.) to influence the local living environment with a place-based approach	Multi-level engagement (ambition I)	
Politics and institutions	48	Multi-level engagement (work across levels)	The creation of connections between informal networks (groups of individuals, neighbourhoods, etc.) and/or formal institutions (government, administrations, etc.) at various scales (individual municipalities with regional authorities, local studies with international research programmes) to foster initiatives on a unique scale beyond their size (local, regional, national, etc.)	Multi-level engagement (ambition II)	Good governance
Politics and institutions	49	Multi-level engagement (work globally)	The creation of connections between networks and/or (inter)governmental institutions that, at various levels, share similar goals looking to the future of the entire ecosystem	Multi-level engagement (ambition III)	Good governance
Politics and institutions	50	Taxation	Economic savings for public institutions related to reuse and planned conservation interventions		

The first column of Table 2 shows the 12 dimensions/criteria of well-being as defined by the BES index (economic well-being, work, education, etc.). Specifically, the first two dimensions (economic well-being and work and work–life balance) fall within material well-being. The following eight dimensions (environment; subjective well-being; innovation, research, and creativity; education and training; landscape and cultural heritage; quality of services; health; safety) refer to the quality of life, understood by the OECD as “how well people are and how well they feel are, what they know and how healthy and safe their places of living are” [39]. The last two dimensions (social relations and politics and institutions) can be traced back to social cohesion, defined as the degree of connection and solidarity between social groups [40]. For each dimension, the third and fourth columns show the selected indicators and the level of achievement of the objective that the indicator aims to measure. In bold are the indicators not chosen in the previous dashboard template and integrated into this research, starting with the comparison with the documents cited.

In the fifth and sixth columns, the correspondence of the selected indicator with the NEB values and the ICOMOS principles is highlighted.

The model needs to consider some important methodological considerations. First, it should consider the multidimensional complexity of heritage. Second, hyper-reductionism should be avoided in the selection of indicators. Finally, it should acknowledge the relativisation of the data collected in different socio-cultural contexts, as the indicators may have varying meanings and interpretations [41].

From this perspective, the selected indicators consider creating added value while ensuring the compatibility of reuse interventions with the historic built environment and preserving tangible and intangible heritage. These indicators consider objective parameters, such as the number of residents, revenue from activities, and job opportunities, as well as subjective parameters, such as subjective well-being, identity, memory, and intrinsic value.

As Mohaddes Khorassani et al. [42] proposed, rating scales have strengthened and refined the “goal achievement level” criterion. A rating scale measures the level of achievement, and the score ranges from -2 to $+2$. A score of $+2$ indicates a strong positive impact, while a score of -2 indicates a strong negative effect. A score of 0 means no increase or decrease.

In the case of indicators aimed at measuring the presence or absence of design tools or solutions (e.g., nature-based solutions), the rating scale goes from 0 to $+2$, where a score of 0 indicates a lack of solutions aimed at achieving the goal, a score of $+1$ means the presence of a limited number of solutions, and a score of $+2$ indicates the simultaneous presence of several solutions.

Appendix A contains the rating scales for each indicator that has been identified, along with their corresponding data sources. The data sources were considered factors adding value to the information and evaluation. Direct sources, such as surveys and focus groups, were used to acquire the data. Exploratory methods were also utilised to gather data and validate the information. For specific indicators, such as economic or financial self-sustainability and funding sources, interviews were conducted with stakeholders who have followed the reuse process. They should be aware of the architectural choices, business models, and impact of the intervention on the area. On the other hand, for indicators more relevant to the design solutions adopted, such as architectural compatibility and reversibility, the assessor/evaluator assessed the project documentation and conducted on-site inspections. Regarding perceptual indicators, such as perception and awareness, the goal’s achievement level may vary depending on the judgement of the subject concerned. Therefore, it is essential to establish a more inclusive approach to research by considering the opinions of the various stakeholders directly or indirectly involved in the intervention through surveys.

The evaluation process involved analysing and evaluating different aspects of the projects. A heterogeneous approach was deliberately used to ensure consistency. Explicit rating scales were used for some indicators to facilitate the comparison between different projects and prevent data from being relativised excessively. For instance, the rating scale for the number of visitors/tourists considered the intensity of the impact (high, absent, moderate) on the institution’s size. However, no quantitative intervals were specified for this scale.

The rating scale was developed after the authors conducted preliminary research on other cases, such as community cooperation or participatory processes. This research involved taking a census of funding calls in Italy promoted by foundations of banking origin and aimed at third-sector entities. The rating scales of the indicators were developed by proposing a quantitative range for each score based on previous projects that were considered examples of good practice by the promoters and proponents who were consulted.

4. Case Study: Reuse Project of IPIM (Istituto Provinciale per l’Infanzia e la Maternità) in Turin

4.1. Reusing Uncomfortable Heritage

In studies on the reuse of disused architectural heritage, a particular category is represented by so-called uncomfortable heritage [16] or places of pain/trauma [43]. It is a heritage marked by a difficult past, both because of its association with painful or traumatic events and because of the very use for which it was conceived, as in the case of prisons, psychiatric hospitals, and orphanages [44]. These assets are not a neutral inheritance but,

on the contrary, are burdened by memories that are in dissonance with the communities of users who may perceive these complexes negatively.

Today, these assets pose significant conservation challenges. They are exposed, on the one hand, to the risk of abandonment and progressive degradation due to the loss of their initial function and, on the other, to excessive, radical transformations that alter their original characteristics and eliminate their immaterial significance. For example, the case of psychiatric complexes in the Piedmont area of Italy clearly shows that some of them have undergone rapid and radical transformations that have almost completely erased the signs of their history. Others are still waiting for a reuse project that can preserve the memories they hold [45].

The difficult memories deposited in these places necessitate special attention to the interplay between reuse practices and the materiality of architecture and intangible values. As pointed out by Giannattasio, the conservation of the material is not a sufficient condition to guarantee the preservation of the sense of place if the inclusion of improper uses accompanies it; the latter can be equated with the effect generated by actual demolition operations, erasing the intangible values that each architecture underlies [46]. This means, therefore, bringing the ethical question of the reuse project to the forefront [16]; this should not be understood as a practice detached from restoration and functional only for the conservation of the asset but as an actual design act. As such, it is worthy of an autonomous space for reflection [20].

Contemporary design approaches to the reuse of uncomfortable heritage reveal a predominant orientation based on strategic forgetting and selective remembrance [16]. According to this vision, the reuse project is interpreted as a transformative tool that negotiates the asset's past and obliterates its uncomfortable memories [16]. In contrast to such an interpretation, the scientific debate on conservation highlights the opportunity for these structures, free from the stigma that sets them apart, to accommodate new uses in the modern world. This is based on a vision of adaptive reuse that aims to preserve the tangible and intangible memory of the complexes, rather than creating completely new places [47]. In this direction, adaptive reuse can be a strategy to increase community well-being in the face of memory loss [48]. This requires considering the emotional and psychological mechanisms established with places as a conditioning element of the project that can be understood and used to offer new interpretations [49]. According to Sorbo, the interpretation enables the development of strategies for reusing it. This system enhances the memory of the place, reduces any negative associations, and amplifies its role as an inspiration for future design [50].

