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Article

Urban Guidelines and Strategic Plan for a UNESCO World Heritage Candidate Site: The Historical Centre of Sharjah (UAE)

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Abstract: This paper presents the results of theoretical and applied research that employs methodological experimentation in a project for the protection and integrated transformation of the downtown area of the city of Sharjah in the United Arab Emirates. The particular nature of this case relates to two factors: a) strategies and policies to protect and enhance the cultural heritage as a driver for tourism and the cultural development of the entire Emirate, from archaeological goods to the urban fabrics in historical centres (Sharjah and Korfakkhan), in contrast to the surrounding emirates; and b) the client’s request to define guidelines to manage the urban cultural heritage during a time of transition while awaiting the results of UNESCO candidacy. This unique fact denotes a sensitivity and long-term policies regarding the cultural heritage which view the recovery of the urban historical heritage, assuming the cultural component as the fourth dimension of sustainability. The methodological approach, the results of the research, and design are organized on the dual urban and building scale to understand the structure and elements of the historical centre. The actions and interventions are differentiated with respect to urban fabric, building, archaeological good, and landscape and translate the strategies of the guidelines into short-/mid-/long-term design actions.

Keywords: cultural heritage; urban planning; urban transformation; urban guidelines; Unesco sites

1. Introduction

This paper¹ presents the results of applied research in the Emirate of Sharjah, with particular reference to the guidelines for managing the urban cultural heritage of the historical centre of the city

¹ The research was the fruit of an agreement between the ‘E. Vittoria’ School of Architecture and Design (SAAD) at the University of Camerino and Angelo Costa International Engineering Consultancy. The agreement focused on ‘Scientific/methodological consultation for drafting the master plan for Khorfakkan (EUA) and the urban guidelines of eight sites (UNESCO Heritage candidates) located in the Emirate of Sharjah (UAE)’. Angelo Costa International Engineering Consultancy was the client and counsel.

The research relied on a scientific committee composed of university instructors and experts in the sector: Professors Giovanni Carbonara, Antonino Gallo Curcio, Lucio Carbonara, and Elio Trusiani, and experts Jukka Ilmari Jokilehto, Irma Visalli, and Angelo Costa.

Respectively, the working groups consisted of the following instructors, professionals, and external experts:

- a) For Angelo Costa International Engineering Consultancy: Angelo Costa (coordinator), Cristina Molfetta, Clara Tambasco, Sarah Elisabeth Taylor, and Haitham Nabil.
- b) For the ‘E. Vittoria’ School of Architecture and Design (SAAD) at the University of Camerino: Rosalba D’Onofrio (scientific investigator), Elio Trusiani (scientific investigator), and Chiara Camaioni.
- c) For the external team of experts: Lucio Carbonara (coordinator), Emanuela Biscotto, Silvia Brunella D’Astoli, Maddalena Franzosi, Riccardo Leone, and Maria Spina.

of Sharjah. The guidelines are designed for application during the period of transition between the proposed UNESCO candidacy and its eventual nomination as a Heritage Site. The request stems from the absence of local planning tools and the need to manage this heritage in tune with eventual UNESCO recognition. The transition phase is delicate and potentially lays the foundations for a future local planning tool capable of dialoguing with the present and its demand for transformation, as well as with the eventual UNESCO recognition and the objective of protecting and enhancing the cultural heritage.

Herein lies both the particular nature of the client's request and the topic of research, which is called to respond operationally to managing the transition by laying the foundations for a common future language between local planning and UNESCO management plans. The innovative nature of the client's request should also be emphasized. It reveals the desire of the Emirate of Sharjah to focus on a culture- and tourism-based economy, in which culture is a driver for tourism development as well as the fourth pillar of sustainability. This facet differs from the established image of the United Arab Emirates. The widespread cultural heritage (archaeological remains, natural assets, historical centres, collective facilities of cultural and historical interest, historical trails) was the driving force for UNESCO candidacy as part of the serial assets tied to the material and intangible history of the Emirate. This aspect also distinguished the entire project, which has made this serial nature the link between area, point-like, and linear cultural heritage, in which the historical centre of Sharjah certainly acts as the head of an urban-territorial system, due to both its contiguity with the city of Dubai and its quantitative and qualitative importance compared to the other sites. As a whole, the bid for UNESCO World Heritage status covers the following eight sites located throughout the Emirate: Heart of Sharjah and Al Hisn, Al Mahatta, Al Dhaid, Fili, Wadi Al Helo, Al Mirgab, Khorfakkan.

The results of the research are divided into two parts:

1. The development of urban guidelines (UG) and detailed urban guidelines (DUG) used to manage the transition, guaranteeing protection and responding to possible demands for urban and building transformation;
2. The preparation of a strategic scheme called the Strategic Plan (SP) for the medium to long term, which constitutes a reference scenario, or rather a vision for continuously and synergistically developing the intentions and objectives of both an eventual UNESCO management plan and the city's request for transformation.

Given the urgency and the client's request, this step methodologically reverses the normal path of preparing a strategic tool by placing the local action/intervention before the wider spatial strategic preparation. Indeed, it is just a chronological juxtaposition, since the DUG and SP were developed at the same pace along a path that alternates between the scales of intervention, unifies the intention, and guarantees correspondence between the urban strategy and local action/intervention in the individual units.

The applied research contains three fundamental pillars that constitute the cultural and scientific background: 1) Italian know-how regarding policies to protect, safeguard, develop, and manage historical cities, the reason why scientific consultation was requested from a team of Italian professionals and scholars; 2) the UNESCO Recommendation on the Historic Urban Landscape [11], which integrates and frames strategies to conserve the urban heritage within the broader objectives of sustainable social and economic development; and 3) awareness of a transition from the classical paradigm of urban conservation to the paradigm of managing change. As Francesco Bandarin and Ron Van Oers affirm [3] (p. 274), the beginning of the 21st century brought a reflection on the tools and methods of urban conservation, developed and tested in the second half of the 1900s. Considering that the main factors of change are tied to complex economic, sociocultural, and global climate processes, it is good to ask how to respond to or overcome the methodological and instrumental apparatus used up to now.



Figure 1. 8 Unesco candidate sites.

