

Links between heritage building, historic urban landscape and sustainable development: systematic approach



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Abstract. Heritage and historic buildings deserve attention not only as a significant part of the building stock or from energy efficiency or carbon emissions points of view. They constitute and shape historic urban landscapes that are an integral part of sustainable urban development and sustainable development in a broader sense of humanity in general. However, the sustainable links between the heritage building and historic urban landscape are not well analyzed yet. Meanwhile, the idea that heritage should be a driver of sustainable urban development is more and more explicitly expressed and the concept of historic urban landscape is considered favorable in this regard. The aim of this research was to formulate the theoretical model demonstrating the links between the heritage building, historic urban landscape and sustainable development that would be applied in policy making and planning for heritage driven sustainable urban development. The methods of research included literature review, analysis and synthesis. In order to reach this aim, the analysis of literature on sustainability of cultural heritage, especially heritage buildings was carried out, the concept of historic urban landscape and its implications for sustainability were analyzed and the Halstar approach [29] based on the systems model adding the dimensions of time and scale to sustainability model developed by the English engineering firm Halcrow was elaborated in the context of heritage buildings and historic urban landscape. The result of the research is the model of the links between heritage building, historic urban landscape and sustainable development, which could be applied in urban development policy design and planning.

Keywords: sustainability, historic urban landscape, heritage building

Introduction

Historic urban landscape is a new attitude towards the management of historic cities and, according to its definition, encompasses not only physical structure, but all the multilayered interaction of natural and man-made, tangible and intangible features [36]. It is even noted that historic urban landscape concept sets a new global standard for urban conservation [17]. Due to its' integrating character the concept of historic urban landscape in the context of sustainability attains the increasing attention; however, as this concept is quite broad and all encompassing, the sustainable links between the historic building and historic urban landscape in the context of sustainability are not well analyzed yet. However, understanding these links is very important in order to implement so-called "heritage-led urban changes" [51], where heritage and historic urban landscape as a whole, usually with inherent characteristics of sustainability [8], can become a driver for further urban development.

The aim of the research was to formulate the theoretical model demonstrating the links between the heritage buildings, historic urban landscape and sustainable development. The methods of research include literature review, analysis and synthesis. In order to reach this aim, the analysis of literature on

sustainability of cultural heritage, especially heritage buildings and the notions of sustainable treatment of heritage buildings was carried out, the concept of historic urban landscape and its implications for sustainability were analyzed and the Halstar approach [29] based on the systems model adding the dimensions of time and scale to sustainability model developed by the English engineering firm Halcrow was elaborated in the context of heritage buildings and historic urban landscape. Historic urban landscape here is demonstrated as the interaction of five capitals – natural, sociocultural, human, manufactured, and financial. While elaborating the potential influence of heritage building on each type of capital the intangible dimension was given a special attention, as it is very important in heritage context and often ignored in sustainability discourse.

Theory

Cultural heritage and sustainability. Cultural heritage, including heritage buildings and their preservation, in the context of sustainability is quite well analysed topic with numerous publications. Heritage buildings can be considered the "buildings that are significant in the history of

architecture, that incorporate significant architectural features, or that played significant historic roles in local cultural or social development; may or may not be officially designated” [2]. Some publications reveal general benefits of heritage buildings and urban environment and their preservation to the sustainability dimensions [45], numerous studies are targeted at so-called sustainable restoration or sustainable preservation [23; 30; 24; 3], others are dedicated to decision-making and policies [27].

