

Communication

# The Role of Built Heritage for Sustainable Development Goals: From Statement to Action

Antonella Lerario

Consiglio Nazionale delle Ricerche, Istituto per le Tecnologie della Costruzione, 70124 Bari, Italy;  
antonella.lerario@itc.cnr.it

**Abstract:** The importance of culture and cultural heritage for the achievement of sustainable development is widely stressed in official documents. Nevertheless, the role of cultural heritage for the achievement of the Sustainable Development Goals (SDGs) in the Agenda 2030 is limited in practical terms, as explicit references to it only appear in Target 11.4. Focusing on the built cultural heritage, the article tries to throw light on its potential with regard to all 17 SDGs by reflecting on the environmental, social and economic connection to communities' development. Then, based on its cross-cutting importance and on its peculiarities, the work proposes and discusses priorities, observation perspective, actions and tools for concrete actions on the built heritage, identifying also specific criticalities.

**Keywords:** sustainable development goals; built heritage; adaptive reuse; cultural tourism



**Citation:** Lerario, A. The Role of Built Heritage for Sustainable Development Goals: From Statement to Action. *Heritage* **2022**, *5*, 2444–2463. <https://doi.org/10.3390/heritage5030127>

Academic Editors: Claire Smith, Lilia Lucia Lizama, Israel Herrera and Alok Kumar Kanungo

Received: 2 July 2022

Accepted: 25 August 2022

Published: 29 August 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2022 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

Culture and cultural heritage have been acknowledged for a long time now as a key factor in the sustainable development of territories. Nevertheless, although culture has been expressly identified as an important accelerator for development in the introductory paragraphs of “Transforming Our World: the 2030 Agenda for sustainable development” [1], such central role appears rather damped in the definition of the Sustainable Development Goals (SDGs). As Pascual et al. underline [2], the inclusion of culture in national implementation plans actually relies, then, on the far-sightedness and awareness of individual governments. Indeed, many countries are making efforts to go beyond that limited focus in order to adopt wider national strategies (Italy, Cyprus, Greece, New Zealand), leading to uneven advancements across the world.

In order to contribute to a wider and stronger acknowledgment of the role of cultural heritage in the 2030 Agenda at the global level, the article aims to throw light on the direct cross-cutting connection of cultural heritage to the whole of SDGs.

Starting from the recognition of a limited attention paid, specifically, to the built heritage in the Agenda, it proposes a reading of the links existing in practice between the built heritage and all 17 SDGs, in order to support the idea of the built heritage as priority area for concrete actions.

Finally, it discusses critically specific practices in heritage conservation and promotion strategies, such as adaptive reuse of heritage buildings and the role of tourism, in order to highlight, from within an urban perspective, the need for a rethinking of consolidated practices and concepts.

## 2. Background

### 2.1. Culture and Heritage in Sustainable Development Goals and Targets

The strategic role of culture for the sustainable development of territories is, by now, widely acknowledged and expressed in the international debate as well as in main program documents which followed its identification as the “fourth pillar of sustainability” in the

UCLG policy statement of 2011 [3]. From the UNESCO Recommendation on Historic Urban Landscape of 2013 [4] to the EU Council conclusions of 21 May 2014 on cultural heritage as a strategic resource for a sustainable Europe (2014/C 183/08) [5], up to the UN's New Urban Agenda adopted in 2016 [6], as well as at the OECD Conference on Culture and Local Development in 2018 [7]), that key role has been enshrined in statements.

Nevertheless, in the description of the 17 Sustainable Development Goals, this strategic character does not seem as evident, nor is it expressly stated, since it is only mentioned in the 11.4 Target. Moreover, a clear discordance can be found in the attention paid to this theme; indeed, positions about this point are variegated [8]. In the literature, in particular, very few studies can be found on the relationship between cultural, and specifically material, heritage and SDGs. Many institutions in their programme documents underline how culture in general can contribute not only to the SDG11 as a sectoral issue but also to other SDGs in a cross-cutting way, in any case offering a partial view about this potential.

ICOMOS [9] stresses the scant attention paid to culture in the 17 SDGs and 169 Targets of the 2030 Agenda, stating that much still remains to be done in order to reach a full acknowledgment of culture's potential and of its contribution to the pursuit of sustainability. On the contrary, UNESCO defines the reference to culture within the 11.4 Target "an unparalleled acknowledgment" [8].

A general agreement can be clearly read about the fact that culture and heritage have implications and connections with other SDGs; still, the systemic and pervasive nature of those links is not fully traced. Just to name a few examples, De Vries [10] identifies a potential contribution of culture in SDG4, SDG8, SDG11, SDG13, SDG16, SDG22, whereas the British Council detects connections between culture and all 17 Goals [11]; Petti et al. [12] identify explicit references to cultural aspects in SDG4, SDG8, SDG12, SDG16.

## 2.2. The Construction Sector and the Sustainable Development Goals and Targets

The construction industry plays a vital role for the wealth and social wellbeing of territories; nevertheless, economic development has led to significant environmental damages, and the whole sector is responsible for 33% of greenhouse gas emissions, 40% of energy consumption, 30% of raw materials consumption and 40% of solid waste production globally [13], as the largest consumer of resources and raw materials globally [14]. Based on this these considerations, the construction sector shows a definite awareness of its own responsibility towards the sustainability of development and for the fulfilment of SDGs [15–17].

Many studies question about the implications of the sector on the different Goals and Targets, highlighting the most relevant ones [18–20], or stressing the transversal nature of construction towards them [21,22] and trying to outline a general framework [23].

In general, two important elements emerge in the implementation of SDGs in the construction sector:

- Based on the awareness and general commitment also acquired among construction businesses and professionals, the whole sector seems to have entered an operational implementation phase, and the research world is particularly engaged in supporting such a phase through the elaboration of practical tools, such as guidelines and tools [16,17,22,24,25];
- Despite the acknowledged complexity of the built environment's contribution to SDGs and the calls to put synergy-based approaches first [22,26,27], the focus in the mentioned works remains centred on the environmental component represented by eco-efficiency (reduction in energy and resource use), on a technology- and product-oriented perspective and on the design of new construction as a priority scope compared to actions on existing buildings.

### 3. Cross-Cutting Strategic Potential of the Built Cultural Heritage for the Fulfilment of the SDGs

Despite the growing awareness of the centrality of the cultural component in territories' development and, at the same time, of the built environment as driver for sustainable development, to date, those two topics have not combined yet into a dedicated research line and reflections on the role of the built cultural heritage for the pursuit of overall sustainability through the reference framework of the SDGs.

ICOMOS, which established a dedicated Working Group on SDGs, though underlining that the contribution of heritage to the whole scope of Agenda 2030 shall be acknowledged by all stakeholders hold a narrow view on this topic, by identifying a direct influence of heritage on SDG11 (Target 11.4), and indirect implications on SDG4, SDG8 and SDG12 [9].

Actually, a more comprehensive picture of the connections of cultural heritage, particularly built heritage, to all 17 SDGs can be intuitively traced from a wider perspective and an attempt can be made to fill this gap in the international discourse, by reflecting on possible implications of the built heritage's conservation and promotion on each Goal.

A possible reading of the built heritage's cross-cutting importance for all 17 SDGs is then proposed in this section, supporting the author's view and proposal with relevant bibliographic references, wherever available.

*SDG1. No Poverty*—A respectful refurbishment of buildings and sites of heritage can assure weaker groups the access to traditional water and sanitation systems as well as basic services, and occupy new staff in the onsite works. Access to heritage can support production activities, adequate job opportunities, entrepreneurship, creativity and innovation, based on the use of local resources and abilities. The recovery of ancient competences and skills can also contribute to the creation of new /ancient professional profiles and job opportunities, not only those strictly linked to the building sector, but also in the cultural field, e.g., through creative industries. Many studies highlight this potential as peculiar to the built heritage [28–33].

*SDG2. Zero Hunger*—Through the rehabilitation and a general attention to heritage fruition, it is possible to limit the consumption of lands and their subtraction to cultivation and primary activities. The link between reuse, new construction and land consumption has been explored by [34–36].

*SDG3. Good Health and Wellbeing*—The experience with heritage and its enclosed values represent an important resource able to produce positive effects in on mental health, reduce the sense of isolation, support the recovery of individuals' own identity and sense of life. Especially due to the COVID-19 outbreak, heritage buildings, with museums in the frontline, have been performing a fundamental function in this sense, particularly towards younger generations. On the other hand, the human scale of buildings' spaces and their greater connection with nature and pedestrian mobility contribute to the general recovery of the "person" dimension and to the creation of a healthy environment. Finally, the reuse of cultural buildings can support and increase the availability of adequate dwellings. The complex relation between built heritage experience and wellbeing, mainly through the 'sense of place', has been examined in the works of [37–40].

*SDG4. Quality Education*—Through the direct contact with objects and sites, the tangible and built heritage offers alternative forms of education for children currently excluded from schooling opportunities, as well as enriched learning occasions to school students, in order to understand past and present. Many studies underline how experience with tangible cultural resources and objects far from children's everyday life increases content memorisation and learning, and supports individual creativity and abilities. Finally, it offers valuable opportunities for training and skill buildings. Labadi [9] already recognizes for ICOMOS this potential. In addition, along with studies on the educational power of heritage sites towards younger generations [41–43], other works explore this potential also with respect to teacher candidates and building professional education [44–47].

*SDG5. Gender Equality*—The attention to and consideration of the use of spaces in ancient buildings, such as those where environments and connection elements were based

on gender-based separated use, can activate reflection and discussion on the condition of women in past times, and the comparison with today's society, in that it is a tangible and material testimony of ancient cultures and their implications on past lifestyles. Actually, gender issues in the study of architectures and specifically heritage buildings form the focus of definite research lines [48–50]. Then, the contribution of the built heritage to gender equality is quite a concrete topic.

*SDG6. Clean Water and Sanitation*—Traditional systems for water management and use inside and outside heritage buildings, are a technological and historical inheritance often lost in time in favour of more sophisticated techniques. If unaltered and functioning, they represent a concrete and visible demonstration of the resilience of past heritage buildings and offer opportunities for the integration of their basic principles in current practices, above all if they are low cost, as is often the case, and can be made available and transferred to different contexts delivering precious solutions to diffused problems. Current studies range from the search for ancient techniques for respectful application to heritage works, to the borrowing of past solutions from heritage assets for new applications in disadvantaged contexts [51–54], also leading to revisit evaluation criteria for the built heritage [55].

