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OPERATIONALIZING THE HUL RECOMMENDATION IN URBAN RIVER CORRIDORS: CHALLENGES AND PERSPECTIVES

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Abstract: This article proposes to consider urban river corridors as historic landscapes and an integral component of our common heritage and collective memory. It acknowledges the range of cultural values associated with urban rivers as well as the role of the latter in shaping the city through history, thereby contributing to our identity and sense of place. It reflects on the application of the Historic Urban Landscape (HUL) recommendation in urban river corridors. The article focuses on a double-lens approach that combines morphological/ecological analysis on one hand and cognitive representations of everyday landscapes and practices on the other hand. This paper further proposes an assessment of the efficiency of current legislative and institutional framework for heritage conservation. It takes the historic core in the city of Tripoli, Lebanon, as a case study where conservation practices have followed a monument-centric approach, neglecting the cultural value of the Abu Ali River flowing through the city. It concludes with a SWOT analysis to highlight how best to operationalize the HUL recommendation in urban river corridors.

Keywords:
Historic Urban Landscape (HUL), everyday landscapes, urban river corridors, heritage conservation, morphological analysis, ecological analysis, regulatory system, Tripoli, Lebanon.

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1. INTRODUCTION

Over centuries, the relationship between cities and water bodies (rivers, lakes, seas, and oceans) has been largely influenced by changes in urban design and planning

approaches to cities. Throughout the history of civilization, water bodies have been the foci of most urban developments because they offer key resources and services, including drinking water, fertile agricultural lands, fishing, power production and transportation links (Guillerme, 1983; Grimm et al., 2008). Today, most river corridors do not only have important ecological roles within urban landscapes, but, similarly, have key societal, cultural, and economic values (Francis, 2012).

In the late 19th century and early 20th century, western cities were in a process of development at a speed that was beyond the capacity of incremental urbanism. Rapid urbanization and intensive industrial activities have largely affected urban form, and means were developed to facilitate movement within cities (Otto et al., 2004). Accordingly, transportation shifted from water to streets and rails, and engineering projects have contributed to extensive changes in rivers' functions and structure. For instance, most urban river-edge lands were filled to accommodate new infrastructures, and many river channels were straightened, completely disconnecting them from their floodplains (Pedroli et al., 2002). These developments did not only harm the ecological function of rivers (Groffman et al., 2003; Everard & Moggridge, 2012) but also disconnected the rivers physically from their urban context and spiritually from the urban life since the river edge became less important as a social and retail space (Otto et al., 2004).

In the early 21st century, ecological studies have grown tremendously and have begun to influence theoretical thinking about the shape and development of cities. Consequently, a radical shift took place towards thinking about cities as biological rather than solely physical systems (Wu & Hobbs, 2002; Pickett et al., 2004). Consequently, river corridors are now recognized as important ecological and social components of urban systems.

Within the context of cities with historic urban cores, cultural heritage policies primarily focused on the built urban fabric, neglecting natural elements, like rivers, that gave reason for their location. In many cities, conservation practices followed a *monument-centric* approach, which focused on the restoration of heritage buildings and sites and neglected the cultural value of ecosystems at large, and especially rivers. Still, a number of morphological studies highlighted the influence of rivers networks of streets, plots, blocks, and buildings structures (Borie & Pinon, 1981; Castonguay & Evenden, 2012).

The Historic Urban Landscape (HUL) recommendation expands our understanding of historic environments. HUL deliberately encompasses the ensemble of urban structures and natural features as an integral entity that cannot be dissected into fragments and that jointly contribute to creating a sense of place and identity (O'Donnell & Turner, 2012; UNESCO, 2016). Following the HUL recommendation, our article stresses the need for integrating river systems into cultural heritage conservation policies. It is hereby considered that the river influences the physical and social patterns of human settlements contributing to form the very specific character of the latter (Guillerme, 1983). To elucidate the socio-spatial relationship between cities and rivers, this paper takes the Mamluk core in Tripoli, Lebanon, as a case study.

This article is structured as follows. Section one provides details about the heritage value of river corridors. Section 2 focuses on the need to conduct a comprehensive analysis of the relationship between the built and natural environment to reveal the character of the historic urban landscape. Accordingly, it illustrates the multi-dimensional morphological method of analysis of the socio-spatial relationship between the river and the city. Section 3 applies the proposed methodology to the city of Tripoli. Section 4 reflects on the application of the HUL recommendation through a critical assessment of existing laws and regulations and

conservation practices in relation to the HUL framework. Finally, this paper concludes with a comparative SWOT analysis on the application of the HUL recommendation in general and, more specifically, in urban river corridors and in Tripoli, Lebanon.

