



# Cultural heritage mapping through community participation in Vale de Massarelos (Porto)

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## Abstract.

Participatory approaches and transdisciplinary co-creation strategies are among the best practices for integrated and inclusive contemporary urban management. This article focuses on cultural heritage mapping through the participation of stakeholders and provides i) critical analysis of two case studies: "HUL Ballarat"(Australia) and "PUH\_C Cuenca" (Ecuador); and ii) mapping of the cultural heritage in a pilot urban area in the city of Porto (Portugal) - Vale de Massarelos, supported by participatory experiments. A deeper insight into the implementation of different participation strategies for the urban management of Vale de Massarelos is presented, with the aim of assessing stakeholders' perception of the territory's cultural significance, at the various stages of planning and implementation.

**Keywords:** Historic Urban Landscape, participation, cultural values.

## 1 Introduction

The Recommendation on Historic Urban Landscape - HUL [1] defines it as "an urban area arising from the historic layering of cultural and natural values and attributes, which includes the broader urban context and its geographical setting", it recognises the dynamic character of urban spaces, functional, cultural and social diversity, and proposes the conservation of urban heritage in equilibrium with social and economic development. It advocates balancing the built and natural environment and the needs of different generations sustainably [1].

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The involvement of populations in the whole process of inventorying, understanding its significance, and managing a HUL is essential [1], since heritage only exists to support the identity of a community [2] and, to sustain and transmit heritage values, it is crucial to include it in heritage management [3]. This study advocates participation as a central component [4] to be carried out in an effective regime of co-creation throughout the process [3]. Since the higher the level of participation, the more empowered the public becomes [5], it helps identify hidden or unnoticed values [6;7] and creates a more inclusive and genuine consensus in the decision-making process [3;8].

Thus, cultural mapping is used as a tool applied to the area being studied, and is defined as "a process of collecting, recording, analysing and synthesising information to describe the cultural resources, networks, links and usage patterns of a given community" [9]. The mapping of cultural heritage [10] is proposed in a broader sense and with the involvement of populations to identify attributes, related to tangible and intangible components, important for the conservation of values in the urban context [10].

## **2 Methodology**

The methodology of the article results from the bibliographic review of international cases ("HUL Ballarat" and "PUH\_C Cuenca") and the approach applied to an area in the city of Porto with the application of participatory techniques, namely by providing:

- i) Critical analysis of two reference case studies in "HUL Ballarat" (Australia) and "PUH\_C" Cuenca (Ecuador), selected for their innovative and integrated approach in mapping and assessing the cultural significance of urban areas, and both representing pilot cities in the implementation of the HUL Recommendation [1].

- ii) Mapping the cultural heritage in a pilot urban area in the city of Porto (Portugal) - Vale de Massarelos (see figure 1), supported by a methodology based on selected participatory techniques - interviews, surveys, blackboard project, collaborative mural, perception map - intended to assess stakeholders' perceptions of the cultural significance of this area, for the different stages of planning, implementation and management of a HUL, namely a) characterisation (attributes and values), b) diagnosis (risks and problems) and c) proposal (tangible and intangible actions).



Fig. 1. Study area – Vale de Massarelos

### 3 International References - HUL Ballarat and PUH\_C Cuenca

The "HUL Ballarat" was an agreement between the city of Ballarat and WHITRAP-Shanghai in 2013 [11], and was centred on the conservation of local heritage through proactive approaches focused on the active involvement of different stakeholder groups [11]. The project "*Revalorización del Patrimonio Cultural y Natural de la ciudad de Cuenca a partir de estrategias de desarrollo sostenible apoyadas en la Recomendación sobre el Paisaje Urbano Histórico - PUH\_C*" had as its main focus citizen participation supported by a broad concept of heritage and interdisciplinary research [12]. The initiative came from the School of Architecture of the University of Cuenca and came on top of an Agreement between WHITRAP the Municipality and the University of Cuenca in 2015 [13].