*SDG7. Affordable and Clean Energy*—On one hand, and quite intuitively, heritage reuse allows avoiding the construction of new buildings and, then, the related energy consumption, as studied by [56]. On the other hand, past strategies for the storing and use of energy, more connected and responsive to climate and to the surrounding environment than the current ones [57,58], orientate in continuity the retrofit of historical buildings and contribute to the increase in energy efficiency in “soft” modes (light technology), better integrated in the original buildings, and to their rediscovery and diffusion in the current construction. Conversely, many studies also highlight some difficulties in integrating modern efficient and green technologies in heritage buildings; particularly challenging but fascinating topics are represented by the diffusion of renewables in heritage assets and above all the application of the ‘nZEB’ (‘nearly Zero Energy Building’) concept to heritage buildings. Introduced by the 2010/31/EU Directive on Energy Performance in Buildings [59] as standard for new construction, the concept has soon become a research focus for the application to the retrofit of existing and historical buildings, due to their greater share in the whole built environment, then to their greater potential. Despite the growing attention, its concrete implementation is hindered by several factors: regulations limiting technical interventions on listed buildings, especially for wall insulations (which actually prevents the achievement of NZEB requisites), heterogeneity in uses, climatic zoning, construction techniques and technological systems (which makes large-scale retrofit programs and drafting guidelines difficult), need for ongoing professional training and cultural barriers in conservative contexts (which makes NZEB for historical buildings still a taboo) [60–63]. On the other hand, initiatives such as 3ENCULT, IEA Task 59 and the establishment of the International Committee on Energy and Sustainability within ICOMOS speak to an encouraging change of course [64,65]. Considering that buildings are at the core of EU 2020 and 2030 strategies for energy goals [61], the data from the UNEP Global Report [66] (reporting buildings’ shares of 36% of global final energy consumption and 37% of global CO<sub>2</sub> emissions in 2020), together with the above considerations, demonstrate how the contribution of the built heritage and related decisions to global energy consumption, then to SDG7, is direct and all but negligible.

*SDG8. Decent Work and Economic Growth*—The cultural social capital of a community plays an important role in attracting creative industries, businesses, visitors and residents, sustaining the growth of local economies and increasing employment rates in many sectors such as tourism and accommodation, site management, building maintenance and urban regeneration (also by boosting land and real estate values), handicraft production, archaeology, museums. In some respect, the work of Labadi [9] takes this link into consideration, although much more could be observed with reference to specific points. Actually, as [67] points out, while the economic value of creative industries is acquired, much less recognised is their relation with places associated with heritage, which are integral with enterprises,

e.g., buildings becoming creative community spaces and particularly with buildings as creative community spaces. Another point deserving consideration is the relationship between the inscription of sites and buildings in heritage lists and the monetary value of surrounding areas and properties, which represents a consistent research area [68–73]. Most studies refer to the UNESCO World Heritage List, which in any case accounts only for a part of the whole scenario. Considering the wealth of worldwide heritages awaiting international recognition but listed in national registers, the real dimension of this impact on territories, and then the greater importance that the built heritage should be assigned with reference to SDG8, can be easily deduced.

*SDG9. Industry, Innovation and Infrastructure*—By their nature, heritage buildings are the expression of the continuous experimentations and innovations that have been following one another in past centuries and, as such, they already confer their value to the built environment. However, although they are the traces of the past, they are a treasure of innovation and inspiration also for today’s building and urban design professionals, challenged on the playground of built environment’s resilience, since they re-propose solutions gradually left behind in time in favour of more “technology-driven” design processes. The adaptability and resilience features of past architecture can contribute to the development of solutions focusing anew on users for the creation of the built environment to design and that will become the heritage of tomorrow. This point is rather intuitive; but in some respects it rests on the interesting work of [74], that also proposes a conceptual comparison between ‘ancient’ and ‘modern’ resilience of buildings, i.e., between resilience as long-term design principle and as functional engineered feature. Built heritage resilience is a focus in many works [75–77]; its close link to the concept of innovation suggests a possible contribution of it to SDG9 with respect to actions on ancient as well as modern assets.

*SDG10. Reduced Inequalities*—Heritage contributes to the reduction in age-old social inequalities, intensified by the overexploitation of soils and urban sprawl, over-tourism, local resource consumption and uneven distribution of services and benefits, and it does in different ways. Firstly, it favours the inclusion of low-income population groups into the productive community, through the creation of work and earning opportunities [78–81]. Moreover, cultural sites are, at the same time, due to the visit experience, the motivation for, and “place” of cultural exchanges, physically hosting and facilitating encounter of culture and favouring the reduction in inequalities among different peoples, as visitors from different countries meet in them, each carrying their own baggage of values and interpretive attitudes towards heritage values, sustain the sense of pride and dignity of all communities, groups and individuals [82,83]. Finally, once marginalized peoples can gain a feeling of pride and identity, thus removing long-suffered inequalities on the international scene by promoting contested or difficult heritages [84,85].

*SDG11. Sustainable Cities and Communities*—Built heritage, and the relation to it, can contribute in many ways to this Goal. By acting along each one of the three sustainability pillars, it can: stimulate the awareness of the limitation of resources and of environmental risks; attract investments and increase employment through tourism and creative entrepreneurship; promote and diffuse its human scale to the advantage of well-being and social inclusion; and recover the unique and distinctive character of cities, jeopardized through globalization, urbanization and over-tourism, preserving local identities and their values, pride and sense of belonging. However, exactly for its articulated and all-encompassing potential, it can act also in a systemic way, at the urban level, as main component of urban planning and development plans, in order to produce a rethinking of overall development patterns. Actually, the evolution of approaches to heritage-led regeneration emblematically embodies such change in attitude. Developed in Europe in the 1980s, studies on the topic have long been privileging the economic dimension of development and a vision of built heritage as enabler of territories’ economic growth [86–90], often relating to tourism activities, and using the term ‘regeneration’ almost as a synonym for economic development in some contexts [91]. Recent studies, instead, show a new



awareness of the wider role of heritage along all the three components—economic, environmental, social—of sustainability and, above all, of the importance of communities in processes [92–95]. The concept of ‘everyday heritage’ introduced by [93] as having a basic role in unfolding a place’s potential cannot but refer to a built heritage that is daily used (or reused) and experienced by its community, in innovative approaches to urban regeneration centred on participation [92]. Moreover, in this close connection between built urban heritage and community, the attribution of assets’ cultural value [96], or even the ‘construction’ of heritage [97], from the part of communities come also into play. This also has direct and important implications on the definition of tools for the monitoring and evaluation of urban development processes, which will be addressed in the following section.

*SDG12. Responsible Consumption and Production*—The built heritage embeds many sustainable consumption and production models, centred on wise and appropriate use and reuse of natural resources, on local materials and on a close relationship with the natural environment—a complex harmonic relationship that is well known [98], especially in declinations of vernacular architecture [99], but recently reconceptualised as mutual adaptation and co-creation [100]. Adaptive reuse in particular is, by its nature, an action of sustainable consumption and production, through the reduction in soil, water, energy and material consumption and in demolition costs.

*SDG13. Climate Action*—In the present condition of rapid climate change, several risk factors are causing negative impacts on heritage assets. Heritage sites and the related practices represent a wealth of experiences and knowledge on adaptation and mitigation strategies gradually vanished in time. Their recovery can greatly contribute to develop and spread in the present built environment climate-responsive strategies based on the adaptation to local condition changes. Heritage buildings’ reuse favours the reduction in greenhouse gas emissions associated with new construction through energy savings, whereas the attributes of historical centres—mixed-use, walkable and based on the balance of green and built space—deliver models that are compatible with actions for climate. For the said considerations, the contribution of the built heritage to SDG13 is closely linked to its influence on SDG7 and SDG12, resting largely on the respective argumentations.

*SDG14. Life Below Water*—The promotion of cultural resources and sites located in the inland can contribute to relieve the load and the pressure of seasonal tourism that congests the coastal areas in specific periods of the year, affecting the equilibrium of species and biodiversity. Indeed, many international projects are being conceived on such a strategy [101,102]. At the same time, initiatives conceived to spread the knowledge of ancient systems for the exploitation of underwater resources through their material evidence (industrial and productive archaeology), carried out throughout the year both through onsite visits and through education activities for young students, can contribute to diffuse knowledge, awareness and protection of underwater life and submerged heritages. This point, on the contrary, is quite ignored or underexploited, as almost no initiatives or reports are to be found in the literature.

*SDG15. Life on Land*—The restoration, reuse and reintegration of heritage buildings and sites in the productive and social life of territories allows reducing the soil diverted from natural environment through new construction and the unbalances brought about in ecosystems and biodiversity. The impact of construction in terms of biodiversity loss is a concern in the literature [103,104], and also, the peculiar implications of this SDG have been investigated [105].

*SDG16. Peace, Justice and Strong Institutions, and SDG17. Partnerships for the Goals*—Since heritage is a common good and conveys the values of the whole community, it finds its natural and ideal model in a multi-governance that can offer concrete opportunities to elaborate and adopt participated practices, fulfil shared goals and create partnership models based on consensus, thus minimizing conflicts between administrators and population and within the community. Consensus in urban development processes, in turn, strengthens local institutions in charge of city administration. The need for public–private partnerships,

indeed, has been recognized by ICOMOS [9]. Starting from this acknowledgement, this work aims reasonably to put forth the vision that heritage buildings, with their symbolic value and their ability to engage the public by leveraging the sense of belonging, can guide and catalyse such evolution, especially from within heritage-driven urban regeneration processes, mentioned in the previous points.

The above mentioned relationships between the built heritage and the SDGs are collected in Table 1, highlighting the different degree of evidence with a ‘very high-to-very low’ scale, depending on direct/indirect (mediated) nature, influence extent, existing of external conditioning factors, intuitive/speculative nature, and the weak/strong foundation from literature references to the author’s proposal, inferred by the discussion. The table is not meant as conclusive or exhaustive, but rather as a starting point for further deepening in future dedicated work by the author, and it is proposed as a cue for stimulating debate and/or for more extensive and systematic surveys.

**Table 1.** Proposed scale of the built heritage contributions to the 17 SDGs.

SDG	Description	Built Heritage Contribution Level	References
1	No Poverty	Very high	[28–33]
2	Zero Hunger	High	[34–36]
3	Good Health and Wellbeing	Very high	[37–40]
4	Quality Education	Very high	[9,41–47]
5	Gender Equality	Medium	[48–50].
6	Clean Water and Sanitation	High	[51–55]
7	Affordable and Clean Energy	High	[56,66]
8	Decent Work and Economic Growth	Very high	[9,67–73]
9	Industry, Innovation and Infrastructure	Medium	[74–77]
10	Reduced Inequalities	High	[78–85]
11	Sustainable Cities and Communities	Very high	[86–97]
12	Responsible Consumption and Production	Medium	[98–100]
13	Climate Action	High	[56–66,98–100]
14	Life Below Water	Medium	[101,102]
15	Life on Land	Medium	[103–105]
16–17	Peace, Justice and Strong Institutions—Partnerships for the Goals	High	[9]

#### 4. The Built Heritage and SDGs: Discussing Priorities, Perspective, Actions and Tools

All the implications listed above make the importance of the material component of cultural heritage—cultural sites and buildings in particular—for the achievement of concrete results with reference to each SDG, more than evident.