From this brief frame of reference, the theoretical orientations underlying the virtuous reuse of these complexes are in perfect correspondence, on the one hand, with the concept of well-being and, on the other, with the NEB values. The emotional component of the project, "which is essential for redefining the meaning of places", is explicitly recalled in the NEB concept of beautiful. Moreover, the need to defuse the heterotopic potential of places, in the Foucaultian sense [51], corresponds with the idea of together, conceived as a "positive, open and non-discriminatory approach that goes beyond the exercise of listing or categorising social groups based on their differences". Similarly, the NEB movement's working principles are consistent with the desired approach to recovering complexes. First, this emerges in the need to adopt a transdisciplinary approach, also open to the contributions of the social sciences, to prefigure new scenarios to reuse complexes [43]. It is also essential to activate a participatory process capable of overturning places' distorting and exclusionary potential and translating it into a shared project capable of increasing their intrinsic value [52].

4.2. *The IPIM Site from Construction to Abandonment (1892–2013)*

The history of the complex in Corso Lanza 75 in Turin, home to the Provincial Institute for Childhood and Maternity (IPIM—Istituto Provinciale per l'Infanzia e la Maternità) from 1958 to 1983, dates to the end of the nineteenth century. The original nucleus, built for residential use starting in 1892 at the behest of Luigi Marsaglia, consisted of a manor house (now Pavilion C), a porter's lodge, and a building used as stables [53].

In 1929, the Società Anonima Sanatrix bought the complex owned by the Marsaglia family to transform it into a private health facility for wealthy families. The stables were transformed into a service building and the villa into a maternity pavilion. In correspondence with the change of ownership, two new pavilions were built; the first building (now Pavilion B), located between the maternity and service buildings, was used as an inpatient pavilion, and the second (now Pavilion D) housed entirely treatment and research facilities. The engineer Antonio Sibilla, who was also responsible for renovating the villa, carried out the expansion. The same intervention period also dates to the construction of a fully closed connecting walkway between the buildings designed by Sibilla and the maternity pavilion to improve communication between the various departments [53]. The new clinic was inaugurated in 1932 and documented by the contemporary magazine *L'Architettura Italiana* [54].

After World War II, the clinic experienced a downturn, leading to the closure of the complex in 1952. In the same years, poverty spread in the city and suburbs, leading to an increase in abandoned children, both war orphans and illegitimate births. To solve this problem, the Provincial Council of Turin expressed itself in favour of constructing a new orphanage capable of accommodating abandoned or abandoned babies, preventing the lack of an adequate building and the dispersion of the various sections of the then-existing orphanage. The choice fell on the former Sanatrix clinic, which was judged sufficient for the new function regarding location, exposure, and capacity. The official inauguration of the new complex took place in 1958 [55].

With the transfer of ownership, the volumes of the buildings and the pavilions' intended use changed. In 1954, the Province applied to construct a new pavilion to house the maternity ward. The new building (now block A), designed by the architect Natale Reviglio on the site of the former stables, was used partly for offices and partly for observation [53] (Figures 2 and 3).

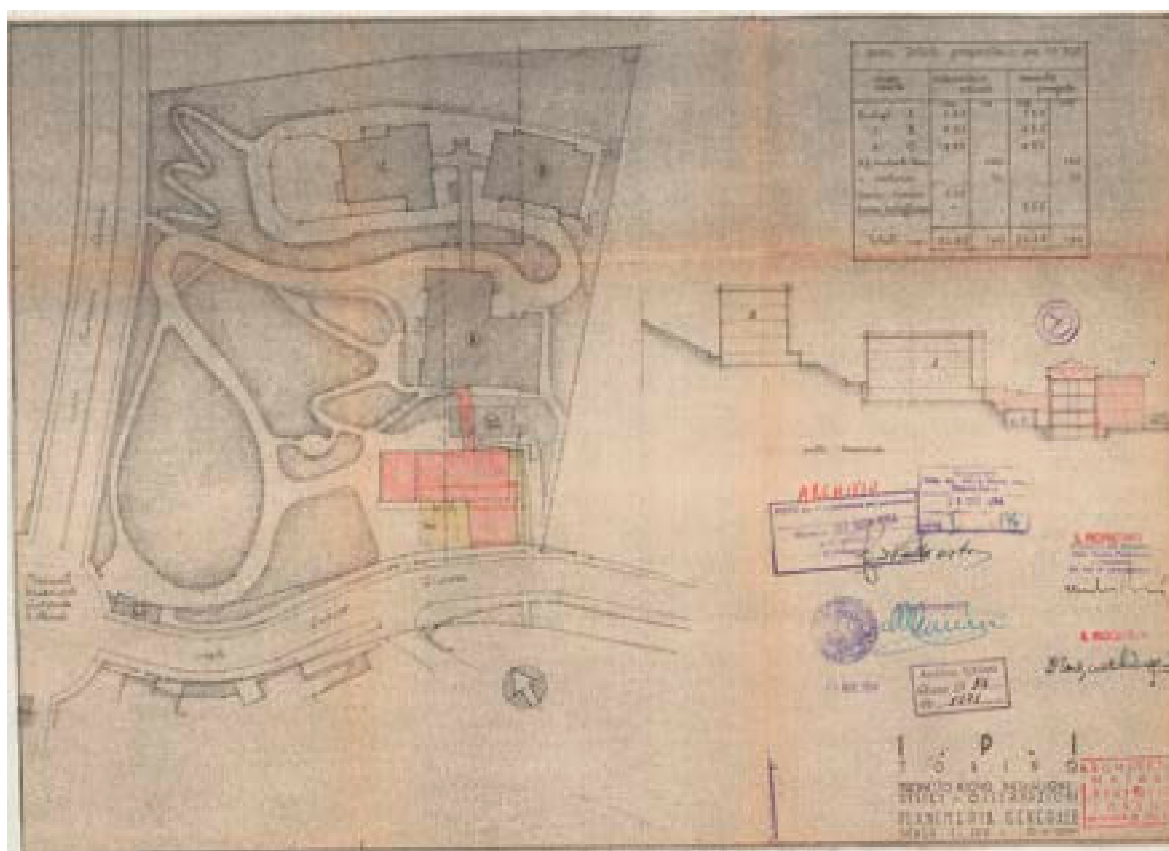


Figure 2. The general plan of the area and design for the new pavilion by the architect Reviglio, 1954 (Archivio Edilizio del Comune di Torino, n. prot. 1954-1-10085) (Archivio Edilizio del Comune di Torino, n. prot. 1954-1-10085).



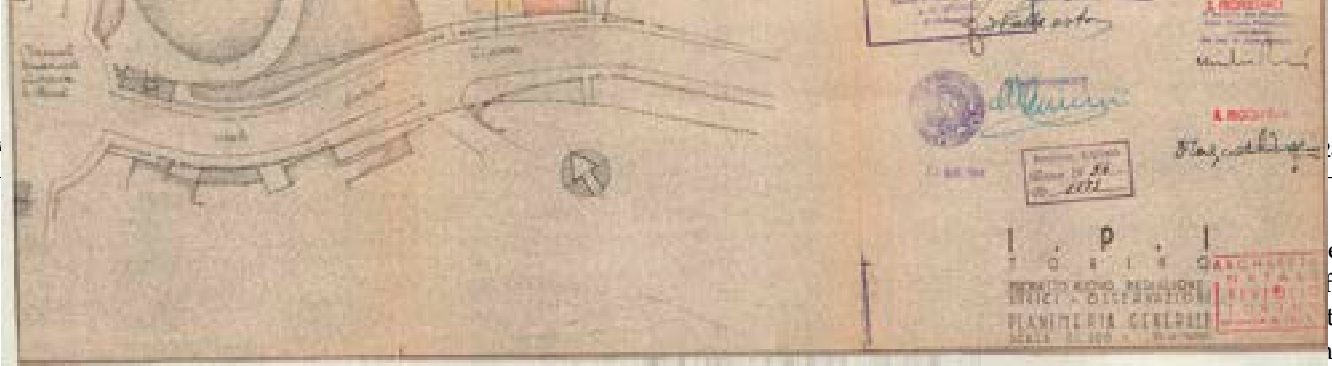


Figure 2. The general plan of the area and design for the new pavilion by the architect Reviglio, 1954 (Archivio Edilizio del Comune di Torino, prot. 1954-110085).



