

# Una sostenibilità “etica” nei processi di valorizzazione del patrimonio culturale: il ruolo degli indicatori multidimensionali come strumento decisionale

## “Ethical” sustainability in the optimisation of cultural heritage: the role of multidimensional indicators as a decision-making tool

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I Beni Culturali sono al centro di dibattiti teorico-metodologici sulle potenzialità del loro riuso, in una prospettiva di creazione di valore sociale e di contributo all'innalzamento della qualità della vita delle comunità, nonostante la loro dismissione rappresenti un forte vincolo di natura economica. Si assiste ad un ribaltamento di prospettiva: si parte dal ruolo che il patrimonio culturale può svolgere nel quadro dello sviluppo sostenibile e di come esso sia generatore di benefici multidimensionali. Il contributo illustra il dibattito in corso e aspetti innovativi di ricerca nell'ambito dei processi di valutazione e misurazione di tali impatti, attraverso casi su cui sono stati sperimentati approcci per indicatori complessi e cross-dimensionali a supporto delle scelte di intervento.

*Cultural Heritage is a topic of theoretical-methodological debate on the potential of reuse with a view to creating social value and contributing to raising the quality of life of communities, even though their disposal represents a strong economic constraint. There is a reversal of perspective: it starts from the role that Cultural Heritage can play in the context of sustainable development and how it is a generator of multidimensional benefits. The contribution illustrates the current debate and innovative aspects of research in the area of processes for assessing and measuring these impacts, through cases on which approaches via complex and cross-dimensional indicators have been tested to support intervention choices.*

## Introduction

In the processes, particularly of an economic nature, to optimise, complex systems and “large factories” often in disuse and in conditions of degradation and abandonment, the nodes of the investigative phases of identification of sustainable functions, their monitoring and management «(...) are foremost multidisciplinary task»<sup>1</sup>. Recent studies investigate the “new” dimensions of ethics, social responsibility, and co-design and sharing of instances in processes of economic enhancement of Cultural Heritage and decision support<sup>2</sup> – recognized as central to multiple scholarly debate. The emphasis on the participatory approach, where multi/poly-vocality must be part of stakeholder co-design processes, becomes key.

A central and consolidated issue in the context of the processes of evaluation of the convenience of intervention scenarios is to demonstrate that the conservation/enhancement of cultural heritage is an investment and not a cost, thanks to the support of indicators that help decision-makers in the choices that can keep the conservation/regeneration of cultural heritage and sustainable development together. We are witnessing a reversal of perspective; we start with the role Cultural Heritage can play in sustainable development and how it generates multidimensional benefits.

Complex systems (historical former industrial complexes, modern Heritage, former production complexes or those intended for public functions that are in disarray, etc.) recognized as Cultural Heritage are the subject of theoretical-methodological debates on their heritage of values and the potential for their reuse, also from the perspective of creating social value and contributing to the improvement of the quality of life of the communities involved, despite their critical conditions of degradation representing a strong economic constraint.

In this sense, Cultural Heritage represents a challenge for evaluation and sustainability approaches from a holistic perspective: in response to the research questions mentioned above, the discipline of economic evaluation/enhancement has reinterpreted and enriched the consolidated tools and approaches, integrating them with more complex and innovative perspectives and with critically reviewed techniques, methods and tools, in a multidisciplinary perspective and in the development of synthetic indicator toolkits to support decision-making. The paper aims to discuss the emerging themes of the ethical and participatory dimension in the framework of sustainable and economic optimization approaches and processes of translation into synthetic indicator systems, highlighting the innovative aspects of research and recent experimentation on emblematic case studies, also thanks to multidisciplinary contributions.

