EULAC MUSEUMS

Report

Application of the EU-LAC MUSEUMS project's methodological system of evaluation of cultural heritage in Perú

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1. GENERAL CONTEXT OF THE PERUVIAN PROJECT

Cultural heritage comprises a wide variety of assets. The identification and evaluation of these elements and expressions are key for their management and value. The cultural heritage assessment methodology developed by the research team at the University of Valencia is one of its contributions to the EULAC-MUSEUMS project. It's a quantitative methodology based on the use of multiple indicators or criteria based on objective parameters.

The proposed method, previously applied in the territories of the Huerta de Valencia and the historical Huerta of Cortes de Pallás in Spain, consists of three specific systems that allow quantifying the economic interest of the tangible and intangibles goods and landscapes, for any type and territory. In addition, it includes actions that facilitate the participation of local agents, specialists and experts, as well as the local population: interviews, expert panels and surveys. The design of territorial strategies for the recovery and management of these assets requires the prior identification of the value of each resource and its categorization, in order to know its main features and uniqueness.

The work reflected in this report is a consequence of the participation and collaboration of technical teams from the University of Valencia, that travelled to Peru expressly for this purpose, and the Pontificia Universidad Católica de Perú, together with experts from the archaeological site of Chan Chan. The application of the method of evaluation of cultural heritage in Peru was carried out in a dozen goods located around the archaeological site of Chan Chan, declared World Heritage Site by UNESCO, between the towns of Trujillo and Huanchaco, in La Libertad, in the northern coastal sector of the country.

2. WORKING METHODOLOGY: PHASES OF A PROJECT OF INTERNATIONAL INTEREST

The application of the cultural heritage's evaluation methodology developed within the EULAC-MUSEUMS Horizon 2020 Project in Peru has been possible thanks to the collaboration between researchers at the University of Valencia and the Pontificia Universidad Católica de Perú, the managers and technicians of the Regional Culture Department of La Libertad located in the city of Trujillo, archaeologists and curators of the archaeological complex and the Chan Chan Museum, and the supervision of St. Andrews University, chief-coordinator of the EULAC-MUSEUMS project.

The adaptability, predisposition and professionalism of the various work teams have enabled the development of research within the framework of the EULAC MUSEUMS European Project. The collaboration was initiated through contacts between the leaders of

both Spanish and Peruvian research teams, which resulted on a work plan for before, during and after the journey of the Valencian team in Trujillo (Peru). During the first fortnight of December 2019, technicians from the Estepa research unit from the Department of Geography of the University of Valencia travelled Trujillo. Subsequently, in 2020, project managers in Peru have carried out surveys, as a prominent action to incorporate popular participation in the assessment of cultural heritage.

The methodology and the work plan has several phases that allow the implementation of the proposed evaluation method.

Phase 1. Identification and selection of property

Tangible and intangible elements and landscapes located in the archaeological environment of Chan Chan and its surroundings that have integrated the evaluation method were previously selected. There was a previous list made by the PUCP about possible goods that could be evaluated. The final selection of these elements was established by holding numerous meetings with local Peruvian and Spanish technicians and specialists. In some cases, several of the different manifestations of the goods were a merger because they were part of a collective heritage element, and in others, some additional elements were incorporated. Elements of cultural heritage that have been evaluated:

A. Tangible:

- Chan Chan's walled buildings.
- Chan Chan's Huacas.
- Chan Chan's walls (adobe or stone).
- Chan Chan's Huachaques.
- Popular architecture of Chan Chan.
- The church of San José de la Legua.

B. Intangible:

- The legend of the Huaca de Toledo.
- The Descent of the Virgen Candelaria del Socorro of Huanchaco every five years.
- The traditional elaboration of Caballitos de Totora.

C. Landscape:

- Chan Chan's Chacras Hundidas Prehispánicas.

The Geographic Information System (GIS) developed for the occasion shows the location of each of the assets in the area. In some of the intangible goods, such as the Descent of the Virgin Candelaria, the procession has been represented from its departure from the Sanctuary of Huanchaco to the city of Trujillo. The GIS also shows the various stops and stages that take place during those days.