Figure 3. Historical phases of the complex's development. The red indicates the building completed at the end of the nineteenth century. The blue colour shows the pavilions realised between the twenties and the thirties of the twentieth century. The light blue colour indicates the building added in the fifties. A-B-C-D: current designations of the pavilions (created by the authors).

The institute ceased operations in 1983. After the closure, the Province partially allocated the pavilions to social welfare services. Specifically, Pavilion A was used as a community accommodation for pregnant mothers, Pavilion C as a socio-therapeutic centre, and Pavilion D partly as a housing community for the disabled. Pavilion B was converted into the offices of the Province. The complex was decommissioned in 2013.

of the time, the complex was, however, marred by the segregation, dehumanisation, and uprooting experienced by the children [55] (Figure 4).

The institute ceased operations in 1983. After the closure, the Province partially allocated the pavilions to social welfare services. Specifically, Pavilion A was used as a community accommodation for pregnant mothers, Pavilion C as a socio-therapeutic centre, and Pavilion D partly as a housing community for the disabled. Pavilion B was converted into the offices of the Province. The complex was decommissioned in 2013.



(a)



(b)



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(c)



(d)



(e)



(f)

Figure 4. (a) A view of the IPIM Park, 1958 (Archivio Centrale dello Stato, 19, 2644); (b) a view of Pavilion A, 1958 (Archivio Centrale dello Stato, 19, 2645); (c) a view of Pavilion B (Archivio Centrale dello Stato, 19, 2647); (d) a view of Pavilion C, 1958 (Archivio Centrale dello Stato, 19, 2648); (e) the use of outdoor spaces, the second half of the twentieth century (Archivio Provincia di Torino); (f) the use of the indoor spaces, the second half of the twentieth century (Archivio Provincia di Torino).

4.3. The Reuse Project

In 2022, after almost a decade of neglect and unsuccessful attempts to sell to private investors for residential purposes, the Cassa Depositi e Prestiti Group [56], the current owner of the building, entrusted the complex to the Flashback Association for use free of charge (Figure 5). The association was founded in 2013 to organise activities dedicated to art, from exhibitions to workshops to the Flashback Art Fair. This art fair takes place in

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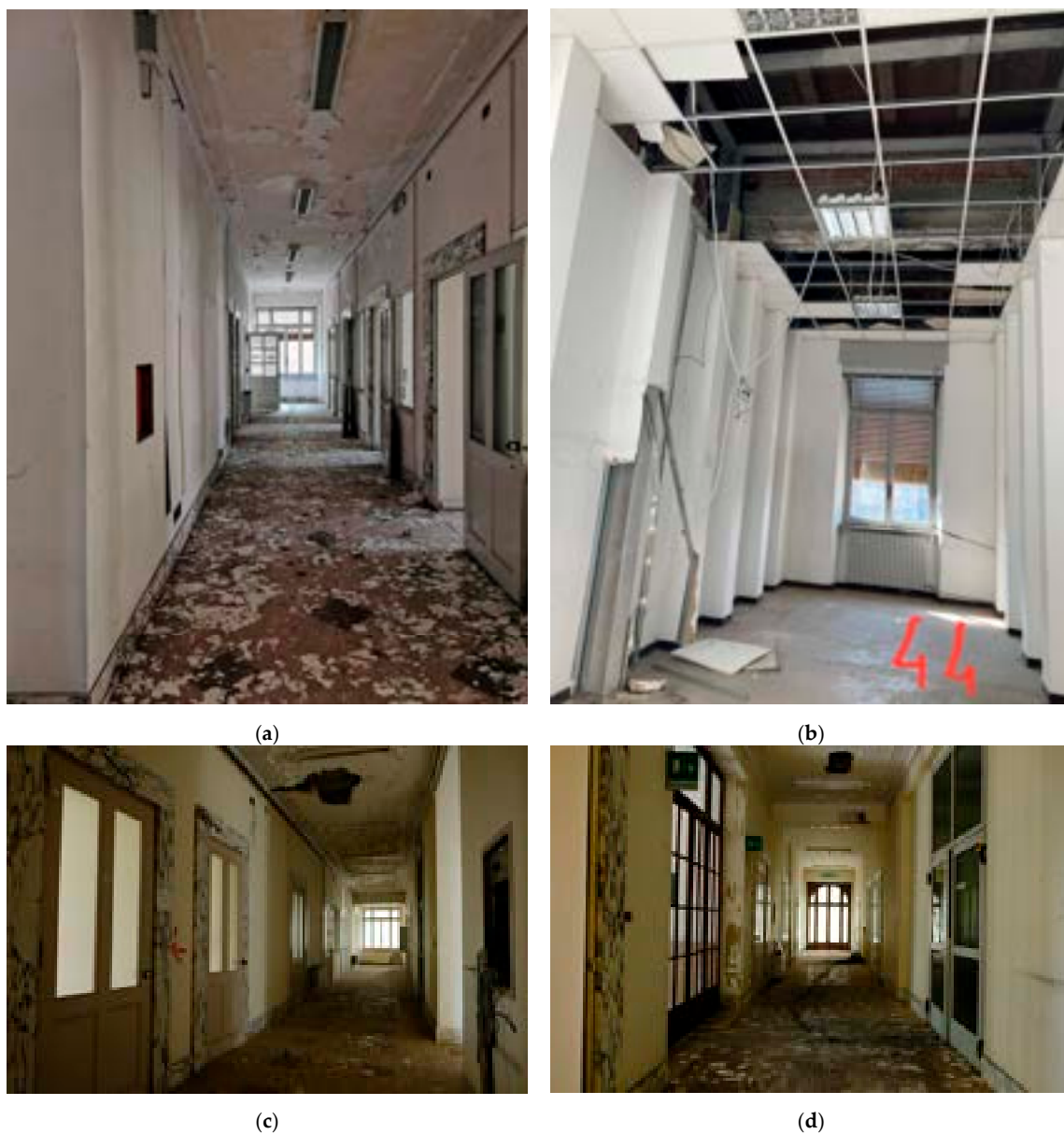


Figure 5. (a–d) State of affairs before reuse, 2022 (Private Archive Flashback Habitat).

The intervention involved four historic buildings covering 20,000 square metres of surface, providing different uses as part of a unitary vision for the complex, which included a vast park of about 11,000 square metres (Figures 6 and 7).

The project worked on zero-time, configuring new forms of use immediately according to an incremental approach, with the progressive reactivation of spaces still in progress. The former gatehouse of the complex, the threshold between the heterotopic space of the former orphanage and the outside world, is now used as a reception and ticket office

possibility of opening the rooms to the public at events.

The same desire to overcome the depersonalising character that characterised the previous function is recognisable in the strong characterisation of buildings B and C using brightly coloured paints that are different for each room. Finally, the enhancement of the collective memories of the complex can be recognised in the opening of the exhibition A better life. Fragments of the stories of the Institute for Children of the Province of Turin; it is located on the third floor of Pavilion B and is a collection of the locals' first-hand experiences, including documents and oral testimonies.