More and more, culture, cultural heritage and cultural sites, and their importance for sustainable development, in general terms, constitute a specific research focus [106–112]. More definitely, cultural heritage has been identified as a real driver for sustainable development [113–116] and an enabler of sustainability [117–119]. In order to understand which concrete actions on heritage can best support the fulfilment of SDGs, it is important to define priorities, observation perspective, strategies and tools, highlighting possible gaps and efforts needed from future research. In particular, the built component of cultural heritage appears as a priority playground, not only for its cross-cutting potential towards all SDGs assessed in Section 3, but for several other reasons:

- The built heritage, in any case, holds in itself both the material and the intangible components of a community’s values. Tangible and intangible heritage can be said to represent the two sides of the coin, deeply intertwined [120–122], up to the

idea of buildings as ‘socio-material hybrids’ [123], whether conceptualizations counterpoise them as ‘medium’ and ‘message’ [124] or merge them in a unique phenomenological concept [125]. Indeed, built heritage enshrines values both as physical object [126,127] and as expression of intangible values, produced in time by local communities [126,128,129]. All this leads to shape up the conservation and management of the built heritage as ‘... a complex process involving not only physical fabric, but also cultural, aesthetic, spiritual, social and economic values’ [130]. This suggests to us the existence, in respect to the built heritage, of a higher complexity degree compared to intangible heritage, which lets us understand how actions on heritage buildings and sites, also and above all with reference to the pursuit of SDGs, can potentially generate effects on a complex of aspects;

- Heritage buildings and sites are, for their own physical and visible nature, the heritage part most present in the daily life of communities and individuals that continuously relate to them, and can thus more concretely, on their own, transfer sustainable changes in their everyday practices, without necessarily requiring top-down awareness-raising and promotion strategies for the re-appropriation of cultural values from the part of users. When talking about heritage, the ‘tangible’ represents the contact point with, or ‘memory marker’ of, the ‘intangible’ [120,121], at the same time visible and recognizable [125], able to represent a strong reference in communities’ lives due to its ‘permanent’ nature [131,132], then virtually able to influence them directly and immediately;
- The built component of the environment, in general, is the one that most dramatically and visibly displays the effects of unsustainable development processes, in terms of greenhouse gas emissions, energy and resource consumption and waste production, thus calling for urgent initiatives and actions that do not require further legitimization.

For all those reasons, then, the built heritage represents naturally a priority macro-area of intervention. Acknowledging this fact, the subsequent step requires identifying the most appropriate perspective from which to define concrete actions. For several reasons, this seems to be the consideration of heritage in its urban dimension.

As Kordej [133] observes, heritage sites and buildings, whether listed or not, are very often located within or just around cities. In general, as Soto Suarez [134] underlines, “... urban scale was relegated or lacked attention, except for historic centres, in which the patrimonial signification of sectors, environments and urban projects often circulates unrelatedly to processes of management and preservation. The Washington Charter [135] reflected progress in this sense by opening the spectrum and stressing the value of the urban form as defined by the fabric and division of lots, the relation among different urban spaces, buildings, green and outdoor spaces, besides the relations between the population or urban areas and their surroundings”.

Similarly, the Urban Agenda for the UE (Amsterdam Pact, 2016) [136] embeds, on the other hand, cultural heritage as one major element in urban development [106], probably demonstrating a greater awareness of this aspect at the European level, in respect to global statements. Surely, in this respect, the apparently little attention paid in SDGs to the built heritage can be considered a limitation in their setting; nevertheless, the SDGs, by mentioning heritage within the Goal 11, and the Target related to cities, indicate themselves, however implicitly or indirectly, the urban scale as privileged observation perspective for processes.

As two thirds of the global population are expected to live in cities in 2050 [137], it becomes evident that policies and strategies for sustainability should be set keeping into due consideration urban dimension and dynamics. This is an important gap to fill, particularly in Europe, where heritage cities are innumerable. On the other hand, cities are the contexts where the effects of unsustainable developments emerge most dramatically, and heritage cities have been gaining, precisely in Europe, an emblematic relevance in relation to the consequences of cultural resources’ overexploitation, especially for tourism purposes [138]. Indeed, in the EU’s perspective, a close cooperation with OECD is ongoing



for the definition of Functional Urban Areas (FUAs), consisting of a city and its commuting zone, i.e., a densely inhabited city and a less densely populated commuting zone whose labour market is highly integrated with the city [139], as key elements for local development planning. In FUAs, intended to govern the future functioning of cities at the global level, tourist attractions can represent important factors for the shaping of metropolitan identities; those at the initial development stage, in particular, focus on the material component of their offer [140], thus confirming the importance of the built heritage for the sustainability of future urban development processes.

On the urban scene, one of the main channels for the growth of territories through built heritage resources, at least the most emphasised so far, is undoubtedly the exploitation of sites and attractors in tourist terms. Actually, the fast increase in tourist flows and activities has become one major concern for both urban developers and heritage managing institutions [141–144], due to its double-edged nature. The pressure exerted through over-tourism in cities, while assuring cities considerable revenues and high occupational levels, has reached in many cases critical thresholds: heritage deterioration, environmental burden, gentrification, mobility and parking issues, saturation of urban spaces, low liveability of specific areas, and, in general, repercussions on real estate market and on life quality. Such impacts are, however, not necessarily concentrated in the mere historic centres, but propagate more and more visibly in popular and peripheral urban areas, with little or no tourist activity [142]. This, along with the concrete possibility to consider tourism as a function able to shift the urban system to a sustainable condition when integrated in urban planning [143], represents a further demonstration of the need to consider heritage together with its surrounding fabric and widen the look from management and promotion strategies focused on single assets. The extent to which tourist activity prevails on a wider reading of cultural heritage's values is made clear through the comparison between the greater relevance, in the literature, of the tourism–SDGs relationship, though variable (SDG 8, SDG 10, SDG 11, SDG 13 [141]; SDG12, SDG3, SDG5 [133]) and the limited attention paid in general to the heritage–SDG link, described above.

Then, which actions can be concretely undertaken? In the urban scenario, some concrete practices on the built heritage supporting the pursuit of SDGs can be identified, to some extent consolidated but still requiring some reflections.

Adaptive reuse of heritage is gaining the scene in the international debate on sustainable tourism, focusing in particular on the recovery of underused buildings, through the restoration and repurposing as new tourist attractors [113,145], up to acquire the meaning of a “Conservation 3.0”, driven by tourist demand [146]. This practice is linked to the concepts of circular economy in the tourism industry. The obtainable benefits are widely acknowledged: it surely reinvigorates local economy with new jobs, new businesses, revenues from taxation and local expenditures [147]; it revitalizes culture, supports heritage management and facilitates tourism growth [148]; it contributes to urban and regional economy [149]. The ultimate motivation supporting adaptive reuse in the literature, however, primarily pertains to the environmental component of development, through the reduction in waste production, energy consumption and GH emission associated with the construction of new attractors [26,106,113,145]; the dominating focus of experiences is then the tourist purpose. Undoubtedly, adaptive reuse operates a rebalancing of flows among the urban areas, partly enlightening more congested sectors; it is then a concrete and feasible action to undertake. Nevertheless, it presents some criticalities, especially in those contexts marked by strong seasonal character, where the resulting effect could be detrimental, rather than a rebalancing one. In any case, the potential positive spillovers remain limited to tourist activities.

Additionally, based on the considerations on SDG11. ‘Sustainable Cities and Communities’ in Section 3, it appears more appropriate, instead, to direct the attention to the definition of reuse strategies aimed at reintegrating heritage buildings not so much in tourist activities, but rather in the daily life of residents and in the whole of urban functions, for two basic reasons:

- (a) It can concretely prevent the construction of new buildings and the resulting resource consumption, e.g., in the tertiary building sector (while it is unlikely that, in the absence of recovery, “new” cultural sites or attractions can be produced, the construction of new buildings for offices, schools, service and cultural facilities for residents is much more probable);
- (b) This kind of reuse generally results in an exacerbation of the overall tourist load of the city, intensifying the general difficult coexistence between residents and tourists, due to the rival space uses and also affecting those urban neighbourhoods still spared by those problems.

This let us glimpse the possibility to explore useful hybrid solutions, finalized to the joint use of heritage buildings for tourists and residents as well. In order to reconcile residents with the tourist fruition of urban spaces, heritage buildings should be recovered for the use also of residents beside tourists, not only to prevent the realization of new ‘containers’ for urban functions and the associated environmental impacts, but also to let the residents, through the attention showed by tourists and made concretely ‘visible’ in the joint—rather than exclusive—use of assets, rediscover the sites’ original meaning, lost or neglected in time, and reinforce their sense of belonging to the community, with beneficial effects also in terms of active participation to maintenance and preservation initiatives. Furthermore, the sense of belonging to a “common global heritage” can contribute to mitigate the intolerance towards visitors by favouring a reconciliation. In this sense, storytelling initiatives and techniques, engaging residents and tourists at the same time with roles’ exchanges between “recouters” and “listeners” of stories, experiences and values of assets, can prove beneficial. With this respect, the matching between the world of education and visitors’ communities, in particular, appears extremely interesting.

This strategy, aimed at the sharing of heritage resources can be usefully supported through the integration of circular economy principles with those of the sharing economy, already spread in the accommodation sector; in this sense, cultural tourism activity is, in fact, the only one that can allow this synergy, whereas the current approach to cultural heritage in terms of asset promotion does not exploit both. Then, cultural tourism, by overcoming its prevailing meaning of economic activity, can act as a real “Trojan horse” that allows us to implement and pursue the SD Goals and Targets along multiple directions in heritage cities, addressing the urban fabric and its population.

Moreover, in the current practice of adaptive reuse, technical solutions [113] and methodological frameworks [106] for heritage buildings do not differ sensibly from those related to the reuse of more recent and ordinary building stocks, focusing on eco-efficiency. In the case of heritage, it is not just about reducing emissions and consumption, there is (or should be) much more in it. For all the things said, then, efforts must be made to demolish or mitigate the residents/tourists dichotomy with innovative shared uses that do not subtract buildings and spaces to either of the two. Just to make an example, why cannot residents themselves narrate and explain heritage buildings to visitors in some original ways? In the case of built heritage, from the reading of ongoing experiences and approaches, some important features can be singled out, which can orientate actions and deserve to be addressed:

- The emphasis on the sole environmental component of buildings should be overcome and integrated within more articulated purposes in social, cultural and economic terms (*multidimensionality*);
- Given that heritage buildings are unique, as a result of an unrepeatable merge of a communities’ value and its context, design actions shall also necessarily be uniquely tailored, whereas present strategies mainstream almost standard solutions. The design process shall then integrate the only feature that can make a reuse project unique, i.e., the local community (*uniqueness through participation*);
- In order to avoid or delay the maturation and decline of cultural attractors, the reuse of sites should bring to the extreme the concept of circularity, envisaging solutions able to match the ever-changing exigencies of the demand and arise interest and engagement,

through the variability and temporariness of cultural offers, and tend to make the lifespan of building infinite in physical but also socio-cultural terms, which represents a still unexplored potential (*fluidity*).