#### 3.1 Ballarat

For the development of the proposed Heritage Plan from 2017 to 2030 [14], heritage, social, and economic objectives, and aspects of city management not typically associated with heritage were aligned [15]. Table 1 is a summary of the participatory techniques of the project with the periods when they were applied, between 2013 and 2017. "Imagine Ballarat" [16] stood out, in which, from three simple questions, it was possible to learn 'what they believe to be of value', 'what they want to keep' and 'what they propose for the future'. The responses were grouped into macro-categories [16] and were used as the basis for discussions in subsequent participatory activities (Table 1) and as a guide for the work of the Council in the coming years [14;15;18].

**Table 1.** Techniques applied in HUL Ballarat

Date	Name of the activity	Technique applied	Participants	Objective
2013 to 2015	Accessing our regional heritage	Workshop	Representatives of historic community associations	Identify needs and gather ideas about Ballarat's cultural heritage.
		Individual interviews	Representatives of cultural heritage organisations and researchers	Discussion of: role, purpose and vision; Specific functions within cultural heritage; Needs.
		Survey	47 individuals with research affiliations	Understanding the needs and assessing the adequacy of current levels of access to Ballarat's historic collections.
	Ballarat Imagine	3 questions	The entire population of Ballarat (more than 6,000 responses)	Identifying through questions: What do you LOVE about Ballarat? (values and attributes) What do you IMAGINE for Ballarat? (the future scenario) What do you want to RETAIN in Ballarat? (the limits of acceptable changes).
2015-2016	International symposium 1 "Unesco's recommendation on the HUL"	Symposium	Representatives from Universities, Heritage Specialists, Local Government, Community Representatives, etc.	Discuss HUL and initial findings of Context study (2013) and Ballarat Imagine (Ballarat Strategy).
International symposium 2 "Participate, imagine, innovate: Revitalizing historic cities – Unesco's recommendation on the HUL"	Day 1: expert and practitioner workshops			Develop proposals arising from the community and HUL's strategic principles
	Ballarat interpretation framework	Workshop	cultural heritage professionals, tourism industry and community members	Reply to the question: 'What does it take for interpretation in Ballarat to flourish?'

2016-2017	Smart cities: building a Vision for the future	Workshop	Representatives from academia, culture, industry, communities, businesses, investors, the city's heritage sector, etc.	Collaborative strategy to capture ideas, shape directions for a Smart City, for the future progression of HUL processes and tools and Visualizing Ballarat.
	Collaborating with council's Advisory committees	Series of workshops	Ballarat Heritage Advisory Committee, Disability Advisory Committee and Koorie Engagement Advisory Group.	Consolidate feedback from participatory planning to date, deliveries of draft and final versions of the heritage plan.
	City of Ballarat and stakeholder Project development	Over 100 internal project development meetings	Individuals and teams from Ballarat city departments, local cultural heritage representatives and tourism organisations.	Test ideas, establish support and other project requirements; Identify opportunities for integration with existing or proposed work.

**Source:** Synthesis prepared by the author Laís Pettinati, based on City of Ballarat (2017b)

The information and knowledge gained enabled new understandings of and possibilities for Ballarat's heritage. As a result, existing policies were revised and others implemented; heritage conservation practice was transformed through the participatory approach which generated several projects and case studies; local area plans were developed, and online engagement and participatory planning tools were created [14].

### 3.2 Cuenca

The "PUH\_C" was outlined through three main axes: 1) an expanded vision of heritage; 2) interdisciplinary research; and 3) importance of the role of the citizen. It had the following objectives: to assess the state of conservation of the city's heritage; to define cultural values; to identify different impacts affecting heritage values; to prepare a series of recommendations, based on heritage values, for the city's intervention and growth strategies [7].

The methodology consists of 3 phases: Phase I) Diagnosis and state of the art; Phase II) Identification of cultural attributes and values; Phase III) Definition of a series of recommendations for the city's intervention and growth strategies [19].

Table 2 demonstrates the participatory techniques applied at all stages of PUH\_C. The participatory methodology applied was Sociopraxis, with active listening, feedback, reflection and joint action [19;20]. One highlight was the workshops held with the citizens, which used a simple and direct language that was easily assimilated by the participants. The responses from activities 1 and 2 were grouped into large groups of categories by affinity [12].