With regard to the first cultural pillar, we recall that it relates to a long conceptual and design process that views the question of co-existence between the cities of the past and present as a guiding line in the urban planning and architectural debate in Italy in the 1900s. Some fundamental steps of this process can be identified as follows:

- a) In 1913, Gustavo Giovannoni [6] proposed conserving historical centres through 'thinning' projects, especially for reasons of hygiene/health, keeping them separate from the new city and its services. He replaced the system of gutting, cutting, and reworking streets and buildings with the creation of space, eliminating any element that could be overlooked while preserving the rest, without new insertions or demolition.
- b) Following the Second World War, the cultural world began to question the relationships between old and new. This was also addressed internationally, as demonstrated by the 8th CIAM Congress in 1951. This question would constitute the focus of reflection throughout the 1950s. Actors and key figures in the debate included exponents and intellectuals from academia,

culture, and civil society, such as E. N. Rogers, R. Pane, C. Brandi, L. Benevolo, L. Detti, L. Piccinato, A. Cederna [1].

- c) The Gubbio Charter of 1960, the final approved declaration concluding the National Conference on the Protection and Renovation of Historical Centres, affirmed the basic need for the protection and renovation of historical centres as a premise to the development of modern cities and invoked an immediate provision of the obligation for protection in all historical centres before formulating and implementing renovation plans. At the same time, the Charter refuted the criteria for recovery and stylistic additions, mimetic rebuilding, the demolition of buildings with an even modest environmental character, uprooting and isolating monumental buildings through demolition in the building fabric and, in principle, new insertions in the ancient area.
- d) In the early 1960s, there was a growing trend to recognize the role of historical centres within a complex system of territorial resources. Italian Law no. 457 of 05/08/1978 – *Residential Building Standards* (Official Gazette no. 231 of 19 August 1978) introduced the recovery plan that would be used to develop studies, methodologies, regulations, and also implementation tools for areas in historical centres. At the same time, studies and theories of restoration by Giovanni Carbonara, although more focused on restoring monuments, contributed to expanding knowledge and reflection among the individual cultural assets and historical environmental context [4].
- e) In the 1980s and 1990s, the concept and notion of recovery shifted to existing areas of the contemporary and modern city and the historical centre saw its classical paradigm fade in favour of a new paradigm that viewed it as a place of stability and connection in the face of great physical and social variability. It served as an opportunity for those who knew how to read it as a driving element of new rules of co-existence [2]. A shift was seen from projects to protect, safeguard, and renovate historical centres to projects for the existing city, from a concept of recovery of historical areas to a concept of regenerating the settled area, which was proposed as an action capable of re-establishing relationships of meaning between the places and their histories. Recognition of the value of the historical heritage was assumed as a starting point for the project for the existing city, a project that assumes the formation of knowledge as preliminary to any intervention and action. The ‘principle of history and conservation’ forms the basis and not just the limit for any innovative action, safeguarding, protecting, and promoting integrated forms of cultural identity between the historical city, existing city, and historical territory.

The evolution of the cultural debate summarized above marks a path that also involves the other two pillars, points 2 and 3. On the other hand, it refines the know-how related to methodology and intervention that constitutes the classical paradigm of urban conservation. As recognized by Bandarin and Van de Roer in the third pillar above, this classical paradigm needs to be overcome in order to achieve a paradigm for managing change. With regard to the existing cultural heritage and the ‘time’ variable, managing change is precisely the research question posed by the client in its explicit request for UG and DUG for managing the transformation.

By investigating specific case studies as well, the cultural background above was integrated in areas of the Middle East and Africa that offer stimulating points for reflection on the protection and management of UNESCO World Heritage Sites, with proposals for intervention aimed at enhancing the cultural heritage by transforming the urban landscape. The collection of cases seems to be diverse and acts as a basis for inspiring future actions. In the absence of similar cases relating to the research question received by the client, this was necessary for making a summary but important reconnaissance of UNESCO sites in similar geographical and cultural settings, or at least similar due to managerial problems, typology, and urban aspects.

Of fundamental importance is the project to conserve and recover the historical centre of Cairo, registered as a UNESCO World Heritage Site in 1979 [16], where growing degradation, the high rate of pollution, waste disposal, and systematic traffic congestion represented an opportunity to develop policies for urban regeneration and offer an adequate quality of life. Through new forms of environmental, physical, and socioeconomic regeneration and a management system reinforced by solid coordination between institutions and administrations, the city is developing an action plan (followed by a management plan and finally a conservation plan) that draws on some guidelines (*Guidelines for surveying buildings and open spaces*) capable of expanding the effectiveness of the transformation process to other problematic areas of the city. To this end, the main objectives of the

plan involve the recovery and protection of historical areas deemed to be national cultural heritage, the regeneration of degraded areas, the creation of new road networks (to guarantee better pedestrian use and decrease traffic), and the creation of new commercial activities. This urban planning project would therefore increase the living standards of residents through development capable of offering everyone the necessary infrastructure and services through financial resources deriving from the increase in tourism.

Another example is the Citadel of Erbil, an ancient fortified settlement in the independent region of Kurdistan, Iraq, a UNESCO World Heritage Site since 2014 [9]. A monument and symbol of this land, the Citadel is a major archaeological area in the region. It rests on an artificial hill consisting of archaeological sediment that accumulated over thousands of years of history. A similar settlement continuity leads us to consider this site as one of the most important in the Middle East. The topography of the hill conditioned the urban form, which developed in concentric rings where the original fortifications were replaced over time by houses and other walls. In the last 50 years, the central area and buffer zone of the Citadel have undergone a slow process of change, losing their original social and functional integrity, which has led to progressive abandonment and deterioration of the site. The start of a new phase of rebirth came in 2007 with the creation of the High Commission for the Erbil Citadel Revitalization (HCECR), which, in collaboration with UNESCO and the contribution of all relevant administrative bodies, promoted an intense programme of actions (*Guidelines for Urban Design*) to develop and enhance the Citadel, restore the cultural and social role of the city, and strengthen its integration with surrounding neighbourhoods. The many objectives include spreading the historical and archaeological importance of the site, thus allowing the population to transmit the memory of those places and helping to increase tourism.