One suitable action is the shift towards a vision that is, in some points, in line with the HUL approach [150], particularly in its considering cities as an ‘unicum’ in time and space. In such a scenario, heritage can really play an active role in the economic, social, cultural and environmental development. In practical terms, this implies combining ancient values, practices and assets with modern technologies in order to introduce them in present lifestyles, i.e., introduce heritage through modern technologies above all to younger generations, proposing values and traditions lost or no longer visible, and stimulating their comparison with both the present world and a global and more variegated community’s vision of the same inheritance.

Indeed, the realization of the sustainable tourism development strongly depends on local community, as underlined by Hardy [151]. The current vision, instead, continuously debates—thus keeping it alive—the dichotomy between economic development and environmental dimension, where the only bond able to overcome such dualism, i.e., community participation, is missing. In this respect, the EU defines sustainable cultural tourism as the integrated management of heritage and tourist activities together with local communities, creating social, environmental and economic benefits for all actors, in order to achieve sustainable conservation and tourist management of tangible and intangible heritage [152], giving recommendations to specific stakeholders in destinations (UE members, local governments, tourists, etc.).

As the above considerations about SDG12. ‘Responsible Consumption and Production’ suggest, the connection with heritage buildings can introduce to buildings’ visitors and users ancient practices and traditional lifestyles, more careful towards resource use, circulating, along with cultural values, also a more sensitive relation with natural resources and their correct management. If such sensitivity is supported at a wider scale in promotion and enhancement strategies for heritage assets and their contexts, through a continuity of the site, building or monument with the rest of the city, e.g., with the related service facilities or other urban places, this can effectively trigger and amplify pro-environmental behaviours among users, that are more likely to be replicated in daily life after the tourist experience, since they are not strictly confined in the space and time of the visit experience. Additionally, for this reason, concrete actions should abandon the focus on single attractors and consider the whole of the cultural asset and the surrounding urban fabric.

The engagement of residents in actions on built heritage and its re-finalization is important also for the participation to the identification of the specific priorities to pursue. Indeed, even within the single environmental perspective, micro-objectives can often conflict with each other: e.g., the use of green spaces aimed at supporting microclimatic comfort and psychological wellbeing can be in contrast with soil consumption and high-density purposes. Exactly the local community can contribute, together with local administrations, to the identification and definition of context-tailored priorities.

In the more general process of SDGs implementation and monitoring, several other propaedeutic aspects have a specific relevance and can prove critical:

*Identification of assets*—Apart from listed buildings, such as those in the UNESCO World Heritage List, the identification of assets that deserve being considered or defined as ‘heritage’ is not simple or immediate. Indeed, as [153] observes, the “time” factor is not necessarily decisive, and a building’s or a site’s age is not sufficient, in itself, for classification; in fact, only a few EU countries, for example, include this criterion in their ‘heritage’ definition. Nevertheless, a harmonized classification of asset categories is important, both to identify in each country the complex of resources to include in strategies and for the quantification of financial resources to allocate to them, as well as for the monitoring of the SDGs achievement.

*Properties and legal status issues*—When defining heritage reuse actions, issues related to the legal status of assets enter the scene, suggesting the opportunity to apply the ‘minimum

intervention' principle in order to safeguard the conservation of cultural, social and spatial values although changing the buildings' function [153]. Upstream, as [154] underlines, a variety of legal matters can even lead to an inertial heritage loss, hindering reuse actions, from unclear jurisdictions for inscription on heritage lists, to the loss of competency among heritage institutions due to limited training, up to the lack of a "stakeholder" status for citizens which limits public participation", as is the case with the urban planning process.

At the European level, the awareness of these problems is particularly high [153], and operational indications are already available. Additionally, action programs, financial instruments, tools and initiatives related to the specific theme of heritage buildings' reuse are widely available [155]; in addition, activities for the definition of indicators are ongoing, thus proving that the region has entered the operational phase [156].

*Knowledge acquisition*—Every action on heritage assets requires a preventive acquisition of knowledge on the artefacts (materials, construction techniques, state of decay). While this can represent an easy task for main attractors, things may be very different for minor heritage. Then, the adaptive reuse will require the enhancement of documentation practices and an increase in digitalization activities as well as, for new constructions representing the 'future heritage', the recording and storing of information for future sharing.

*Information management in design processes*—For actions on heritage assets, special attention should be dedicated to reconciling the circularity at the basis of adaptive reuse with the linearity inherent in heritage. In fact, heritage buildings, especially if they hold a marked symbolic and expressive original value, were not designed to be reused or re-destined but rather, in original intentions, to have a virtually infinite service life, perform their function over an indefinite time and convey their unique intended message permanently along generations. Such a hurdle actually limits reuse possibilities and demands a specific sensibility in balancing the most genuine features of buildings and present users' exigencies. Another difficulty lies in the elaboration of information associated with buildings' components through modern technologies for buildings' modelling and representation, as is the case with BIM (Building Information Modelling) and other methodologies based on the simplification of a complexity that can hardly be reduced or removed in heritage assets. The still limited diffusion of BIM in the cultural heritage sector (H-BIM, Heritage BIM) is a demonstration of that. In this field, large research efforts will be needed, then, to develop IC technologies and methods that can adequately combine heritage complexity with the simplification required by digital modelling.

*Monitoring of SDGs achievement*—Each country has its own peculiarities in terms of heritage context and practices; at the sub-national level, specific priorities and the significance attached to cultural assets are also very differentiated. This makes the assessment of SDGs fulfilment extremely complex, both at the design level, where local priorities and context peculiarities come into play, and at the level of policies, focused on macro-objectives. Then, a double-level definition of indicators—general and country-specific—could prove very useful, in order to support comparisons among different national experiences and achievements, while still allowing the definition and pursuit of locally focused operational strategies. The identification of the urban scale as an appropriate perspective for actions leads to dedicate specific attention to SDG11 'Sustainable Cities and Communities' and suggests the opportunity of a critical look at specific tools, such as urban sustainability rating systems and how they embed the built heritage in evaluation criteria, in order to assess their adequateness to process monitoring. Recent studies [108,157,158] underline how heritage is often left in the background in sustainability assessment and not adequately considered in all its complexity and potential: the number of heritage-related indicators is small, and there is a substantial lack of consensus on their nature. From this point of view, whether we refer to culture and cultural heritage as the fourth pillar of sustainability, or to the shared concept of heritage as the enabler of 3-pillar (environmental, economic, social) sustainability, and even more if we accept and blend both concepts in a single vision, a first limitation comes into light in the basic scheme of most rating systems, i.e., the reference content of 'urban sustainability'. Examining more in depth the urban rating system, the

analyses of [96,159] show that heritage-specific indicators substantially refer to material conservation, mainly disregarding intangible heritage values enshrined in physical assets, and mostly pertain to the “Environment” theme at the expense of “Social” and “Economic” dimensions. Cultural heritage, moreover, is assigned the lowest number of credits, none of which are compulsory, thus allowing us to evaluate as ‘sustainable’ urban development processes that do not include local heritage. However, above all, they refer to static and immutable values, assigned based on expert and formalized knowledge and neglecting the non-expert, informal and dynamic value attribution from the part of communities.

This strengthens the perception of inadequacy of current monitoring systems to heritage-led urban processes also in respect to the communities’ centrality. As communities change in time, also their values change; if present rating schemes cannot manage the time variability of the cultural value concept, it is reasonable to deduce that they cannot also assure heritage existence and persistence in time, as this strictly relies on the maintenance, in the asset, of a significance assigned by a living and ever-changing present community.

Although fundamental in planning practices, current urban rating schemes then appear little adequate to monitor and support sustainable development as well as the achievement of SDGs, unless a deep revision process is undertaken.

*Definition of new public–private partnerships*—Labadi [9] assigns a specific priority to the definition of new public–private partnerships that give a voice to local communities in the identification of specific priorities and assets on which actions should be oriented. Undoubtedly, modern ICTs allow us to rely on the development of solutions that can adequately support a closer communication between local administrations and communities, but the innovation required of the dialogue between governments and communities implies a more demanding effort at the level of models for participated decision making. It will also be important to support local governments in effectively transferring objectives of SDGs and Agenda 2030 priorities to communities and heritage conservation and promotion operators, and in enabling communities to actively participate in every possible modality (e.g., storytelling can contribute to make values attached to built assets more explicit and, then, to their identification as ‘heritage’). It must also be considered that in many geographical contexts, especially those where minor heritage far exceeds the consistence of main attractors and listed assets, the managing institutions are medium or small municipalities. Except for specific virtuous cases, the latter are often affected by structural problems such as restraints in budget and human resources, necessary for a capacity building in terms of training dedicated staff about new practices for the required innovation. In order to prevent fragmentation of results, centralized information actions directed to local agencies would be necessary.

## 5. Conclusions

In the main program documents analysed and in the available literature on sustainable development, it can be deduced that cultural heritage is an important component of territories’ growth; nevertheless, it has not received specific attention in program documents for the implementation of Agenda 2030 objectives, and particularly in the explication of SD Goals and Targets. The present work, by identifying possible implications of the built cultural heritage on all 17 SDGs, demonstrates its cross-cutting nature and its potential as a priority channel in the definition of action strategies for the fulfilment of the Agenda 2030 goals. Due to the manifold implications of the built heritage use and its impacts on the surrounding context, the most appropriate dimension for initiatives appears to be the urban scale.

Specific actions for the built heritage conservation and promotion in view of the SDGs hint, quite seamlessly with already consolidated practices, to the adaptive reuse of buildings and sites. However, the prevailing approach, focused exclusively on environmental implications of solutions, on single-asset logics and on the tourist purpose of interventions, needs a deep rethinking in consideration of heritage peculiarities and the development of a renewed approach, centred on community’s participation and based on multidimension-



ality, uniqueness and fluidity of actions, which represents one first indication for future research efforts. The work also identified other specific issues—asset identification, legal status issues, knowledge acquisition problems, communities’ participation—that must necessarily be addressed before reuse actions are defined.

Another major channel for actions on the built heritage can be identified in tourism and its use of the built environment, reinterpreted as a “Trojan horse” able to act simultaneously along the economic, environmental and socioeconomic lines, provided that it manages to overcome the long-lasting competition between economic development and resource protection through an adequate consideration of the key role of communities’ participation for the realization of wider benefits. As the COVID-19 outbreak lessens and the levelling of performances of technological tools makes users accustomed to spectacular effects in remote fruition experiences, physical visits will regain space versus virtual ones, adding to a pre-existing growth in tourism flows and bringing many heritage cities to critical thresholds.

Finally, considering also the uneven geographical advancement in the elaboration of support tools such as guidelines, indicators and a reference framework for the achievement of SDGs, the creation of enlarged public–private partnerships will also become crucial for the definition of effective systemic actions on heritage.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** Not applicable.

