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Research Article

# A GIS-based methodology for the appraisal of historical, architectural, and social values in historic urban cores

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## KEYWORDS

Historic environment;  
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**Abstract** Historic environments represent the evolution of materials and techniques that have been used for the construction these environments over the centuries. Entering into the study of this field entails working not only on the crafts that have constructed these environments but also on the people who made, used, and reinterpreted them by learning about the craftsmen and the idiosyncrasies of the place. The study has adopted several methodologies as reference to examine the material and cultural reality of the rural region of Valencia, Spain. Through the adaptation of international methodologies, researchers have carried out a digital database that compiles and maps out the results of the Local Character Assessment of ten Historic Urban Cores by incorporating the historical, architectural, and social values to reinforce the Territorial Heritage Action Plan. One of the critical innovations adopted by this form of assessment is the compulsory integration of tangible and intangible heritage through the active involvement of users and makers. Another innovation is to understand the values behind the dynamism and transformation of historic sites. Hence, this study advances theory and practice on the transmission of knowledge among artisans, researchers, and the population and how contemporary practices help acquire new meanings that overlap the past ones. © 2020 Higher Education Press Limited Company. Production and hosting by Elsevier B.V. on behalf of KeAi. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

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## 1. Introduction

According to ICOMOS (1999), cultural processes in specific contexts are called processes of cultural significance. Information is organized, unified, and differentiated to acquire its own identity that is independent of perceptions and malleable through memory (Aguiló, 2005) and contemporary practice. ICOMOS (1994), the Council of Europe (2000), and UNESCO (2000) highlighted the need for conceptual changes and evolution to broaden the vision of the authenticity of cultural assets to innovate new currents of heritage-thinking in built environments.

One of the objectives of this study is to pursue an accurate analysis of historic urban cores that integrate material and social values. Recent international studies on the conservation of historic urban cores postulate them as zones of cultural and natural values and attributes that go beyond the notion of a pure historical or architectural value (Rey-Perez and Siguencia, 2017). In this sense, Ginzarly et al. (2019) performed a systematic study of the management of historic urban cores on the basis of literature and cases evaluated over a period of eight years. Although the debate focused mostly on values, the implementation of this kind of approach still lacks a proper contextualization of the discourses on local heritage and its management.

Heritage is conceptualized as “the meanings of the past attached to present,” or as “knowledge defined in social, political, and cultural contexts, including material, intangible, and virtual” (Silverman, 2011). In line with recent research, international organizations are now calling for an enhanced connection among heritage, planning, and management that does not displace the everyday life of communities; such connection entails an improved integration of values and perceptions looking for a broad, inclusive, and forward-looking approach (Turnpenny, 2004). Studies, such as the one carried out by Tintèra et al. (2018), showed that historic urban cores can be regenerated by applying policies and by determining the heritage at risk and the regulatory tools applicable to it. In this sense, Wang (2012) spoke of the protection of historic centers as an element of the preservation of their physical structure, design, and condition.

The second objective of this research is to develop a new methodological approach to evaluate the abandonment, maintenance, and use of historic environments carefully. In this realm, previous authors have worked on the development of reliable indicators for a rigorous participatory research. The study of Heras (2019) accounted for structured individual and group interviews. In addition, the work undertaken by Gallou and Fouseki (2019) treated complex analytical processes in line with long-established studies, such as the one of Rowan (2009) which analyzed the multiplicity of heritage.

Therefore, the methodologies that provide this work with guidelines and forms of approach (e.g., HUL, HAA, and PPGIS) intend to seek out perceptions and current experiences that link people to heritage environments. The specificity of approaches to historic built environments, such as the one championed by UNESCO on Historic Urban Landscapes (HUL) (UNESCO, 2011), is to combine

complementary principles, concepts, approaches, and scopes already addressed separately and adopted in previous European and international recommendations and charters. HUL is an assessment that seeks to provide a set of tools for an integrated values-based approach for the management of cultural heritage. Recent studies, such as the one of Liu et al. (2019), propose strategies to improve public perception on the authenticity of urban heritage. In this way, the public can enhance their understanding of the meaning of a place, which, in turn, may contribute to its distinctive identity and management. The English Heritage and the Historic Area Assessment (HAA) (English Heritage, 2010) tool aims to determine the historical character properly, interpret its meaning, and highlight concepts that can potentially change this character.

Certain methodological synergies exist between HUL and HAA for a comprehensive understanding of historic areas. Speaking about the integrity of methodological approaches entails discussing the spatial and mental compilation of the full range of past and innovative meanings of urban landscapes (Tress and Tress, 2001). Despite recent advances in these emerging methodological approaches, some challenges require further explanation. One example is the evaluation of historic environments beyond their material qualities by including social ones. Alternatively, analyzing the interconnection of several settings in an inclusive assessment of heritage dynamics to develop a Territorial Heritage Action Plan (THAP) has been unexplored.