2. RIVER CORRIDORS AS HISTORIC URBAN LANDSCAPES

In 1925, the geographer Carl Sauer introduced the term “cultural geography” into American geography discipline (Price & Lewis, 1993). Sauer (1925) argued that the cultural aspects of the landscape and its material remains are created over a long period by human activity. In other words, a cultural landscape is *"fashioned from a natural landscape by a cultural group. Culture is the agent, the natural area is the medium, cultural landscapes the result"* (Sauer, 1925, p. 22). Urban river corridors are paradigmatic examples of such historic cultural landscapes, especially in those cases where urban settlements developed along the river and contributed to the evolution of its structure. Many scholars have addressed the wide range of cultural values and contributions to ecosystem services associated with urban rivers (Baschak & Brown, 1995; Forman, 1995; Everard & Moggridge, 2012; Francis, 2012; Kerr & Swaffield, 2012; Vollmer et al., 2015). In these studies, river corridors have been recognized as having significant ecological, social, aesthetic, historic, and economic values. Even when they are not associated with outstanding scenic values, river corridors usually form part of the “everyday landscapes” of the citizens (Preece, 1991; Groth & Bressi, 1997). They always contribute to shaping the local identity of a place and should hence be taken into consideration by heritage conservation policies.

Different urban planning and design approaches have been applied to restore damaged urban rivers (Marshall, 2001; Otto et al., 2004). It is crucial to mention that such projects do not aim to restore rivers to a pristine condition, but to provide new scenarios that are suitable for site specification and context. This article proposes a multi-dimensional approach to capture the influence of rivers on urban settlement patterns, the changes that occur in the physical structure of the city and the river, and the changing role of the river and cultural values associated with it over time. The article reflects on the application of the HUL recommendation on urban river corridors where conservation practices should include river conservation as a key element of heritage policies.

3. METHODOLOGY

The core issue of this paper is to identify the different attributes contributing to the character and cultural significance of historic landscapes in urban river corridors through time and to reflect on the application of the HUL recommendation for the conservation of these values and attributes. To achieve its goals it proposes a multi-dimensional method for the analysis of urban form that does not only target the morphological configuration of urban landscape but also the historical and cultural values attributed to it. This method follows three inquiries: the first is an archival review to analyze the riverside settlement at different historical periods. The second involves on-site structured interviews to reveal the community perception of the study area and different cultural values attributed by the public to the river corridor. The third is an assessment of the application of the HUL recommendation. This assessment is based on a review of different pieces of legislation for managing

heritage, listing and cultural heritage conservation projects in the historic core to critically evaluate how concepts and tools offered by the HUL approach could be translated into the existing regulatory framework in Tripoli.

The first investigation is a morphological analysis of the urban form. Based on the cadastral maps of the city dating back to 1937. The street pattern during the early urban settlement in the historic core in relation to the river corridor is analyzed, as well as changes that occurred through time in the physical structure of both urban and natural systems. A party wall map has been outlined for the city. A party wall map is a two-dimensional plan that shows nodes of attraction in the city through drawing one edge of each building (see section 5.1). This method has been applied in different projects to understand urban development through establishing a comprehensive relationship between the alignment of the building fabric and the city's physical features such as street pattern, natural features, and open spaces (Hallaj, 2000).

The second investigation is an on-site survey based on a structured questionnaire. The questionnaire contains two sections. The first part is oriented towards the interviewees' mental image to reveal how they perceive the study area, and the second section consists of an open-ended question about heritage preferences. Fifty persons participated in the questionnaire survey. Interviewees included shoppers, shops owners, and households. Interviews were completed in the street, in shops, and houses. They were conducted during February and March 2014. The different elements represented in every image were subsequently extracted so as to illustrate in a schematic way the perceived spatial attributes of the urban river corridor. Second, the various positions towards the river revitalization were analyzed in order to elicit the cultural values attributed to it.

The third investigation is a review of heritage regulations, listing, and conservation practices in relation to the HUL recommendation. This will help us to highlight how tools proposed by the HUL recommendation can be translated into the local system of urban management. Urban heritage regulations available at the international and local levels are assessed in this perspective. Three heritage listings are further reviewed: the UNESCO listing in 1953, the 1995 survey done by the Association for the Preservation of the Archaeological Heritage of Tripoli, the municipality, and local historians, and the 2002 cultural heritage and urban development project of the city.