Phase 2. Search and consultation of bibliographic and cartographic sources

The information has been obtained regarding the heritage elements subjected to study and analysis. The contributions, materials and indications of the various local technicians and

specialists on documentary references have allowed a detailed study of the features and particularities of the selected assets.

Technicians from the archaeological site of Chan Chan have provided some of the layers of geographical information necessary to implement a GIS on the heritage elements analysed.

Phase 3. Development of the fieldwork in Chan-Chan's site and surroundings

The selected heritage elements are visited, as direct observation in the field and on-site treatment of tangible, intangible and landscape goods is necessary. Fieldwork is essential for the implementation of the proposed method, as well as for the correct mapping. In this phase, local technicians and experts are consulted simultaneously due to their great knowledge, which complements the bibliographic information previously consulted.

Several encounters were held on the ground. The archaeological site and the Chan Chan's Museum were shown by the archaeologists Flor Díaz and Rolando Paredes. The internal visit of the archaeological complex of Chan Chan to Huachaque Chico and Huachaque Grande was guided by the archaeologist Rolando Paredes, which allowed us to observe the landscape of the so-called pre-Hispanic Chacras Hundidas. It is a landscape of historical irrigation currently operating. The anthropologist Luis Chaparro directed the visit to Huanchaco, which showed us the itinerary and the various stops made by the Virgen Candelaria del Socorro de Huanchaco on its journey to Trujilllo. The information obtained was essential to map this route, which was subsequently incorporated into the GIS.

Phase 4. Participation processes. Development of complementary actions for the participation of territorial actors

A panel of local experts was set up and a survey for the inhabitants was designed. These actions took place in two different periods. The panel of experts was organized with the participation of the researchers of the University of Valencia, the Pontificia Universidad Católica de Perú (PUCP) and the local technicians and experts of the Regional Culture Department of La Libertad and the archaeologists and technicians of the archaeological complex and Chan Chan Site Museum. People who attended the experts' panel:

- Luis Repetto (director of EU-LAC MUSEUMS of Peru, museologist of the PUCP).
- Jhon Juarez (director of Regional Culture Department of La Libertad).
- Luis Chaparro (anthropologist).
- Rolando Paredes (archaeologist).
- Arturo Paredes (archaeologist).
- César Gálvez (archaeologist).
- Melissa Idada (architect).
- Roger Montealegre (social communicator).
- Víctor Vallejo (economist).

Technicians Miguel Antequera, Ghaleb Fansa and Jose Vicente Aparicio represented the University of Valencia, along with Jorge Hermosilla (director of the EU-LAC MUSEUMS project in Spain) and Mónica Fernández (UV's technique), via video conference.

The experts replied to the technical questionnaire for the evaluation of the selected heritage elements and there was also a round table about discussing the most relevant aspects of the research.

The questionnaire was previously provided to 11 technicians of the archaeological complex and museum of Chan Chan: Erick Gutiérrez (archaeologist), Marisol Castillo (archaeologist), Marco Aaro Puerta (plastic artist and conservation technician), Noé Luis Cabrera (plastic artist and conservation technician), Gloria Jara (archaeologist), F. Desiree Aguilar (conservation technician), Flor Díaz (archaeologist), Cinthya Gallardo (archaeologist), Carmen Gamarra (archaeologist), María Y. Chiroque (archaeologist) and Carlos Casteñeda (restorer technician).

Phase 5. The making of the Geographic Information System (GIS) for the archaeological site of Chan Chan and its surroundings, in two versions

A free-access GIS that allows the visualization and mapping of research results were designed, following Deliverable D5.4, Implementation and management of a G.I.S. applied to Cultural Heritage. The software used to implement GIS has been QGIS Desktop, which is a desktop and open source GIS application. In the same way, a web GIS has been implemented in ArcGIS Online in order to visualize the results without needing to install specific software. The information incorporated into the GIS provided by the Cartographic Service of the archaeological complex of Chan Chan includes the limits of the intangible area and the archaeological complex of Chan Chan, the walled ensembles, the Huacas of Chan Chan, civil architecture and popular housing, the ceremonial paths at the archaeological site, the church of San José de la Legua and, finally, the archaeological sites in the surroundings of the Chan Chan site.