Any attempt to clarify the exact meaning of different conservation scenarios in a particular cultural and geographical area highlights the importance of sensitizing what an intellectual and political space represents, understanding that the intellectual exploration depends on the affections between tangible and intangible values. The present Local Character Assessment of architectural and social values in historic urban cores adopting global forms of appraisal can lead to a THAP. This plan can have a universal application. Nonetheless, its ultimate goal is to develop local protagonists of conservation into bearers of intangible values, maintainers, and legitimate decision-makers. Hence, the THAP aims to enhance the particularities of historic environments locally, avoid general assumptions to focus particularly on the subtle differences that exist in a territory, and connect them all through digitalization.

## 2. Material and method

### 2.1. Area of study

This study is located in a small region on the east coast of Spain, a rural inland near the Mediterranean Sea (Fig. 1). The study includes ten municipalities with common characteristics: demography, economy, society, problems, and limitations. The architecture of the region is characterized by vernacular dwellings that epitomize medieval culture based on mobility and living off the land (Fig. 2). Historic urban cores still contain traditional construction that used local materials and construction techniques inherited from the 17th century. These historic settlements are built on



**Fig. 1** The area under study is located in the provinces of Castellón and Teruel, Spain.



**Fig. 2** Example of the transformation and reconfiguration of historical and architectural values.

rock, with masonry walls and small openings that have evolved into larger ones, handmade forged balustrades and balconies, and wooden or ceramic eaves with curved ceramic tiles. Façades have a coating made of lime and sand-based mortars, which are whitewashed and occasionally colored with bluish, ochre, or greenish tones. The primary materials are pine wood for carpentries, beams and joists, and trellis made of timber and iron. Departing from these essential elements, we registered many variants not only according to the different epochs of prosperity, decadence, and migration but also by knowledge, climate, and the availability of materials. Therefore, the current historic urban cores have changed. They are now the result

of continuous evolution and adaptation based on interpretation and deregulation.

## 2.2. Methodology

In this section, we describe the methodology used to evaluate the different heritage values that stakeholders have identified together with the architecture and crafts. The previous studies that we have undertaken in the area were based on methodologies to evaluate the architecture (García-Esparza, 2011, 2014; García-Esparza et al., 2018), landscapes (García-Esparza, 2018), society (Altaba and García-Esparza, 2018), and the regulation of heterogeneous manifestations (García-Esparza, 2019). Stephenson (2008), Swanwick (2002), and Wagtendonk and Vermaat (2014) are examples of methodological approaches already established in Anglo-Saxon countries, such as the Landscape Character Assessment or the Cultural Values Model, that have influenced our previous works. However, recent studies on multicriteria analysis (Ribera et al., 2020) framed the assessment of traditional architecture in urban contexts with other types of methodologies. Ferreti et al. (2014), Yildirim (2012), and Ruiz et al. (2014) devised methods to catalog buildings of different types. Their works focused on identification, typology assessment, and criteria for material values recognition. As an example of a detailed study, the research carried out by Dalkılıç and Nabikoğlu (2019) confirmed that comprehensive cataloging studies can create new fields of inquiry for this work. In this regard, Fuentes (2010) exposed the different visions of Spanish vernacular architecture and criticized how studies have neglected the analysis of historic rural centers, giving priority to those on rural landscape architecture.

### 2.2.1. Design of research

The research organization diagram presents the phases of the methodology to coordinate and sequence the research. In each phase, a specific objective (aim) is set, and a series of subsequent activities allowed achieve a result (outcome). An additional stage for analyzing and organizing results eventually contests them to certify that the data are sufficient to proceed to the next phase. The four phases have the same structure until reaching the findings of the study (Fig. 3).

### 2.2.2. Cataloging of construction techniques

The assessment of traditional architecture included extensive fieldwork. It encompassed participatory activities through explorative meetings and the celebration of heritage days from 2016 until 2018. Concise analytical visits and photo-elicitation workshops were further conducted from May to October 2018. The photo-elicitation methods of assessment in participatory processes are common in the works of Tempesta (2010), Stewart et al. (2004), and Dupont et al. (2015), among others. Similarly, innovative practices on the analysis of social networks focused on the sociocultural nodes of heritage intensity (Dunkel, 2015; Van Berkel et al., 2018; Oteros-Rozas et al., 2018).