4. STUDY AREA

Situated 85km North of Beirut along the Mediterranean coast, Tripoli is considered Lebanon's secondcity. The city was founded on the Mediterranean seaside during the 14th century BCE. It was not until the Middle Ages that Tripoli became a city with two poles: the marine city (El-Mina), on the original site of Tripoli, and the Medina, currently the Mamluk historic core (Gulick, 1967). In 1289, the Mamluks conquered the Crusader city that was situated on the peninsula, razed it to the ground and built a city at the foot of the Crusader citadel and along the Abu Ali River around 3 Km to the west (Fig.1).

Fig. 1 Upper left, the east bank of the river. Upper right the west bank of the river. Lower, the Mamluk core and the urban extension outside its periphery.

The two poles of the city remained separated by citrus fields until the beginning of the twentieth century. In 1516, the Ottomans occupied the city until the beginning of the French mandate in 1918. It was during the late Ottoman period that urban extension outside the city's gates started. Urbanisation started along the roads constructed between El-Mina and the Medina in the beginning of the twentieth century during the Ottoman period, as well as along the two banks of the Abu Ali River. By the end of the twentieth century, urban sprawl took over most of the agricultural fields (Fig. 2). In the second half of the twentieth century, the city experienced a spectacular population growth under the influence of new urban developments and rural exodus from the neighbouring north regions (Le Thomas, 2009).

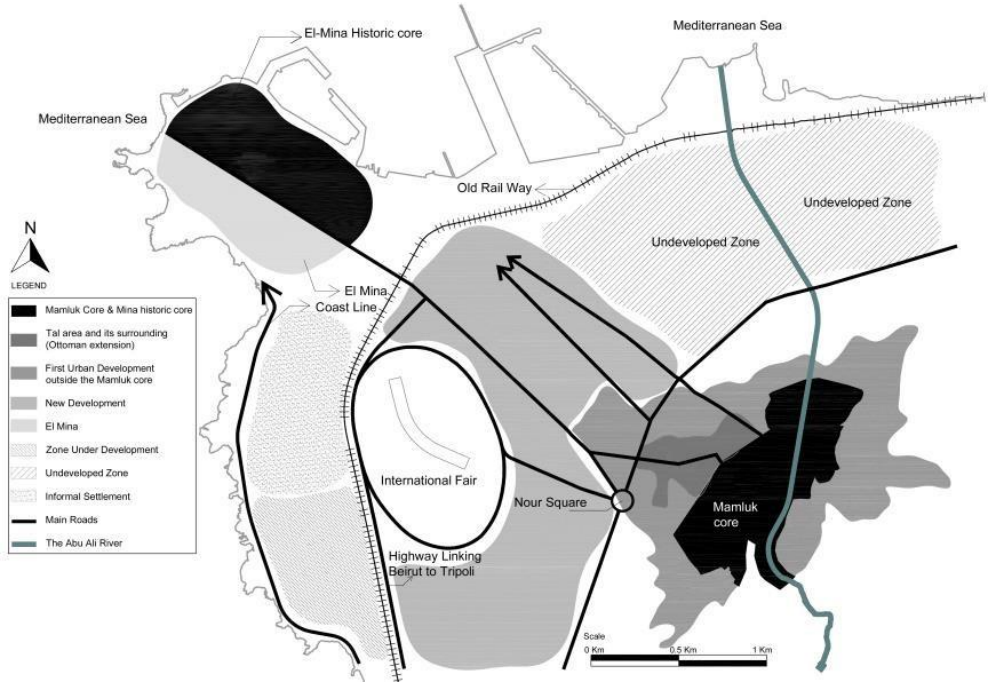

Fig. 2 Tripoli, Lebanon, and different urban zones in the city.

5. A DOUBLE-LENS APPROACH TO HUL DOCUMENTATION

The Historic Urban Landscape recommendation requires the application of an all-inclusive value-based approach to heritage conservation. It considers the historic layering of cultural and natural values and attributes in a city. This approach should be based on a comprehensive documentation of the city's natural systems and built structure as well as the intangible heritage associated with the tangible heritage (UNESCO, 2011, Van Oers, 2013). This documentation is crucial to identify the overall character of the historic urban landscape and the values and attributes that need to be conserved for future generations through a bottom-up participatory process (UNESCO, 2011). Therefore, the application of traditional and innovative tools, adapted to local contexts, is recommended. These should typically include civic engagement tools, knowledge and planning, regulatory systems, and financial tools (Van Oers & Pereira Roders, 2013; Rodwell, 2015). This paper suggests addressing Tripoli river corridor through a double lens: a morphological/ecological approach on the one hand and a cognitive map centred on practices and representations on the other hand. Such a double-lens perspective calls for realigning traditional desk-based analyses with more personal, intersubjective interpretations of heritage.