**Table 2.** Techniques applied PUH\_C

Phase	Date	Name of the activity	Technique applied	Participants	Objective
Phase I	2014	HUL approach for "World Heritage City Preservation Management"	Workshop	Specialists and stakeholders	1) Identify the most representative elements of Cuenca's landscape; 2) Identify anomalies in the city through the senses, discuss their cause and possible solution; 3) Define a division of the city into HUL units based on the participants' criteria; 4) Detect the main threats to HUL in the city.
Phase I	Feb. to Mar. 2015	workshops with the community in neighbourhoods and communal spaces	16 Workshops	Local community (148 citizens)	1) Search for elements by which citizens identify with their city through their senses; 2) Recognise anomalies in the city through their senses; 3) Identify the elements of historical heritage; 4) Propose the division of Cuenca's territory into Landscape Units; 5) Through brainstorming, get their opinion on issues for the re-evaluation and conservation of heritage.
Phase I	2015	Photography contest: "Visions of the city"	Photos	The entire city	Capture different points of view regarding the elements that make up Cuenca's Urban Landscape
	2015	Drawing contest	Drawing	Children (public and private schools)	

Phase II	7 to 8 May 2015	Visionary Conference	The Participatory Diagnosis workshop	Technicians, experts, citizens, stakeholders and local government managers.	Return the information gathered to validate it, make corrections and jointly construct a diagnosis, a future scenario and possible lines of action.
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**Source:** Synthesis prepared by the author Laís Pettinati, based on Rey-Pérez & Sigüencia Ávila (2017); Ecuador (2014); Rey-Pérez & Tenze (2018); Universidade de Cuenca (2015); Rey-Pérez et al. (2017)

The studies generated in Phase I were unprecedented in Cuenca [7]. The information obtained allowed the attributes and values of the Cuenca HUL to be identified in natural, cultural and human terms and its vulnerability to change and development to be evaluated [19]. At the end of the Visionary Conference, it was possible to understand and establish where in the process the determinants for future planning are to be found [7]. Lines of action were generated to define strategies to be introduced in Cuenca's management system [21]. Due to a lack of initiative by the Municipality, the HUL approach has not yet been incorporated into an Urban Development Plan, which has led to the stagnation of the Plan [19;22].

### 3.3 Notes

The importance of governmental and other sectoral support and participation for the viability of comprehensive initiatives in the management of Historic Urban Landscapes is clear, as was the case in HUL Ballarat, but did not occur in PUH\_C Cuenca [19;22]. Regarding the participatory methodology, some points were essential regarding the use of techniques: i) the language for dealing with the population (non-specialists) must be simple, and avoid technical terms that may constrain or confuse people; ii) seek to apply techniques that can encompass various audiences; iii) promote cross-dialogue between technicians and the population at all stages; iv) work with macro categories for the systematization of the work and future reviews.

## 4 Cultural Mapping in Vale de Massarelos

### 4.1 Methodology

In this study, we present preliminary data from broader ongoing research<sup>1</sup> in Vale de Massarelos, which consists of developing a methodology that sustainably combines heritage conservation with contemporary urban development, through a participatory approach, in line with the HUL Recommendation [1]. The focus is on the participation of stakeholders to identify values and attributes, vulnerabilities and proposals for sustainable urban management. Data collection [23;24], listening and participation, is divided into two stages: 1) Initial immersion in the field - supported by non-participant and unstructured observation [24;25] and first interviews - to get to know the territory and define the stakeholders and techniques to be applied; 2) Immersion in the field - structured non-participant observation [24;25] and application of the participatory techniques defined.

#### 1) Initial immersion in the field

Understanding the territory, from the perspective of the people who inhabit it or experience it in different ways, is fundamental for the process of managing a territory [26]. Researchers and agents who want to work in heritage management, and actively involve the populations, can immerse themselves in an environment to obtain contacts, and locate privileged informants who can serve as a bridge between researchers and populations [12]. As a way of getting to know a territory, De Varine [27] advocates walking in it with residents who can serve as "guides", and show the place and its heritage from their point of view. This provides engagement and can instigate the sharing of memories, reflections, complaints and propositions [27].