In our case, the work before the campaigns for graphic-data collection consisted of several visits to local archives

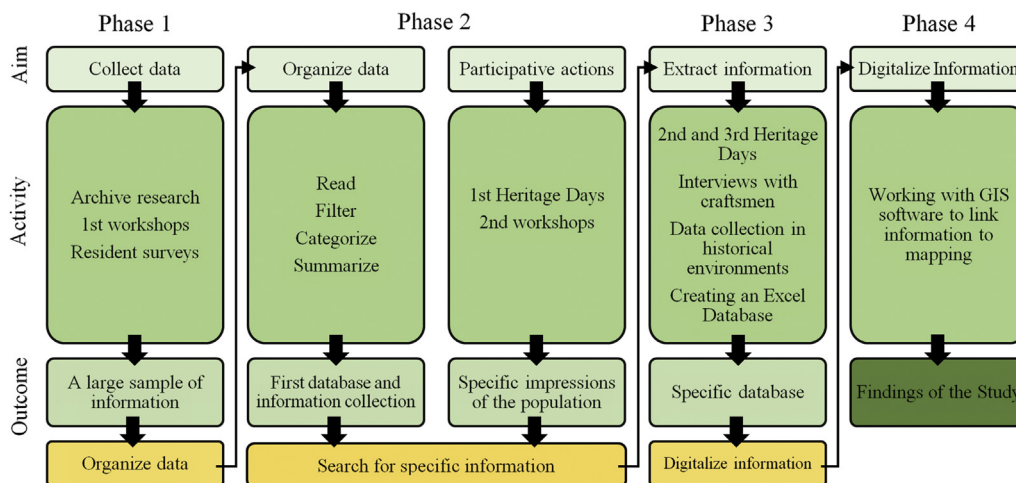


Fig. 3 Design of the research for the characterization of architectural and social values in historic urban cores.

to gather information on urban planning. Meetings with residents gave us an idea of the most common and representative features of villages, and the most important values, both tangible and intangible, were expressed through semistructured surveys and interviews (Arias, 2011; Bignante, 2010). Interviews provided answers to the initial questions on the character of the place. Residents gave priority not only to the elements of the past and to the work of artisans on knowledge preservation but also to certain ephemeral and permanent aspects of everyday life.

The elements that inhabitants recognized as valuable for the character of the historic environment include openings,

carpentries, balconies, fences, claddings, and eaves, among others. Therefore, we decided to formulate an urban plan for each municipality using cadastral cartography. Through several days of fieldwork, we plotted the different areas and elements of interest on plans according to levels of importance (Fig. 4).

This work enabled the analysis of the historic environments from the past to the current period, including expansions due to demographic increases (18th century) and shrinking processes due to population decline (20th century) together with practices of conservation and neglect. Zoning areas of importance at different levels helped us

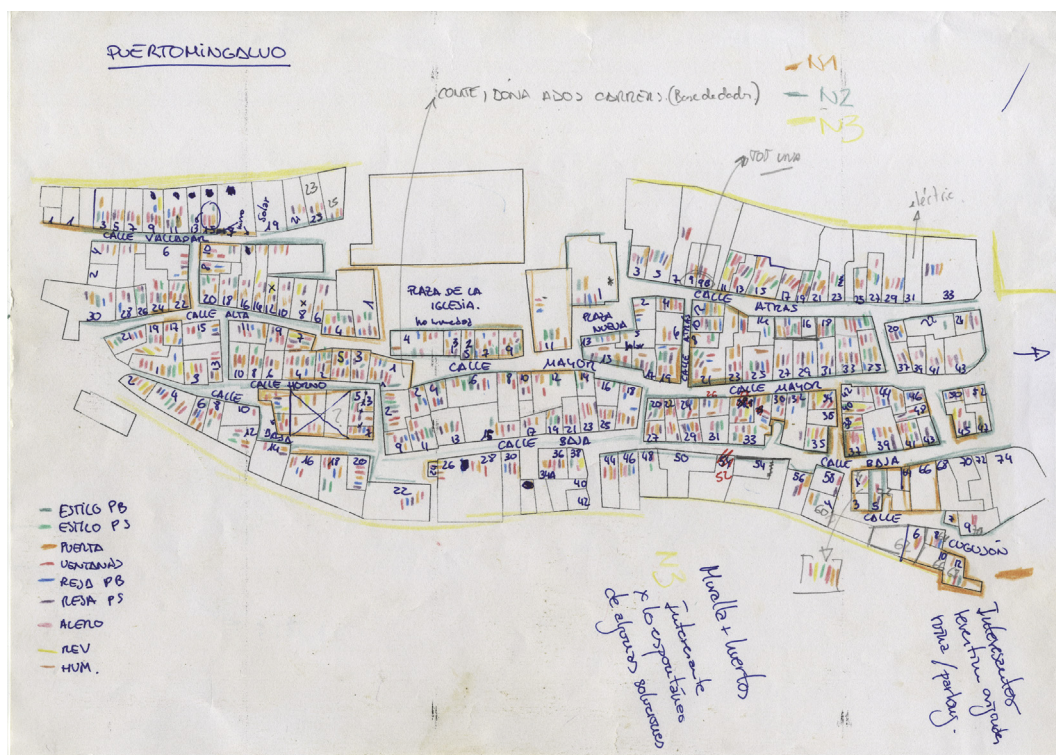


Fig. 4 Sketch of the data collection process in each village.

identify the evolution of construction techniques. By using the cartography plans of each village (Fig. 5), we prioritized the analysis of elements by signifying specific streets by a level of importance based on the intensity of artisanship and the values recognized by craftsmen.