## 1. Research background: the ethical dimension of sustainability in economic optimization processes

The topic of the economic optimisation of historic buildings is addressed in numerous multidisciplinary debates and with interpretative keys and angles that are often interesting. These are legacies that are difficult to transform for new uses and are linked to the concept of “fragile memories”<sup>3</sup>. Such fragilities, if contextualized in particular in the dimension of sustainability, are also closely linked to the costs of remediation, the costs of increasing degradation and weak markets due to marginal locations or with declining values and consequent loss

<sup>1</sup> Darko Babić, *Social responsible heritage management-empowering citizens to act as heritage managers*, in «Procedia-Social and Behavioral Sciences», n. 188, 2015, pages 27-34.

<sup>2</sup> Cristina Coscia, Francesca Pasquino, *Demand Analysis Models to Support Cultural Tourism Strategy: Application of Conjoint Analysis in North Sardinia (Italy)*, in «Land», n. 12(12), 2023, p. 2150.

<sup>3</sup> Marta Dell'Ovo, Silvia Bassani, Giulia Stefanina, Alessandra Oppio, *Memories at risk. How to support decisions about abandoned industrial heritage regeneration*, in «Valori e Valutazioni», n. 25, 2020, pages 107-114.

of attractiveness of the property. This makes both public and private investment logics critical. In the face of such strong intrinsic criticalities to such heritage and extrinsic ones linked to context dynamics, such historic assets are configured as fragile memories and seem destined for abandonment and the absence of reuse scenarios, with the compromise of the feasibility of hypothetical scenarios and, paradoxically, the perception of assets that can threaten the memory and identity of places.

In recent years, however, international guidelines on the conservation of architectural heritage have focused on a reversal of perspective: this heritage has changed from a problem to an asset, thanks to its key role in promoting sustainable development and improving the quality of life<sup>4</sup>. Janssen et al.<sup>5</sup> indicate a new perspective in the vision of heritage: we move from heritage as a “sector”, i.e. an asset on which to focus protection and conservation strategies, with a secondary role of the social context, to heritage as a “vector”, i.e. an asset that becomes a lever in development processes in tangible and intangible terms and a generator of impacts and benefits for the community through an active, inclusive and participatory dialogue with civil society actors.

This perspective has been strengthened by bringing the relevance of the theme of memory and ethical and social responsibility for future generations to the attention of the scientific communities. Furthermore, in multidisciplinary methodological approaches of a holistic nature<sup>6</sup>, aimed at verifying (often measuring) the sustainability of strategies and choices of economic enhancement of complex systems of abandoned historical heritage, ethical components are assumed as foundational in developing assessments and dashboards of indicators for decision-making processes.

A well-known and important reference for these strategies and decision-making processes is the Report of the Cooperation Project Cultural Heritage Counts for Europe (CHCFE), published in 2015<sup>7</sup>. CHCFE is the outcome of the declarations of the World Commission on the Environment and Development (the “Brundtland Commission”) and of the Universal Declaration on Cultural Diversity endorsed by UNESCO, with the emphasis on the currently acknowledged principles of sustainable development, according to a generational pact that looks at aspects of the quality of present and future life. Cultural Heritage can contribute to community well-being and quality of life, becoming a «dynamic nature, which is recreated by people and their surrounding environment and varies over time».

Therefore, scientific communities converge on the absolute need to identify and analyze with greater punctuality and articulation the impact generated by processes and interventions of economic valorization of the historical heritage and cultural investment. This request has posed and is increasingly posing the urgency of rethinking or refining the classic measurement methods through indicators, the analysis of investments, and all the technical steps related to calculating its fundamentals.

The new research questions are: How can we identify the social benefits thanks to this ethical approach to sustainability? What are the flows of utility and well-being also recognized by the users of such Cultural Assets? What metrics must be taken into account in decision-making processes, in the measurement of feasibility and in the analysis of investments within all the technical steps related to the calculation of its fundamentals?

These are strongly developing lines of research that analyze different perspectives. The following paragraphs illustrate some of them in

<sup>4</sup> Daniele Dabbene, Carla Bartolozzi, Cristina Coscia, *Evaluating the Quality of Architectural Heritage Reuse Projects Using a Well-Being and NEB Approach: The Case Study of IPIM in Turin (Italy)*, in «Heritage», n. 7(6), 2024, pages 2834-2865.