**Conflicts of Interest:** The author declares no conflict of interest.

## References

1. United Nations—Department of Economic and Social Affairs, Transforming our World: The 2030 Agenda for Sustainable Development, Resolution Adopted by the General Assembly on 25 September 2015. Available online: [https://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E) (accessed on 2 May 2022).
2. Pascual, J. An Accelerator Under-Used? *New Report Explores the Place of Culture in SDG Implementation*. Available online: <https://sdg.iisd.org/commentary/guest-articles/an-accelerator-under-used-new-report-explores-the-place-of-culture-in-sdg-implementation/> (accessed on 2 May 2022).
3. United Cities and Local Governments. Culture: Fourth Pillar of Sustainable Development, (Statement), 17 November 2010. Available online: [https://www.agenda21culture.net/sites/default/files/files/documents/en/zz\\_culture4pillarsd\\_eng.pdf](https://www.agenda21culture.net/sites/default/files/files/documents/en/zz_culture4pillarsd_eng.pdf) (accessed on 4 May 2022).
4. United Nations Educational, Scientific and Cultural Organization, Recommendation on the Historic Urban Landscape. 2011. Available online: <https://whc.unesco.org/uploads/activities/documents/activity-638-98.pdf> (accessed on 4 May 2022).
5. European Union. Council Conclusions of 21 May 2014 on Cultural Heritage as a Strategic Resource for a Sustainable Europe (2014/C 183/08). Available online: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XG0614\(08\)&from=FR](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XG0614(08)&from=FR) (accessed on 4 May 2022).
6. United Nations—Habitat III, New Urban Agenda. 2016. Available online: <https://unhabitat.org/sites/default/files/2019/05/nua-english.pdf> (accessed on 4 May 2022).
7. In Proceedings of the OECD Conference on Culture and Local Development, Venice, Italy, 6–7 December 2018. Available online: <https://www.oecd.org/cfe/leed/venice-2018-conference-culture/> (accessed on 5 May 2022).
8. Hosagrahar, J. Culture: At the Heart of SDGs. UNESCO Courier. 2017. Available online: <https://en.unesco.org/courier/april-june-2017/culture-heart-sdgs> (accessed on 5 May 2022).
9. Labadi, S.; Giliberto, F.; Rosetti, I.; Shetabi, L.; Yildirim, E. Heritage and the Sustainable Development Goals: Policy Guidance for Heritage and Development Actors. Paris: ICOMOS—International Council on Monuments and Sites. 2021. Available online: [https://www.icomos.org/images/DOCUMENTS/Secretariat/2021/SDG/ICOMOS\\_SDGs\\_Policy\\_Guidance\\_2021.pdf](https://www.icomos.org/images/DOCUMENTS/Secretariat/2021/SDG/ICOMOS_SDGs_Policy_Guidance_2021.pdf) (accessed on 5 May 2022).
10. De Vries, G. *Culture in the Sustainable Development Goals: The Role of the European Union*, 2nd Revised; (IFA-Edition Kultur und Außenpolitik); IFA (Institut für Auslandsbeziehungen): Stuttgart, Germany, 2020. Available online: [https://www.ssoar.info/ssoar/bitstream/handle/document/69719/ssoar-2020-vries-Culture\\_in\\_the\\_Sustainable\\_Development.pdf?sequence=1&isAllowed=y&lnkname=ssoar-2020-vries-Culture\\_in\\_the\\_Sustainable\\_Development.pdf](https://www.ssoar.info/ssoar/bitstream/handle/document/69719/ssoar-2020-vries-Culture_in_the_Sustainable_Development.pdf?sequence=1&isAllowed=y&lnkname=ssoar-2020-vries-Culture_in_the_Sustainable_Development.pdf) (accessed on 5 May 2022). [CrossRef]

11. British Council, The Missing Pillar Culture's Contribution to the UN Sustainable Development Goals. 2020. Available online: [https://www.britishcouncil.org/sites/default/files/the\\_missing\\_pillar.pdf](https://www.britishcouncil.org/sites/default/files/the_missing_pillar.pdf) (accessed on 5 May 2022).
12. Petti, L.; Trillo, C.; Ncube Makore, B. Cultural Heritage and Sustainable Development Targets: A Possible Harmonisation? Insights from the European Perspective. *Sustainability* **2020**, *12*, 926. [CrossRef]
13. Eberhardt, L.C.M.; Rønholt, J.; Birkved, M.; Birgisdóttir, H. Circular Economy potential within the building stock—Mapping the embodied greenhouse gas emissions of four Danish examples. *J. Build. Eng.* **2021**, *33*, 101845. Available online: <https://www.sciencedirect.com/science/article/pii/S2352710220334781> (accessed on 9 May 2022). [CrossRef]
14. World Economic Forum, Shaping the Future of Construction—A Breakthrough in Mindset and Technology. 2016. Available online: [https://www3.weforum.org/docs/WEF\\_Shaping\\_the\\_Future\\_of\\_Construction\\_full\\_report\\_.pdf](https://www3.weforum.org/docs/WEF_Shaping_the_Future_of_Construction_full_report_.pdf) (accessed on 9 May 2022).
15. Minson, A. SDGs: Built Environment's Role. 2020. Available online: <https://www.linkedin.com/pulse/sdgs-built-environments-role-andrew-minson> (accessed on 9 May 2022).
16. Bioregional, Build a Better Future: The Built Environment and the Sustainable Development Goals. 2018. Available online: <https://www.bioregional.com/resources/build-a-better-future-the-built-environment-and-the-sustainable-development-goals> (accessed on 9 May 2022).
17. Bioregional, The Built Environment Companies Engaging with the SDGs. 2019. Available online: <https://www.bioregional.com/news-and-opinion/the-built-environment-companies-engaging-with-the-sdgs> (accessed on 9 May 2022).
18. Alawneh, R.; Ghazali, F.E.; Ali, H.; Asif, M. Assessing the contribution of water and energy efficiency in green buildings to achieve United Nations Sustainable Development Goals in Jordan. *Build. Environ.* **2018**, *146*, 119–132. [CrossRef]
19. Di Foggia, G. Energy efficiency measures in buildings for achieving sustainable development goals. *Heliyon* **2018**, *4*, e00953. [CrossRef]
20. Czerwinska, D. Green Building: Improving the Lives of Billions by Helping to Achieve the UN Sustainable Development Goal. *Green Building & the Sustainable Development Goals*. 2017. Available online: <https://www.worldgbc.org/green-building-sustainable-development-goals> (accessed on 9 May 2022).
21. Opoku, A. SDG2030: A Sustainable Built Environment's Role in Achieving the Post-2015 United Nations Sustainable Development Goals. In Proceedings of the 32nd Annual ARCOM Conference, Manchester, UK, 5–7 September 2016; Chan, P.W., Neilson, C.J., Eds.; Association of Researchers in Construction Management: Edinburgh, UK; Volume 2, pp. 1149–1158.
22. Goubbran, S.; Cucuzzella, C. Integrating the Sustainable Development Goals in Building Projects. *J. Sustain. Res.* **2019**, *1*, 1–43. [CrossRef]
23. Alawneh, R.; Ghazali, F.; Ali, H.; Sadullah, A.F. A Novel framework for integrating United Nations Sustainable Development Goals into sustainable non-residential building assessment and management in Jordan. *Sustain. Cities Soc.* **2019**, *49*, 101612. [CrossRef]
24. Mossin, N.; Stilling, S.; Bøjstrup, T.C.; Larsen, V.G.; Lotz, M.; Blegvad, A. *An Architecture Guide to the UN 17 Sustainable Development Goals*; KADK: Copenhagen, Denmark, 2018; Available online: [https://kglakademi.dk/sites/default/files/downloads/event/un17\\_guidebookcover\\_17.12.18.pdf](https://kglakademi.dk/sites/default/files/downloads/event/un17_guidebookcover_17.12.18.pdf) (accessed on 20 September 2021).
25. Iwamura, K. SDGs by Built Environment—Summary of Architecture Guide to the UN SDGs. Available online: <http://iwamura-atelier.com/wpat/wp-content/uploads/2019/03/SDGs-by-Built-Environment%EF%BC%88%E8%8B%B1%E6%96%87%EF%BC%89.pdf> (accessed on 9 May 2022).
26. Rahla, K.M.; Mateus, R.; Bragança, L. Implementing Circular Economy Strategies in Buildings—From Theory to Practice. *Appl. Syst. Innov.* **2021**, *4*, 26. [CrossRef]
27. Wieser, A.A.; Scherz, M.; Maier, S.; Passer, A.; Kreimer, H. Implementation of Sustainable Development Goals in construction industry—a systemic consideration of synergies and trade-offs. In *IOP Conference Series: Earth and Environmental Science 1 August 2019*; IOP Publishing: Bristol, UK, 2019; Volume 323, p. 012177.
28. Alexandrakis, G.; Manasakis, C.; Kampanis, N.A. Economic and Societal Impacts on Cultural Heritage Sites, Resulting from Natural Effects and Climate Change. *Heritage* **2019**, *2*, 279–305. [CrossRef]
29. Goddard-Bowman, R. Something Old is Something New: The Role of Heritage Preservation in Economic Development, Paper for the University of Waterloo's Year 3 Program for Economic Developers. 2019. Available online: <https://openjournals.uwaterloo.ca/index.php/pced/article/view/4002/4957> (accessed on 19 July 2022).
30. Haspel, J. Built heritage as a positive location factor—economic potentials of listed properties. In Proceedings of the ICO-MOS 17th General Assembly, Paris, France, 27 November–2 December 2011.
31. Baycan, T.; Fusco Girard, L. Heritage in socio-economic development: Direct and indirect impacts. In Proceedings of the ICOMOS 17th General Assembly, Paris, France, 27 November–2 December 2011.
32. Partnership on Culture and Cultural Heritage, Urban Agenda for the EU, Culture and Cultural Heritage—Orientation Paper. Available online: [https://ec.europa.eu/futurium/en/system/files/ged/cch\\_orientation\\_paper\\_-\\_final-public\\_version.pdf](https://ec.europa.eu/futurium/en/system/files/ged/cch_orientation_paper_-_final-public_version.pdf) (accessed on 19 July 2022).
33. Ost, C.; Saleh, R. Cultural and creative sectors at a cross-road: From a mainstream process towards an active engagement. *Built Herit.* **2021**, *5*, 14. [CrossRef]
34. ICOMOS World Report 2000 on Monuments and Sites in Danger—Trends, Threats and Risks. Available online: [https://www.icomos.org/risk/world\\_report/2000/trends\\_eng.htm](https://www.icomos.org/risk/world_report/2000/trends_eng.htm) (accessed on 19 July 2022).