Another case is the ancient city of Timbuktu in Mali, which was listed as a UNESCO World Heritage Site in 1988 [15] and was for centuries a place for cross-Saharan trade, until it became an extraordinary intellectual and spiritual centre in the 15th and 16th centuries, spreading Islamic culture throughout Africa. Among the most important evidence from this golden period are the historical centre and a series of mosques and mausoleums. However, the city is subject to uncontrolled urbanization, a lack of maintenance, and the effects of climate change, with the increase in desertification and a higher frequency of extreme events such as flooding due to strong rains. To support these continuous hazards, the city decided to address these questions with three fundamental management tools (Revitalization and Safeguarding Plan of the Old Town (2005), a Strategic Sanitary Plan (2005), and a Conservation and Management Plan (2006-2010)), developed in collaboration with the community of Timbuktu, citizen management committees, and the cultural mission. The results obtained in managing the urban fabric have combined tradition and innovation, supporting changes with protection of the artistic/cultural heritage (development of Sankoré Square, active conservation of the mausoleums, and expansion of the UNESCO site).

The final study relates to the *aflaj* irrigation systems of Oman, constructed thousands of years ago and still in use today through the presence of about 3000 canals, five of which were chosen in 2006 as a UNESCO World Heritage Site [8] scattered around the country. This case was interesting especially for archaeological sites in exurban areas along the caravan routes in the Emirate of Sharjah in direct contact with a large territory. In this sense, faced with the constant scarcity of water, the correct management and distribution of water resources becomes a vital priority, with the agricultural system, harvests, and livestock dependent on it. With the construction of gravity-based system of canals along the mountains, water has been brought since ancient times even to nearly desert areas, villages, homes, and farms for domestic use or cultivation. This interesting case offers a variety of interventions with responsible, innovative solutions aimed at identifying opportunities for enhancing and developing the existing heritage (construction of new canals, renewal and repair of existing canals, creation of supporting wells), while promoting sustainable models of tourism through traditional or innovative practices of using the landscape (making the *aflaj* more accessible to visitors by creating new roads and marking them at strategic points to illustrate the heritage and tradition of the places and communities). The overall objective is to keep alive the memory of the

territory, traditions, and historical/cultural heritage, also involving the new generations through the development of new professional skills.

In this sense, the action plan for Cairo, the guidelines of Erbil, and the strategic plan for Timbuktu, together with other exurban case studies such as the *aflaj* irrigation system in Oman, constituted an underlying panel of cases that provided design content and important methodological approaches to construct the short- and medium-term proposal for the historical centre of Sharjah, integrating the methodological indications of the Italian school.

2. Materials and Methods

Sharjah, with its old port and old airport, is located in the old part of the Emirate of Sharjah in the northern United Arab Emirates. According to historical sources, its location contributed to the development of trade. Al Edrissy (an 11th century geographer) mentioned a port where Sharjah is currently located — ‘the road from Julfar to Bahrain penetrated the width of the sea of Qatar to Sabkha Port’, in possible reference to the port of Sharjah. According to later historical sources (1756), ‘there are three locations on the coast between Al Katif (Qutif in Saudi Arabia) and Sir (Ras Al Khaima): Al Ajir, Qatar and Sharjah. These locations contained a few residences from which Basra dates and rice were brought to the Arabs of the desert.’

The port of Sharjah is particularly significant as main gate to the Trucial States [13]. As is typical, it contains two components that have often characterized settlements in the Arabian Gulf. First, it is located in a protected entrance of the sea, locally called ‘Al Khor’. Second, fresh water exists at a relatively shallow depth. Because of this, from time of early trading with the East to the settlement of the mighty Qawassim sea-faring family and into the first half of the 19th century, Sharjah was the most important port on the lower Arabian Gulf. Sharjah was completely devastated by the British in 1820, but recovered more rapidly than other ports in the Emirates and the Gulf region. It also served as an important air station in 1932, connecting the West to India. In the 1960s, British urban planners were invited to assist in planning the growing development of Sharjah city. This was the beginning of a new era, which has also revived interest in its cultural heritage and preservation.

Of particular importance, Sharjah, extending between its old port and old airport, contains large and small architectural buildings and religious structures such as mosques and markets that bear witness to exemplary modern Gulf city development in historical cities in the Arabian Gulf.

Due to its strategic location between West and East, Sharjah has a rich human interaction with the environment, resulting in an architectural diversity evident in the historical setting, urban fabric, and architectural expressions of the built environment on the waterfront.

As a gateway to neighbouring states, the urban settlement represents a stage in city planning deriving from common elements of Islamic cities: a port, houses with courtyards, and wind towers to meet environmental needs. It also contains other characteristic landmarks such as the fortress, mosques, markets, and narrow streets. In addition, protection or defensive elements are also represented by the walls of ancient Sharjah. Because these elements disappeared from many other cities in the Arabian Gulf in the 19th and 20th centuries, the unique and universal value of this historical environment is apparent, especially because it is vulnerable to irreversible change.

Moreover, the built environment and traditional activities held regularly in historical Sharjah are very important to the people of the UAE and the region, as they are closely associated with this historical environment and intangible values. The close bond between the people of Sharjah and the sea, as well as the memory of the air station (now Al-Mahatta Museum), are clear in this living historical city.

The method adopted and applied consists of several steps aimed at the construction of a master plan, assimilating the transformations in their physical and functional characteristics and above all, the system of relationships that these transformations develop with the different contexts. To describe the characteristics and dynamics of places means observing, reading, and interpreting the complex system of relationships, values, and problems to solve, risks to consider, and strengths to enhance.

With regard to the method, three steps were adopted. The first is cognitive and aimed at assessing the places, while the second is to develop the urban guidelines (UG) and detailed urban

guidelines (DUG). The third relates to the strategic layout in the medium to long term. The operational sequence does not imply a clear separation between the stages, but rather the need to reply to the client quickly regarding the demand for transformation and its management. Conceptually, the three stages — cross-scale with respect to intervention and approach — reflect a complex planning process in which the space/time binomial becomes flexible and incremental on the various scales of reference.