For urban heritage management, the participation of stakeholders in the context under study is essential for identifying key values in their urban areas, developing visions, setting goals, agreeing on actions to safeguard their heritage and promoting sustainable development [1;28]. Thus, there are various stakeholders who can participate in the

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<sup>1</sup> The doctoral thesis by Laís Pettinati, titled "Heritage and development in the contemporary city: contributions to the participatory management of the Urban Historic Landscape of Vale de Massarelos."



implementation of the HUL approach, depending on the cultural context [29]. Therefore, one must first understand the cultural context of each place to establish who the stakeholders are.

It is essential to hear the point of view of citizens living in the city in different ways for the HUL approach to be understood among stakeholders [12]. Rey-Pérez et al. [12] advocate the need for the participation of three main groups - the public sector, private sector and citizen sector - and furthermore, that the broadening of the group of actors is fundamental to achieve greater participation and register various points of view, to reduce conflicts to a minimum and make the execution of projects more efficient and feasible [12].

Thus, in order to define the stakeholders, the first step was to approach the empirical field of study by means of:

- a) Participation in the Curricular Unit "Heritage and Landscape. Management, Analysis, Project" (FAUP), in which the object of study involved areas of Vale de Massarelos, in the 2019/2020; 2020/2021 and 2021/2022 editions; allowing initial contact with the area and improvements in the method due to experiences implemented in the discipline.
- b) Analysis on official websites to identify facilities, contacts, places and people. (March 2021)
- c) In the field, non-participative, individual and unstructured observation [24;25], carried out at different times and on different days, accompanied by the recording of notes in the field diary, chronologically organised photos and videos; aimed at a first contact to understand the space. (April-June 2021)
- d) Semi-structured individual interviews with key persons who were identified in the previous steps (a; b; c). (October-November 2021)

This first approach was essential to make contacts, understand certain dynamics, get to know places and people, build trust between interlocutors and researcher and to build a social profile of the informants [30].

The sampling technique used was the 'snowball' [31]. Thus, from these analyses, and based on previous studies [12;29;32], the following categories of stakeholders were defined: public sector (municipal bodies, politicians, councillors, public servants); academic (universities, researchers, students); private (entrepreneurs, developers, companies, services - tourism, accommodation, commerce); cultural (museums, libraries, and

their staff); civil society (citizens, residents, workers, owners, tenants, associations); visitors and tourists. It should be noted that the communities [4] are embedded in the stakeholder sectors.

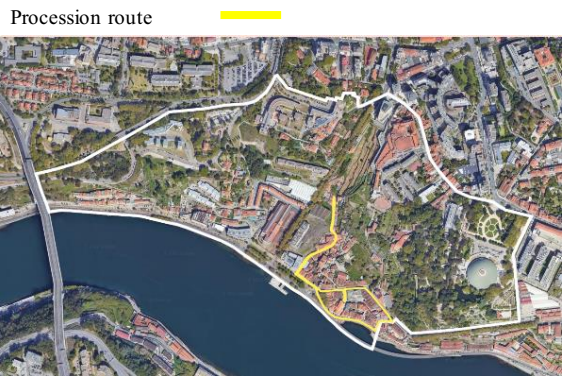
Once the interested parties had been defined, the next step was to develop techniques for listening and their participation.

2) Immersion in the field - Techniques applied

a) Structured non-participant observation: an analysis grid was developed for the field diary with macro themes (Physical Space, Natural Space, Built, Immaterial, People, Signage, Visual Relations, Access, Transport). The observations were carried out from September 2021 to July 2022 and included 27 main field visits and 7 observations at events related to heritage and Vale de Massarelos (guided walks, celebrations, and lectures, among others).

Immaterial – “Candles Procession”

Date: 12/05/2022  
 Start: 21:30 / End: 23:00



**Fig. 2.** Example of structured non-participant observation

b) Semi-structured individual interviews: The questions were developed based on [16] and [33] (See Table 3). 17 interviews were conducted with representatives from the following sectors: Public (2), Private (4), Cultural (3) and Civil (8).