35. Gaballo, M.; Mecca, B.; Abastante, F. Adaptive Reuse and Sustainability Protocols in Italy: Relationship with Circular Economy. *Sustainability* **2021**, *13*, 8077. [CrossRef]
36. Arief, I.; Thahir, H. Adaptive reuse to concept of land use planning and design. Case study: Independent integrated city in Morowali, Central Sulawesi. In *MATEC Web of Conferences*; EDP Sciences: Les Ulis, France, 2020; Volume 331, p. 07004. [CrossRef]
37. Gallou, E. Heritage and pathways to wellbeing: From personal to social benefits, between experience identity and capability shaping. *Wellbeing Space Soc.* **2022**, *3*, 100084. [CrossRef]
38. Kassim, M.O. Role of Heritage in Health and Well Being. In Proceeding of the 2022 UIA Year of Design for Health, Launch and Roundtable Forum, with the Support of World Health Organization, Livestream Webinar, 4 February 2022; Available online: <https://www.uia-architectes.org/wp-content/uploads/2022/02/Design-for-Health-Omar.pdf> (accessed on 19 July 2022).
39. Reilly, S.; Nolan, C.; Monckton, L. Wellbeing and the Historic Environment—Threats, Issues and Opportunities for the Historic Environment, Historic England, 2018 (Online Report). Available online: <https://historicengland.org.uk/images-books/publications/wellbeing-and-the-historic-environment/wellbeing-and-historic-environment/> (accessed on 19 July 2022).
40. Sektani, H.H.J.; Khayat, M.; Mohammadi, M.; Rodgers, A.P. Erbil city built heritage and wellbeing: An assessment of local perceptions using the semantic differential scale. *Sustainability* **2021**, *13*, 3763. [CrossRef]
41. Gómez-Hurtado, I.; Cuenca-López, J.M.; Borghi, B. Good educational practices for the development of inclusive heritage education at school through the museum: A multi-case study in Bologna. *Sustainability* **2020**, *12*, 8736. [CrossRef]
42. Curtis, E. The place of time in children's being. In *Children's Spatialities: Embodiment, Emotion and Agency (Studies in Childhood and Youth)*; Hackett, A., Proctor, L., Seymour, J., Eds.; Palgrave: New York, NY, USA, 2015; pp. 39–53. [CrossRef]
43. Stolare, M.; Ludvigsson, D.; Trenter, C. The educational power of heritage sites. *Hist. Educ. Res. J.* **2021**, *18*, 264–279. [CrossRef]
44. Ocal, T. The Effect of Field Trips to Historical Cultural Heritage Sites on Teacher Candidates' Academic Knowledge and Their Sensitivity. *Creat. Educ.* **2016**, *7*, 376–386. [CrossRef]
45. Kaasinen, J. Heritage building as a Concept and as a part of Technology Education Conceptions of, structuredness of conceptions of, and conceptual change in students in teacher training during a study module on heritage building. *Techne Ser.—Forsk. Slöjdpedagogik Och Slöjdvetsenskap* **2017**, *24*, 110–128. Available online: <https://journals.oslomet.no/index.php/techneA/article/view/185> (accessed on 19 July 2022).
46. Babic, D.; Baranska, K.; Caprioli, C.; Carter, J.; Cipparone, M.; Cross, S.; De Stefano, R.; Derde, W.; Dziganska, K.; Gussen, U. InHerit—Professional Development in Heritage Interpretation (Manual). Available online: <https://www.interpret-europe.net/fileadmin/Documents/projects/InHerit/Manual-InHerit-EN.pdf> (accessed on 19 July 2022).
47. Djabarouti, J. Conservation Education: Examining the Impact of a Pedagogic Interface between the Practical and Theoretical Aspects of Building Conservation. Master's Thesis, University of Central Lancashire, Preston, UK, 21 May 2018. [CrossRef]
48. Herbig, U.; Weichart, G.; Breuling, J. Gender roles and women's influence on traditional architecture and its development in Indonesia: A case study from Nias. In *Research & Heritage: Research Papers on Architectural Heritage*; The Saudi Commission for Tourism and Antiquities, Ed.; Al Mohtaraf Assaudi Ltd.: Riyadh, Saudi Arabia, 2012; pp. 263–285.
49. Dempsey, K.; Gilchrist, R.; Ashbee, J.; Sagrott, S.; Stones, S. Beyond the martial façade: Gender, heritage and medieval castles. *Int. J. Herit. Stud.* **2020**, *26*, 352–369. [CrossRef]
50. Verster, M. The Wall and the Veil: Reclaiming Women's Space in a World Heritage Site. Master's Thesis, University of Pretoria, Pretoria, South Africa, 2014. Available online: <http://hdl.handle.net/2263/4527> (accessed on 19 July 2022).
51. Ursino, N.; Pozzato, L. Heritage-Based Water Harvesting Solutions. *Water* **2019**, *11*, 924. [CrossRef]
52. Angelakis, A.N.; Asano, T.; Bahri, A.; Jimenez, B.E.; Tchobanoglous, G. Water Reuse: From Ancient to Modern Times and the Future. *Front. Environ. Sci.* **2018**, *6*, 1–17. [CrossRef]
53. Nocca, F.; De Toro, P.; Voysekhovska, V. Circular economy and cultural heritage conservation: A proposal for integrating Level(s) evaluation tool. *Aestimum* **2021**, *78*, 105–143. [CrossRef]
54. Yahaya, S.R.C.; Ahmad, A.G. Identifying the Sustainable Design Elements for the Conservation of Historic Buildings in Malaysia. *Borneo J. Soc. Sci. Humanit.* **2019**, *1*. [CrossRef]
55. Shetabi, L. Heritage Conservation and Environmental Sustainability: Revisiting the Evaluation Criteria for Built Heritage. In Proceedings of the FABRIC—The Threads of Conservation, Australia ICOMOS Conference, Adelaide, Australia, 5–8 November 2015.
56. Noriyoshi, Y.; Yokoyama, K. Evaluation of Embodied Energy and CO<sub>2</sub>eq for Building Construction (Annex 57), International Energy Agency, September 2016. Available online: [http://www.iea-ebc.org/Data/publications/EBC\\_Annex\\_57\\_Results\\_Overview.pdf](http://www.iea-ebc.org/Data/publications/EBC_Annex_57_Results_Overview.pdf) (accessed on 20 July 2022).
57. Ionescu, C.; Baracu, T.; Vlad, G.E.; Necula, H.; Badea, A. The Historical Evolution of the Energy Efficient Buildings. *Renewable Sustain. Energy Rev.* **2015**, *49*, 243–253. [CrossRef]
58. Rathore, H.; Sharma, A. Energy Efficiency in Ancient Era, a Case Study of Maan Singh Palace, Gwalior fort. *IJCRT* **2017**, *5*, 491–493.
59. 2010/31/EU Directive on Energy Performance in Buildings. Available online: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0013:0035:en:PDF#:~:{}:text=This%20Directive%20promotes%20the%20improvement,climate%20requirements%20and%20cost%20effectiveness> (accessed on 20 July 2022).

60. Franco, G. Nearly Zero Energy Heritage Taboo or challenge? Energy Efficiency in Historic Buildings. In Conference Report: The 3rd International Conference on Energy Efficiency in Historic Buildings (EEHB2018), Visby, Sweden, 26–27 September 2018; Broström, T., Nilsen, L., Carlsten, S., Eds.; Uppsala University: Uppsala, Sweden; pp. 567–575. Available online: <https://www.diva-portal.org/smash/get/diva2:1297074/FULLTEXT01.pdf> (accessed on 20 July 2022).
61. D’Agostino, D.; Mazzarella, L. What is a Nearly zero energy building? Overview, implementation and comparison of definitions. *J. Build. Eng.* **2018**, *21*, 200–212. [CrossRef]
62. Cumo, F.; Nardecchia, F.; Agostinelli, S.; Rosa, F. Transforming a Historic Public Office Building in the Centre of Rome into nZEB: Limits and Potentials. *Energies* **2022**, *15*, 697. [CrossRef]
63. Ascione, F.; De Masi, R.F.; De Rossi, F.; Ruggiero, S.; Vanoli, G.P. NZEB target for existing buildings: Case study of historical educational building in Mediterranean climate. *Energy Procedia* **2017**, *140*, 194–206. Available online: <https://www.sciencedirect.com/science/article/pii/S1876610217355467> (accessed on 20 July 2022). [CrossRef]
64. ENCULT—CORDIS, Efficient ENergy for EU Cultural Heritage (Project Description). Available online: <https://cordis.europa.eu/project/id/260162/it> (accessed on 20 July 2022).
65. EURAC, IEA SHC Task 59 (Program Description). Available online: <https://www.eurac.edu/it/institutes-centers/istituto-per-le-energie-rinnovabili/projects/iea-shc-task-59> (accessed on 20 July 2022).
66. UNEP Global Report—United Nations Environment Programme. 2021 Global Status Report for Buildings and Construction: Towards a Zero Emission, Efficient and Resilient Buildings and Construction Sector. *Nairobi*. 2021. Available online: [https://globalabc.org/sites/default/files/2021-10/GABC\\_Buildings-GSR-2021\\_BOOK.pdf](https://globalabc.org/sites/default/files/2021-10/GABC_Buildings-GSR-2021_BOOK.pdf) (accessed on 20 July 2022).
67. Heritage Alliance—The Heritage Alliance, Inspiring Creativity, Heritage & The Creative Industries a Heritage Alliance Report. 2019. Available online: [https://ilucidare.eu/sites/default/files/2019-10/inspiringcreativity\\_thareport.pdf](https://ilucidare.eu/sites/default/files/2019-10/inspiringcreativity_thareport.pdf) (accessed on 21 July 2022).
68. Shipley, R. Heritage Designation and Property Values: Is there an Effect? *Int. J. Herit. Stud.* **2000**, *6*, 83–100. [CrossRef]
69. Matta, E. Effects of World Heritage City Designation on Real Estate, February 2016 (Online Article). Available online: <https://globalphiladelphia.org/resources/effects-world-heritage-city-designation-real-estate> (accessed on 21 July 2022).
70. Braticevic, S. Real Estate Valorization and Post-COVID-19 Context. A Case Study of Quebrada de Humahuaca. *Semest. Econ.* **2020**, *23*, 161–182. [CrossRef]
71. Franco, S.F.; Macdonald, J.L. The effects of cultural heritage on residential property values: Evidence from Lisbon, Portugal. *Reg. Sci. Urban Econ.* **2018**, *70*, 35–56. [CrossRef]
72. ELTINGA Centre for Real Estate Research Impacts of Cultural Heritage on Real Estate Market Executive Summary. Available online: [https://ehhf.eu/wp-content/uploads/2020/11/REVEAL\\_Real-estate\\_Ex.Sum\\_.pdf](https://ehhf.eu/wp-content/uploads/2020/11/REVEAL_Real-estate_Ex.Sum_.pdf) (accessed on 21 July 2022).
73. Lazrak, F.; Nijkamp, P.; Rietveld, P.; Rouwendal, J. The Market Value of Cultural Heritage in Urban Areas: An Application of Spatial Hedonic Pricing. *J. Geogr. Syst.* **2013**, *16*, 89–114. [CrossRef]
74. Hassler, U.; Kohler, N. Resilience in the built environment. *Build. Res. Inf.* **2014**, *42*, 119–129. [CrossRef]
75. Clarke, J. The role of building operational emulation in realizing a resilient built environment. *Archit. Sci. Rev.* **2018**, *61*, 358–361. [CrossRef]
76. Stamenković, M.; Vujičić, T. Thinking Sustainability + Resilience: Built Environment in Transition. September 2019. In *Sustainability and Resilience: Socio-Spatial Perspective*; Fikfak, A., Kosanović, S., Anguillari, E., Eds.; TU Delft Open: Delft, The Netherlands, 2018; ISBN 9789463660303. [CrossRef]
77. Marlow, E.C.; Chmutina, K.; Dainty, A. Interpreting sustainability and resilience in the built environment. *Int. J. Disaster Resil. Built Environ.* **2022**. ahead-of-print. [CrossRef]
78. International Labour Organization (ILO). Creating Decent Job Opportunities through Applying Employment Intensive Approaches at Cultural Heritage Conservation Activities (Project Description). Available online: [https://www.ilo.org/beirut/projects/WCMS\\_836858/lang--en/index.htm](https://www.ilo.org/beirut/projects/WCMS_836858/lang--en/index.htm) (accessed on 21 July 2022).
79. Heritage Fund. New Funding for Heritage Job Creation and Skills Development in Northern Ireland (Program Description). Available online: <https://www.heritagefund.org.uk/news/new-funding-heritage-job-creation-and-skills-development-northern-ireland> (accessed on 21 July 2022).
80. UNJobs, Jobs for Cultural Heritage (Database). Available online: <https://unjobs.org/themes/cultural-heritage> (accessed on 21 July 2022).
81. CHARTER—European Cultural Heritage Skills Alliance, Report: A New Landscape for Heritage Professions—Preliminary Findings—Deliverable D2.1, 4 October 2021. Available online: [https://charter-alliance.eu/wp-content/uploads/2021/09/D21\\_WP2\\_v3.pdf](https://charter-alliance.eu/wp-content/uploads/2021/09/D21_WP2_v3.pdf) (accessed on 21 July 2022).
82. ID Group. *Museums as Places for Intercultural Dialogue: Selected Practices from Europe (Handbook)*; Bodo, S., Gibbs, K., Sani, M., Eds.; The MAP for ID Group: 2009; Park Printing Co. Ltd.: Dublin, Ireland, 2009; ISBN 978-0-9564752-0-6. Available online: [https://www.ne-mo.org/fileadmin/Dateien/public/service/Handbook\\_MAPforID\\_EN.pdf](https://www.ne-mo.org/fileadmin/Dateien/public/service/Handbook_MAPforID_EN.pdf) (accessed on 21 July 2022).
83. Council of Europe. Strategy 21—S4 Promote Heritage as a Meeting Place and Vehicle for Intercultural Dialogue, Peace and Tolerance (Program Description). Available online: <https://www.coe.int/en/web/culture-and-heritage/strategy-21-s4> (accessed on 21 July 2022).
84. Carbone, F. Post-multicultural challenges for cultural heritage managers and museums in the age of migrations. *Mus. Manag. Curatorship* **2019**, *34*, 2–23. [CrossRef]



