'Acupuncture of Awareness': a possible path for vernacular heritage preservation

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Abstract

This article describes an approach developed by the author in various international contexts (India, Iran and Brazil) to raise awareness in the community of the importance of documenting and preserving historic areas, comprising mainly vernacular architecture with a very high sociocultural value. Over the last two–three decades, contemporary architectural interventions have undermined the urban setting of many vernacular sites, disfiguring them with out-of-scale projects of questionable quality, transforming traditional spaces and hybridizing historic materials. This article discusses ideas that arose from several years of research and educational projects in extremely dynamic and changing environments such as those of the historic centres of various developing countries. It presents the effects of awareness-raising projects conducted collaboratively in several historic centres by professors, researchers, local authorities, professionals, young scholars and residents. The research underlined the importance of different perspectives on the documentation and representation of cultural heritage–the meaning of which depends on local culture and traditions–in identifying future developments, low-cost methodologies and working tools in the field of education for preserving and enhancing vernacular heritage. Digitization techniques, which were also shared with a less specialized public, played an essential role in establishing a methodology capable of meeting the main knowledge and understanding needs at different levels of depth. The activities conducted and experimental methods applied identified operational processes for analysing, representing and diagnosing vernacular contexts, demonstrating the potential of interdisciplinary activities, including through the use of digital tools. The involvement of the local community proved to be a crucial issue in developing a more shared and conscious approach to preserving vernacular heritage.

Keywords: Awareness, Documentation, Acupuncture, Historic cities.

1. Introduction

In recent decades, contemporary architectural interventions, especially in developing countries, have hybridized the urban landscape to the detriment of historic cities, affecting both the tangible and intangible aspects of cultural heritage. Historic cities are pervaded by the histories of the communities that have inhabited and managed them. This intangible aspect is the probably the most difficult to adequately preserve and transmit to future generations. Mean-while around the world, national and local governments, as well as United Nations agencies, the World Bank and regional development banks, have been seeking a sustainable urban development process that integrates environmental, social and sociocultural concerns into the planning, design and implementation of urban management. It is important to stress that this was the context within which, after a first draft in 2010, UNESCO Recommendation on the Historic Urban Landscape came into action in 2011. The Recommendation is contained in a

'soft law' to be implemented by individual UNESCO Member states on a voluntary basis. The recommended activities proposed by UNESCO and its consultants derive from different experiences around the world. Rather than replacing existing conservation doctrines or approaches, they are an additional tool that provides a broader vision for integrating built-environment conservation policies and practices into broader urban development objectives, while respecting the values of different cultural contexts (UNESCO, 2011). The Recommendation summarizes discussions among experts over the previous five years by outlining (and encouraging the use of) six main intervention activities (UNESCO, 2011) defined as crucial for the effectiveness of preservation plans in historic city centres (Fig.1). The Recommendation notes that in light of urban developments, especially rapid growth, both social and physical, we now need a better language for discussing and defining urban settings, analysing problems and proposing solutions that are meaningful and can be measured and monitored (Turner, 2013).
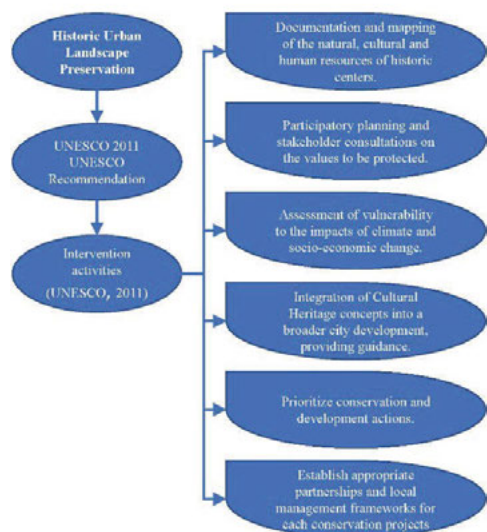

Fig. 1. The activities suggested by the 2011 UNESCO Recommendation on the Historic Urban Landscape (Source: UNESCO 2011).