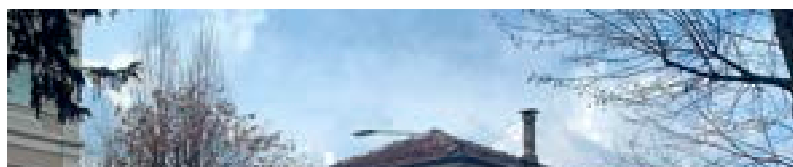
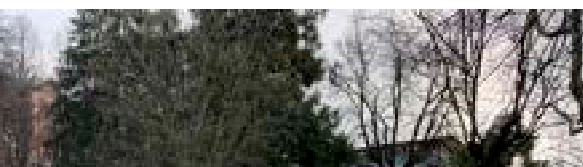


(a)



(b)

Figure 6. (a) The location of the complex in the urban context; (b) the general area plan. 1: entrance; 2: ticket office; A-B-C-D: the current designations of the pavilions (created by the authors).





(b)

Figure 6. (a) The location of the complex in the urban context; (b) the general area plan. 1: entrance; 2: ticket office; A-B-C-D: the current designations of the pavilions (created by the authors).



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(a)



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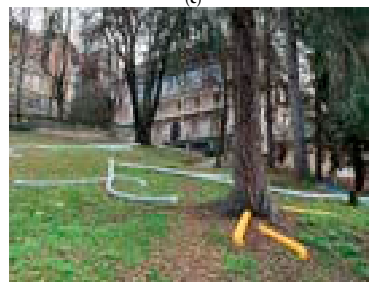
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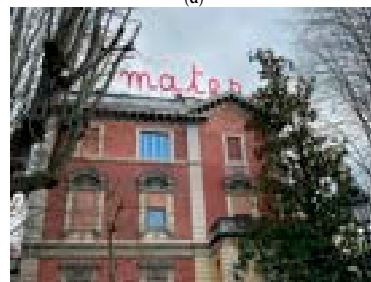
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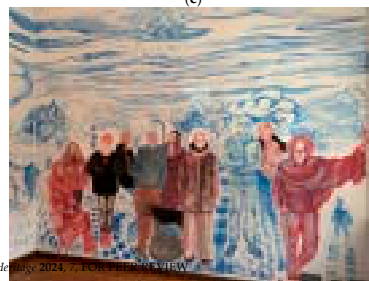
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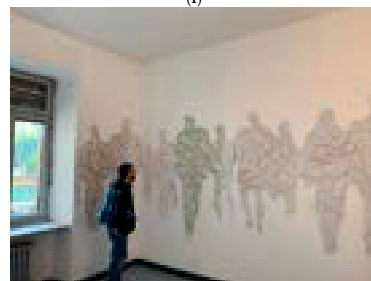


(f)



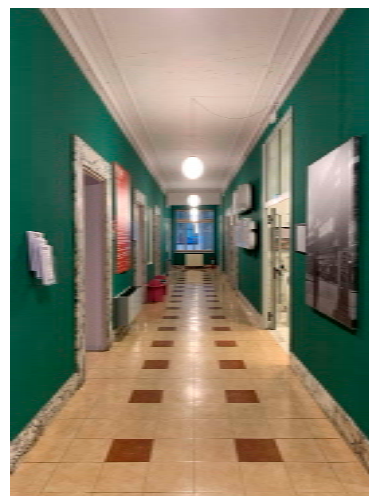
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(g)

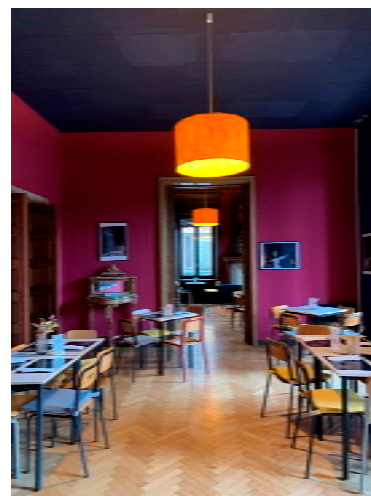


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(h)



(i)



(j)

Figure 7. (a) The park; (b) the ticket office; (c) Pavilion A; (d) Pavilion B; (e) an art installation in the park; (f) an installation on the roof of Pavilion C; (g) Living Rooms, a work by the artist Sarah Bowyer entitled Cradle Brothers; (h) Living Rooms, a work by the artist Carlo Gloria entitled Andrea's Dream; (i) Building B, exhibition halls; (j) Pavilion C, bar/bistro.

The cultural prioritization pursued in reuse aligns with the concept of well-being defined in the present research. It is consistent with the three fundamental principles of the NEB (beautiful, sustainable, and together). The case study is, therefore, suitable as an example to test the proposed dashboard model.

The model was compiled based on site surveys and the analysis of project documentation. In addition, interviews were conducted with stakeholders of the association who followed the entire process and were aware of the architectural choices, the business mod-

The project worked on zero-time, configuring new forms of use immediately according to an incremental approach, with the progressive reactivation of spaces still in progress. The former gatehouse of the complex, the threshold between the heterotopic space of the former orphanage and the outside world, is now used as a reception and ticket office (Figure 7b). Pavilion A is dedicated to local artists and associations (Figure 7c). The other pavilions are used for exhibitions (Pavilion B, Figure 7d), conviviality (Pavilion C: bistro, talks, screenings, and project room), and contemporary artistic experimentation (Pavilion D).

The strongly conservative orientation has included interventions necessary to restore functionality after a decade of neglect (replacement of degraded or missing elements, plant adaptations, and extraordinary maintenance of surface finishes). The choices did not alter the spatial and distributive conformation. They aimed to add rather than subtract material through minimal but extremely significant interventions for the resignification of the complex. The main goal of the intervention was to overturn the connotation of a mere crossing space that characterised the previous destination through the contribution of contemporary art and a strong interaction between use, emotion, and narration. This was carried out with the authorisation of the institutional bodies responsible for protection and in agreement with the individuals, now adults, who resided in the facility during the years when the IPIM was operational (renamed “the natives” by the association).

As evidence of this orientation, the open spaces, a fundamental part of the former orphanage, have been integrated into the project thanks to the addition of art installations that refer to the theme of roots and motherhood with a view to a multisensory experience (Figure 7e,f).

In the same vein, Pavilion A was the protagonist of the “Living Rooms” project; in the first phase, it involved artists called upon to add a creative contribution to each room by confronting the history of the complex with the people who lived part of their childhood in Corso Lanza and with the future inhabitants (Figure 7g,h). In the second phase, the individual artists’ rooms were entrusted to associations free of charge, except for contributing to everyday expenses and consumption. The method of entrustment assigns responsibility to the person involved in the care and maintenance of the space and provides the possibility of opening the rooms to the public at events.

The same desire to overcome the depersonalising character that characterised the previous function is recognisable in the strong characterisation of buildings B and C using brightly coloured paints that are different for each room. Finally, the enhancement of the collective memories of the complex can be recognised in the opening of the exhibition *A better life*. Fragments of stories of the Institute for Children of the Province of Turin; it is located on the third floor of Pavilion B and is a collection of the locals’ first-hand experiences, including documents and oral testimonies.