Heritage and dimensions of sustainability. According Magrini and Franco (2016), the concept of sustainability in heritage field refers to „a very broad horizon, touching various spheres: cultural, economic, social, environmental, before the purely technical and energetic ones.“ For example, Tweed and Sutherland (2007) had analysed the extent to which built heritage is embraced by evolving concept of sustainability and how built heritage contributes to the satisfaction of individual needs and the needs of society. They had distinguished the environmental dimension, mainly focusing on the effects of pollution on buildings, the economic dimension including urban regeneration, tourism and resulting positive economic impact, the social dimension including cultural identity and transfer of the cultural capital to future generations. Some researchers devote attention to the particular spheres of sustainability and the role of cultural heritage in them [14]. For example, Greffe (2004) analysed heritage’s economic dimension through job creation. Separate aspects, such as heritage buildings and energy [24; 44; 22] are widely considered as well. Other researches distinguish specific aspects characteristic to cultural heritage in the context of sustainability. For example, Vecco (2020) had analyzed the spirit of place (*genius loci*) phenomenon undoubtedly linked with heritage in the context of sustainability. The understanding of this issue is constantly expanding and the idea of sustainable development, especially in heritage field, does not revolve solely around carbon emissions anymore as it is well exemplified by the study of Vecco (2020). Currently the regenerative attitude towards heritage and sustainability is developed [4] within the context of restorative and regenerative movements in sustainability field with reference to regeneration as the feature of natural systems. The authors of regenerative approach to heritage [21] identify its contributions to sustainability in the spheres of education, resources, carbon reduction, well-being, water, equity, energy and place-making; according to them, “the final output of regenerative heritage approach should be the creation of a space that is able to revitalize the surroundings and the context where it is placed”.

James et al. (2014) provided a more comprehensive view of the future of sustainable development within the fields of heritage and preservation of natural resources. According to them, so many features of contemporary approach of sustainability rely on sustainability of “negation”, which is negative due to its conformity with the harmful basis of present day activities instead of creating a new sustainable future. Thus lowering carbon emissions can be seen as simulated attempts to implement sustainability. Instead of this “negation” sustainability, that James et al. (2014) call “preservation of the present”, they introduce the conservation-based approach that relies on conserving the patterns of living past and present that are sustainable by their very nature. Thus heritage here is perceived as making impact to the larger scale of sustainable future, since it is intended to conserve not only material outcomes that derived from culture of particular times and societies, but rather merge all sustainable practices and outcomes of these practices in order to create the sustainability of the future. This approach correlates with the “living heritage” theory provided by Pollio (2014), Wijasuriya (2005) and the theory of narrative of heritage by Walter (2014) and Rudokas (2017) that are based on the premise that not necessarily the actual artifact needs to be transmitted from the past to the future, but rather it is necessary to find the inherited way to transmit the creative potential that caused the construction of any heritage property. Indeed latter highly theoretic approaches offer little practical solution for the implementation of sustainability; however, they emphasize the need for revelation of creativity that is contained within the patterns of complex problem solving in the past.

Sustainable conservation, restoration, renovation and management. Magrini and Franco (2016) identify sustainable process of conservation, renovation, reuse and management of historical architecture. Blundo et al. (2018) use the term sustainable restoration. Bertolin and Loli (2018) identify sustainable interventions in heritage buildings. According to Zeayter and Mansour (2018), “the sustainable development of cultural values is achieved by making the conserved area: accessible, useful and integral to the daily life of local inhabitants. The objectives of the sustainable approach in conservation depend on public participation and community involvement”. Perhavec et al. (2015) underline that sustainable conservation and renovation require holistic and interdisciplinary approach, cooperation between experts and the use of modern computer-based instruments, appliances and tools. Term sustainability is used in heritage context evaluating heritage restoration and retrofitting

projects including the integration of new engineering systems and their effect of heritage's authentic character; for example, Maahsen-Milan and Fabbri (2013). Zvonko (2016) analyzed policy incentives for refurbishment and energy efficiency of heritage buildings in Europe, the USA, Canada and New Zealand. The achievements of sustainable conservation, restoration, renovation and management efforts are usually exemplified by the case studies, for example Rodwell (2007), distinguishing specific regions and situations, including costal heritage [5; 16]. Callegari (2003) identifies cultural heritage as a positive force in the implementation of integrated Italian coastal management programs. Howard and Pinder (2003) analyze the experiences in South West England showing cultural heritage as a potential resource and its implications on the development of local economy and environment. These case studies reveal, that so-called sustainable treatment of heritage objects has wider social, cultural, and economic effects and sustainability of cultural heritage is not limited with the building or complex of several buildings. It can be further developed that architectural heritage can be seen as an active agent for more sustainable place making. In the case study regarding the impact of cultural heritage to the residential real estate pricing in Kaunas (Lithuania) [39] it has been found the heritage status does not do much impact to the real estate prices; whereas belonging to the heritage preservation area adds extra 5 percent to the price of the real estate unit. These numbers are low compared with the experience of the Western European towns and cities. However the second outcome of the study indicated that heritage preservation area might cause the better overall quality of new architecture (built between 2015-2019) within that territory and in the territories nearby. Therefore, built heritage, due the legislative system and its status in public, plays a crucial role contributing to the overall quality of environment by positively influencing the development of new architecture.