The six main intervention activities could be summarized as follows:

1-Undertake comprehensive surveys and mapping of the natural, cultural and human resources of historic centres

2-Reach consensus using participatory planning and stakeholder consultations on the values to be protected for transmission to future generations and determine the attributes that carry these values

3-Assess the vulnerability of these attributes to socioeconomic stresses and the impacts of climate and socioeconomic change

4-Integrate urban heritage values and their state of vulnerability into a broader city development framework, providing guidance on sensitive areas that require careful planning in the implementation of development projects

5-Prioritize conservation and development actions

6-Establish appropriate partnerships and local management frameworks for each of the identified conservation projects, and develop mechanisms for coordinating various activities between different actors, both public and private

The concept of historic urban landscape includes the whole local context and therefore goes well beyond the simple definition of a given historic centre. Rather it is composed of characteristic elements such as patterns, spatial organization, visual relationships, soil morphology, present vegetation, including even the smallest urban-scale details such as drainage channels, pavements and public lighting systems. For this reason, specially scaled and targeted digital documentation and heritage protection strategies are required (Barazzetti et al., 2016), especially in countries with an awareness gap regarding the importance of basic historic buildings.

2. Research framework

Tools directed at addressing the protection of this heritage through effective 'capacity-building' campaigns aimed at local actors can

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open up avenues of redevelopment that do not alter the historical character of a place and direct new interventions in these contexts towards urban sustainability and the protection of pre-existing structures (Bopp et al., 2000). Among the most important initiatives from this point of view is the crucial involvement of young architecture students, who, if adequately stimulated and educated, can approach conservation issues with renewed interest and curiosity, even in countries where the academic syllabus does not include the disciplines of surveying, documentation and restoration. If these future professionals can be made more aware of the potential and importance of preserving cultural heritage, this could certainly facilitate its protection. From these considerations emerges the need for new control methodologies for integrating contemporary architecture into the historical fabric and for effective (sustainable) strategies for preserving older areas, especially in developing countries where conservation issues take a back seat among the countries' priorities, and architectural change is often governed by tourism development (AREF et al, 2009). In their investigations, researchers such as Moore and Graefe (1994) and D. Williams, Anderson, McDonald and Patterson (1995) used attachment, place dependence and place identity as the main concepts on which to base their research. These analyses showed that the functional and emotional experiences of the environment are the most influential in creating a sense of place and place identity. Place attachment is in fact a sense of connection with the historical environment that encompasses both emotional and functional ties. Although one person may appreciate a place because of the physical elements that make it exceptional, other people may not feel strongly attached to the area because they cannot identify with it. According to D. R. Williams and Roggenbuck (1989), the emotional experience of the environment is closely related to the

level of attachment a person develops to the place and to what the environment symbolizes. In contrast, functional meanings are mostly associated with how well the place fits a user's needs. As D. R. Williams and Roggenbuck state (1989), functional meanings associated with a place are mostly related to how well the place accommodates a user's needs for specific activities. In practice, users identify a place as most suitable for achieving their behavioural goals. However, especially in more developed emerging economies, the loss of functional and emotional meaning attached to places is facilitated by economic globalization leading to less consideration of local context, culture and history (Wheeler, 2017). Despite this important sociocultural substratum, local institutions have often simply applied market rules to the preservation of buildings. It is time to identify the different actors involved and understand their interests and how they work and interact with each other; all the forces at play must be identified. Legislation is in place in almost all countries but is not enforced by the authorities and, worst of all, nobody knows how to enforce it. The monitoring activities of the inspectors must be strengthened and, at the same time, staff training must be carried out at the different management levels.

3. Research design

From the process of analysing and documenting the historic centres of developing countries and the treasures scattered within their territories, we can learn an important lesson about how cultural heritage in these contexts, both tangible and intangible, is subject to dynamics and phenomena that can slip through the nets of the most traditional management models. The involvement of local communities and construction professionals in the conservation process of historic buildings is of primary importance. For this reason, the inclusive approach proposed in this text aims for all stakeholders to consolidate con-