The first step is divided into the following interactive phases:

- Knowledge and interpretation of the features of the area and surrounding context. Starting from basic technical maps and surveys, this phase — called *Land Use Analysis* — reads and highlights systemic elements (physical-natural elements, infrastructure, facilities, the urban settlement, historical-cultural system, etc.) to capture the current dynamics while considering the status of the places, free space, and features of the settlement. By analysing the territorial features, we graphically render the complex system of the current state with regard to the functional, spatial, ecological, and morphological relationships contained in the study area with a context that is broad enough to allow for an interpretation of the main aspects. Knowledge is achieved through reading and an interdisciplinary methodological approach that provides the basis for a critical understanding of the area of study: structural, anthropic, natural, historical-cultural, physical-natural elements and landscapes were read and analysed. As mentioned above, the investigation and methodological knowledge therefore started with a reading to characterize the main systems of each UNESCO site (i.e., the natural/physical landscape and anthropic systems), which highlighted the elements of the system and characteristic interrelations. The scale of study suitable for the size of the areas is 1:5000, and the maps are accompanied by a legend that reflects and expresses the unique features and characteristics of the places. This phase results in summary considerations that capture the substance of the problems to solve, the opportunities to develop, and the resources to draw on, by highlighting useful contents for the master plan.
- Identification of threats/problems and resources/opportunities in relation to the existing and expected transformations. This phase involves an evaluative synthesis in which value judgments are expressed in terms of resources, quality, problems, and risks related to the functional, formal, ecological aspects, etc., of the elements analysed in the previous phase, highlighting their possible design implications. This phase is called *Resources & Threats Analysis*. The scale of study suitable for the size of the areas is 1:5000, and the maps are accompanied by a legend that refers to problems and resources. In this case as well, the legend is organized by systems: elements characteristic of the environmental/natural/anthropic system, historical/cultural system, settlement system, functional system, and mobility system.
- Identification of large-scale systems of reference and values used to establish project assumptions regarding the urban framework. This phase is called *Value System*, and two large-scale systems were identified: one with historical/cultural value and the other with environmental/landscape value. For each UNESCO site, some specifics and/or dominant features were defined within these two large-scale systems, such as archaeological, agrarian, historical/cultural, environmental, urban, perceptual, and landscape, which can be read together (as points, lines, or areas) as identified in *Resources & Threats Analysis*. This operation allows us to define areas and systems with different values able to protect and enhance the UNESCO heritage and, at the same time, to outline some structural invariants of the future master plan for each site. The analytical studies and evaluation must first lead to an understanding of the context and then propose and design spatial and functional solutions. Moreover, the study of the various components of the places should not return a series of aseptic data, but rather contribute to formulating critical considerations that will form the basis of the future project. The cognitive and evaluation phase must define the formal, functional, and relational elements and methods for which the future master plan could enter work in synergy with the existing one and allow for its enhancement.

The second step is to construct the urban guidelines and detailed urban guidelines by defining the objectives and interventions.

In accordance with the scope of the work/research question, the urban guidelines (UG) are the set of indications reported for governing urban transformations at the sites. They include indications

and prescriptions in the form of text and summary graphical cards. The first page of each card identifies the different urban fabrics, intervention categories, and indications for the project. These are based on the objectives of protection and conservation of the urban area, urban redevelopment, and protection and conservation of the natural system and cultivated areas based on the intervention categories indicated for each individual urban fabric (Uf) and open space (Os).

The detailed urban guidelines (DUG) are project specifications based on the required topics (urban, architectural, archaeological, and landscape) and representing the rules and regulations to be considered. They are shown on the second page of the card developed for each urban fabric and open space. They indicate the urban and construction parameters necessary to manage construction operations on the urban scale, namely, distances, heights, botanical species, intended use, percentages of use for functional mixing, colours, and materials. Moreover, for each individual urban fabric and open space, they specify the need, if necessary, to develop a single project. They detail the urban fabrics or open spaces and provide the rules for precise management of current transformations and the protection and conservation of the historical heritage, allowing the cases of studies to be evaluated. The foregoing is essential for definitively clarifying the close connection between the expression 'urban guidelines' and the indications and regulations on the second page of each sheet. Without the indications, it is not possible to draw up regulations and acts (urban and legislative) related to protecting the historical and cultural heritage. The UGs and DUGs are applied to the urban fabrics and open spaces identified for the core zones and the buffer zones of the sites. There will, of course, be a greater detail of urban fabrics and/or open spaces depending on the nature and characteristics of the sites.

Assuming that the objectives of conserving the heritage are a strategy for achieving a balance between urban growth and sustainable quality of life, it is necessary and essential to adopt measures for the most effective planning and resource management. The UNESCO Recommendations, and in particular the Recommendation on the Historic Urban Landscape (HUL) (Paris, 2011), highlights the need to integrate/insert urban heritage conservation strategies into broader, more general sustainable development objectives, capable of endorsing public and private actions aimed at protecting and improving the quality of the human environment.

The approach to the historical urban landscape aims to preserve the quality of the human environment by improving the productive, sustainable use of urban spaces, recognizing their dynamic character and promoting social and functional diversity. It integrates the objectives of urban heritage conservation with those of social and economic development. Planning and construction practices have the potential to enhance urban areas, thus improving the quality of life. Properly managed, new functions such as services and tourism are important economic initiatives that can contribute to the well-being of communities and the preservation of historic urban areas and their cultural heritage, ensuring economic and social diversity and residential functions. This perspective of regeneration and revitalization of the city helps to recover the relationship between the historical centre and modern city, between old and new architecture, between what is built and the surrounding environment. A land use matrix enables identification of the permitted/eligible functions within the different urban fabrics and their minimum and maximum percentages. It can be applied to a large area as well as defining the specific functions for each urban fabric to calibrate and harmonize the functions so that no parts of the city remain unbalanced or mono-functional compared to others.

The building interventions in the historical centre must be aimed primarily at preserving the architectural and construction characteristics, the materials and colours of the ancient buildings, while respecting their historical stratifications and their artistic, environmental, and landscape value. This implies any type of intervention aimed at the consolidation and limited, point-like reintegration of the wall structures, historical finishing materials, and architectural decoration of the buildings (ancient fragments, keystones, coats of arms, doors and windows, or any other work of an ornamental or historical nature), as well as the removal of modern elements that are figuratively and chemically/physically incompatible with the pre-existing ones. With reference to the historical/documentary value of the individual products, three main categories should be considered:

- One that includes artefacts with a particular monumental, historical, or artistic importance.
- Another that includes artefacts of historical/documentary importance, often also carrying figurative value (buildings, complexes, or artefacts with minimal signs of alteration, which preserve their original configuration or which, despite having undergone transformations, still show relevant quality characteristics).
- A third that includes artefacts with merely environmental interest, built after 1970 but not contrasting with the morphological characteristics of the original urban fabric.
- With these characteristics, therefore, the following belong to the historical settlement:
- Properties falling within the official bounds of the core zone;
- Buildings of any type dating to more than fifty years ago.