**Table 3.** Script interviews

Questions	Objective
What do you LOVE about Vale de Massarelos? What are the ADVANTAGES of living/working in this area?	Identify attributes and values
What do you wish to CHANGE in the Vale de Massarelos? What PROBLEMS do you identify?	Identifying risks and problems

What are the DISADVANTAGES of living/working in this area?

What do you want to KEEP in the Vale de Massarelos?




Set the acceptable change limit

What do you IMAGINE for the future of Vale de Massarelos?

Designing future scenarios

What are the RECOMMENDATIONS for the future?

c) Surveys consisted of three open-ended questions based on previous experiences [16;33]: "What do you LOVE about Vale de Massarelos?" (identification of attributes and values), "What do you wish to CHANGE?" (identification of risks and problems), "What do you IMAGINE for the future?" (recommendations for a future scenario). 41 surveys were used in two formats: paper, during field visits with residents, workers, space-users, tourists and students; and digital, for students, teachers and researchers from FAUP, FLUP, CEAU.

d) Blackboards: this technique was developed based on [16] and [34], and was intended to reach elderly residents of Massarelos, who were afraid to frequent social spaces in the aftermath of the pandemic. The approach was door to door [26], the questions were the same as those applied in the surveys, but the form of approach was different. An individual blackboard was taken on which was written (  LOVE), (  CHANGE), (  IMAGINE) and answers were then placed on the icons. There were 12 participants. (See figure 3).

e) Collaborative Mural: Installed for one week at the "Autumn Fair" at the Massarelos Residents' Association kindergarten and open to the public. The mural contained the same questions that had already been used in the surveys and the blackboard project. (See figure 3).

f) Perception Map Workshops: Based on [35;36], the workshop was applied in three different contexts: first, with the residents and workers of Massarelos, specifically in the neighbourhood of the Massarelos Residents' Association. Then, it was applied to the users of the Social Centre for the Elderly of the Union of Parishes of Lordelo do Ouro and Massarelos. Finally, to a group of families cultivating a community vegetable garden in the study area. The researcher led this collective approach, using a blank canvas and pens for the collaborative construction of the map.

The activity started with the participants gathered around a table with materials. The researcher initiated the dynamics with the following question: "If you were to explain to someone who lives/works/visits Massarelos, how would you describe this place?" This initial question prompted the participants to think about the area, to discuss the history of the place and its different uses, and to activate the collective memory to recall moments such as meeting places, childhood games, sensations, etc. Participants were encouraged to draw or write what they considered important. In this way, the co-creation of the perception map made it possible to materialise, through texts and drawings, the places, paths taken, daily habits and memories. (See figure 3).



**Fig. 3.** (1) Collaborative Mural; (2) Lousa; (3) Perception Map Workshop.

**Table 4.** Techniques applied in the Vale de Massarelos

Date	Technique applied	Participants	Objective
January 2022 - November 2022	Interviews (17)	Key people: Public Sector; Private; Cultural; Civil society.	Identify: Values and attributes; Vulnerabilities (problems/risks); Acceptable limits of change; Recommendations for the future; Important information about the Vale de Massarelos.
	Surveys		

September 2021 – November 2022	(59)	Visitors and tourists; residents, workers, space users; students, teachers, researchers.	Identify: Values and attributes; Vulnerabilities (problems/risks); Acceptable limits of change; Recommendations for the future.
January and March 2022	Lousas (12)	Seniors - Residents	Identify: Values and attributes; Vulnerabilities (problems/risks); Acceptable limits of change; Recommendations for the future.
November 2022	Collaborative Mural (13 participants)	Residents, workers, space users, visitors, etc.	Identify: Values and attributes; Vulnerabilities (problems/risks); Acceptable limits of change; Recommendations for the future.
November 2022 and February 2023	Perception Map Workshops (25 participants)	Residents, workers, users of space.	Characterize: Perceptions of the environment, based on the look and feel of the participants, which express their values, attitudes and preferences.

**Source:** This table was created by the author Laís Petinati.

## 4.2 Discussion and Results

Section 3.3 mentions the crucial points identified at the conceptual and methodological levels in applying participatory techniques in Ballarat and Cuenca. These points concern the language used in communication between technicians and the population, the variety of techniques used to address different audiences, the maintenance of constant contact at all stages, and the proposal to work with macro-categories to systematise the work. All these elements were considered fundamental to developing the methodology applied in the Vale de Massarelos.