International legal framework. It can be noted that cultural heritage plays a marginal role in the 2030 Agenda for Sustainable Development and is explicitly mentioned only once in the goal 11, that refers to the cities: "Strengthen efforts to protect and safeguard the world's cultural and natural heritage" [42; 47]. According to Vecco and Srakar (2018), even this mentioning can be seen as weak as it does not specifically refer just to cultural heritage but also environmental protection without the reference to heritage valorisation or regeneration. Nevertheless, serious attempts are made by the United Nations demonstrating the role of heritage and its integration in sustainable development processes. It is a necessary reaction against the

threats of development in various aspects on heritage and its inherent values [25]. The United Nations Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention (2015) recognizes and promotes the inherent potential of heritage property to contribute to all dimensions of sustainable development. While the policy is specifically aimed at the World Heritage properties, its principles are relevant to cultural and natural heritage in general. The following aspects of sustainability related with heritage properties are identified in this document: preservation of biodiversity, enhancement of sustainable livelihoods, inclusive local economic development and economic resilience, economic diversification, strengthening social resilience, use of local resources and skills, preservation of local knowledge systems and infrastructures, capacity building, innovation and local entrepreneurship [33]. The New Urban Agenda adopted at the United Nations Conference on Housing and Sustainable Urban Development in Quito, Ecuador on 20 October 2016 recognizes cultural heritage as an important factor for urban sustainability [26; 27] as well.

The analysis of cultural heritage in the context of sustainability reveals the integration trend: cultural heritage related processes can be seen as a part of overall sustainable development of societies and the effects of sustainable treatment of heritage buildings can be felt on much wider scale. These links encourage viewing the historic urban landscape in the context of sustainability and analyzing the role and links of heritage buildings in it.

Historic urban landscape and sustainability

The concept of regenerative heritage [21] and the view expressed in the international documents and demonstrated by heritage sustainability studies that cultural heritage can contribute to wider urban sustainability encourages to consider the concept of historic urban landscape in the context of sustainability. The official definition of the historic urban landscape was presented in 2005 in Vienna Memorandum World Heritage and Contemporary Architecture - Managing the Historic Urban Landscape and then further elaborated in the UNESCO Recommendation on the Historic Urban Landscape (2011): "The historic urban landscape is the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of "historic centre" or "ensemble" to include the broader urban context and its geographical setting. This wider context includes notably the site's topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary, its infrastructures above and below ground, its open spaces and gardens, its land use patterns and spatial

organization, perceptions and visual relationships, as well as all other elements of the urban structure. It also includes social and cultural practices and values, economic processes and the intangible dimensions of heritage as related to diversity and identity.” According the document, the identification, assessment, conservation and management of historic urban landscapes should take place within an overall sustainable development framework and identify their potential contribution to sustainability in such spheres as economic development and diversity, services and tourism, balance between urban growth and quality of life, productive and efficient use of public spaces, sense of place, preservation of existing resources, social cohesion, social and functional diversity, identity of communities, creativity, enhancing liveability of urban areas, well-being of communities, new models of urban living [36]. The researchers underline the innovativeness of historic urban landscape approach naming it as both an approach and a new understanding of the historic environment [10], “a new global standard for urban conservation”, which seeks to include both the tangible and intangible dimensions of urban heritage [17]; as “the paradigm of the management of thoughtful change” [19].