The fieldwork carried out in the 3rd phase has allowed and facilitated the digitalization of the Huachaques layers of Chan Chan and the landscapes of pre-Hispanic Chacras Hundidas associated with said Huachaques, the irrigation channel from the Moche River and its water intake, the areas watered around the archaeological site of Chan Chan and the tourist route designed by the technicians of the Museum of Chan Chan.

Representing the intangible heritage, the route has been digitalized and the 25 stops and pascanas performed by the procession of the descent of the Virgin Candelaria del Socorro de Huanchaco between Huanchaco and Trujillo.

The set of geographic information layers has been incorporated into both the desktop GIS (QGIS Desktop) and the web GIS (ArcGIS Online).

Phase 6. Analysis and interpretation of the results. Writing reports

The information obtained on the various elements and assets analyzed and the statistics obtained in the technical evaluation, the experts' questionnaires and the surveys on the population are the subjects of analysis. Subsequently, the corresponding reports were drafted, containing interpretations of the obtained results.

3. RESULTS OF THE PATRIMONIAL EVALUATION PROCESS. THE APPLICATION OF THE EULAC-MUSEUM'S METHODOLOGY

One of the main strengths of this work is the implementation of the overall method of evaluation in a comprehensive manner. The technical evaluation is first addressed, detailing the obtained scores. Secondly, participatory assessment is examined, with data collected in both population surveys and the experts' panel questionnaire. Finally, a comparison is made between the two modalities of estate assessment. The selected heritage assets are 10: 6 tangible goods, 3 intangibles and a landscape.

3.1. Technical assessment

The technical evaluation carried out for each of the goods considered in the area of study was organized according to its heritage nature: tangible or intangible asset and landscape. Each of the variables is assigned a 1 or a 0, depending on the fulfilment or not of each statement. The matrix lists the detailed scores of each property and type of asset, as well as the criteria and categories that structure the methodological systems.

Tangible assets have obtained an overall rating of **8.1 points,** which is a high interest according to the proposed valuation levels. The highest score of the assessed heritage elements belongs to the walled sets of Chan Chan (9.3 points), which are 10 citadels or rectangular buildings isolated and independent of each other. Each walled ensemble was built in honour of the king who lived in that palace and had courtrooms, squares, his own *huachaque, canchones,* warehouses, funeral platforms and adjoining areas. The Huacas of Chan-Chan (8.9 points), which are pyramid-shaped mounds of religious purposes, and the walls (8.7 points) that delimit the citadels, which are built with adobe or stone. The Huachaques (8.4 points) and the popular architecture (7.3 points) of Chan Chan also get a high score. Each of the walled ensembles had a *huachaque* for human supply. Outside these enclosures, there were also others whose function was human supply and irrigation. These *huachaques* located outside the walled ensembles originate the pre-Hispanic Chacras Hundidas, which form a valuable landscape of traditional irrigation. The place with the lower rating is the Church of San José de la Legua (6.4 points), which is of average interest. This church from the seventeenth century is one of the most outstanding stops in the procession of the Virgin Candelaria del Socorro of Huanchaco from its Sanctuary to the city of Trujillo.

Intangible assets have a high overall score, **7.6 points**. Both the traditional elaboration of the *caballitos* of Totora and the Descent of the Virgin Candelaria of the Socorro of Huanchaco have a very high valuation (9 and 8.7 points, respectively). The *totora* is cultivated in the so-called Huanchaco Wetlands or Huanchaco's marshes, a Regional Protected Area, which occupies 46.72 ha and contains 160 ponds, which has also been declared by the Ramsar Convention as a Wetland Built by Men. In the arid coastline of northern Peru, the Moche River people developed cultivation techniques such as digging ponds until reaching the water table by the sea. To its brackish waters, the totora *(Scirpus californicus)* manages to adapt, the plant from which the material for the ancient *caballitos* de Totora, a type of boat used since the time of the *mochicas* for fishing in the Pacific Ocean, is made. These boats are still used today, although the num-

ber of fishermen has declined by 80% in the last 40 years.