Therefore, the HUL Recommendation [1] served as the conceptual basis, and the emphasis on stakeholder involvement throughout the process was the guiding thread of the three studies. Thus, Cuenca and Ballarat inspired the Vale de Massarelos, as they prioritised the protagonism of participation in urban heritage management. In addition,

the Vale de Massarelos study incorporated other methodologies based on different theoretical and practical references [23; 24; 25; 26; 27; 30; 31; 35]. This allowed the research to be developed in the context of a doctoral thesis, where the process was led by one researcher under interdisciplinary supervision, as opposed to Ballarat and Cuenca, which were carried out by multidisciplinary teams.

In terms of the territorial scope of the projects, Ballarat and Cuenca, as entire cities, have much larger areas, and thus, the territory was divided into smaller limits for more detailed work in each region. In the case of Vale de Massarelos, the work started in reverse, focusing on a specific area of Porto, to later apply the methodology developed to other areas of the city to cover the entire municipality. Working on this scale in the Vale de Massarelos HUL has improved a deeper understanding of the territory, its inhabitants and users of the space, thanks to the direct contact that has facilitated building relationships of trust and proximity.

Another critical point to highlight is the importance of the support and partnership of local authorities in implementing a project of this nature, as well as its constant updating and review. This cooperation was observed in Ballarat but not in Cuenca. In the case of HUL Vale de Massarelos, collaboration with the authorities is one of the objectives for future phases.

### **Preliminary results HUL Vale de Massarelos**

Even at this initial stage, it is possible to present some preliminary results from the techniques used:

- 1) Structured non-participant observation and interview responses generated detailed and in-depth qualitative information. However, due to its comprehensive and rich nature, it was not possible to present it concisely in this article.
- 2) Similar questions were asked in interviews, surveys, and collaborative techniques such as chalkboards and murals. A total of 101 participants contributed their responses to these techniques. Below is a synthesis of the most frequently mentioned responses (See Table 5).

**Table 5.** Summary of answers

Questions	Most Said Answers	*() number of answers
What do you LOVE about Vale de Massarelos?" (attributes and values)	<ul style="list-style-type: none"> <li>• Views (46)</li> <li>• Proximity to the Douro River (23)</li> <li>• People (21)</li> <li>• Quiet atmosphere (18)</li> <li>• The Douro River (15)</li> <li>• Everything (15)</li> <li>• Landscape (13)</li> <li>• Paths of the Romantic (12)</li> <li>• Historic Gardens (11)</li> <li>• Location_near everything (9)</li> <li>• Crystal Palace Gardens (9)</li> <li>• Green areas (vegetable gardens, trees, vegetation) (8)</li> <li>• Sun exposure (6)</li> <li>• Fishing activity on the Douro River (6)</li> <li>• The tram (6)</li> <li>• "Marginal" - Rua do Ouro (6)</li> </ul>	
What do you wish to CHANGE?" (risks and problems)	<ul style="list-style-type: none"> <li>• Lack of services (pharmacy, grocery, ATM, haberdashery, drugstore, etc.) (23)</li> <li>• Lack of public transport (20)</li> <li>• Real estate speculation (17)</li> <li>• Lack of accessibility on sidewalks (16)</li> <li>• Lack of connection between the different spaces, pedestrian connections and access to the Douro River (11)</li> <li>• Lack of people residing (8)</li> <li>• Lack of quality parking (8)</li> <li>• Transit (7)</li> <li>• Insecurity (criminality, perception of danger) (5)</li> <li>• Absence of playground (5)</li> <li>• Didn't change anything (4)</li> <li>• There are many tourist accommodations (3)</li> <li>• Lack of public interest in the area (3)</li> </ul>	
"What do you IMAGINE for the future?" (recommendations for a future scenario)	<ul style="list-style-type: none"> <li>• With more services (pharmacy, grocery, ATM, etc) (10)</li> <li>• More integration between spaces, the city and universities (9)</li> <li>• Refurbishment the existing dwellings (7)</li> <li>• With more people residing (6)</li> <li>• Maintain, qualify and expand green spaces (4)</li> <li>• Maintenance of existing built heritage and contemporary adaptations if necessary (5)</li> <li>• Stop real estate speculation (5)</li> <li>• Preserve the natural heritage, safeguard the Douro River (5)</li> <li>• With more public transport (4)</li> <li>• Qualified pedestrian routes, with signs (3)</li> <li>• Have an electric platform/escalator for moving on ramps/stairs (3)</li> <li>• With Playground (3)</li> <li>• That the Paths of the Romantic be maintained (2)</li> </ul>	