These hypotheses set up a new campaign of fieldwork. Each street was entirely appraised graphically by recording and photographing buildings and the main characteristics of their artisanship. This campaign generated a pool of 17,192 photographs on techniques, ephemeral and fixed elements of urban landscapes, representative constructions, and other forms of expression and adaptation. A digital database helped us collect all graphic information through a rubric in which the main characteristics of each picture were noted and georeferenced. We organized the database by municipality and street. We noted the number of dwellings and then referenced the photographs associated to each dwelling. The photographs were interrelated, and, through a system of colors, the main characteristics that determined an urban environment and an epoch, both qualitatively and quantitatively, could be analyzed (see Fig. 6).

### 2.2.3. Interviews with local artisans

A compilation of information on the construction techniques was carried out between December 2017 and October 2019 after previous correspondence with councils and neighbors. We contacted a total of four carpenters, four blacksmiths, eight bricklayers, a painter, a stonemason, and a woodcutter. Although most of these individuals were now retired, we understood the necessity to interview craftsmen that had used traditional techniques and had witnessed the transition of these old techniques toward modernization. We prepared a standardized interview with a series of questions that dealt with the link of the craft, materials, and tools with other techniques and artisans. Similarly, we prepared detailed surveys on each type of craftsmanship to explore the specificities.

A sociospatial approach based on the concepts of social welfare and sense of place guided the design of interview questions. However, the conversation itself, once the initial tension was relaxed, conveyed the themes nourishing the dialogue with a multitude of anecdotes. These interviews, which lasted between one and 2 h, were recorded with a



**Fig. 5** Map of the priority level obtained for each street of each municipality. Priority and levels of importance refer to the intensity of tangible values found in each village.

Date	Level	N°	Photos		Extra photos	Comments	Main features										Protection			
			From	To																
			Calle Baja			Cámara Pablo														
26/6/2018																				
		47	4375	4384																
		45	4385	4398																
		43	4399	4404																
		41	4405	4416																
		39	4417	4433																
		37	4434																	
		35	4435	4445																
		*	4446	4455		32 calle Mayor														
		*	4456	4476		30 calle Mayor														
		33	4477	4491																
		31	4492	4503																
		29	4504	4512																
		*	4513	4522		22 calle Mayor														
		27	4523	4528	4533															
		*	4529	4542		18 calle Mayor														
		25	4543	4551																
		23	4552	4557																
		21	4558	4565																
		19	4566	4576																
		17	4577	4587																
		15	4588	4625																
		13	4626	4647																
		11	4648	4663																
		9	4664	4677																
		7	4678	4697																
		*	4698	4713		7 calle Horno														
		5	4714	4749																

**Fig. 6** Digital database after data collection according to location and property values. Colors refer to the values in buildings and streets following the legend provided in Fig. 4.

digital recorder and transcribed with a word processor. The vocabulary used by these artisans (Valencian or Spanish) was translated. Their vernacular allowed us to discover new terms for techniques, materials, tools, and even unconventional toponyms, as part of the ephemeral heritage and oral tradition.

Methodologically, [Martín et al. \(2016\)](#) and [Sotoudeh and Abdullah \(2013\)](#), among others, worked on the idea that participation serves to obtain deductions from the material reality of places and, in turn, improve the cartographical translation. Examples of these cases include the works of [Brown and Fagerholm \(2015\)](#) and [Brown et al. \(2014\)](#). In this context, a debate exists in the SoftGIS applications within the PPGIS discipline. The SoftGIS approach relies on collecting, analyzing, and delivering personal experiences in the form of memories, meanings, and values. It uses Internet-based methods in which interactive maps have a central role in reflecting participative and communicative processes ([Rantanen and Kahila, 2009](#)).

### 3. Fieldwork results

#### 3.1. Background

The first studies carried out in 2016 showed several differences and deficiencies in heritage preservation methodologies and the lack of any heritage management planning. Other factors that conditioned the start of this study were the differences in perception and commitment of inhabitants in heritage matters. During the first

meetings, we surveyed the responses of 478 inhabitants out of 5.345 people, a figure representing the total population of the villages at that time. Stakeholders were asked about cohesion and activities related to heritage, urban landscape, and popular traditions in each municipality ([Fig. 7](#)). The options were the following: a) groups are working on the abandonment of the scene and the houses in the historic center; b) a group of neighbors organize specific events on traditions and customs; c) no defined group is present, but popular festivals are held every year; d) no local groups or festivals are present.