cepts and knowledge (including through various digital tools at different technological levels) that can contribute to handing down built heritage to future generations, in one of the highest forms of sustainability. It could be figuratively compared to acupuncture, aiming to enhance global awareness of vernacular architectures at worldwide level (Fig. 2). This awareness campaign strategy is based on the use of both low and high levels of technology integration, depending on the main target of each task and the final objective of the project in question. For instance, with the help of private investors, a number of good restoration interventions have been successfully carried out within several historic centres throughout the world (Bjønness, 1992). All that is required it to enhance them, including through targeted technology-transfer initiatives (Rossato et al., 2018). On the one hand, the understanding of the importance of cultural-heritage preservation at different levels and the identification of possible future job opportunities in the cultural-heritage sector should be transferred to high school and university students to increase their engagement in the field. This implies a low level of technology integration i.e. low-cost and affordable activities (such as workshops or small seminars). On the other hand, stakeholders can also be drawn towards the cultural-heritage field through activities based on a higher integration of technology. To this end, the identification of agile and flexible methodologies and low-cost tools (Napolitano et al., 2018) through PhD-level research projects and the engagement of young enterprises could provide great impetus for the creation of international cooperation networks to support the preservation of historic centres. The training of professionals also plays a pivotal role in the conservation of vernacular architecture.
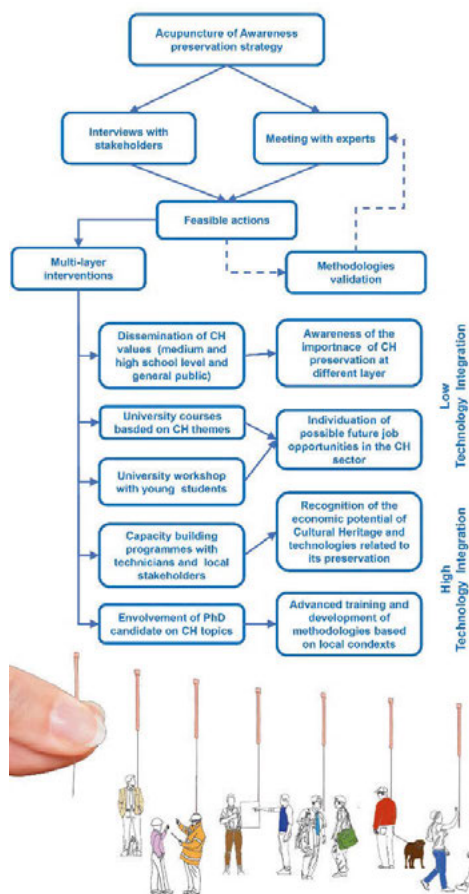

Fig. 2. 'Acupuncture of Awareness', an intervention scheme for an inclusive approach to the documentation and preservation of vernacular architecture in historic centres conceived by identifying possible ways to mitigate challenges posed by the lack of awareness, knowledge and socioeconomic vision. Each action is linked to a technological integration aspect that is divided into low and high level depending on the 'target' of the project (developed by the author).

The skills of freelance professionals and enterprises willing to work on vernacular buildings must be boosted through technology-transfer activities carried out locally in the field and not simply by examining existing literature and best practices.

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3.1. Low technology integration

International educational activities (seminars and workshops) on documentation and representation for preserving vernacular heritage demonstrate the value of dialogue between international young students. This is mainly due to their attitude towards representing the layering processes that characterize historic buildings and sites, and to a lesser degree, because of their role as intelligent investigators of the cultural values of existing structures, often forgotten by the general public. These documentation, representation, and evaluation tasks in historic city centres are difficult processes that require a comprehensive approach capable of grasping and incorporating geometrical and spatial qualities, construction technologies and architectural values from both a historical and critical standpoint (Giandebiaggi, 2018).