**Source:** This table was created by the author Laís Pettinati.

It was possible to realise, with regard to cultural meaning, that what was most notable was related to the sights, natural spaces, immaterial elements and green spaces that encompassed social, aesthetic and ecological-landscape values. Among the problems identified, those that received the most responses were related to the lack of services and transport, the lack of urban accessibility and pedestrian links between the different spaces, property speculation and the lack of people living there. Proposals focused on the need for services, the integration of the areas and the city with the university, and the refurbishment of existing housing. There is a need to attract more people to live in Massarelos and to stop property speculation. They also suggest maintaining the built heritage and preserving green and natural spaces.

3) The creation of the perception map played a crucial role in spatialising routes, connections and places, as well as activating collective memories, traditions and uses of space. Collective memories that were triggered and that stand out include:

a) People used to wash clothes in the tanks, evoking memories of older generations who participated in this process and younger generations who remember accompanying their mothers. Sensations such as the smell of the clothes illustrate aspects of social and historical value.

b) The fountain of Cais das Pedras was a meeting place and playground for children. It has a significant social and historical value.

Also noteworthy is the importance participants attached to the communal vegetable garden. This space has relevant social and environmental value as it plays an essential role as a social and educational component, promoting community interaction and direct contact with nature for both children and adults.

The coffee houses were identified primarily as places for socialising and have significant social value.

These are just a few examples of the elements that were activated and explored during the creation of the perception map. This information will be compiled with other findings and contribute to a deeper and richer understanding of the study area and its cultural and historical connections.





Fig. 4. Perception maps of the Vale de Massarelos

## 5 Conclusions

It is imperative to emphasise the importance of the convergence of various methods, techniques, and tools, as evidenced in the three cases presented. This intersection allowed stakeholders' comprehensive engagement and demonstrated concrete and unpublished results.

The methodology implemented, focused on the stakeholders, allowed us to undertake a critical reflection on the importance of their contribution in the processes of evaluating cultural significance, specifically:

- they revealed a broad perception of heritage attributes, not just the tangible ones typically included in institutional heritage maps (e.g. The Porto Municipal Master Plan Heritage Map [37] which mainly identifies buildings) such as views, natural spaces, green spaces, people, etc., but also intangible values such as social, aesthetic, ecological and landscape values.
- the importance of involving stakeholders in the early stages of the cultural mapping process and not just in the final validation.

A limitation identified in this study was the difficulty of working with children in the study area. The lack of schools in Vale de Massarelos made gathering local children in a common space for activities difficult. Initially, an attempt was made to overcome this challenge by providing materials and explaining the proposed activity to families with children living in Massarelos. The activity would encourage children to draw or write about what they liked the most about Massarelos. However, this approach did not generate significant family feedback or participation.

Therefore, as a critical topic to overcome, it is important to explore ways to include children's perspectives on the cultural heritage of Vale de Massarelos, as this contribution is considered paramount despite the initial identified limitations.

The ongoing work aims to develop a solid and comprehensive foundation for preserving the cultural significance of Vale de Massarelos. Thus, the results of this phase will serve as a basis for implementing practical actions to conserve this cultural heritage.

Thereby, the information gathered in this phase will be processed to systematise the results in a format still under development. This format will include technical documents and graphic elements designed for the characterisation, diagnosis and proposals related to the study area.

As already stated, in this article the focus is on the applied methodology, and only a few preliminary results are presented. As this is a qualitative research, the information acquired will be considered and developed in detail in ongoing research, with a view to a more sustainable and inclusive safeguarding of the cultural significance of the Vale de Massarelos.

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