The Descent of the Virgin Candelaria del Socorro de Huanchaco is a pilgrimage that was instituted by the Trujillo City Council on December 13th, 1681. As of 2015, 65 decreases have been made over a 323-year period and 66 will take place in 2020. The pilgrimage begins in the Sanctuary of the Virgin Candelaria del Socorro in Huanchaco and on its journey has several stops or *pascanas,* such as Huanchaquito, the Church of San José de la Legua or the church of Mansiche. Arriving at the doors of Mansiche, when the city was walled, it was received by the Archbishop and his canonry, a tradition still maintained. She then goes to Santa Ana Church and then tours the main churches of the city. The procession is accompanied by the dance of the Pallas, performed by *huanchaqueras*, girls under 18 years of age. They also celebrate the dance of the Devils, in which several people dress in multicoloured costumes and masks and dance accompanied by a musician who plays the drum and another who plays the *quijada de burro*, a traditional Peruvian musical instrument.

The intangible element with the lower technical evaluation is the Legend of Huaca Toledo or Peje Chico, with 5.1 points. This legend of oral transmission has been changing and over the years. The magnificent goldsmithery Chimú, made with gold and pearls, was enclosed in the tombs of the *huacas*. The first revelation of the buried treasures of the Chimú was given by the chief of the village, Sachas Guaman, in 1535. He presented Lieutenant Trujillo, Martín de Estete, with a dazzling and iridescent treasure of gold, feathers and pearls, extracted from the idols of Chimú-Guaman, by the sea. From the *huacas* of the city of Chan Chan (popularly known as de Toledo o del Peje Grande y Chico, del Obispo, de las Conchas, de la Misa y de la Esperanza) numerous treasures were desecrated in colonial times, melted or taken to museums abroad.

The landscape of the pre-Hispanic Chacras Hundidas shows a high technical score **(8.2 points)**. These traditional irrigated areas originate in a *huachaque*, which is usually located below the level of the plot, and from which a ditch originates with which the different plots of agricultural land are irrigated. The Chacras Hundidas are made of plots that have been elaborated by tilling the surface until wetness is found. In the archaeological site of Chan Chan, within the intangible area, there are several *chacras*, although today only Huachaque Grande and Huachaque Chico remain operating.

The analysis of the qualifications of the categories and criteria that make up the evaluation methods enables a detailed characterization of the heritage located in the environment of Chan Chan and its surroundings. Table 1 shows the technical evaluation matrix of the various assets evaluated. For tangible goods, the highest scores correspond to patrimonial values (8.9 points), followed by intrinsic values (7.8 points), and finally the potential and feasibility values, which only reach 7.1 points on average. The best-rated criteria correspond to patrimonial values. Both historical and landscape criteria have the highest rating (10) since all variables are met, while the symbolic/identity and territorial also reach very high values (9.4 points). The archaeological site of Chan Chan and the church of San José de la Legua are related to an important historical civilization They are testimony of the history of the territory and linked to a period

[1]*PRIETO BURMESTER, G; RODRICH CALDERÓN, E. (2015): Huanchaco y la fiesta del Huanchaquito. Ed. Universidad Privada Antenor Orrego, Trujillo (Perú).*

and a prominent historical place. In addition, these goods are located in a landscape of environmental interest with official protection and visible from various places. The category of potential and feasibility values has the lowest rating (7.1 points) mainly because of the vulnerability criteria, which only has 1.7 points. Vulnerability contemplates the existence of threats or natural and anthropic risks that can have an impact on the conservation of the good and also assesses the fragility that the element itself possesses. Despite its conservation efforts, there are natural and anthropic threats to the Chan Chan site and its surroundings, making it vulnerable. The other criteria of this category (Awareness of social agents, Participation and integration of local communities and Socioeconomic Profitability) have very high values since all three reach 8.9 points.

For **intangible goods,** intrinsic values have the highest valuation (9.3 points), closely followed by patrimonial values (8.7 points). The category that causes the overall rating to fall significantly is Potential values and feasibility, as it only reaches 4.7 points. The criteria with the highest scores are Integrity and Historical, both with the maximum value (10 points). Integrity refers to the transmission of good over generations, respect for temporal patterns and tangible or material elements associated with intangible expression. The Historical criteria consider the very history of the element and the community witnessing its creation and evolution. The

criteria with lower scores are potential and feasibility values: Social Agents Awareness, Socioeconomic Profitability and Vulnerability, all with only 4.4 points. For these goods, the awareness of social agents is not the most suitable for the safeguarding of intangible expression. These elements do not generate relevant revenue and show difficulties in revitalizing or valuing them, and there are threats or risks that may have an impact on the conservation and transmission of the intangible expression.