The author has focused many years of teaching activity on constructing a methodical trail of detailed knowledge to depict both tangible and intangible qualities of vernacular architecture and historic city centre transformation processes, including at several editions of particular workshops. For example, in international teams, the author used low-cost survey approaches and digital tools for representation, exhibition design and urban analysis to enrich and preserve the cultural heritage of Global South countries on an international scale. International workshops such as 'Along the Silk Road' (organized in Iran by the University of Wien in Austria) and 'Historic City Centres' (organized by the CEPT University in India) have shown that cultural heritage can even captivate young university students if properly presented and promoted (Fig. 3).
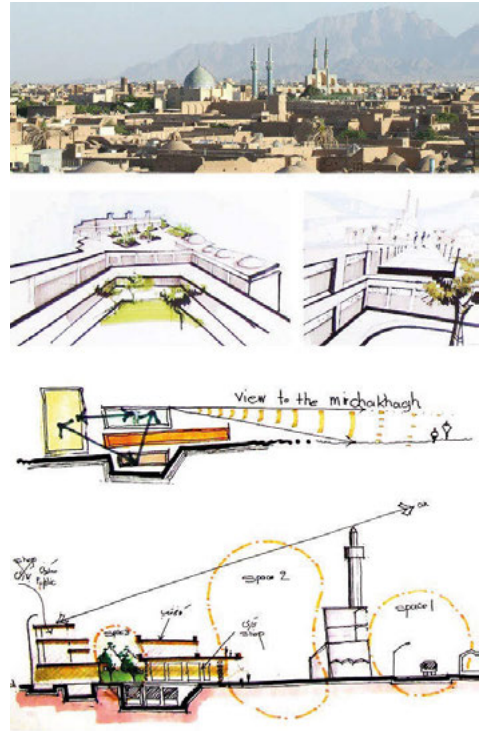

Fig. 3. Isfahan, Iran. Analyses of the historic city centre carried out by Italian and Iranian students, who shared their knowledge and skills to identify possible contemporary interventions in cultural-heritage sites (drawings from the 2009 edition of the international workshop 'Along the Silk Road').

There is an urgent need for projects that encourage residents to participate in protecting their cultural heritage, both intangible and tangible, through an approach that could be defined as minimal participation but considered a starting point for further capacity-building and awareness-raising among local people regarding their cultural heritage. The Jodhpur Box, for example, is a basic but effective exhibition based on a 4m×4m structure for displaying documentation gathered over five years by Italian and Indian students at the CEPT University Campus in Ahmedabad. Held in the main courtyard of Mehrangarh Fort (India's second most visited fort), the exhibition aimed to highlight the beautiful historic residences of Jodhpur's city centre through the analyses carried out during the in-

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ternational workshops 'Historic City Centres' (Fig. 4). Geometric memory, material data and colours are just a few of the aspects that the Jodhpur Box documented and transmitted, in some cases using 3D models (Fig. 5).

Fig. 4. The Jodhpur Box, an adaptable exhibition staged at Jodhpur's Mehrangarh Fort by Italian and Indian students on the documentation of vernacular heritage. Inside the wooden space, a short documentary film was projected to show the public the intangible aspects as well (rituals, lifestyles, sense of community, etc.).

3.2. High technology integration

The strategy aimed at enhancing traditional management tools by integrating them with digital tools addresses intangible cultural heritage, such as local traditions, cultural behaviours and design processes, which are frequently linked to local cultures and needs (especially in India). The addition of digital or new media to traditional approaches of cultural-heritage management has increased the range of complementary methods that can be used alongside existing ones. Digital media may be used for much more than just recreating or presenting objects. It has the potential to capture the tangible and intangible essence of cultural assets, as well as the society that built or used the sites (Bonnes et al. 2007).
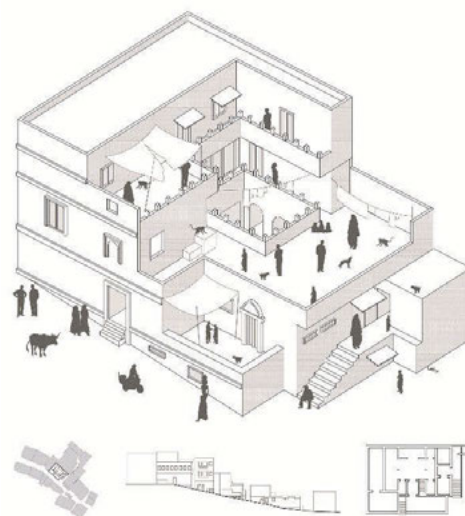

Fig. 5. One of the 3D representations presented on the wall of the Jodhpur Box, depicting a vernacular house in the beautiful 'Blue City' (images developed by students at the 'Historic City Centres' workshop series).