<sup>5</sup> Jork Janssen, Eric Luiten, Hans Renes, Eva Stegmeijer, *Heritage as sector, factor, and vector: Conceptualising the shifting relationship between heritage management and spatial planning*, in «European Planning Studies», n. 25(6), 2017, pages 1654–1672.

<sup>6</sup> Cristina Coscia, Irene Aterelli, *The “Holistic Approach to the Cultural Heritage Impact Method” (HACHI Method) as a Method for Indicator-Based Impact Analysis: An Application to the Case of Imperial Fora in Rome (Italy)*, in «Journal of Sustainability Research», n. 6(2), 2024.

<sup>7</sup> [http://blogs.encatc.org/culturalheritagecounts-for-europe/outcomes/\(CHCFE\)](http://blogs.encatc.org/culturalheritagecounts-for-europe/outcomes/(CHCFE)).

**8** Hitesh Vaidya, Tathagata Chatterji, *SDG 11 Sustainable Cities and Communities*, in Isabel B. Franco, Tathagata Chatterji, Ellen Derbyshire, James Tracey (eds.), *Actioning the Global Goals for Local Impact. Science for Sustainable Societies*, Springer, Singapore. [https://doi.org/10.1007/978-981-32-9927-6\\_12](https://doi.org/10.1007/978-981-32-9927-6_12)

**9** Antonia Gravagnuolo, Mariarosaria Angrisano, Martina Bosone, Francesca Buglione, Pasquale De Toro, Luigi Fusco Girard, *Participatory evaluation of cultural heritage adaptive reuse interventions in the circular economy perspective: A case study of historic buildings in Salerno (Italy)*, in «Journal of Urban Management», n. 13(1), 2024, pages 107-139.

**10** Faro Convention, *The Framework Convention on the Value of Cultural Heritage for Society*, Faro, 2005.

**11** Patrick Velte, *Meta-analyses on corporate social responsibility (CSR): a literature review*, in «Management Review Quarterly», n. 72(3), 2022, pages 627-675.

**12** Kelly J. Watson, Tim Whitley, *Applying Social Return on Investment (SROI) to the built environment*, in «Building research & information», n. 45(8), 2017, pages 875-891.

extreme synthesis, particularly related to the ethical dimension, of entrepreneurial and social responsibility, to inclusive co-design process with responsible behaviors of demand in the processes of fruition of Cultural Heritage and also to the sustainable fruition of the territorial context and the creation of well-being and quality of life.

The unifying factor of all these perspectives is the foundational theory of the value components of Cultural Heritage (see §1.1).

## 1.1 Value Components in Cultural Heritage Enhancement Processes

The theoretical-methodological reflection on the centrality of cultural heritage as an engine for development and a strategic lever for safeguarding local values has also been consolidated in terms of the strategies for achieving SDG11 - Sustainable Cities and Communities<sup>8</sup>. In this perspective, the theory on value components opens up to a renewed value system: the components of the VET and Social Value Complex<sup>9</sup> are redefined in the light of a founding passage of the Faro Convention<sup>10</sup>: the economic valorization and ethical dimension of sustainability must move from the 'right of Heritage' to the 'right to Heritage', i.e. envisage the active role of the community in the construction/co-design of sustainable models and value system with intra-generational responsibility.