Historic urban landscape is rather new topic in scientific research, bearing in mind that the concept itself is quite recent. The number of research publications on this topic has increased only in the recent years. The literature review by Ginzarly et al. (2019) revealed the shift of concerns in this area in the period between 2016 and 2018, were term sustainable emerges more often. Some publications regarding historic urban landscape and sustainability can be mentioned including Erkan (2018), Onesti (2018), Santander (2018), Zeayter and Mansour (2018), Wang and Gu (2020). For example, Zeayter and Mansour (2018) analyze the benefits of historic urban landscape approach in the context of other heritage preservation trends. They analyze different heritage preservation trends according to three factors: selectivity, authenticity / integrity, and sustainability and identify the historic urban landscape approach as “optimum ideology”. Dhingra et al. (2017) note that old and historic settlements have inherent sustainability features, such as compactness, walkability, energy efficiency and social cohesiveness, which in some instances were lost or damaged in the course of time. According to Wang and Gu (2020), historic urban landscape approach contributes to contemporary urban sustainability. Researchers mention the integrative character of the concept in the frame of sustainability and urban planning discussion [9; 51]. For example, Wang and Gu (2020) note that “the historic urban landscape approach embodying both

integrative and morphological values is fundamental to the formulation of historically-sensitive and community-based urban development and conservation plans.”

According to the guidebook, issued by UNESCO, the historic urban landscape approach is being successfully applied in a number of cities around the world [43], this is reflected in some recently published research. For example, Rey-Perez and Avila (2017) present a methodology developed on the basis of the historic urban landscape notion applied for the city of Cuenca in Ecuador and formulate the series of sustainable urban development strategies. Their methodology is based on the city analysis from the local community and multiple disciplines (geomorphology, environment, urban planning, historic cartography, architecture, archaeology, anthropology, and economy) points of view. Wang and Gu (2020) present the analysis of Pingyao as one of the first urban World Heritage Sites in China in the light of application of Historic Urban Landscape approach. Dhingra et al. (2017) present the study of historic urban landscape characterization using the case of the walled city of Alwar in the state of Rajasthan (India). The study identified the core of historic urban landscape and the GIS were used to map characteristics of its old neighborhoods, commercial areas, road network, open spaces and intangible heritage. According to Santander (2018), at the theoretical level the notion of historic urban landscapes and its potential contribution to sustainability do not raise questions; however, the complexity of the notion makes challenging its application in actual heritage and urban environment management processes. Thus in order to successfully apply the concept of historic urban landscapes, where heritage would become the engine for the development of both historic environments and the entire urban territory [51], the framework for the analysis of historic urban landscape, heritage building and sustainability links is necessary.

Sustainability models

Sustainable development is “subjective and value laden, open to interpretation and achieving it involves balancing a complex system of issues” [29]. Thus for the construction of the model, the appropriate representation of sustainability dimensions and their links must be selected. The majority of sustainability models are based on the basic Brundtland definition with the three main themes – economy, environment and society. However, culture is distinguished as the fourth dimension or pillar of sustainability increasingly often in the recent decades [7]. The United Nations Policy Document for the Integration of a Sustainable Development

Perspective into the Processes of the World Heritage Convention (2015) identifies environmental sustainability, inclusive social development, and inclusive economic development, as well as the fostering of peace and security as the dimensions of sustainability. Lozzano (2008) identified three most common graphical models of sustainability: three circles that inter-connect, where the resulting overlap represents sustainability, three concentric circles, the inner circle representing economic aspects, the middle social aspects, and the outer environmental aspects, and the planning hexagon, showing the relationships among economy, environment, the individual, group norms, technical skills, and legal and planning systems. The English engineering firm Halcrow elaborated the Halstar approach based on a systems model that adds the dimensions of time and scale to sustainability model [29; 41]. The importance of time and scale is that it describes the dynamic nature of urbanism. Change is constant in urban environment and historic urban landscapes are not exception and the impacts of changes can be interpreted very differently if viewed in short-term or long-term scales and in different levels of influence [41].

Results: heritage building in the context of sustainable development of historic urban landscape

Heritage conservation literature supports the idea that historic urban conservation needs to be a coherent and integrated part in the processes of socio-economic development, regional and urban planning [38; 25] and the preservation of individual heritage building should be integrated into the management of its context environment. Moreover, as it was mentioned in the previous sections, heritage can become a driver for sustainable development as well. These multi-level heritage preservation and management efforts should take place within an overall sustainable development framework. In order to understand these processes more clearly, the model of the links between heritage building, historic urban landscape and sustainable development was constructed.