4.4. Applying the Dashboard Model to the Case Study

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The model was compiled based on site surveys and the analysis of project documentation. In addition, interviews were conducted with stakeholders of the association who followed the entire process and were aware of the architectural choices, the business models, and the repercussions of the intervention in the area. They were asked to self-assess the impacts engendered by the project by comparing the situation before and after the intervention and to define the level of achievement of each indicator’s goal.

For some indicators, the final score corresponds to the self-assessment of the interviewed stakeholders. For others, it corresponds to the opinion expressed by the research group, as explained in Appendix A for each indicator.

5. Results

The results obtained by compiling the dashboard model provide a multidimensional view of the impacts generated by the reuse intervention. The most significant data are presented in the following tables, which provide a detailed list of the individual items (Tables 3 and 4).

Table 3. The application of the dashboard model to the case study: well-being indicator ratings.

Well-Being Dimension	N.	Indicator	Rating
Economic well-being	1	Economic/financial self-sustainability	+2
Economic well-being	2	Long-term management strategy	+1
Economic well-being	3	Incremental approach	+2
Economic well-being	4	Sources of funding	+1
Economic well-being	5	Investments	0
Economic well-being	6	Reinvestments	+1
Economic well-being	7	Number of visitors/tourists	+1
Economic well-being	8	Real estate values	0
Economic well-being	9	Revenues from activities	+1
Economic well-being	10	Cultural economy	+1
Economic well-being	11	Number of residents	0
Work and work-life balance	12	Jobs	+2
Environment	13	Traditional materials	+2
Environment	14	Construction management	+2
Environment	15	Water saving	+1
Environment	16	Energy saving	+1
Environment	17	System circularity	0
Environment	18	Nature-based solutions	0
Subjective well-being	19	Perception	+2
Innovation, research, and creativity	20	Projects	+2
Innovation, research, and creativity	21	Cultural offer	+2
Education and training	22	Capacity building	+2
Education and training	23	Communication and dissemination	+1
Education and training	24	Sensitisation	+2
Education and training	25	Accessibility	+2

Table 3. Cont.

Well-Being Dimension	N.	Indicator	Rating
Landscape and cultural heritage	26	Architectural compatibility	+2
Landscape and cultural heritage	27	Intrinsic value	+2
Landscape and cultural heritage	28	Proportionality	+2
Landscape and cultural heritage	29	Reversibility	+2
Landscape and cultural heritage	30	Multidisciplinary knowledge project	+1
Landscape and cultural heritage	31	Interdisciplinary Knowledge Project	+1
Landscape and cultural heritage	32	Beyond-disciplinary knowledge project	+1
Landscape and cultural heritage	33	Conservation programmes	+2
Landscape and cultural heritage	34	Planning tools	+1
Landscape and cultural heritage	35	Awareness	+2
Quality of services	36	Services	0
Health	37	Cultural welfare	0
Health	38	Cleanliness and healthiness of the area	0
Safety	39	Area safety	+1
Social relations	40	Community cooperation	+1
Social relations	41	Identity and memory	+2
Social relations	42	Socially useful initiatives and projects	+1
Social relations	43	Collective growth	0
Social relations	44	Participatory process (consultation)	+2
Social relations	45	Participatory process (co-creation)	+1
Social relations	46	Participatory process (self-governance)	+1
Politics and institutions	47	Multi-level engagement (work locally)	0
Politics and institutions	48	Multi-level engagement (work across levels)	0
Politics and institutions	49	Multi-level engagement (work globally)	0
Politics and institutions	50	Taxation	+2

Table 4. The application of the dashboard model to the case study: aggregation of ratings by dimensions of well-being.

Dimension	Rating Scale
Economic well-being	10/22
Work and work–life balance	2/2
Environment	6/12
Subjective well-being	2/2
Innovation, research, and creativity	4/4
Education and training	7/8
Landscape and cultural heritage	16/20
Quality of services	0/2
Health	0/4
Safety	1/2
Social relations	8/14
Politics and institutions	2/8

Regarding the first dimension, economic well-being, it is essential to note that the centre's opening has rescued the property from a state of abandonment, resulting in economic growth due to new activities being implemented. This has led to an increase in the number of employees working for the association and a moderate rise in the number of people using/benefitting from the centre. As a result, the asset has become a part of the city's cultural event circuit, strengthening the urban cultural economy. The management strategy implemented was an incremental approach based on temporary reuse and the activation of consequential lots. This allowed for a testing phase of new functions. Additionally, interviews showed a low impact on the district's context, mainly limited to a moderate increase in revenues from commercial activities due to the rise in the flow of visitors. This is primarily because the residential property has high real estate value.

From an environmental point of view, there are moderate positive impacts thanks to the use of traditional or recycled materials, the sustainable management of the construction site, and the adoption of plant solutions aimed at reducing water or energy consumption in compliance with the principles of the circular economy. One way to improve in the future is to promote greater circularity and regenerative sustainability through nature-based solutions.

Regarding subjective well-being, the comparison with the association revealed that the new uses have enormously improved users' perceptions. The reconnection with the place is what caused this change. In addition to the physical and content-related aspects, the new experience introduced a deeper understanding of the "lived space" and the atmosphere. This has eliminated the negative effect of the place without compromising its uncomfortable past.

Regarding innovation, education, and training, there has been a rise in cultural offerings and new projects in spaces repurposed and made available to associations. These positive effects have resulted in a significant increase in the number of workers involved in planned conservation activities and moderate dissemination and exchange activities carried out by the centre's subjects. Additionally, there has been a notable improvement in the cognitive accessibility of the spaces and the level of education and training provided to visitors.

The aspects of the landscape and cultural heritage dimension achieve the highest score within the dashboard template. The project fully responds to the principles of compatibility and proportionality, respecting the architectural and distributive configuration of the rooms and proposing minimal interventions to make new uses possible. However, these minimal interventions are decisive in increasing the asset's intrinsic value, implementing a resignification compatible with the memory of its past. The project aimed to integrate material data with intangible significance, allowing for the interaction of use, emotion, and

narration. This was also supported by a “beyond-disciplinary” knowledge project that saw the integration of formal and non-formal knowledge involving the previous inhabitants of the orphanage (the “natives”). This field broadening has allowed the co-creation of knowledge not based exclusively on specialised skills but inspired by a more inclusive logic. Finally, it should be noted that the proposed reuse model has allowed the association to invest substantially in the planned conservation of the complex, allocating resources the association previously used to rent spaces to carry out its activities.

Concerning the quality of services, health, and safety, there are no significant impacts, except for an increase in the safety of the specific site thanks to occupation and the start-up of new functions, which has made it possible to end situations of neglect and vandalism.

The social aspects, on the contrary, have significant repercussions. First, it should be noted that the reuse project was configured as a participatory process. Stakeholders, including the “natives”, were consulted for their opinion on interventions, as they are the legitimate owners of the place. This has fostered an increased sense of belonging and a renewed rootedness comparable to a “closing of the circle”, as expressed in the words of the natives themselves. Participation has also extended to the phases of co-creation and self-governance, as evidenced by the rooms in building A, which have been rearranged with the involvement of artists and entrusted to local associations through specific agreements. At the same time, this has led to solid cooperation in the care and management of the common good.

Contrary to the high scores recorded for these items, regarding the “politics and institutions” dimension, it is noted that the activity carried out does not align with the multi-level engagement desired by the NEB approach. The initiatives launched did not provide for the creation of horizontal partnerships between informal networks (groups of individuals, neighbourhoods, etc.) and/or formal institutions (sectoral departments, political groups, etc.) either locally or on a larger scale. This can be further developed to strengthen and consolidate the project.