## 1.2 The Ethical Dimension in the Social Responsibility Approach

Within the theoretical perimeter outlined above, the issue of adaptive reuses of disused and abandoned assets has driven initiatives aimed at reducing socio-economic and spatial inequalities, divestment of complex real estate assets into Common Goods, regeneration of urban areas, etc.: these practices testify to the introduction of these new directions and the importance of validating policies based on the principles of the Corporate Social Responsibility (CSR) Approach<sup>11</sup>. It combines the principles of collective value and responsibility with the new role of social and cultural entrepreneurship, which looks to new forms of impact investing. The challenge is to generate and measure with a set of complex and composite indicators both an economic return and a social impact. The measurement of social impact – particularly in the field of Cultural Heritage reuse scenarios – is an area of research currently under observation and requiring further exploration, as the following questions remain open: 1) there are no standardized dashboards or even sets of indicators on which there is expert convergence, 2) measurement involves complex multi-disciplinary hybridization operations, 3) social impacts can occur over a long-range time span from the moment the investment is made, 4) it is not easily scalable, given the variety of possible contexts and policies. Ongoing research developments are emerging with regard to the development of indicators that can incorporate the different responsibilities of all actors involved in the accountability of public or public-private investments related to the reuse of large historical buildings. Among these, a specific line of research analyzes the effectiveness of the SROI (Social Return On Investment) indicator<sup>12</sup>: the SROI method, applied to Cultural Heritage intervention scenarios, in an attempt to encompass ethical and social components, is based on the identification of the activities/functions envisaged by re-use, using an input-output-outcome model. Data

collection focuses on the involvement of stakeholders who actively identify the changes generated. The participatory method of analysis is fundamental to avoid the self-referentiality of decision-making processes and to make the analysis stronger. This involves a new articulation of the value components to be considered.

13 Coscia, Pasquino, *Demand Analysis Models* cit.

### **1.3 “Ethical” use in Sustainable Tourism approaches: social behaviors and empowerment**

In the decision-making processes of identifying scenarios for the reuse of Cultural Assets, strategic factors include the territorial context and the ways of enjoying a demand that expresses increasingly complex preferences and tastes and a sensitivity to green issues and Cultural Heritage. A rich body of literature has been developed on integrated cultural and sustainable tourism. From this new perspective, studies regarding the methods used to evaluate and assess methods of cultural and landscape assets (and related indicators) have been resumed. Traditionally, they are based on the simulation of the demand curve of hypothetical markets, on the estimation of the consumer surplus and on the detection of the WTP (Willingness to Pay) of consumers (users of Cultural Heritage), to predict and quantify the utility that the community can derive from such public goods. The Total Economic Value (TEV) can be identified through the consumer's choice and preference processes, visible in revealed preferences (hedonic price method, travel cost method, compensation cost method, discrete choice model, etc.), and affirmed (contingent valuation method, Delphi Technique and Conjoint Analysis). Among the many theoretical and operational thrusts (see §3.2), the contribution aims to highlight those on the Conjoint Analysis technique, which has proven effective, through the articulation of preferences and the segmentation of demand, in identifying new ethical and responsible needs and supporting valorization choices that look at more aware tourism, oriented towards a “slow” and rural experience and which recognizes the values of tradition and *Genius Loci*<sup>13</sup>.

### **1.4 Well-being and quality of life in sustainable scenarios for the economic valorization of cultural heritage**

The preparation of a dashboard with multidimensional indicators is explored in numerous theoretical contributions, highlighting the need for a reflection on the components that contribute to the quality of life, in its articulation in economic, social and environmental indicators, capturing and measuring their impacts and preparing monitoring processes. Quality of life takes on a central role in the social value of cultural heritage: in many declarations, its repercussions on cultural heritage and its use in terms of social and psychological well-being are recognized. This vision has highlighted the ethical role of the project as a tool to increase the well-being of citizens. The dimensions of well-being and quality of life as new components of the intergenerational value of historical heritage are considered strategic in the social investment impact adopted by institutions and operators in the cultural sector, particularly by Third Sector entities, understood as private entities aimed at pursuing civic, solidarity-oriented and socially useful purposes. Within this perimeter, sets of indicators that consider the articulation of ethical and social responsibility within the construction

<sup>14</sup> Dabbene, Bartolozzi, Coscia, *How to monitor and evaluate quality* cit.