Ultimately, the rules contained in the master plan must ensure a scientifically correct approach to protecting and preserving the structure and image of historic settlements, promoting the culture of restoration translated into the best practices of the project and construction site, to avoid tampering with the cultural values deposited in them².

The third step is to construct a provisional strategic layout. This strategic plan is a medium to long-term tool that can serve as a reference for future planning while also providing a framework of strategies covering urban planning management to pursue the objectives of the plan. From a methodological point of view, the plan is based on 10 key principles that respond to the main strategies. The principles are divided into the main urban systems, that is, the settlement and historical/cultural system, the natural system and open spaces, and the infrastructure and mobility system. Each principle corresponds to actions with different priorities and modalities in relation to the context and current planning instruments, which implement and finalize what is expressed in the key principles. The actions are point-like and relate to the indications and rules contained in the individual fabrics, creating a coherent synoptic framework between strategies in the Strategic Plan and the contents of the indications and rules for the individual fabrics. The principles and actions are addressed in the Results as one of the outcomes of the applied research.

3. Results

According to the three steps in the methodological approach described above, the results were as follows.

- a) Cognitive, critical descriptive, and evaluation maps of the historical centre of Sharjah. These were discussed with and verified by the committee through bi-weekly and/or monthly meetings. The results of this part are based on a reading of the study area and particularly the multi-system approach, i.e., a reading for 'systems' (historical settlement, physical/natural, landscape, anthropic, infrastructure and mobility). It is considered more consistent with the study of urban development and planning a systemic approach to show the existing correlations and interrelations between the various elements of the system. Commencing the urban survey means understanding the urban and territorial reality and therefore identifying the founding systems of its structure and the multiple relationships that govern and modify them. Knowledge is achieved through reading and an interdisciplinary methodological approach that provides the basis for a critical understanding of the area of study. Structural, anthropic, natural, historical/cultural, physical/natural, and landscape elements have contributed to forming and transforming the territory through a process of historical stratification, in which human and natural action have come together, sometimes overlapping and sometimes conflicting with each other. The investigation and methodological knowledge building therefore started with a reading of the main systems of the territory, highlighting the system elements and their interrelations. The results of these activities provided the basic materials for the development of this part which, according to the multi-system approach of the city and/or territory, returns the descriptive results of the land use survey, critical considerations (resources and threats) of the current state, and the values of the area (historical, urban, natural, landscape, etc.).

² The most common interventions include ordinary and extraordinary maintenance, conservative renovation, restoration, building renovation, and urban renovation.

- b) development of the design proposal with the short-term urban guidelines and detailed urban guidelines
- c) development of the design proposal with the medium- to long-term strategic scenario

The cognitive, critical descriptive, and evaluation maps constituted the basis for developing the design proposal in its dual form. Indeed, this constituted the final result of the applied research.

3.1. *The Design Proposal: Urban Guidelines and Detailed Urban Guidelines*

The zoning map of urban fabrics and open spaces, core zones and buffer zones serves as the reference design table for the protection, enhancement, and management of the transformation of urban fabrics and open spaces. The perimeters of these areas were identified according to the criteria listed below.

For urban fabrics: cultural/historical value; environmental morphological value; construction period (after 1960), unitariness of fabric; degree of transformability.

For open spaces: historical, cultural, and social value, landscape value, configured spaces, unconfigured spaces.

The identification of the different fabrics of the core zone and buffer zone led to the identification of their characteristics and differences with neighbouring fabrics, in order to define the objectives, categories of intervention, rules, and management/planning indications for each fabric. The latter were organized on the urban and architectural/building scale. The indications and rules for the archaeological and environmental/landscape aspects complete the general description. The indications and rules contained in the four sections mentioned above are useful for protecting the urban and building design and transformation and constitute a framework of rules for managing the transformation and protection of areas in the core and buffer zones.

The map of fabrics serves as the graphical support for the urban guidelines detailed extensively in the text and summarized in the card of each fabric. The maps of urban fabrics in the core zone and buffer zone are extrapolations of the overall total. In addition to the location in the core or buffer zone according to the criteria adopted by the UNESCO nomination, the fabrics were also identified in relation to the following criteria, shared with the Scientific Committee.

The urban fabric boundaries were identified according to the following criteria:

- a) Cultural/historical value: the concentrated and/or widespread presence of historical goods and older urban fabrics that preserve historical and environmental characteristics of the entire past settlement;
- b) Environmental morphological value: characteristic of fabrics that, as a whole, preserve and/or reproduce the morphological characteristics of the ancient system through modern and/or contemporary interventions and convey a unitary image of the urban environment;
- c) Construction period (after 1960): the reference point for defining different fabrics, especially in the buffer zone;
- d) Unitariness of the plan: the recognizability of a unified intervention project (i.e., Bank Street), with respect to both the building and urban planning (Unitariness of plan or unified project is the design and planning process involving not just one building, but a set of buildings and the spaces between them (streets, squares, green areas) that strongly characterize a part of the city due to the legibility of the spatial design of the built and unbuilt parts (open and green areas), both in plan and in elevation (shape and materials).);
- e) Degree of transformability: generally areas that are not completely defined from the compositional/morphological point of view and/or characterized by building degradation, urban criticalities, and the presence of buildings that contrast with the cultural and historical values of the neighbouring core zone.

Open spaces were identified according to the following criteria:

- a) Historical, cultural, social, and landscape value: the direct relationship of open spaces with the oldest urban fabric and timely historical heritage, which in some cases are areas of immediate physical relevance and spatial connotations as potential open spaces of social and cultural (daily) life;

- b) Landscape value: the direct relationship of open spaces with cultural/historical assets (concentrated, widespread, and linear) and with the waterfront;
- c) Configured spaces: the degree of formal and spatial completeness of the open spaces, deriving mostly from a unified project (i.e., urban park);
- d) Unconfigured spaces: the degree of ‘incompleteness’ of open spaces, almost always recognizable due to their lack of a formal and spatial identity and with a potentially excellent degree of transformability/connectivity.