The graph shows that two main responses. The first one is (b), and the second one is (c). The responses demonstrated the will to improve the way heritage is practiced and disseminated. Moreover, individuals have a desire to learn and receive heritage education to understand and value specific ways for heritage appraisal. Respondents placed special emphasis on valuing those who altruistically devote part of their time in heritage preservation tasks, especially the ones involved in crafts, gastronomy, and folklore.

In terms of the preservation of historic environments, materials, and buildings, a range of more positive responses than the ones we had expected emerged ([Fig. 8](#)).

Interviewees had three possible responses: a) I know about traditional techniques, crafts, and materials. I keep them at home and encourage others to preserve them; b) I do not know about traditional methods, works and materials, but I believe they should be preserved; c) I do not know, and I am not interested in these issues either.

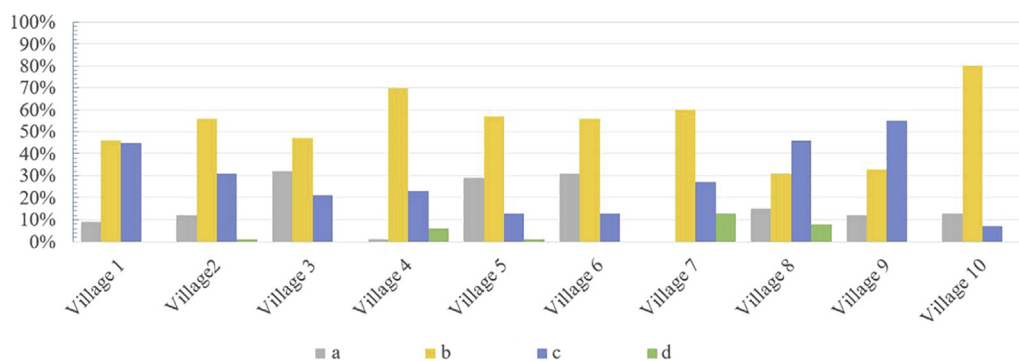


Fig. 7 Results of the consultation on cohesion and activities related to heritage.

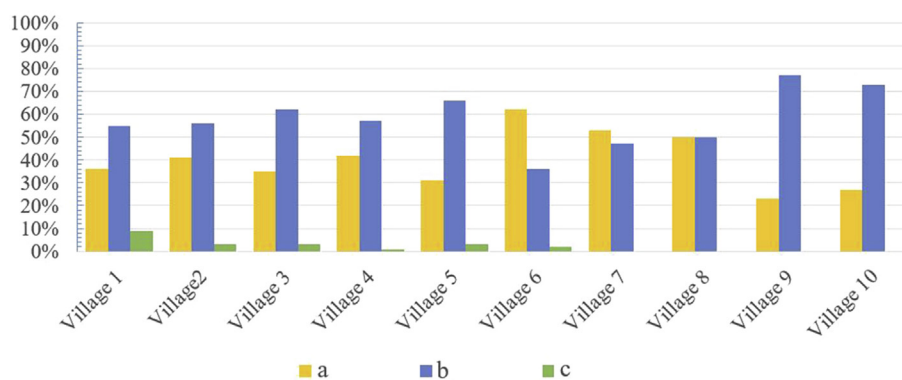


Fig. 8 Results of the consultation on historic environment conservation.

Response (c) was practically null, and answers (a) and (b) obtained an even result with a slightly higher percentage of responses for (b).

As a concluding remark, this open consultation served as the baseline to start the phase of the research we present in this paper. Therefore, the data collection of tangible and intangible practices had to be sensitive to the fact that no specific groups were conserving craftsmanship and that knowledge on traditional methods, works, and materials was insufficient. These results implied that our methodological appraisal needed to be

scientific but also pedagogic to allow others to recognize and analyze values.