85. Lähdesmäki, T.; Passerini, L.; Kaasik-Krogerus, S.; van Huis, I. (Eds.) *Palgrave Studies in Cultural Heritage and Conflict, Dissonant Heritages and Memories in Contemporary Europe*; Springer: Cham, Switzerland, 2019; ISBN 978-3-030-11463-3.
86. Rypkema, D.; Cheong, C. Measurements and Indicators of Heritage as Development. In Proceedings of the ICOMOS 17th General Assembly, Paris, France, 2 December–27 December 2011.
87. Said, S.Y.; Syed Zainal, S.S.; Thomas, M.G.; Goodey, B. Sustaining old historic cities through heritage-led regeneration. *WIT Trans. Ecol. Environ.* **2013**, *179*, 267–278. [[CrossRef](#)]
88. Amado, M. Wall-Up: Method for the regeneration of settlements and housing in the Developing World. *Sustain. Cities Soc.* **2018**, *41*, 22–34. [[CrossRef](#)]
89. Alseragy, A.; Elnokaly, A.; Abul-Ela, M. Heritage-led Urban Regeneration as a catalyst for Sustainable Urban Development. In Proceedings of the 6th International Conference on Heritage and Sustainable Development, Granada, Spain, 12–15 June 2018; Available online: <http://heritage.greenlines-institute.org/> (accessed on 21 July 2022).
90. Amado, M.; Rodrigues, E. A Heritage-Based Method to Urban Regeneration in Developing Countries: The Case Study of Luanda. *Sustainability* **2019**, *11*, 4105. [[CrossRef](#)]
91. Pendlebury, J.; Porfyriou, E. Heritage, urban regeneration and place-making. *J. Urban Des.* **2017**, *22*, 429–432. [[CrossRef](#)]
92. Fouseki, K.; Nicolau, M. Urban Heritage Dynamics in ‘Heritage-Led Regeneration’: Towards a Sustainable Lifestyles Approach. *Hist. Environ. Policy Pract.* **2018**, *9*, 229–248. [[CrossRef](#)]
93. Mosler, S. Everyday heritage concept as an approach to place-making process in the urban landscape. *J. Urban Des.* **2019**, *24*, 778–793. [[CrossRef](#)]
94. Longo, D.; Gianfrate, V.; Roversi, R.; Boeri DIVERSE 2019. Cultural heritage-led initiatives for urban regeneration. Pilot implementation actions in Bologna public spaces. In *DIVERSEcity, Biennale Spazio Pubblico 2019*; Marata, A., Galdini, R., Eds.; CNAPPC: Roma, Italy, 2019; pp. 463–472. ISBN 978-88-941296-4-9.
95. Cerreta, M.; Daldanise, G.; La Rocca, L.; Panaro, S. Triggering Active Communities for Cultural Creative Cities: The “Hack the City” Play ReCH Mission in the Salerno Historic Centre (Italy). *Sustainability* **2021**, *13*, 11877. [[CrossRef](#)]
96. Aguiar Borges, L.; Hammami, F.; Wangel, J. Reviewing Neighborhood Sustainability Assessment Tools through Critical Heritage Studies. *Sustainability* **2020**, *12*, 1605. [[CrossRef](#)]
97. Morales Cortes, M. Cultural Heritage and Urban Regeneration. The Conflict between Identity and Development Strategies in the City of Valparaiso, Chile. Master’s Thesis, University College, London, UK, 2013. Available online: <https://repositorio.flacsoandes.edu.ec/bitstream/10469/6836/2/TEXTN-2013MMC.pdf> (accessed on 21 July 2022).
98. Historic England—Historic England, Heritage Counts—Heritage and the Environment 2020 (Report). Available online: <https://historicengland.org.uk/content/heritage-counts/pub/2020/heritage-environment-2020/> (accessed on 21 July 2022).
99. Tawayha, F.A.; Braganca, L.; Mateus, R. Contribution of the Vernacular Architecture to the Sustainability: A Comparative Study between the Contemporary Areas and the Old Quarter of a Mediterranean City. *Sustainability* **2019**, *11*, 896. [[CrossRef](#)]
100. Richards, J.; Orr, S.M.; Viles, H.A. Reconceptualising the relationships between heritage and environment within an Earth System Science framework. *J. Cult. Herit. Manag. Sustain. Dev.* **2019**. ahead-of-print. [[CrossRef](#)]
101. Naselli, F. Tourism as Resource in Managing the Valorisation of the Urban and Territorial Heritage within the Mediterranean Basin. MOTRIS a Proposal of Integrated Relational Tourism. *Procedia Soc. Behav. Sci.* **2016**, *225*, 433–438. Available online: <https://www.sciencedirect.com/science/article/pii/S1877042816307789> (accessed on 21 July 2022). [[CrossRef](#)]
102. MADE IN-LAND Management and DEvelopment of INLANDs (Project Description). Available online: <https://www.italy-croatia.eu/web/madeinland> (accessed on 21 July 2022).
103. Lundholm, J.T. Green roofs and facades: A habitat template approach. *Urban Habitats* **2006**, *4*, 87–101.
104. Zari, M.P. Ecosystem Services Analysis in Response to Biodiversity Loss Caused by the Built Environment. *Surv. Perspect. Integr. Environ. Soc.* **2014**, *7*, 1–14.
105. Opoku, A. Biodiversity and the built environment: Implications for the Sustainable Development Goals (SDGs). *Resour. Conserv. Recycl.* **2019**, *141*, 1–7. [[CrossRef](#)]
106. Foster, G. Circular Economy Strategies for Adaptive Reuse of Cultural Heritage Buildings to Reduce Environmental Impacts. *Resour. Conserv. Recycl.* **2020**, *152*, 104507. [[CrossRef](#)]
107. Dessein, J.; Soini, K.; Fairclough, G.; Horlings, L. Culture in, for and as Sustainable Development—Conclusions from the COST Action IS1007—Investigating Cultural Sustainability, 2015, University of Jyväskylä. Available online: <https://jyx.jyu.fi/bitstream/handle/123456789/50452/978-951-39-6177-0.pdf?sequence=1> (accessed on 2 June 2022).
108. Guzman, P.C.; Roders, A.R.; Colenbrander, B. Measuring links between cultural heritage management and sustainable urban development: An overview of global monitoring tools. *Cities* **2017**, *60*, 192–201. [[CrossRef](#)]
109. Hill, S. Constructive conservation—A model for developing heritage assets. *J. Cult. Herit. Manag. Sustain. Dev.* **2016**, *6*, 34–46. [[CrossRef](#)]
110. Soini, K.; Dessein, J. Culture-Sustainability Relation: Towards a Conceptual Framework. *Sustainability* **2016**, *8*, 167. [[CrossRef](#)]
111. Throsby, D. Tourism, heritage and cultural sustainability: Three ‘golden rules’. In *Cultural Tourism and Sustainable Local Development*; Routledge: London, UK, 2016; pp. 31–48.
112. Barthel-Bouchier, D. *Cultural Heritage and the Challenge of Sustainability*, 1st ed.; Routledge: London, UK, 2013. [[CrossRef](#)]
113. Antonini, E.; Favaretto, G.; Pretelli, M. Heritage buildings towards the future: Conservation and circular economy for sustainable development. *Techné: J. Technol. Archit. Environ.* **2021**, *2*, 117–121. [[CrossRef](#)]