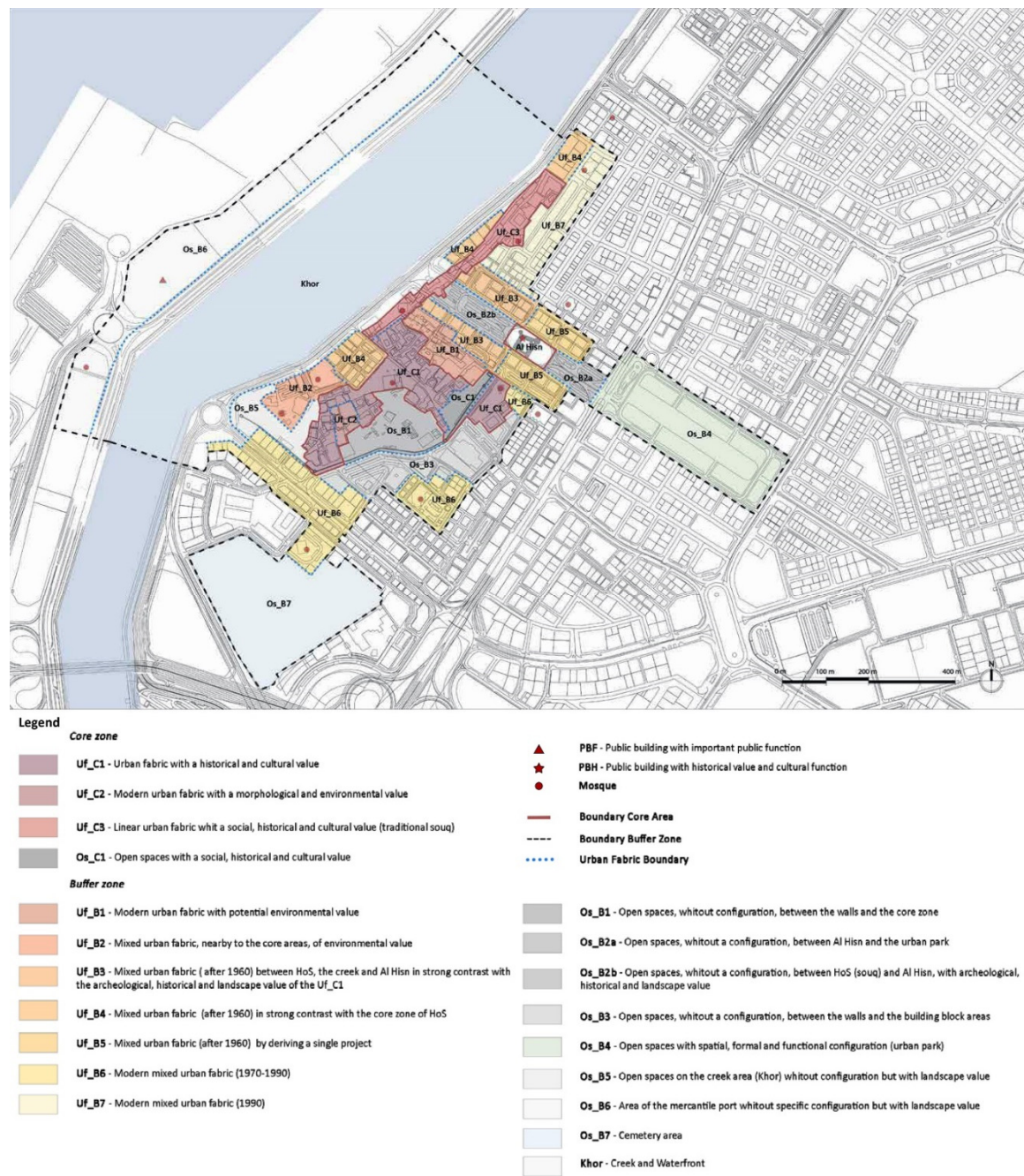


Figure 2. Urban Fabric Map and legend.



Figure 3. Urban Fabric C1: description and guidelines.

3.2. The Strategic Vision

As mentioned in the Methods section, the Strategic Plan is a medium- to long-term instrument that can serve as a reference for future planning and also a strategic framework that urban planning management must fall under in order to pursue the objectives of the plan. From a methodological point of view, the plan is based on 10 key principles. The principles of the proposal for Heart of Sharjah and Al Hisn are based on six aspects: 1) creating a link between the two sides of the creek; 2) protecting and preserving the historical heritage; 3) creating a link between the different urban fabrics

(core zone and buffer zone); 4) redefining a system of open spaces with landscape value (with particular reference to the waterfront); 5) redefining the central axiality of Bank Street and Al Hisn; and 6) rationalizing the existing road network and reducing the traffic load in the area of interest.

The main principles of the Strategic Plan are the following.

Urban Fabric

1. Protection and enhancement of the existing historical heritage of the core zones (Heart of Sharjah and Al Hisn);
2. Protection and enhancement of the historical walls and surrounding open spaces;
3. Compositional redefinition (formal and spatial) of marginal areas of the historical city in contrast with the historical values of pre-existing fabrics.

Open Spaces

1. Redeveloping the landscape of open spaces and connections, with particular attention to the insertion of botanical species;
2. Urban redevelopment and landscape enhancement of the main urban axes (Park/Al Hisn, Bank Street) and related open spaces;
3. Urban and landscape redevelopment of the waterfront on the creek;
4. Rationalization of the existing road network and reduction of traffic;
5. Designing a parking system to support and protect the historical city;
6. Rationalization and implementation of pedestrian accessibility between the waterfront and historic city (Heart of Sharjah) and between the core and buffer zones;
7. Creating a link between the two waterfronts on the creek.

The Strategic Plan proposes extending the buffer zone in the UNESCO application with a second buffer zone, which arises from the dual need for protection and transformation:

- a) To better protect the historical area of the city, expanding the existing buffer zone means acting on a broader urban fabric adjacent to those identified. This would allow gradual rules of urban transformation to be applied, linking the values and image of the contemporary city with those of the historical city and preserving the consolidated identity of the latter.
- b) It also means using appropriate micro-urban planning operations to transform fabrics that have a degree of transformability, becoming an opportunity to rethink consolidated urban areas through targeted projects responding to a general vision and managing change in harmony with the values of the modern era while preserving the historical city itself.

These areas of the second buffer zone (and/or on the margin with the existing buffer zone) are where services can be allocated to support the historical city while creating widespread micro centralities in the contemporary city and creating a progressive link with the historical city.