Taking into consideration the importance of time and scale in sustainability in heritage context, the Halstar approach [29] was selected for development of the model for this research. The model below (Fig. 1), based on this approach, demonstrates sustainability as the interaction of natural, sociocultural, human, manufactured and financial capitals in the scale from the user to the global level and in the short, medium and long terms. In the vertical column to the right it is visible that historic urban landscape is the interaction of all five above-mentioned capitals and the inseparable context and

determinant of heritage buildings in the urban environment; moreover, the pie chart demonstrates that heritage buildings can contribute to the enhancement of these five types of capital in different scales and time-frames.

In the pie-chart (Fig. 1) the segments attributed to five capitals demonstrate the potential contribution of heritage building towards sustainable development of society and historic urban landscape. These potential contributions were identified based on above analyzed international documents [48; 36; 33]. The vertical column to the right demonstrates the components and features of historic urban landscape [48; 36]. Such categorization helps to identify better the contribution of heritage buildings both to overall sustainability and sustainable development of historic urban landscapes.

Natural capital. The natural capital features of historical urban landscape constitute of topography, geomorphology, hydrology, and natural features [48]; in the context of natural capital sustainable conservation, restoration, renovation, re-use and management of heritage buildings can contribute to preservation of biodiversity, preservation of existing resources, embodied energy and unbuilt natural or agricultural land [33].

Human capital. Perceptions and visual relationships are the features of historic urban landscape identified in the documents [48] that could be related to human dimension in the Halstar model. These features can be maintained and enhanced through sustainable and cautious treatment of heritage buildings. Moreover, sustainable heritage conservation, restoration, renovation, re-use and management can enhance other aspects of human capital including creativity, use of local skills, capacity building, entrepreneurship [33].

Sociocultural capital. The original Halstar model includes social capital [29], however, in this research it was extended to sociocultural capital based on the importance of cultural dimension in sustainability [7] and in historic urban landscapes. The features of historic urban landscape that could be attributed to this dimension of capital include social and cultural practices and values, diversity, identity, and intangible dimensions [48]. Sustainable practices targeted at heritage buildings could contribute to social (social resilience, social cohesion, social diversity, liveability of urban areas), economic (well-being of communities, inclusive local economic development), and cultural (preservation of local knowledge systems, identity of communities, sense of place) spheres. For example, culture-led regeneration strategies that reuse heritage buildings and engage with local citizens, can reinforce local culture and community's sense of pride and local identity [43]. It is necessary to note the intangible dimensions of historic urban