114. ICOMOS. *The Paris Declaration on Heritage as a Driver of Development Adopted at Paris*; UNESCO Headquarters: Paris, France, 1 December 2011.
115. UN. *The Future We Want*; Resolution Adopted by the General Assembly on 27 July 2012. 66/288; UN: Rio de Janeiro, Brazil, 2012.
116. MARSH; ICCROM; ICOMOS-ICORP; UNESCO. *Heritage and Resilience. In Issues and Opportunities for Reducing Disaster Risks*; UNISDR: Geneva, Switzerland; Designflyover Consulting LLP: Mumbai, India, 2013.
117. UNESCO, Culture: A Driver and An Enabler of Sustainable Development, UN System Task Team on the Post-2015 UN Development Agenda (Thematic Think Piece), May 2012. Available online: [https://www.un.org/millenniumgoals/pdf/Think%20Pieces/2\\_culture.pdf](https://www.un.org/millenniumgoals/pdf/Think%20Pieces/2_culture.pdf) (accessed on 2 June 2022).
118. UNESCO. *Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention as Adopted by the General Assembly of States Parties to the World Heritage Convention as its 20th Session*; UNESCO Headquarters: Paris, France, 2015.
119. ICOMOS. *ICOMOS Action Plan: Cultural Heritage and Localizing the UN Sustainable Development Goals (SDGs)*; ICOMOS: Istanbul, Turkey, 2017.
120. Byrne, D. A critique of unfeeling heritage. In *Intangible Heritage (Key Issues in Cultural Heritage)*; Smith, L., Akagawa, N., Eds.; Routledge: London, UK, 2009; pp. 229–252.
121. Kamel-Ahmed, E. What to conserve? Heritage, memory, and management of meanings. *Int. J. Archit. Res.* **2015**, *9*, 67–76. [[CrossRef](#)]
122. Kirshenblatt-Gimblett, B. Intangible heritage as metacultural production. *Mus. Int.* **2004**, *66*, 163–174. [[CrossRef](#)]
123. Djabarouti, J. Listed Buildings as Socio-material Hybrids: Assessing Tangible and Intangible Heritage Using Social Network Analysis. *J. Herit. Manag.* **2020**, *5*, 169–190. [[CrossRef](#)]
124. Taylor, J. Embodiment unbound: Moving beyond divisions in the understanding and practice of heritage conservation. *Stud. Conserv.* **2015**, *60*, 65–77. [[CrossRef](#)]
125. Kearney, A. Intangible cultural heritage: Global awareness and local interest. In *Intangible Heritage (Key Issues in Cultural Heritage)*; Smith, L., Akagawa, N., Eds.; Routledge: London, UK, 2009; pp. 209–225.
126. Jones, S.; Yarrow, T. Crafting authenticity: An ethnography of conservation practice. *J. Mater. Cult.* **2013**, *18*, 3–26. [[CrossRef](#)]
127. Walter, N. From values to narrative: A new foundation for the conservation of historic buildings. *Int. J. Herit. Stud.* **2014**, *20*, 634–650. [[CrossRef](#)]
128. Glendinning, M. *The Conservation Movement: A History of Architectural Preservation*; Routledge: London, UK, 2013.
129. Smith, L.; Akagawa, N. Introduction. In *Intangible Heritage (Key Issues in Cultural Heritage)*; Smith, L., Akagawa, N., Eds.; Routledge: London, UK, 2009; pp. 1–9.
130. Douglas-Jones, R.; Hughes, J.J.; Jones, S.; Yarrow, T. Science, value and material decay in the conservation of historic environments. *J. Cult. Herit.* **2016**, *21*, 823–833. [[CrossRef](#)]
131. Jones, S. Wrestling with the social value of heritage: Problems, dilemmas and opportunities. *J. Community Archaeol. Herit.* **2017**, *4*, 21–37. [[CrossRef](#)]
132. Smith, L.; Waterton, E. ‘The envy of the world?’: Intangible heritage in England. In *Intangible Heritage (Key Issues in Cultural Heritage)*; Smith, L., Akagawa, N., Eds.; Routledge: London, UK, 2009; pp. 289–302.
133. Kordej-De Villa, Ž.; Šulc, I. Cultural Heritage, Tourism and the UN Sustainable Development Goals: The Case of Croatia. In *Rethinking Sustainability Towards a Regenerative Economy. Future City*; Andreucci, M.B., Marvuglia, A., Baltov, M., Hansen, P., Eds.; Springer: Cham, Switzerland, 2021; Volume 15, pp. 341–358. [[CrossRef](#)]
134. Soto Suárez, M.; Muñoz Castillo, M.T. Conservation of Urban Heritage: Reflections on Its Appreciation and Management in Urban Context. *Oculum Ens.* **2017**, *14*, 183–202. [[CrossRef](#)]
135. ICOMOS *Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter 1987)*; Adopted by ICOMOS General Assembly in Washington, DC, October 1987; ICOMOS: Paris, France, 1987.
136. EU. Establishing the Urban Agenda for the EU ‘Pact of Amsterdam’ (2016). Available online: [https://ec.europa.eu/regional\\_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf](https://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf) (accessed on 9 June 2022).
137. United Nations, Department of Economic and Social Affairs/Population Dynamics, *World Urbanization Prospects 2018*. Available online: <https://population.un.org/wup/> (accessed on 9 June 2022).
138. Lerario, A.; Di Turi, S. Sustainable Urban Tourism: Reflections on the Need for Building-Related Indicators. *Sustainability* **2018**, *10*, 1981. [[CrossRef](#)]
139. Dijkstra, L.; Poelman, H.; Veneri, P. The EU-OECD Definition of a Functional Urban Area, OECD Regional Development Working Papers, Organisation for Economic Cooperation and Development. 2019. Available online: <https://www.oecd-ilibrary.org/docserver/d58cb34d-en.pdf?expires=1633281615&id=id&accname=guest&checksum=07A01929B6A9258F4488FE4830E3F178> (accessed on 9 June 2022).
140. Glińska, E.; Matwiejczyk, A.; Barkun, Y. Tourism as an Aspect of City Branding in Functional Urban Areas. *WSEAS Trans. Bus. Econ.* **2021**, *18*, 301–312. [[CrossRef](#)]
141. Minaei, N.; Kermani, A.A. Heritage-Based Tourism, Its Relations with SDGs and Its Impacts on the Next Generation. In *Proceedings of the International LDE-Heritage Conference, Heritage and the Sustainable Development Goals*, TU Delft, The Netherlands, 26–28 November 2019; Available online: [https://www.researchgate.net/publication/336889323\\_Title\\_Heritage-based\\_Tourism\\_its\\_Relations\\_with\\_SDGs\\_and\\_Its\\_Impacts\\_on\\_the\\_Next\\_Generation](https://www.researchgate.net/publication/336889323_Title_Heritage-based_Tourism_its_Relations_with_SDGs_and_Its_Impacts_on_the_Next_Generation) (accessed on 13 June 2022).

142. Alvarez-Herranz, A.; Macedo-Ruiz, E. An Evaluation of the Three Pillars of Sustainability in Cities with High Airbnb Presence: A Case Study of the City of Madrid. *Sustainability* **2021**, *13*, 3220. Available online: <https://www.researchgate.net/publication/350095613> (accessed on 13 June 2022). [CrossRef]
143. Fistola, R.; La Rocca, R.A. Driving Functions for Urban Sustainability: The Double-edged Nature of Urban Tourism. *Int. J. Sustain. Dev. Plan.* **2017**, *12*, 425–434. [CrossRef]
144. Serrano, L.; Sianes, A.; Ariza-Montes, A. Understanding the Implementation of Airbnb in Urban Contexts: Towards a Categorization of European Cities. *Land* **2020**, *9*, 522. [CrossRef]
145. Rudan, E.; Krstinić Nižić, M.; Šverko Grdić, Z. Effect of Circular Economy on the Sustainability of Cultural Tourism (Croatia). *Ekonom. Sr.* **2021**, *1*, 120–138. [CrossRef]
146. Gustafsson, C. Conservation 3.0—Cultural Heritage as a driver for regional growth, SCIRES-IT, SCientific REsearch and Information Technology. *Ric. Sci. Tecnol. Dell'informazione* **2019**, *9*, 21–32. [CrossRef]
147. Fusco Girard, L.; Nocca, F. From linear to circular tourism. *Aestimum* **2017**, *70*, 51–74. [CrossRef]
148. Tu, H.M. The Attractiveness of adaptive heritage reuse: A theoretical framework. *Sustainability* **2020**, *12*, 2372. [CrossRef]
149. Gravagnuolo, A.; Fusco Girard, L.; Ost, C.; Saleh, R. Evaluation criteria for a circular adaptive reuse of cultural heritage. *BDC* **2017**, *17*, 185–215. [CrossRef]
150. UNESCO. New Life for Historic Cities—The Historic Urban Landscape Approach Explained. Available online: <https://whc.unesco.org/en/activities/727/> (accessed on 16 June 2022).
151. Hardy, A.; Beeton, R.J.S.; Pearson, L. Sustainable tourism: An overview of the concept and its position in relation to conceptualisations of tourism. *J. Sustain. Tour.* **2002**, *10*, 475–496. [CrossRef]
152. European Union. Sustainable Cultural Tourism. 2019. Available online: [https://europa.eu/culturalheritage/sites/eych/files/sustainable-cultural-tourism-recommendations\\_en5097.pdf?token=PsePI9T4](https://europa.eu/culturalheritage/sites/eych/files/sustainable-cultural-tourism-recommendations_en5097.pdf?token=PsePI9T4) (accessed on 11 May 2020).
153. Interreg Europe, European Union, European Regional Development Fund. Built Cultural Heritage Integrating Heritage Buildings into Contemporary Society. A Policy Brief from the Policy Learning Platform on Environment and Resource Efficiency—June 2020. Available online: [https://www.interregeurope.eu/fileadmin/user\\_upload/plp\\_uploads/policy\\_briefs/Policy\\_brief\\_on\\_built\\_cultural\\_heritage.pdf](https://www.interregeurope.eu/fileadmin/user_upload/plp_uploads/policy_briefs/Policy_brief_on_built_cultural_heritage.pdf) (accessed on 16 June 2022).
154. Živaljević Luxor, N.; Kurtović Folić, N. Built Heritage Lost in Legal Procedures. In Proceedings of the 6th International Conference Contemporary Achievements in Civil Engineering, Subotica, Republic of Serbia, 20 April 2018; pp. 461–468. [CrossRef]
155. European Commission. Sustainable & Circular Re-Use of Spaces & Buildings—Handbook. Available online: [https://ec.europa.eu/futurium/en/system/files/ged/sustainable\\_circular\\_reuse\\_of\\_spaces\\_and\\_buildings\\_handbook.pdf](https://ec.europa.eu/futurium/en/system/files/ged/sustainable_circular_reuse_of_spaces_and_buildings_handbook.pdf) (accessed on 16 June 2022).
156. Gonçalves, J.; Mateus, R.; Dinis Silvestre, J.; Pereira Roders, A.; Vasconcelos, G. Selection of Core Indicators for the Sustainable Conservation of Built Heritage. *Int. J. Archit. Herit.* **2022**, *16*, 1047–1062. [CrossRef]
157. Appendino, F. Heritage-related Indicators for Urban Sustainable Development: A Systematic Review. *Urban Transp. Constr.* **2018**, *4*, 1–11. Available online: <https://hal.archives-ouvertes.fr/hal-03401981> (accessed on 20 July 2022).
158. Nocca, F. The role of cultural heritage in sustainable development: Multidimensional indicators as Decision-Making tool. *Sustainability* **2017**, *9*, 1882. [CrossRef]
159. Lucchi, E.; Buda, A. Urban green rating systems: Insights for balancing sustainable principles and heritage conservation for neighbourhood and cities renovation planning. *Renew. Sustain. Energy Rev.* **2022**, *161*, 112324. [CrossRef]