Table 3 details the scores obtained for each selected indicator, and Table 4 shows the aggregated scores for each dimension analysed. Figure 8 proposes a wheel graph to show the results of applying the dashboard models to the case study; the list of indicators is grouped by well-being dimensions/criteria, and the concentric circles underscore the goal's achievement level on a scale from -2 to $+2$.

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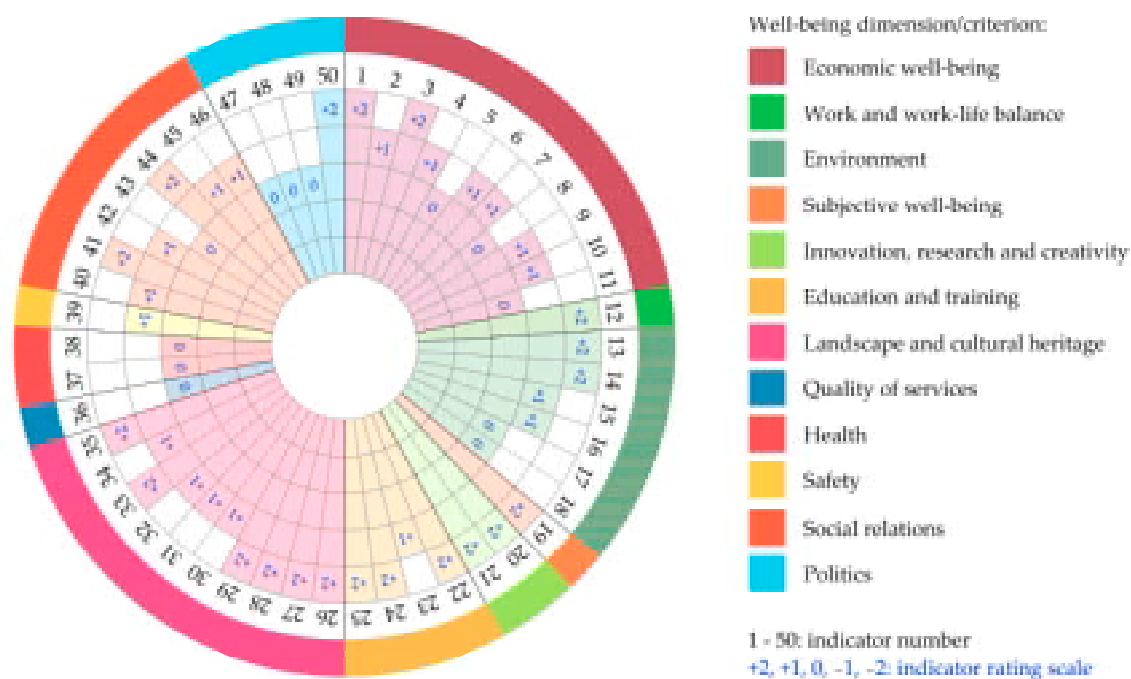


Figure 8. A wheel graph showing the results of applying the dashboard models to the case study (created by the authors).

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6. Discussion and Conclusions

As highlighted in the European reference framework, orienting architectural heritage reuse according to the NEB, well-being, and ICOMOS principles is now challenging for

6. Discussion and Conclusions

As highlighted in the European reference framework, orienting architectural heritage reuse according to the NEB, well-being, and ICOMOS principles is now challenging for conservation disciplines. In pursuing this objective, it is beneficial to develop strategies and evaluation models capable of capturing the multiple components of value related to the reuse of disused assets and providing evidence of the quality of the project. In this context, an impact assessment is essential for documenting the success or failure of interventions.

The tool developed in this research integrates the different aspects considered and verifies the compliance of the projects with the indicated criteria based on quantitative and qualitative parameters from a multidimensional perspective. These parameters not only consider the compatibility of the intervention but, from a procedural point of view, also consider the governance model and the sustainability of the intervention itself. This approach enables the consideration of both generating positive impacts for the community and ensuring the transmission of architectural heritage to future generations in line with the theoretical principles of conservation [59].

By applying the methodology to the case study, it was possible to assess the quality of the project after its completion. The evaluation process resulted in a score that is divided into different dimensions. This approach verifies the project's impact on the identified dimensions. The model quickly and concisely highlights critical areas for in-depth analysis, awareness-raising, and improvement. Applying a comparative logic to various projects enables us to create a synthetic comparison between different interventions, highlighting their impact based on the indicators formulated. This approach can be used in the funding call application stage to award prizes to projects that have achieved the highest score in the most sensitive areas, as decided by the awarding body. Additionally, it allows for the overall score to be evaluated by considering the sum of all identified dimensions and a partial score for individual dimensions of well-being. This formulation provides flexibility to adapt the model to the specific objectives of the awarding body and the application contexts.

In the case investigated, the scores were obtained from interviews with the subjects responsible for the association and the research group's judgement, starting from the project documentation analysis and on-site inspections. Further development and refinement of the surveys can aim to distinguish the stakeholders involved (understood as beneficiaries of the impacts considered) according to Lichfield's Community Impact Analysis model [59] and implement surveys to identify opinions and perceptions. This perspective suggests going beyond the mere participation of experts. Instead, it advocates for openness to communities and residents in the area. This approach would allow for more comprehensive research by considering the perspectives of all stakeholders involved in the intervention, whether directly or indirectly.

During the previous IPIM case analysis, the method was used to identify the project's strengths, weaknesses, and critical criteria from the model's structuring phase. The dimensions relating to subjective well-being, innovation, education, cultural heritage, and social relations are those most solicited by the intervention working in the zero-time dimension. The project can be considered good practice for the adaptive reuse of an asset with difficult memories by following the theoretical guidelines of conservation illustrated above. It involves implementing a design strategy that considers preserving these places' physical structures and intangible cultural significance. This example can be a reference for starting other projects to repurpose difficult heritage sites, such as former psychiatric hospitals in Piedmont, which are still, in many cases, in conditions of abandonment or underuse [45].

The design choices at IPIM respect the intrinsic value and involve civil society. They have also confirmed the need, even before intervening in the material datum, to interact with the unseen, welcoming the lived space as a component of the project [60,61]; the new interpretation of the place offered has made it possible to enhance its memory without erasing the painful past but, on the contrary, offering it as a stimulus for the participatory process. Referring to the categories proposed by Luna [18], it is possible to classify this project as an example of symbiotic reuse, in which new uses are closely connected to the memories of

the place and capable of generating new value from them. This confirms the crucial role of adaptive reuse in increasing the asset's value for itself and the community [13,62,63].

Among the NEB criteria, the project most markedly aligns with the “beautiful” core value, reaching ambition III. The beauty of the project lies, in fact, in its ability to contribute to the physical and mental well-being of communities, connect people and places, promote a sense of belonging, and encourage the creation of new social and cultural values. Concerning the working principles, it is possible to note the presence of a transdisciplinary approach (ambition III) and a participatory process (ambition III). On the contrary, the components related to multi-level engagement do not meet the requirements of the NEB since the intervention is not based exclusively on the work of the Flashback Association, as it does not provide for the creation of networks with formal and informal subjects who, at different scales, operate according to similar objectives.

In conclusion, by implementing the model, it is possible to assess the effectiveness of the intervention after it has taken place, understand its real impact, and determine ways to enhance the future preservation of the asset. All of this is accomplished while adhering to internationally recognised cultural guidelines in conservation.

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Appendix A

Table A1. Indicator rating scale.