5.1. A combined morphological/ecological approach

The character of historic landscapes in urban river corridors is intrinsically linked with the reciprocal relationship between the river and the built environment and how one influences and adapts to the other. Morphological analyses should consider the evolution of urban form in relation to the river layout and its gradual changes over time.

In the case of Tripoli, the continuous axis that extends from the southwest to the north-east constitutes the main spine of the Mamluk core and has been maintained through time (Fig. 3). It stretches along the hill where the citadel is situated and then continues parallel to the Abu Ali River following the structure of the natural landscape. All east-west streets are connected to this spine and two bridges connected the two sides of the river. This grid was in accordance with the natural flow of the river corridor, and they both followed the topographical characteristics of the area. During this period the river was at the core of the urban settlement. The water resource was used for domestic as well as agricultural supply for citrus fields on the coast and olive fields in surrounding villages. Riverine zones along the river were used as social spaces for gathering and interacting with the natural environment and as a green corridor that forms a transitional zone between the city and the river. The upland on the west bank of the river was saved for the citadel that overlooks the entire city.

Between 1955 and 1971, different factors contributed to changes in the structure of the river (Fig. 3). First, in 1955 the Abu Ali River flooded the city. By the end of 1968, the downstream river course was hence straightened in order to reduce the risk of flooding and an artificial concrete channel was constructed with vertical lateral retaining walls. The river was further surrounded by a 24 m Wide Avenue on each side. These avenues were rapidly transformed into major circulation axes. With regard to the riverfront and the river system, these interventions transformed the river from an ecological corridor to an infrastructural artifact. The floodplain, where the riparian vegetation originally developed, was no more a place for social gathering providing the city with a public amenity. The river was no more a source of water supply or biodiversity as wetlands and other habitats were dried up. Moreover, in 1971, a master plan was developed for the city. It intervened in the Mamluk core by constructing two vehicular arteries to connect the new developments with the core and the new boulevards along the river. In between these arteries, the central spine of the city and the inherited urban pattern maintained their original shape.

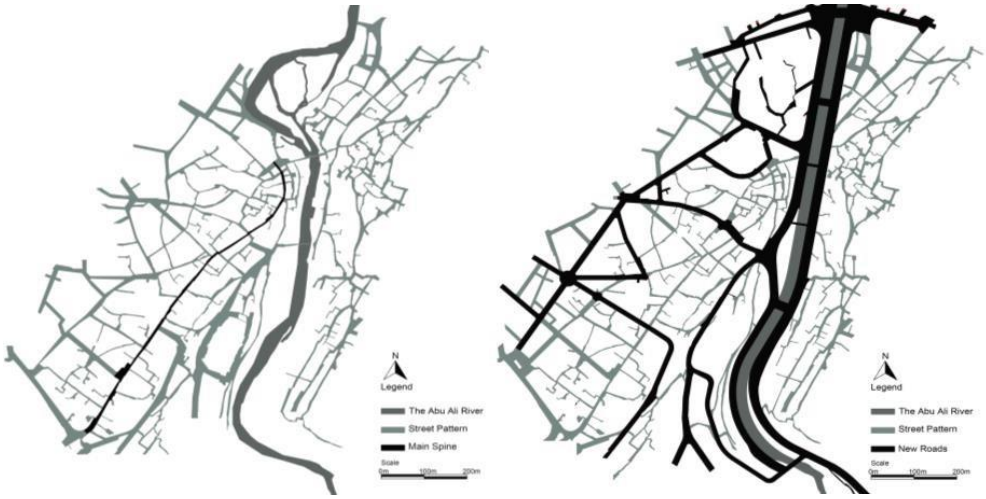

Fig. 3 Left, the streets pattern of the medieval core in 1937. Right, the streets pattern of the medieval core after 1971.