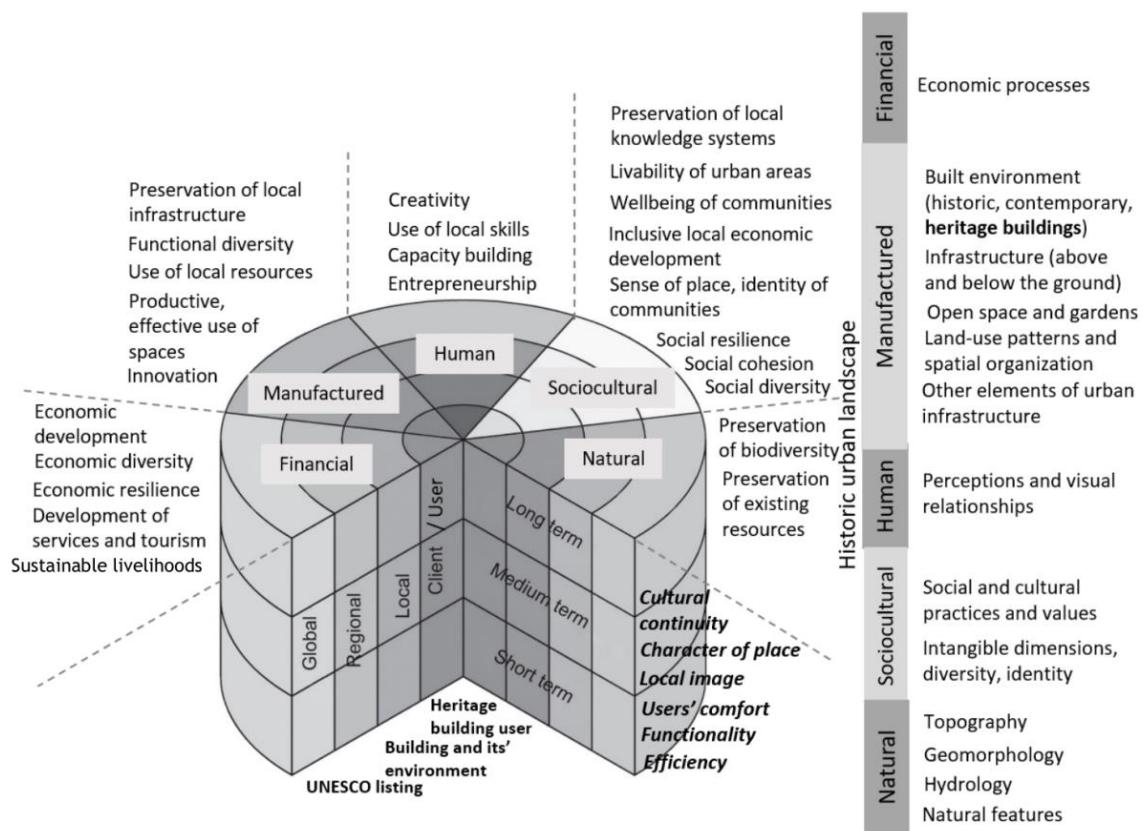


Fig. 1. Model, demonstrating the links between heritage building, historic urban landscape and sustainable development based on Halstar approach [48; 29; 33]

landscape. According to Graham et al. (2000), “heritage is inherently a spatial phenomenon. All heritage occurs somewhere”. However, not only spatial aspects, but also intangible ones’ matter for sustainable development. The idea of Grant (2010), that only moving from tangible to intangible, from material to less material and more spiritual forms of consumption would allow humanity to reach sustainability, could matter in this context. Vecco (2020) had considered tangible and intangible aspects of locality in sustainability concept. This intangible dimension and its nexus with tangible world could be identified as a spirit of place (*genius loci*) [46; 31], symbolic potential, mythical-symbolic essence of the architectural environment [32]. According to Vecco (2020), *genius loci* „has a double character of tangibility and intangibility“, „is a multidimensional and ‘multi-value’ asset, in the sense that it can belong to numerous dimensions of different significance (economic, social, cultural, etc.) in which it receives different values“. According to Ginzarly (2019a), the historic urban landscape is the complex layering of cultural and natural values and attributes that contribute to the identity and sense of a place, or *genius loci*. This reveals its importance in sustainability context, nevertheless this asset nowadays is often ignored [31]. Vecco (2020) proposed the three-fold process: rethink, protect and transmit the place and its spirit. According to her, this „threefold movement is not linear.

To be successful it needs to be circular and incremental“. According to Petrušonis (2018) „to maintain the identity of system, it is necessary to take into account the system history (memory). In other words, we have to respect historical determinants of *genius loci*“ and the role of heritage buildings cannot be underestimated in this context.

Manufactured capital. The constituent parts of historic urban landscape that can be at least partially associated with the dimension of manufactured capital in the model are the built environment, both historic and contemporary including heritage buildings, infrastructure, open spaces and gardens, land-use patterns and spatial organization etc. Sustainable practices targeted at heritage buildings can contribute to preservation of local infrastructure, functional diversity, use of local resources, productive, effective use of spaces, and innovation [48; 33].

Financial capital. The constituent feature of historic urban landscape identified in the documents [48] that can be linked with financial capital are the economic processes. Sustainable heritage conservation, restoration, renovation, re-use and management can positively contribute economic development, economic diversity, economic resilience, development of services and tourism, sustainable livelihoods. According to Onesti (2018), the actions on heritage and landscape can even contribute to the implementation of circular economy model as it is “closely interdependent with

the regeneration of landscape, which produces value through maintenance, recovery, reuse, restoration <...> and contributes to the quality of landscape enhancing the density of relations, symbioses, and synergies that multiply the flow of benefits in a virtuous loop” [28].