### 3.2. Cartography of architectural elements

The information extracted from the fieldwork was mapped on graphic-data collection for enhanced understanding and as a practical visual resource. Using spatial databases from the early stages of the research enabled the generation of statistics to analyze the different dynamics quantitatively (Fig. 9). Similarly, mapping the values

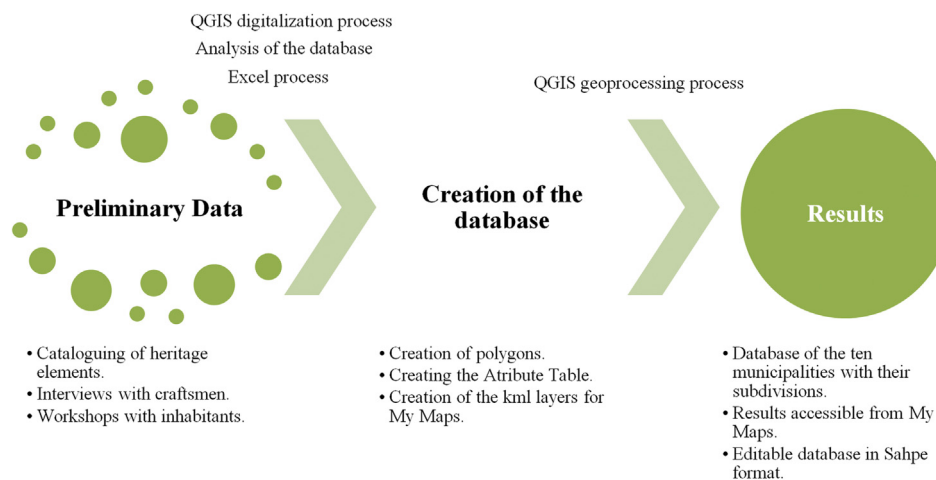


Fig. 9 Methodology for the creation of the GIS database.

obtained from the analysis of historic urban cores allowed an accurate qualitative analysis of techniques, materials, and their transformation by contrasting and comparing the areas of study.

The result, as shown in Fig. 11, is not an expression based solely on the PPGIS. The work compiled the analysis of the elements explained in Fig. 6 and the experience transmitted by inhabitants through interviews and workshops. This mixed source of study seemed useful beyond the academic and normative realm. The procedure searched for a truthful consideration of what inhabitants acknowledge as heritage and considered this social value among the historical and architectural ones (Fig. 10).

On the basis of cadastral cartography, each property was abstracted as a geometric surface structure shape to which the fieldwork attributes were uploaded to the QGIS software. We established a set of fields associated with each spatial entity to build up the table of attributes (Table 1).



Fig. 10 Data collection digitally processed prior to QGIS analysis and composition.

Parameters were homogenized by creating common points that did not discard significant variables. The transposition of information was a painstaking task because an inadequate transfer of data would ruin the information surveyed during fieldwork. Hence, we spatially organized the features on the map through lines and points that explicitly referred to the subtle particularities of each place. These characteristics were openings, balconies, carpentry, eaves, coatings, and stairs, among others. A column entitled "Other signs" referred to the alternative uses and understandings of heritage highlighted by interviewees.

In a coded manner, the software registered details and signs, such as how the wood was once worked, the remains of past street lighting, the samples of whitewashing in different shades or with marks, and other significant signs of artisans and craftsmanship that are present on buildings. The result was a graphic description of buildings and streets. The eventual presence and variations of characteristics allowed us to obtain quantitative statistics. Therefore, extrapolating certain elements from a digitized database was a step forward in this research. The processed information had two graphical outputs, namely, "My maps" and QGIS. Both outputs allowed us to import data in different geographical formats, such as KML or GPX, and in tables with columns to be geocoded. The first graphic output was the "My maps" format from Google, where any registered user could edit the content of the maps. Accordingly, we perceived that using an open platform that summarized our study in a practical and accessible manner was essential to develop pedagogical research (Fig. 11). The second graphic output was the one containing the layers generated with QSIG software, which was necessary for researchers to carry out further studies for the THAP.

### 3.3. Views of interviewees

Through interviews and conversations about building techniques and the general features of local architecture, we learned to observe the details that historic urban cores preserve. From the use of simple and durable wooden nails to specialized tools, the different forms of wooden assemblages, the artisan way of life, and shops that still kept the secrets on how craftsmen worked until the last decades of the past century helped us include the intangible value in the methodology (Fig. 12).

The pride of craftsmen when narrating their works with passion and dedication is prominent. Blacksmiths explained

Table 1 Description of the QGIS software attribute table.

Field name	Description	Field type	Example
Name	Identifies the municipality, street and building number	Alphanumeric	RFCU010_023
Openings	They express the heritage typology of each construction element selected, grouped and cataloged previously.	Alphabetic	Curved arch of masonry
Balconies		Alphabetic	Not applicable
Carpentry		Alphabetic	Two horizontal wooden doors
Eaves		Alphabetic	Decorated ceramic brick
Stairs		Alphabetic	Not applicable
Coatings		Alphabetic	Lime and sand mortar
Other signs	It indicates the less visible values extracted from the interviews through numerical coding.	Alphanumeric	1, 2, 4, 6





**Fig. 11** QGIS Map and database showing the interpretation of data obtained from fieldwork, participatory meetings, and interviews.