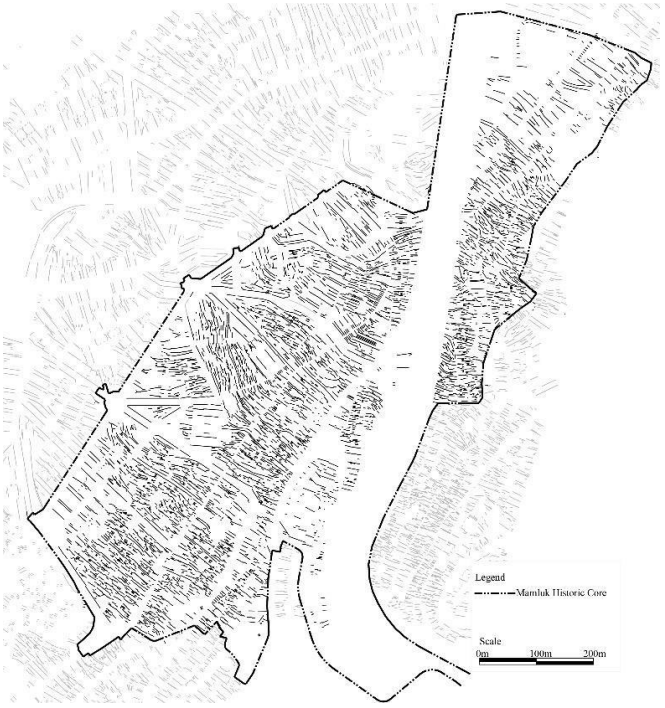

Fig. 4 Party wall map of the Mamluk core. This strong structure can clearly be seen as a form of heritage that largely determines a cultural urban landscape. This cultural heritage landscape is intimately related to the river and its influence on street patterns. Even though altered after the transformation of the 1960ies, it keeps structuring the area as a whole.

The party wall map of the Mamluk core (Fig. 4) shows how the historic urban landscape was built in coherence with the natural landscape. Most buildings are slanted towards the river stressing on the latter as the dynamic of urban development. Moreover, newly constructed buildings along the river, after its canalization, conserved the pattern of urban development through time and respected previous spatial configurations.

5.2 Cultural Values Associated with urban river corridors

People ascribe different values to a heritage asset depending on their personal interests and interactions with their environment. Mental maps are based on local inhabitant's perceptions of their city as well as their daily experience of the network of places, streets and buildings. Conceived as such, they help to reveal everyday landscapes, i.e. the set of tangible attributes that contribute to their image of the city. When asked to illustrate their perception of Tripoli, most interviewees did not represent all the study area. Instead, they drew a small section of it according to their personal experience and reflections. By contrast, the river and the monuments along it were represented in all maps. Most importantly the stairs that link the east and west banks of the river were one of the most common elements in the different interviewees' mental images (Fig. 5).

42 out of 50 interviewees chose the revitalization of the river corridor instead of the citadel as their priority in terms of urban renewal. They attributed an aesthetic value to the river. In their opinion, the river reflects the identity of the historic core and its pollution is affecting liveability in the city. Most interviewees mentioned that their houses overlook the river and its degradation is hence affecting their everyday landscape. The river appears as a major component of the residents' memory and common identity.

Fig. 5 Two examples of respondents' mental image of the city.
Left: the river, the stairs and residential neighborhoods on the east bank of the river, 2 pedestrian bridges, and the citadel. Right: polluted river, cars, roads, the stairs and residential neighborhoods on the east bank of the river, and school.

6. URBAN HERITAGE POLICIES AND MANAGEMENT

On the institutional and legal level, three main challenges could be highlighted for the application of the HUL recommendation in Lebanese cities. First, the lack of expertise and know-how in adapting international frameworks to the local level. For instance, even though Lebanon has ratified the 1983 UNESCO convention for the protection of cultural and natural heritage, and the 2003 convention for the safeguarding of intangible heritage, the integration of these international laws and concepts into the national legislative framework is fragmentary. Second, the legislation, when existing, is not always applicable in the field. Although an updated law for heritage conservation was issued in 2008, the 1933 law is still in force because decrees for the operation and application of the 2008 law were never issued. Still, according to the 1933 law, those buildings that were built after the 19th century are not considered as heritage. Moreover, whereas the HUL approach considers cultural heritage as a main pillar for achieving sustainable development, in Lebanon the sustainable development framework is mainly based on the social, economic, and environmental assets and does not include cultural dimensions. Consequently, the 444 law for Environmental Impact Assessment (EIA) excludes cultural heritage from its scope. Third, at the operational level, the government and administrations are very restrictive when listing urban heritage. This practice is related to a number of issues, amongst which persistent controversies about the value of some historical remains related to divergences between communities (Saliba, 2013). Still, such a lack of designation increases the risk of demolition for some significant heritage assets.