1. Economic/financial self-sustainability (data source: stakeholder interview)
+2: reuse has led to a high increase in the economic and financial self-sustainability of the asset.
+1: reuse has led to a moderate increase in the economic and financial self-sustainability of the asset.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the economic and financial self-sustainability of the asset.
−2: reuse has led to a high decrease in the economic and financial self-sustainability of the asset.
2. Long-term management strategy (data source: stakeholder interview)
+2: reuse included a sustainability plan in the three years of development of the project (1st and 2nd years: material intervention; 3rd year: management startups) with a final focus on the 4th, 5th, and 6th years. The plan identifies the expected measurable results through output/outcome indicators.
+1: reuse included a sustainability plan in the three years of project development (1st and 2nd years: material intervention; 3rd year: management startups) with a final focus on the 4th, 5th, and 6th years.
0: no long-term strategies.
3. Incremental approach (data source: stakeholder interview)
+2: reuse has adopted two or more solutions aimed at promoting an incremental approach (temporary reuse, adoption of consequential phases of experimentation and development).
+1: reuse has adopted a solution aimed at promoting an incremental approach.
0: no solutions.

Table A1. *Cont.*

4. Sources of funding (data source: stakeholder interview)
+2: reuse has attracted high sources of funding. +1: reuse has attracted moderate sources of funding. 0: no sources of funding.
5. Investments (data source: stakeholder interview)
+2: reuse has led to a high increase in investment at the local level. +1: reuse has led to a moderate increase in investment at the local level. 0: no increase or decrease. −1: reuse led to a moderate decrease in investment at the local level. −2: reuse has led to a high decrease in investment at the local level.
6. Reinvestments (data source: stakeholder interview)
+2: reuse has led to a high reinvestment of profits in social impact actions. +1: reuse has led to a moderate reinvestment of profits in social impact actions. 0: no reinvestments.
7. Number of visitors/tourists (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of visitors/tourists. +1: reuse has led to a moderate increase in the number of visitors/tourists. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of visitors/tourists. −2: reuse has led to a high decrease in the number of visitors/tourists.
8. Real estate values (data source: stakeholder interview)
+2: reuse led to a high increase in real estate values in the area. +1: reuse led to a moderate increase in real estate values in the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in real estate values in the area. −2: reuse led to a large decrease in real estate in the area.
9. Revenues from activities (data source: stakeholder interview)
+2: reuse has led to a high increase in revenues from activities in the area. +1: reuse has led to a moderate increase in revenues from activities in the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in revenues from activities in the area. −2: reuse has led to a high decrease in revenues from activities in the area.
10. Cultural economy (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of activities in the area. +1: reuse has led to a moderate increase in the number of activities in the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of activities in the area. −2: reuse has led to a high decrease in the number of activities in the area.
11. Number of residents (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of residents in the area. +1: reuse has led to a moderate increase in the number of residents in the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of residents in the area. −2: reuse has led to a high decrease in the number of residents in the area.
12. Jobs (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of jobs. +1: reuse has led to a moderate increase in the number of jobs. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of jobs. −2: reuse has led to a high decrease in the number of jobs.

Table A1. Cont.

13. Traditional materials (data source: stakeholder interview)
+2: reuse involved the use of two or more solutions aimed at minimising the consumption of resources (use of traditional local, bio-eco-compatible, or recycled materials).
+1: reuse involved the use of a solution aimed at minimising the consumption of resources.
0: no solutions.
14. Construction management (data source: stakeholder interview)
+2: reuse involved the use of two or more solutions aimed at promoting the sustainable management of the site (use of dry technologies, reuse of waste materials, reduction in waste disposal in landfills, containment of noise and air pollution).
+1: reuse involved the use of a solution aimed at promoting the sustainable management of the construction site.
0: no solutions.
15. Water saving (data source: stakeholder interview)
+2: reuse has led to a high increase in water savings ($\geq 20\%$).
+1: reuse has led to a moderate increase in water savings ($< 20\%$).
0: no increase or decrease.
16. Energy saving (data source: stakeholder interview)
+2: reuse involved the use of two or more solutions aimed at promoting energy savings (improvement of the energy class, renewable energy sources, energy-saving systems, systems and plants with improved characteristics compared to current legislation).
+1: reuse involved the use of a solution aimed at promoting energy savings.
0: no solutions.
17. System circularity (data source: stakeholder interview)
+2: reuse included the adoption of a zero-pollution action plan for air, water, and soil.
+1: reuse included the calculation of the carbon footprint before, during, and after the intervention.
0: no solutions.
18. Nature-based solutions (data source: stakeholder interview)
+2: reuse involved the adoption of two or more nature-based solutions.
+1: reuse involved the adoption of a nature-based solution.
0: no solutions
19. Perception (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the subjective well-being of users/visitors.
+1: reuse has led to a moderate increase in the subjective well-being of users/visitors.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the subjective well-being of users/visitors.
−2: reuse has led to a high decrease in the subjective well-being of users/visitors.
20. Projects (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of projects activated in spaces.
+1: reuse has led to a moderate increase in the number of projects activated in spaces.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the number of projects activated in spaces.
−2: reuse has led to a high decrease in the number of projects activated in spaces.
21. Cultural offer (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of activities and cultural events offered.
+1: reuse has led to a moderate increase in the number of activities and cultural events offered.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the number of activities and cultural events offered.
−2: reuse has led to a high decrease in the number of activities and cultural events offered.
22. Capacity building (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of workers related to planned conservation activities.
+1: reuse has led to a moderate increase in the number of workers related to planned conservation activities.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the number of workers related to planned conservation activities.
−2: reuse has led to a high decrease in the number of workers related to planned conservation activities.

Table A1. Cont.

23. Communication and dissemination (data source: stakeholder interview)
+2: reuse has led to a significant increase in the number of hours dedicated to communication, dissemination, and transfer of design and managerial skills.
+1: reuse has led to a moderate increase in the number of hours devoted to communication, dissemination, and transfer of design and managerial skills.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the number of hours dedicated to communication, dissemination, and transfer of design and managerial skills.
−2: reuse has led to a high decrease in the number of hours dedicated to communication, dissemination, and transfer of design and managerial skills.
24. Sensitisation (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the level of education of users/visitors.
+1: reuse has led to a moderate increase in the level of education of users/visitors.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the level of education of users/visitors.
−2: reuse has led to a high decrease in the level of education of users/visitors.
25. Accessibility (data source: project documentation/site survey)
+2: reuse has led to a high increase in the physical and cognitive accessibility of the asset.
+1: reuse has led to a moderate increase in the physical and cognitive accessibility of the asset.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the physical and cognitive accessibility of the asset.
−2: reuse has led to a high decrease in the physical and cognitive accessibility of the asset.
26. Architectural compatibility (data source: project documentation/site survey)
+2: reuse had a high positive impact on the asset in terms of architectural compatibility.
+1: reuse had a moderate positive impact on the asset in terms of architectural compatibility.
0: no positive or negative impact.
−1: reuse had a moderate negative impact on the asset in terms of architectural compatibility.
−2: reuse had a high negative impact on the asset in terms of architectural compatibility.
27. Intrinsic value (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the “intrinsic value” of the good.
+1: reuse has led to a moderate increase in the “intrinsic value” of the good.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in the “intrinsic value” of the good.
−2: reuse has led to a high decrease in the “intrinsic value” of the good.
28. Proportionality (data source: project documentation/site survey)
+2: transformations related to reuse are minimal.
+1: transformations related to reuse are moderate.
0: transformations related to reuse are high.
29. Reversibility (data source: project documentation/site survey)
+2: interventions related to reuse are characterised by a high degree of reversibility.
+1: interventions related to reuse are characterised by a moderate degree of reversibility.
0: interventions related to reuse are characterised by a minimum degree of reversibility.
30. Multidisciplinary knowledge project (data source: stakeholder interview)
+2: reuse involved a detailed multidisciplinary knowledge project (historical/archival analysis, diagnostic investigations of structures, and/or geognostic/seismic investigations of the soils and/or stratigraphic assays of plasters), with the advice of cultural heritage professionals registered in the lists of the Ministry of Culture or belonging to the academic/scientific world.
+1: reuse included a project of synthetic multidisciplinary knowledge (historical/archival analysis, diagnostic investigations of structures, and/or geognostic/seismic investigations of soils and/or stratigraphic assays of plasters).
0: no knowledge project.