<sup>15</sup> Francesca Nocca, *The role of cultural heritage in sustainable development: Multidimensional indicators as decision-making tool*, in «Sustainability», n. 9(10), 2017, p. 1882.

<sup>16</sup> UNESCO, *Recommendation on the Historic Urban Landscape*, UNESCO World Heritage Centre, Paris 2011.

of values and added values in defining new uses and functions within historic buildings in a more integrated way have been developed.

Dabbene et al.<sup>14</sup> suggested a set of 'hybrid' indicators – with associated rating scales – to assess the quality of interventions for adaptive reuse of architectural heritage according to a multidisciplinary approach involving conservation disciplines and economic evaluation of projects. What makes them special is that they focus on improving well-being and ensuring that existing architectural interventions align with heritage conservation guidelines.

## 2. Methodological Approach: multidimensional indicators as a decision-making tool

In the light of theoretical insights into the different aspects of the ethical dimension of sustainability and the effectiveness of the synthetic indicator approach in the decision-making process (see §1), among the reference literature, Nocca's study<sup>15</sup> represents an interesting starting point due to its attempt to systematize recent successful applications that have adopted Multidimensional Indicator sets<sup>16</sup>. The cluster of cases is restricted to approaches with indicator sets to assess the role of culture in sustainable development (and consequently the multidimensional benefits produced by the preservation/optimization of cultural heritage). It is worth remembering that the author analyzed 40 case studies, adopting a methodological approach for indicators on the 'productivity' of Cultural Heritage preservation/regeneration: productivity understood as a process generating multidimensional benefits, divided into nine impact categories that make up the complete impact assessment matrix, i.e.: 1. Tourism and recreation, 2. Creative, cultural and innovative activities, 3. Typical local productions, 4. Environment and natural capital, 5. Social capital/cohesion and inclusion, 6. Real estate, 7. Financial return, 8. Cultural value of property/landscape, and 9. Well-being.

The case studies that will be illustrated in §3 refer to this methodological approach (for technical and detailed steps, please see the complete reading of this contribution): recent studies in the field of the economic valorization of cultural heritage have dealt with the research topic of impact indicators, in particular on dimensions 1, 2, 3, 5, 7, 8 and 9, which have greater implications on the different tangible and intangible value components of the complex social value. A methodological choice has been made in the following section, highlighting, through the reading of emblematic case studies, only the focus of this contribution, i.e. the proposals of multidimensional indicators for the ethical components of sustainability. Particular attention is paid to the reasoning on the strategic role of such multidimensional indicators in the decision-making processes of reusing the cases of complex historical assets selected.

## 3. Case Studies

In the previous sections, the theoretical nodes and scientific debates on aspects of the ethical dimension of sustainability and indicator approaches aimed at identifying methodologies for their evaluation, measurement, and weighting in decisions relating to intervention on historic asset systems for reuse were highlighted. These reasonings were effectively tested in case studies, which are illustrated below.

### 3.1. Social impacts and SROI: the case study of the Giardini Reali in Turin (Italy) and the case of a system of historical Farms in Volpiano (Turin, Italy)

In 2017, the Consulta and partner Reale Mutua returned the 3,800-square-meter green area of the Royal Gardens in Turin, belonging to the Royal Museums of Turin and located in the heart of the city (Figure 1) to the community in a redevelopment that generated social and economic impacts on multiple aspects. Deloitte G Touche, a Consulta member and leading professional services firm, calculated the return of the intervention on the territory in terms of Social Value (SROI) application<sup>17</sup>.

The effectiveness of this indicator, which reaches a synthetic quantitative result, is that of the process behind its calculation, namely the analysis of descriptive, qualitative and quantitative data as descriptors of multidimensional impacts, related to the map of stakeholders, measured according to nominal, ordinal and cardinal units of measurement. These multidimensional indicators succeed in identifying opportunity costs and supporting the public and philanthropic sectors in effectively and efficiently allocating their scarce resources. Regarding social reporting, the numerical brutality of SROI becomes a strength in reporting, highlighting equity and redistribution aspects.