In this context, heritage listing in Tripoli remains mainly based on the age value of heritage assets. In 1953, the Directorate General of Antiquity (DGA) in Lebanon asked UNESCO to conduct an urban study about the Mamluk core in Tripoli. They delineated the historic core and identified 44 monuments that should be conserved (Fig. 6). Historic neighbourhoods on the west bank of the river were not given a heritage value. The delineation of the historic core was limited to the west bank of the river. Moreover, the survey was very punctual and was centred on

specific buildings treating them as frozen icons that stand alone in the landscape without looking at different social and spatial relationships between the built and the natural environment. The selection of listed buildings was mainly based on age, function, and architectural characteristics of the buildings (UNESCO, 1953). The selected buildings are religious and public buildings. They include the citadel, churches, mosques, Khans, schools, and public baths. The mission recognized the historical significance of residential houses and their role in constituting the specific character of the city but it did not include these on the list. It did not recognize the cultural and historic value of the Abu Ali River and focused mainly on built structures without studying the relation between these and their surrounding landscape.

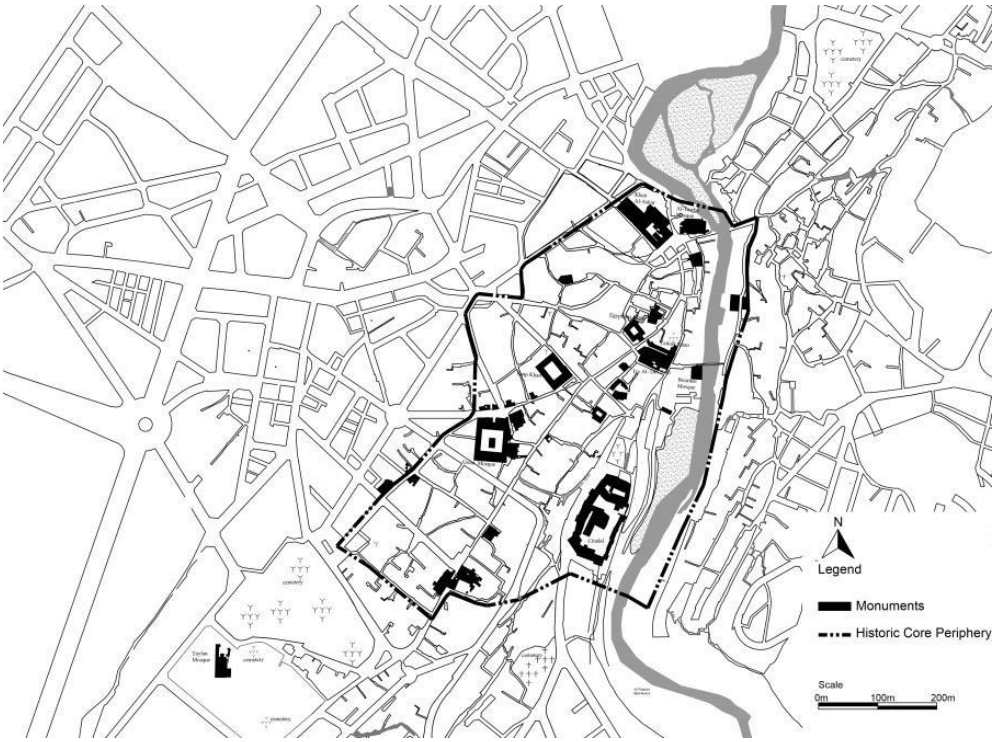

Fig. 6 The periphery of the historic core and the classified monuments based on the report of the mission sent by UNESCO in 1953.

In 1995, under the surveillance of the Association for the Preservation of the Archaeological Heritage of Tripoli, a new heritage survey was conducted. This time the scope of heritage was extended to include sites, comprising cemeteries, gardens, residential blocks, and pedestrian commercial streets. This time the east bank of the river had its portion of listed monuments as well as the early Ottoman developments outside the boundary of the Mamluk Core. Different Ottoman buildings and sites were identified as cultural heritage, such as a public garden (Al Manshiyeh), the municipality, and the Nawfal Palace. Even though the east bank was included, the historic elements were still concentrated on the west bank of the river, where most of the classified monuments are situated (Fig. 7). The recognition of heritage value embedded in the commercial streets in this phase is crucial. In 1996, most of the listed monuments and streets were nationally registered. This review shows how the concept of heritage is still associated with constructions that

are treated separately and has never been integrated into the wider urban context that encompasses different historical, cultural, and social values.