**Fig. 12** Details of the documented wooden assemblages and carpenter's tools.

with utmost precision the work in the forge, the adaptation of tools to the appropriate tasks and taught it with mastery (Fig. 13). In the same way, the traces and elements of other epochs that endowed the space with symbolism were also georeferenced in our database (Fig. 14). The streets of these municipalities were full of features, such as iron covers that hid water valves, retouching in carpentries using wood patches or other improvised solutions such as metal sheets, the remains of old lighting systems, and the varied labelling of streets and numbering of dwellings.

Finally, other spontaneous characteristics of these places gave a singular counterpoint (Fig. 15). The coloring of openings and façades was usually carried out with pigments

of mineral or animal origin for the sake of sanitation. Today, this practice essentially belongs to the aesthetic realm. The presence of plants was always indicative of the well-being and care for the environment. Some balconies and windows were full of color, crowded with flowers. In others, discreet or colorful flowerpots moderated the presence of florae. Stopping by to observe curtains and blinds had been an exciting task. These elements, perhaps the most ephemeral or changing of a façade, depicted the character of the dwelling, of its inhabitants, and of how it helped the historic built environment to be perceived under an aura of neatness or decadence and homogeneity or heterogeneity, both in materials and colors.



Fig. 13 Recorded and cataloged ironworks and blacksmith's tools.



Fig. 14 Cataloged and georeferenced traces and minor elements in streets.



Fig. 15 Spontaneous elements that provide a singular vision of the place.

## 4. Evaluating the results and methods used in the study

### 4.1. Limitations

The methodological work of studying historic built environments has a series of limitations. On the one hand, participants can find restrictions of expression in the questions raised by researchers (Živojinović and Wolflehner, 2015). In this study, we obtained evidence drawn from an extensive review of academic and practice-based literature about the architecture and urban planning

issues of the area. This evidence ensured that the study was representative and specific for the field of study. Participants responded about the existence of guidelines and aid programs for caring and preserving the vernacular architecture of historic urban cores. This type of questions allowed the respondents to expose their perception and favor the objectivity of the study.

On the other hand, the 478 participants represented approximately 10% of the total population. Therefore, this work was extensive and not absent of difficulties related to the availability and predisposition of inhabitants for consultation. The study made some residents skeptical,

uncomfortable, and doubtful about its veracity. However, cooperative activities, such as meetings and workshops, were an essential tool for the success of the survey. Such activities avoided the sort of “wild card” on which some studies depend. The organization of heritage days by researchers and residents confirmed that the involvement of the population was beneficial and growing over time.

Finally, the work of data processing was the function of researchers. This fundamental step for the future development of a THAP is the only way to appreciate the specificities of each place and each society. By using digital databases and digital cartography, this methodology helps future researchers not only to understand each architectural detail and their state of conservation but also to classify alternative forms of heritage that stakeholders value and practice.

#### 4.2. A different approach

In some cases, the experiences that link people to heritage environments appear to optimize tourism strategies (García-Esparza and Altaba, 2018; Gholitabar et al., 2018). In others, they tend to improve the quality of the environment (Kyttä et al., 2013). Approaches and assessments, such as the one championed by UNESCO (2011) and the one by the English Heritage (2010), seek equitable and sustainable historic urban places. These studies are not usually undertaken in minor rural villages of Europe and North America (Maria Smits, 2019). The specificities of this place of research aim to recognize the reality of a particular context by understanding it from a global perspective. Therefore, global approaches to cultural heritage conservation serve as a framework in need of historical, architectural, and social contextualization. The final aim is to value historical and architectural heritage together with the connections people make in each context.

Conversely, researchers and academics tend to lose local sight under a normative and distant perspective. The Local Character Assessment needs to be implemented by the intimate and sensitive relationships that inhabitants establish with their heritage. This heterogeneous or complex insight helps provide a piece of comprehensive information about transformations and evolution, common characteristics between elements of the same category, and plural connotations of authenticity in a dynamic reconfiguration. Therefore, cataloging and accommodating local creativity, even if it is contemporary and always understood from the sensitivity and sense of good practice, help determine historic urban cores as dynamic and contemporary habitats that can embrace new forms of material evidence as a common heritage in constant transition.

The location and georeferencing of the knowledge and craftsmanship of artisans have a crucial role in the applicability of cultural and scientific knowledge into urban planning (Nguyen et al., 2019). The usefulness of localized information is also used in policymaking. Such information contains the spatial component a THAP needs (Sieber, 2006). Finally, these map-based data visualizations offer an excellent way to increase public debate (Van Herzele and van Woerkum, 2011).