The urban fabrics in question are adjacent to those in the buffer zone. They therefore constitute an extension by tracing the descriptive contents, categories of intervention, and guidelines, albeit with a wider degree of transformability and planning. In the second buffer zone, the following rules are mandatory:

- a) The height of current buildings cannot increase; in the event of demolition and reconstruction, the heights should be decreased;
- b) For new construction in empty lots, the maximum height of the buildings cannot exceed the average of the immediate surroundings;
- c) For lots overlapping the buffer zone, the maximum height cannot exceed what is allowed in the adjacent urban fabric;
- d) The waterfront area must not be changed;
- e) The creation of green and social spaces is encouraged.

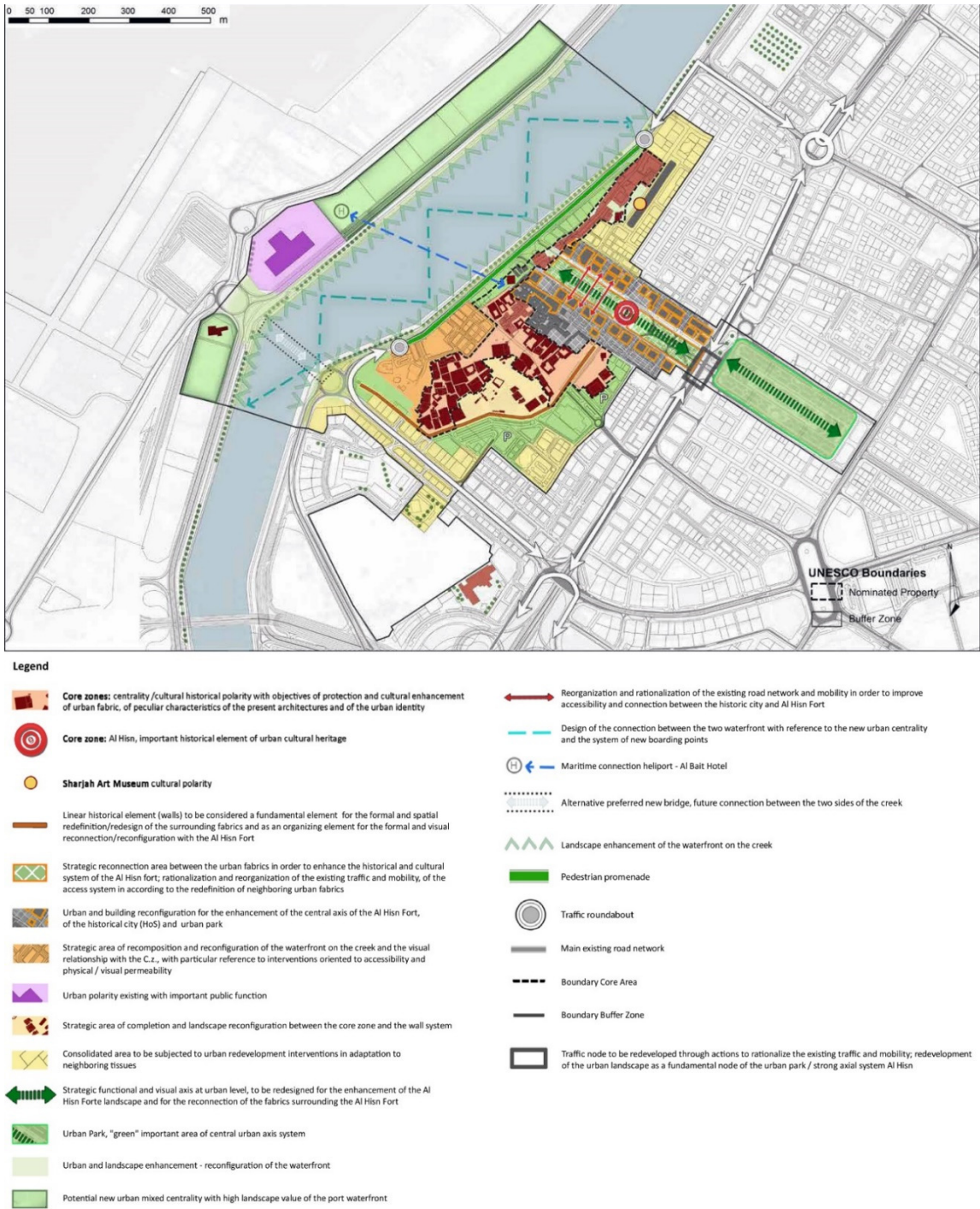


Figure 4. Strategic Vision.

4. Discussion

The results of the research open two lines of specific investigation. One is the cultural heritage as a driver for cultural, thematic, international tourism, which is certainly new for the United Arab Emirates, as they have, up to now, adopted modern life and technological challenges as the primary way to attract international tourism. The second is management of the cultural heritage in the absence of urban planning, in a temporary scenario undergoing continuous change, where sites of excellence could redefine strategic hubs, the urban landscape, tourism flows, and the local market. This involves tools, actions, and interventions of different speeds that can meet the twofold question, differentiated over time, in acting daily on strategic evolutionary scenarios in the medium to long term.

In this sense, the value of the applied research is read in the following two directions: a) defining and conveying a technical operational method of knowledge, assessment, and design, with the related proposal devices; b) developing a procedural and managerial path aimed at administrative management. In fact, it should not be forgotten that the research defined the documentation and material necessary to present and assess the interventions/designs within the core and buffer zones serves as a sort of handbook for designers and assessors to correctly manage the cultural heritage.

More in general, considering the place of the project, the research also opens broader considerations interwoven with the questions of the protection, conservation and transformation, i.e., the interaction between urban landscape and cultural heritage, such as: a) How can transformation of the urban landscape contribute to protecting and conserving the heritage? b) Can, in fact, transformation of the urban landscape transform the heritage? c) Can transformation of the urban landscape generate, create, and develop new heritage?

With regard to the first question, there is no doubt that history and the stratification of the physical presence of various buildings built by people in a given region not only identifies the results of anthropic activity dating to the dawn of man in all its complexity, but also constitutes a necessary part of the cultural universe and therefore the tangible and intangible heritage accumulated progressively over time by the community settled there.