A project initiative that tried to integrate urban development and cultural heritage conservation ended up applying punctual interventions and focusing on facades instead of approaching the city as an entity. In 2002, the Lebanese Government requested assistance from the World Bank to scale up dispersed urban heritage rehabilitation efforts to a national level by assisting five secondary cities (Tripoli, Byblos, Baalbek, Saida, and Tyre). The project was entitled 'Cultural Heritage and Urban Development (CHUD)'. It aimed to invest in the cultural heritage of Tripoli to integrate it into the life of the community and achieve local growth (Saba from Al-Harithy, 2005). Although the goals of the project were promising, interventions were restricted to facades and some open spaces, and to the construction of a platform above the Abu Ali River to host the informal vegetable market that used to be along the river. The project did not recognize the river as part of the community shared memory and identity. Instead, the construction of the platform came to ignore the significance of the river in the composition and structure of the city.

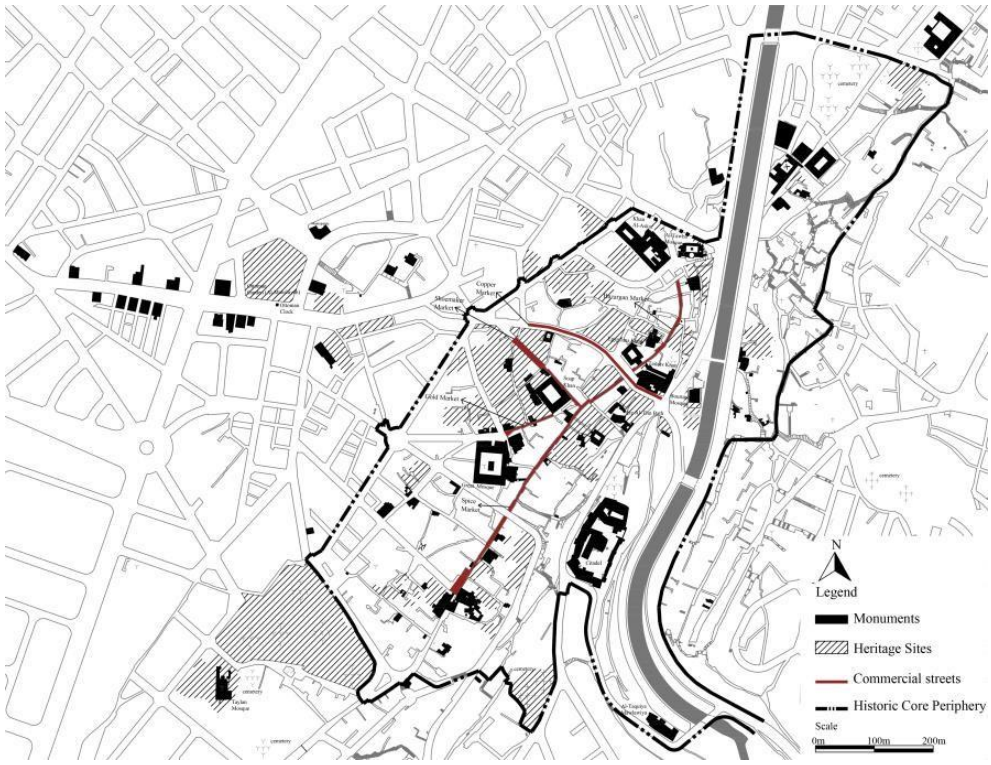

Fig. 7 The periphery of the historic core and the classified monuments and sites based on the survey done in 1995 and on the delineation of the historic core specified by the CHUD project.

7. A SWOT ANALYSIS FOR HUL OPERATIONALIZATION

The following SWOT analysis highlights the Strengths, Weaknesses, Opportunities, and Threats concerning the operationalization of the HUL recommendation and its application in urban river corridors as well as in the city of Tripoli, Lebanon (Table 1).

Table 1 SWOT analysis of the HUL recommendation operationalization.