Coscia and Russo's contribution<sup>18</sup> presented an Italian experience of a Social Investing approach for a System of historical Farms, in the context of peri-urban regeneration processes, in which an attempt was made to apply the principles of the Green economy, the multifunctional agriculture model and the Corporate Social Responsibility Models in synergy: the scenario of valorization of the system of historical farms in Volpiano (metropolitan area of Turin, Italy). This territory is paradigmatic, characterized by the coexistence of historical rural settlement models (partially altered by the construction of road infrastructures) with new residential and productive settlement systems. The details of the proposal are contained in the cited contribution. Still, here we would like to emphasize that the proposed 'responsible' sustainability verification model is not based solely on classical profitability indicators: the model and synthetic indicators take into account the macro-economic development aspects of rural landscapes and

<sup>17</sup> [https://consultaditorino.it/wp-content/uploads/2022/05/impatto\\_sociale\\_2019.pdf](https://consultaditorino.it/wp-content/uploads/2022/05/impatto_sociale_2019.pdf)

<sup>18</sup> Cristina Coscia, Valentina Russo, *The valorization of economic assets and social capacities of the historic farmhouse system in peri-urban allocation: a sample of application of the corporate social responsible (CSR) approach*, in *Smart and Sustainable Planning for Cities and Regions: Results of SSPCR 2017*, vol. 2, Springer International Publishing, 2018, pages 615-634.



Fig. 1 – The case of the Giardini Reali in Turin (Italy) (Source: Consulta di Torino, 2019, *Il recupero del Boschetto di Torino. Misurazione dell'Impatto Sociale*).

**19** Cristina Coscia, Irene Rubino, *La creazione di nuovi valori nei processi di rigenerazione urbana e periurbana: La risposta social impact-oriented della disciplina della valutazione economica dei progetti*, in «LaborEst», n. 22, 2021, pages 50-56.

**20** Cristina Coscia, Diana Rolando, Alice Barreca, Giorgia Malavasi, Francesca Pasquino, *Enhancing the Anglona Coros territory: a tourist itinerary design and evaluation process*, in *Lecture Notes in Networks and Systems NMP 2024*, (2367-3370), Springer International Publishing, in press.

**21** Dabbene, Bartolozzi, Coscia, *How to monitor and evaluate quality cit.*

their settlements, the operational aspects of valuation and a green approach with environmental items included in the traditional economic accounting model (the green value in International Standards).

The concept of multifunctional agriculture, conceived on the one hand as agriculture that produces primary goods, and on the other as agriculture that produces secondary services, has made it possible to elaborate a specific Financial Management Analysis Model for the valorization of historical farmhouses, where particular attention has been paid to two technical steps: 1) the mapping of stakeholders according to the Corporate Social Responsibility approach; 2) the identification of specific budget items (only at a categorical and descriptive level in these test steps). Finally, the conditions of feasibility are linked to the owner-entrepreneurs' social-economic responsibility and the other actors involved (users, promoters, public bodies, citizens), and present elements of originality in executing the feasibility test and the new hypotheses on the risk/return ratio. Based on these outcomes, a shift from Total Economic Value (TEV) to Social Responsibility Economic Value (SREV) was proposed<sup>19</sup>.

### **3.2 “Ethical” fruition in sustainable tourism approaches: the case study of the GAL Anglona Coros area (Sardinia Region, Italy)**

Sustainable development ensures the balance between economic growth, identity memory, environmental protection and social equity: this premise is at the heart of studies on sustainable and cultural tourism models and tools for identifying new demand preferences. With this in mind, the case study of the GAL Anglona Coros area (Sardinia Region, Italy, Figure 2) was analyzed, testing demand analysis tools to support decision-making.