In fact, in any place on the planet, the 'city organism' is born and grows from an idea of space, or better yet, a way of thinking about space and the set of social relationships that develop there. In this respect, the mentality of people living there is structured starting from their mental peculiarities and sense of belonging to the place, both of which are the fruit of the tendency to sedentariness that marks urban society. The latter specification is necessary if we agree with Bruce Chatwin who, in his praise of restlessness and migratory instinct of some populations, asserted that nomads 'renounce; meditate in solitude; abandon collective rituals and do not worry about rational procedures of education or culture'; rather, they anchor the physical, geographical, topographical, and topological configuration of their personal landscape to a well-defined 'place in the mind'. This obviously describes a different attitude from the one that is active in the historical, consolidated city, clearly contrasting two ways of perceiving and relating to the build environment. In fact, for a stable community, the urban landscape is a common good within which concrete, long-lasting evidence of the culture can be traced, while knowing that, by modelling the contours, profiles, densities, and plans, working thus on the landscape, it is always possible to adapt the 'portrait' of a city to the dynamics induced by social and economic development.

In addition, urban populations have progressively equipped themselves with tools to protect and perpetuate their *marvels*, with respect to both representation — from painted images to maps to satellite photos — and theoretical dissertations provided by urban planning manuals, truly ideological works, or even legal papers and provisions that simultaneously protect the landscape built by people and their memory. This is the sense with which UNESCO presented its definition of the historical urban landscape in 2011, with the relative Recommendation [11] (p. 9), which confirms a concept of history as a 'process' and expands the scale of values that can be attributed to an asset. Due to the active role played by local communities as well, this has also allowed cultural value to be attributed to more recent urban formations and fabrics.

However, for those working to protect and conserve the heritage, taking charge of the city — as a whole or only its most important parts — means managing a problem with two implications. In fact, one must keep in mind that there is an urban landscape experienced daily by citizens, whose consistency is real, tangible, and can therefore be implemented according to the rules of planning. Yet there is also a vast body of mental images that are very rooted and persistent in the collective memory, deriving from a cultural legacy transmitted across generations through various representations — artistic, literary, or theoretical — of the city itself.

However, this new approach, which governs the changes in the urban landscape, recognizing the dynamic nature of historical areas and expanding the range of values attributed to them, decidedly expands the objectives of urban conservation, shifting from passive protection based on the old principle of 'nonintervention' to active protection concentrated on enhancing the heritage and

making it the focus of economic and social development. It is precisely the renewed concept of active protection that underlies this work, in full recognition of what has been affirmed and in relation to the state of the places where, among architectural insertions and transformations from a recent past, the greater range of attributed values and relative degree of completion and transformability of historical, recent, and evolving fabrics can be traced.

With regard to the second question, there is no doubt that **some cities that built the landscape – in both the aesthetic and economic/social sense – following strong property interests, were unfortunately frozen in their mainly aesthetic form (see, for example, Matera, Italy). With regard to their original appearance, imprinted by** those who built them and lived there over time, the buildings and areas in these cities have, in fact, experienced a sort of ‘recolonization’. Although respecting the UNESCO Recommendation from 2011 that the historical urban landscape hopes for conservation within a more complex strategy of sustainable urban development, both the integration among contemporary pre-existing interventions and regeneration of their landscape are rather problematic.

In cases where the primary functions tied to living were progressively removed in favour of ‘refounding’, processes that avoid rebuilding an urban memory that is hard to glamorize – because it is tied to emigration, forced abandonment, or poverty – were initiated with the support of real-estate companies, multinational companies, pseudo-environmentalist organizations, etc.. Such models of development are rather far from the interests of citizens but in line with the objectives of institutional and economic subjects.

In Italy since the Second World War, the urbanization process initiated by market forces in historical cities has introduced the important question of protecting not only the building fabric, but also the social fabric. Thus, in an attempt to keep the identifying values of *civitas* and *urbs* on par, already at Gubbio in 1970, during the conference entitled ‘For a critical review of the problem of historical centres’, the Associazione Nazionale Centri Storico-Artistici launched the principle by which the urban heritage is not just evidence of the people’s culture, but also contributes to improving life and the social and economic development of the area.

In 1993, Bruno Gabrielli [6] (p. 18) expanded this field, identifying the historical centre not just as a cultural good, but ‘as heritage available to all of society; heritage in and of itself, but also with a more or less potential capacity for “profits”, both in financial terms and regarding social use’. Gabrielli had probably already laid the cornerstone of what would happen in many cities. An example of this is Bilbao, which needed to simultaneously contrast urban degradation, economic depression, and serious political conflicts marked by terrorism but to the 1990s. Due to the combined efforts of architects, institutions, and committees involved in the construction of the Guggenheim Museum, a very attractive urban landmark was created, which, while the subject of harsh criticism from many authoritative intellectuals, involved the entire city layout, regenerating both the natural and built landscape, strengthening the local economy, and encouraging cultural flows and social development.

Finally, the third question: Can transformation of the urban landscape generate, create, and develop new heritage?

The conceptual model of city/palimpsest instituted in the new millennium, has definitively set aside the traditional idea of ‘historical centre’, giving landscape importance to the entire area falling with a broader context of geographical relevance, including landscape components that could be considered unusual because they pertain to daily life and are sometimes degraded. In fact, with its Recommendation in 2011, UNESCO directed itself not just at World Heritage cities, but expressed general categories of Historical Urban Landscape, calling for six fundamental actions:

Undertaking comprehensive surveys and mapping the city’s natural, cultural, and human resources;

1. Reaching consensus using participatory planning and stakeholder consultations on what values to protect for transmission to future generations and to determine the attributes that carry these values;

2. Assessing the vulnerability of these attributes to socio-economic pressures and impacts of climate change;
3. Integrating urban heritage values and their vulnerability status into a wider framework of city development, which shall provide indications of areas of heritage sensitivity that require careful attention to planning, design and implementation of development projects;
4. Prioritizing actions for conservation and development;
5. Establishing the appropriate partnerships and local management frameworks for each of the identified projects for conservation and development, as well as developing mechanisms to coordinate the various activities between different actors, both public and private.

In this view, historical and artistic interests become associated with a system of rather complex values covering society, the economy, and politics, but also ecology, environmental sustainability, etc. The usual activity of recognizing, understanding, and cataloguing elements of the heritage is joined by a focus on the construction of partnerships for monitoring and control of the various urban transformation processes, but also developing strategies for enhancement, understood in the broader framework of public policies for territorial development.

Thus, in 2016, with the goal of reshaping the paradigm of urban conservation and its relationship with regenerating existing aspects, UNESCO invited all countries to adopt a more pragmatic approach involving the updating and implementation of legislative tools with regard to the following areas: *Regulatory Systems*, *Financial tools*, *Knowledge and planning tools*, and *Community engagement tools* [12].

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