	Strength	**Weakness**	**Opportunities**	**Threats**
General	-Inclusive approach considering both desk-based documentation of urban heritage and perception/practices. -Value-based assessment, encompassing the divergent heritage values promoted by the stakeholders -Combination of substantive and normative dimensions, so as to support goal-oriented implementation of policies.	-Orthogonal with existing normative framework in many countries. -Lack of funding for supporting operational application and generalisation beyond case study sites. -Lack of connection with street-level initiatives.	-Greater consideration of heritage by appropriation & integration of social practices in cultural heritage values -Integration with strategic urban planning policies -Integration into the institutional and regulatory systems.	-Development of top-down initiatives poorly connected with the field. -Unstable political regimes unfavourable to soft law implementation, experimentation and diffusion. -Growing resistance to adaptation of frameworks issued from international bodies in Global South countries.
Urban river corridors	-Balance between cultural & natural assets of river corridor landscapes -Consideration for the three-dimensional nature of heritage perception typical of urban river corridors.	-Lack of precise guidance for balancing different heritage values. -Complexity regarding decisions on what attributes & values to protect.	-Capacity building at the local level oriented towards cities instead of focusing on national actors. -Development of a specific HUL methodology adapted to river-corridor cities based on international best practices.	-Overrepresentation of visual aesthetic dimensions usually associated with landscape considerations, especially in urban river corridors.
Tripoli, Lebanon	-Better consideration for diversity of urban fabric and heterogeneity especially values related with everyday landscapes and informal settlements. -Empowerment of the civic community & public institutions.	-Coming too late in the regeneration process (what about corrective measures in already degraded contexts?) -Not integrated into the local regulatory system. -Lack of horizontal and vertical coordination between stakeholders.	-Appropriation by socioeconomic groups in their daily relations with local authorities and the pursuit of the integration of cultural heritage into planning.	-Increased resistance from local actors against such a framework if there is inappropriate funding or policy support for its application on the field.

When cultural heritage is reduced to built components and the age value of buildings, the regulatory and institutional systems contribute to increasing pressure on cultural heritage that is not listed. Appropriation hence appears a key factor for the integration of cultural heritage conservation concerns into urban planning. The empowerment of the civil society and the application of innovative civic engagement should be triggered as a way to conserve urban heritage that is not designated. It can further foster awareness and dialogue about everyday landscapes,

which are associated with daily practices (Preece, 1991), cultural expressions and economic and political processes. The HUL recommendation provides a toolkit to consider heritage more fully, through appropriation and the range of heritage values promoted by the stakeholders.

In river-corridor cities, the documentation and mapping of the historic urban landscapes based on a double-lens approach that is morphological/ ecological and cognitive at the same time would allow integrating socio-cultural and ecological values of rivers as genuine conservation concerns, and acknowledging the significance of everyday landscape in articulating people's common heritage and identity. Moreover, it provides an opportunity for the development of a case-specific methodology, based on lessons learned from good practices at the international level. Many projects that reviatlise and reintegrate river corridors into city life have been successfully applied in the past. Examples of these include the Los Angeles River revitalization (USA), the Cheonggyecheon Stream restoration project in Seoul (Korea), the Rouge River gateway project, Michigan (USA), the Isar Munich River restoration project, Munich (Germany), and Madrid Rio project, Manzanares River (Spain).

Furthermore, on the operational level, the application of the HUL recommendation in a local context is largely related to the efficiency of current legislative and institutional frameworks for heritage conservation. Consequently, the main challenge in cities of the Global South is to adopt an international law to local contexts and to translate concepts into practice.

8. CONCLUSION

Cultural heritage conservation remains challenging in those countries that suffer from political instability, sectarianism, social segregation, bad economic condition and increasing informality. Although at the international level, cultural heritage has been recognized as an enabler for sustainable socio-economic development (UNESCO, 2016), the adoption of this agenda by institutional and legislative bodies involved in urban management initiatives is still pending in many countries. When urban development projects focus on local economic needs in isolation from the social, cultural, and environmental issues, the potential value of cultural heritage remains underexploited. The HUL recommendation emphasizes the opportunities of integrating heritage conservation concerns with economic and social ones.

A roadmap for the application of the tools provided by the HUL recommendation should be developed. This study highlights that urban river corridors are characterized by specific morphological structures that reflect the changing social and spatial relationships between the city and the river over time. This structure plays an important role in the identity and common heritage of local inhabitants.

In the case of Tripoli, our study highlighted that heritage designation keeps playing a major role in the definition of heritage. Civic engagement is not yet fully acknowledged as a way to elicit cultural values associated with historic urban landscapes. Existing regulations should be updated in order to match the definitions and guidelines provided by the HUL recommendation. The lack of expertise in the bodies involved in the daily urban development and heritage conservation is a challenge to be addressed in this respect.

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