In particular, cross-dimensional indicator approaches, conjugated with Conjoint analysis (CA), allow the identification of different value components by measuring their economic importance and estimation. In general, preserving cultural heritage requires appropriate economic valuation through a holistic approach that estimates the ethical and social value of cultural goods and services, both tangible and intangible. In a recent contribution, the authors propose the experimentation of an integrated application between the CA model with the B4R Exploration approach, based on spatial analysis of spatial potential: some cross-dimensional indices and indicators related to Dimensions 1 and 2 of the B4R Exploration approach were applied, incorporating some responsible and ethical aspects that emerged from the demand targets submitted to the CA surveys<sup>20</sup>.

### **3.3 Well-being and quality of life in sustainable cultural heritage optimization scenarios: the case study of IPIM in Turin (Italy)**

Heritage optimization and reuse practices can help revitalize disused assets and create opportunities for employment and social engagement in a beneficial relationship with local communities. The focus is on responsibility and ethics in reuse processes to increase the quality of life and well-being. The outcomes of an ongoing line of research are reported by Dabbene, Bartolozzi, and Coscia<sup>21</sup>: the development of a dashboard model of well-being indicators is the genesis of a comparison



Fig. 2 – The case study of the GAL Anglona Coros area (Sardinia Region, Italy): Cultural Heritage of the winning circuit of the CA survey. Top right: Church of San Nicola di Sinis, Sedini (Source: Francesca Pasquino, April 2023). Top left: Domus de Janas, Sedini (Source: Francesca Pasquino, April 2023). Bottom: Basilica of Saccargia, Codrongianos (Source: Francesca Pasquino, January 2023).

of value components and NEB principles (beautiful, sustainable, together, transdisciplinary approach, participatory process, multilevel involvement)<sup>22</sup> with ICOMOS quality principles (knowledge-based, public benefit, compatibility, proportionality, discernment, sustainability, good governance)<sup>23</sup>, reinterpreted through the indicators contained in the BES index<sup>24</sup>, now used by promoters in Italy to monitor and evaluate funded projects. The final dashboard was tested on the case of the IPIM Site (Provincial Institute for Childhood and Maternity) in Turin (Figure 3). Please see the contribution mentioned for the specific analysis of the indicators. Still, it is emphasized that this process of preparing multidimensional indicators as decision-making tools has configured an approach that leads to the verification of the impacts of different dimensions of well-being and degrees of achievement and to the identification of critical areas that may present themselves with different levels of criticality in the intervention alternatives.

<sup>22</sup> [https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/neb-lab-labelling-strategy\\_en](https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/neb-lab-labelling-strategy_en).

<sup>23</sup> <https://www.icomos.org/en/what-we-do/focus/179-articles-en-francais/ressources/charters-and-standards/166-icomosprinciples-for-the-preservation-and-conservationrestoration-of-wall-paintings>.

<sup>24</sup> <https://www.istat.it/statistiche-per-temi/focus/benessere-e-sostenibilita/la-misurazione-del-benessere-bes/gli-indicatori-del-bes/>.

Fig. 3 – The case study of IPIM in Turin (Italy): access to the complex and the green area (Source: photo by the author).



## Conclusions and future developments

As mentioned above, tools for assessing and measuring both short and long-term impacts related to projects for the optimization and reuse of cultural heritage have been confronted with additional value dimensions, related to sustainability, ethics, well-being and quality of life and circular tourism. Current scientific debates and reported experiences agree on some strategic issues, to be developed in future multidisciplinary research topics: the benefits that can be expected and generated are multidimensional (economic, cultural, social, environmental benefits, etc.) and require an appropriate set of indicators to complement the matrix of indicators deduced from the analysis of the case studies, capable of considering the issues mentioned. Explorations in these fields continue to be few and they leave open research into the role of cultural heritage in contemporary challenges (climate change, social inequity, responsibility for future generations, the transmission of memory, social cohesion and distribution of well-being, etc.). This role can also be highlighted with synthetic measures to help decision-makers decide which scenario combines and encompasses these strategic objectives.