Over recent years, sensitivity and awareness regarding preservation have been raised by the training of local personnel and associated officials in maintenance practices. Staff of universities and enterprises were familiarized with the protection of modern heritage through a combination of classroom activities and on-site demonstrations. In Brazil, for example, the workshop's target audience has expanded to include students, professionals, university lecturers and private conservation firms. These approaches have made substantial gains in the area of architectural restoration, not only in terms of measurement precision and survey time reduction, but also of the ability to depict and visualize historic structures in their surroundings (Bevilaqua et al., 2017).

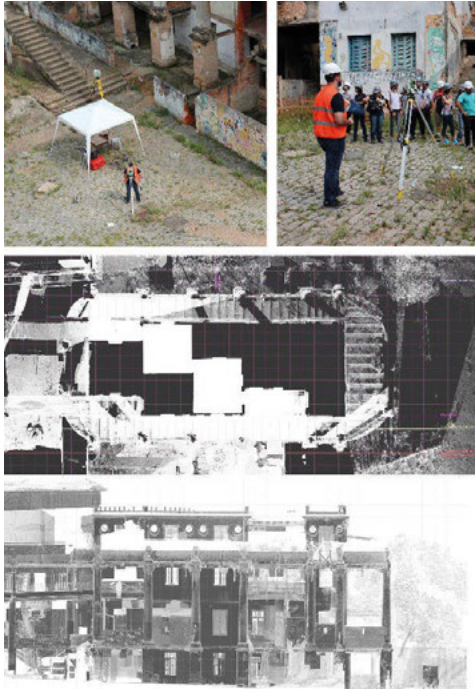2022, Editorial Universitat Politècnica de València

Fig. 6. Workshop on 3D technologies for documenting vernacular heritage at Vila Itororò in São Paulo, Brazil. The audience, primarily professionals and PhD students, had the chance to see how digital documentation could be used for building restoration and maintenance (Images by the author).

Vernacular building such as Vila Itororò, an eclectic house built at the beginning of the twentieth century in São Paulo, could be thought of as an important location for technology-transfer seminars. Here, academics, professionals and students met to discuss the use of digital tools for preserving cultural heritage (Fig. 6). The involvement of Italian private companies in such experiences was a key factor in enabling the technology transfer: all the activ-ities were carried out under the supervision of local staff, and methodological seminars were held during each campaign. In some activities, for instance during the digital documentation of Casa do Anhanguera, an important museum of the small historic village of Santana de Parnaiba in Brazil, a group of local stakeholders went on-site and attended all stages of the project in order to improve their knowledges of the tech-

nologies used. In this case study, the survey was carried out over a few days and collected data on the morphology of the building, a seventeenth-century vernacular house and historical-heritage site. It was restored and listed by the National Historic and Artistic Heritage Institute (IPHAN) in 1958. It is typical example of an urban residence and the only one of its kind in the state of São Paulo to have retained its architectural features (Fig. 7).

Fig. 7. Point-cloud image from the 3D database of Casa do Anhanguera in Brazil, highlighting the typical Portuguese colonial roof shape. The short digitization project involved local technicians and professionals to familiarize them with the technology and evaluate possible digital surveys on the most important vernacular buildings of the state of São Paulo (Image by the author).

4. Conclusion

Without a doubt, all other actors involved in the field must interact with local cultures in the best possible way if we are to protect priceless sites in these countries. The populations must be aware of the value of their houses and, above all, that restoration is possible and will not cost more than total reconstruction using modern techniques. At the same time, the technicians of the future (today's architecture and engineering students primarily) must be prepared to act with the most effective tools (Spiridon et al., 2015). Without recognizing the value of vernacular heritage within historic city centres, we cannot protect it: the replacement of ancient heritage by contemporary interventions will be unstoppable, with only the main monuments likely to resist the blows inflicted by progress and new lifestyles. Finally, we must work on conserving

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buildings in such a way that citizens can use them, rather than focusing on conservation for its own sake. The establishment of rigid and economically unsustainable museum sites would lead to the loss of this world heritage forever. The ancient buildings in these agglomerations are like sponges that have absorbed the cultural traditions of populations distinguished by their craftsmanship. As a testimony to their splendid past, these extensive cultural-heritage sites should be upheld as stimuli for new generations to look to the future with pride and hope.

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