The vertical segments of the pie chart demonstrate the levels of consideration and influence of heritage building. The approach using the levels of influence is known in the building sustainability assessment, for example, Cole (1999) distinguished such levels of influence or scale in the building sustainability assessment: building materials, building components, building itself, community, region, global scale. Different scales are distinguished in heritage theory and practice as well. Graham et al. (2000) distinguish local, national, continental and global scales in heritage analysis. Harvey (2015) identifies the following diversity of scales in heritage articulation: „individuals and communities, towns and cities, regions, nations, continents or global“ and notices the phenomena of „downscaling“ (concentrating on community, family, individual levels) and „upscale“ (focusing on the universal understanding) phenomena in heritage treatment. This shows the importance of scale in heritage and sustainability discourse and analysis. The Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention underlines that achieving sustainable development will require acting at a scale that is much larger than the heritage property itself [33]. Halstar model [29] includes levels from client or user, to local, regional and global. In heritage building and historic urban landscape these levels can include but are not limited: the users of heritage building or historic environment, building and its environment, neighborhood, city, region, national, and even global levels. The consideration of levels is important in order to avoid the above mentioned downscaling or upscale effects.

The horizontal segments of the pie chart demonstrate the time scale of the potential effects of the intervention in heritage building in different time frames: short-term (for example, users’ comfort, functionality, and efficiency after the implementation of the project), medium-term (for example, the image of the place developing in several decades), and long-term (character of place, cultural continuity). The long-term effects and sustainability of the intervention into heritage object or landscape is a concern of Vienna Memorandum (2005). One of the provisions of Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the

World Heritage Convention is applying a long-term perspective to all processes of decision-making [33].

The framework elaborated in this research demonstrating the links between the historic urban landscape, heritage building and sustainability can be applied in urban development policy design and planning. This would allow cultural heritage, including heritage buildings and historic environment in general, to function as the driver, the leading factor for sustainable development of urban areas.

Conclusions

It is evident that the effects of sustainable treatment of heritage buildings can be felt on much wider scale including the entire urban landscapes with their tangible and intangible layers. In order to understand better the role of cultural heritage, including heritage buildings, in the sustainable development of urban areas, the notion of historic urban landscape presented in 2005 in Vienna Memorandum and further elaborated in 2011 in the UNESCO Recommendation on the Historic Urban Landscape was analyzed. The historic urban landscape notion integrating the array of the components and features of landscape from natural to man-made, from tangible to intangible, from historic to contemporary provides the innovative approach for the development of urban areas that would allow continuing the valuable features of historic environment simultaneously with high quality new developments. The valuable features of heritage in this way could become the drivers of wider urban sustainability.

Despite the potential of the notion of historic urban landscape for sustainability, its practical application in urban areas still raises questions. For the better understanding of the links between heritage building, historic urban landscape and sustainability that would allow achieving sustainable urban development driven by heritage, the framework was elaborated based on the Halstar approach. It demonstrates sustainability as the interaction of natural, sociocultural, human, manufactured and financial capitals in the scale from the user to the global level and in the short, medium and long term. It is visible that historic urban landscape is the interaction of all five above-mentioned capitals and the inseparable context and determinant of heritage buildings in the urban environment; moreover, heritage buildings can contribute to the enhancement of these five types of capital in different scales and timeframes. The model could be applied in urban development policy design and planning.

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Kopsavilkums. Pētījumā izmantotās metodes ietver literatūras apskatu, analīzi un sintēzi. Literatūras izpēte veikta kultūras mantojumam, mantojuma ēkām, ilgtspējas pamaprincipiem, vēsturiskās pilsētvides ainavas koncepcijai un tās ietekmei uz attīstību. Rezultātā iegūts mantojuma veidošanas, vēsturiskās pilsētvides un ilgtspējīgas attīstības modelis, kuru iespējams izmantot pilsētu attīstības politikas veidošanā un plānošanā.