#### 4.3. Documenting the intangible

The results of this research reflect the idiosyncrasy of a dynamic context where the intangible affects the tangible. The presence of the local provides a detailed vision that gives us the necessary nuances to increase the value of the study. One of the most significant results is the ability to link the construction technique with the explanation of artisans. Although some of the crafts are not particularly old, they hold a representative character for locals and the valuable dynamism of a technique that has evolved through time.

Another result of this research is the discovery of the relevance of minor elements that provide a specific character that links the place to memory and storytelling. These minor elements include street plates, lightning devices, cables, paintings, marks, and other auxiliary components related to beliefs and superstition (Fig. 16). Documenting transformation through this type of minor semifixed manifestations in the urban landscape gives the study the validity to serve as a database of tangible and intangible forms of knowledge that present the contemporary local character of a historic place. In the same way, documenting the construction techniques and the anecdotes of artisans who still live in the townships helps the public understand evolution and transformation accurately. This documentation also helps people comprehend the human aspect and the social value that lie in these issues. Precisely, the participation in this study has consisted of transforming locals—craftsmen, relatives, and neighbors—into holders of the interest for the place, providing a specific vision of their legacy.

#### 4.4. Historic centers and their management

With all the work evaluated, this article only shows a brushstroke of some information acquired in the fieldwork. Values and heritage orientations must be viewed from a global perspective to establish clear ways of confronting all aspects that currently affect the local heritage dynamics of



Fig. 16 A former blacksmith demonstrating some craftsmanship. Heritage days 2018.

historic urban cores. Values and orientations cannot be obtained by extrapolating specific national and international standard objectives alone. Research into heritage science and the institutions responsible for its stewardship should encourage social awareness through the application of appropriate management tools that focus on specificity, distinctiveness, and creativity.

Specific forms of assessment need accurate tools for fieldwork evaluation, tangible and intangible, and a critical review of the outputs. Accordingly, the different scales outlined by previous authors and analyzed in this study reflect the importance of interpretive cultural transmigrations. These transmigrations help create lasting structures for the adequate reinforcement of regional and local governance, management, and action plans. In the case of the Valencia region, the management structure needs incisive forms of appraisal that look for a straightforward path toward the preservation of cultural specificities.

Another aspect of heritage management to be expanded is the maximization of citizen responsibilities through the development of a new approach that is open to a broad conception of cultural heritage. The sense of regional and local community and the spirit of collective ownership—from the craft to the building, the street, and the village—need enhancement. All these tangible signifiers, including critical and constructive capacities, must be integral in an assessment tool. Character assessment entails the intangible domain of local sociocultural processes according to a particular period and the values they hold during that time. This tool can provide a THAP with information that serves as stimulus and instrument for heritage legislation at a regional and local level. Based on the fieldwork and the application of this methodology, heritage needs the triple voice of academics, researchers, and stakeholders. It also needs to be ruled out accurately by standards with the aim of linking the social value together with the architectural one.

## 5. Conclusion

This work presents an inner vision of a heritage lived and experienced by the local population to provide an accurate and provocative interpretation of how the evolution of a historic urban core is analyzed and understood. The peculiarities of rural cultural landscapes display an “ethnic” palimpsest in which the history of the environment (static values) and recreations (dynamic values) can play a role intrinsically linked to the present-day heritage. The introductory section of this article describes the existing available tools. However, it shows the lack of an adequate tool to assess social value in historic urban cores. Hence, this study aims to take advantage of the existing forms of assessment in other fields of inquiry to improve the evaluation of tangible and intangible values. In this case, most of the available methods, such as observation, interview, planning, and training, offer a comprehensive understanding of the local character.

Meetings, workshops, and heritage days serve to acquire in-depth knowledge about how the intangible informs the tangible, and vice versa, for cataloging and mapping purposes. The creation of maps allowed public participation,

thus enhancing the knowledge, quality, and intensity of heritage values. These maps present conservation attitudes and heritage challenges that researchers will face in the future. Such information aids in policymaking for a future THAP that integrates historical, architectural, and social values. Thus, the values of the participatory and scientific geocoded catalog can be analyzed simultaneously with the GIS database. This database will help provide new possibilities for future work on new experiences, values, and directions that the future management of these historic built environments may need.

In conclusion, social awareness, in terms of culture and heritage science, still needs improvement to develop a proper assessment of the idiosyncrasy of the historic environment. Despite the potential universal application of this methodology, the cultural heritage of each region responds dynamically and authentically to the current processes in which each society lives. Therefore, given that cultural heritage departs from the principle of maintenance for future generations, academic discourse, and social understanding must be an essential part of the management process. Surveying methodologies must be relevant during conservation processes, whether at the national, regional, or local level. Management programs must incorporate them, but they must be particularly informed by the cultural background, the socioeconomic context, and the permeability of regulations.

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## Conflict of interest

There is no conflict of interest.

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