Table A1. Cont.

31. Interdisciplinary knowledge project (data source: stakeholder interview)
+2: reuse involved a detailed interdisciplinary knowledge project. +1: reuse included a synthetic interdisciplinary knowledge project. 0: no knowledge project.
32. "Beyond-disciplinary" knowledge project (data source: stakeholder interview)
+2: reuse involved a detailed "beyond-disciplinary" knowledge project. +1: reuse included a synthetic "beyond-disciplinary" knowledge project. 0: no knowledge project.
33. Conservation programmes (data source: stakeholder interview)
+2: reuse provided for a high increase in resources for the planned conservation of the asset. +1: reuse provided for a moderate increase in resources for the planned conservation of the asset. 0: no increase or decrease. −1: reuse provided for a moderate decrease in resources for the planned conservation of the asset. −2: reuse provided for a high decrease in resources for the planned conservation of the asset.
34. Planning tools (data source: stakeholder interview)
+2: reuse provided for a detailed masterplan that develops an overall hypothesis for planning the interventions on the asset, identifying the stakeholders, the possible sources of financing, and the tools and actions necessary for its implementation. +1: reuse provided for a synthetic masterplan that develops an overall hypothesis on the planning of interventions on the asset, identifying the stakeholders, the possible sources of financing, and the tools and actions necessary for its implementation. 0: no masterplan.
35. Awareness (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the number of users/visitors who express a willingness to pay for the conservation of the asset. +1: reuse has led to a moderate increase in the number of users/visitors who express a willingness to pay for the conservation of the asset. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of users/visitors who express a willingness to pay for the conservation of the asset. −2: reuse has led to a significant decrease in the number of users/visitors who express a willingness to pay for the conservation of the asset.
36. Services (data source: stakeholder interview)
+2: reuse has led to a high increase in services in the area. +1: reuse has led to a moderate increase in services in the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in services in the area. −2: reuse has led to a large decrease in services in the area.
37. Cultural welfare (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the psychological well-being of users/visitors participating in cultural welfare activities, measured with the Psychological General Well-Being Index ($\geq 20\%$). +1: reuse has led to a moderate increase in the psychological well-being of users/visitors participating in cultural welfare activities, measured with the Psychological General Well-Being Index ($< 20\%$). 0: no increase or decrease. −1: reuse has led to a moderate decrease in the psychological well-being of users/visitors participating in cultural welfare activities, measured with the Psychological General Well-Being Index ($< -20\%$). −2: reuse has led to a high decrease in the psychological well-being of users/visitors participating in cultural welfare activities, measured with the Psychological General Well-Being Index ($\geq -20\%$).
38. Cleanliness and healthiness of the area (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in the cleanliness and healthiness of the area. +1: reuse has led to a moderate increase in the cleanliness and healthiness of the area. 0: no increase or decrease. −1: reuse has led to a moderate decrease in the cleanliness and healthiness of the area. −2: reuse has led to a high decrease in the cleanliness and healthiness of the area.

Table A1. Cont.

39. Area safety (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in area safety. +1: reuse has led to a moderate increase in area safety. 0: no increase or decrease. −1: reuse has led to a moderate decrease in area safety. −2: reuse has led to a high decrease in area safety.
40. Community cooperation (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of subjects sharing a common interest in the good (≥ 10). +1: reuse has led to a moderate increase in the number of subjects sharing a common interest in the good (< 10). 0: no increase or decrease. −1: reuse has led to a moderate decrease in the number of subjects sharing a common interest in the good (< -10). −2: reuse has led to a high decrease in the number of people who share a common interest in the asset (≥ -10).
41. Identity and memory (data source: stakeholder interview/survey)
+2: reuse has led to a high increase in place identity/place attachment/place memory/sense of place. +1: reuse has led to a moderate increase in place identity/place attachment/place memory/sense of place. 0: no increase or decrease. −1: reuse has led to a moderate decrease in place identity/place attachment/place memory/sense of place. −2: reuse has led to a high decrease in place identity/place attachment/place memory/sense of place.
42. Socially useful initiatives and projects (data source: stakeholder interview)
+2: reuse has led to a high increase in the number of participants in socially useful projects and initiatives (≥ 50). +1: reuse has led to a moderate increase in the number of participants in socially useful projects and initiatives (< 50). 0: no increase or decrease. −1: reuse led to a moderate decrease in the number of participants in socially useful projects and initiatives (< -50). −2: reuse has led to a significant decrease in the number of participants in socially useful projects and initiatives (≥ -50).
43. Collective growth (data source: stakeholder interview/survey)
+2: reuse has had a highly positive impact on the collective growth of users/visitors. +1: reuse has had a moderately positive impact on the collective growth of users/visitors. 0: no increase or decrease. −1: reuse has had a moderately negative impact on the collective growth of users/visitors. −2: reuse has had a highly negative impact on the collective growth of users/visitors.
44. Participatory process (consultation) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of stakeholders in the consultation phase (≥ 50 people). +1: reuse has led to the involvement of a moderate number of stakeholders in the consultation phase (< 50 people). 0: no involvement.
45. Participatory process (co-creation) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of stakeholders in the co-creation phase (≥ 50 people). +1: reuse has led to the involvement of a moderate number of stakeholders in the co-creation phase (< 50 people). 0: no involvement.
46. Participatory process (self-governance) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of stakeholders in the self-governance phase (≥ 50 people). +1: reuse has led to the involvement of a moderate number of stakeholders in the self-governance phase (< 50 people). 0: no involvement.
47. Multi-level engagement (work locally) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of informal networks and/or formal institutions at the local level (≥ 5). +1: reuse has led to the involvement of a moderate number of informal networks and/or formal institutions at the local level (< 5). 0: no involvement.
48. Multi-level engagement (work across levels) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of informal networks and/or formal institutions at various scales (≥ 5). +1: reuse has led to the involvement of a moderate number of informal networks and/or formal institutions at various scales (< 5). 0: no involvement.

Table A1. Cont.

49. Multi-level engagement (work globally) (data source: stakeholder interview)
+2: reuse has led to the involvement of a high number of (inter)governmental networks and/or institutions globally (≥ 3).
+1: reuse has led to the involvement of a moderate number of (inter)governmental networks and/or institutions globally (< 3).
0: no involvement.
50. Taxation (data source: stakeholder interview)
+2: reuse has led to a high increase in economic savings for public institutions.
+1: reuse has led to a moderate increase in economic savings for public institutions.
0: no increase or decrease.
−1: reuse has led to a moderate decrease in economic savings for public institutions.
−2: reuse has led to a significant decrease in economic savings for public institutions.

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