In reference to the landscape of **pre-Hispanic Chacras Hundidas**, the Patrimonial values have the highest score (10), while the Intrinsic values and the Potentials and feasibility have a rating of 7.3 points. Of the 15 criteria, there are 9 that have obtained the highest score. These are representative, geophysical/environmental structure, historical, social, symbolic/identity, artistic, cultural, social agents' awareness and participation and integration of local communities. The criteria with the lowers score meet only one of the three variables that make it is Ecological Integrity, because of the poor conservation of species and ecosystems, which has a negative impact on the biological diversity, and Vulnerability since there is a certain fragility in the landscape as it undergoes modifications in some of its structural elements.

Table 1. Technical evaluation

TANGIBLE GOODSUES	INTRINSIC VALUES																				
Name	1. Represent.			2. Autenticity			3. Integrity			4. Historical			5. Social			6. Simb. / Id.			7. Artistic		
	1.1	1.2	1.3	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	7.1	7.2	7.3
Chan Chan's walled ensemble	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
Chan Chan's huacas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
Chan Chan's walls	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
Chan Chan's huachaques	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1
Chan Chan's popular architechture	1	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1
Church of San José de la Legua	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1
TOTAL VARIABLES	5	5	5	5	5	3	5	4	5	6	6	6	5	6	5	5	6	6	1	6	6
AVERAGE VARIABLES	8,3	8,3	8,3	8,3	8,3	5,0	8,3	6,7	8,3	10,0	10,0	10,0	8,3	10,0	8,3	8,3	10,0	10,0	1,7	10,0	10,0
AVERAGE CRITERIA	8,3			7,2			7,8			10,0			8,9			9,4			7,2		
AVERAGE CATEGORIES	7,8																				

INTANGIBLE GOOD	INTRINSIC VALUES																
Name	1. Represent.			2. Autenticity			3. Integrity			4. Historical			5. Social			6. Simb.	
	1.1	1.2	1.3	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2
Legend of the Huaca de Toledo	0	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	1
Descent of the Virgen Candelaria del Socorro de Huanchaco	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Manufacture of caballitos de Totora	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL VARIABLES	2	3	3	3	2	3	3	3	3	3	3	3	2	3	2	2	3
AVERAGE VARIABLES	6,7	10,0	10,0	10,0	6,7	10,0	10,0	10,0	10,0	10,0	10,0	10,0	6,7	10,0	6,7	6,7	10,0
AVERAGE CRITERIA	8,9			8,9			10,0			10,0			7,8			7,8	
AVERAGE CATEGORIES	9,3																

LANDSCAPE	INTRINSIC VALUES															PATR					
Name	1. Represent.			2. Autenticity			3. Enviromental Integrity			4. Geophysical structure			5. Visibility			6. Historical			7. Social		
	1.1	1.2	1.3	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	7.1	7.2	7.3
Chan Chan's pre-hispanic Chacras Hundidas	1	1	1	1	0	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1
AVERAGE VARIABLES	10,0	10,0	10,0	10,0	0,0	10,0	10,0	0,0	0,0	10,0	10,0	10,0	10,0	0,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0
AVERAGE CRITERIA	10,0			6,7			3,3			10,0			6,7			10,0			10,0		
AVERAGE CATEGORIES	7,3																				

NIAL VALUES												POTENTIAL AND FEASABILITY VALUES													
8. Tecnichal			9. Territorial			10. Landscape			11. Educational			12. Social agents			13. Participation			14. Profitability			15. Vulnerability				
8.1	8.2	8.3	9.1	9.2	9.3	10.1	10.2	10.3	11.1	11.2	11.3	12.1	12.2	12.3	13.1	13.2	13.3	14.1	14.2	14.3	15.1	15.2	15.3	Points	Value
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	42	9,3
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	40	8,9
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	39	8,7
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	38	8,4
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	33	7,3
1	1	0	1	1	0	1	1	1	0	1	0	1	0	0	0	0	1	1	0	0	0	1	1	29	6,4
6	6	1	6	6	5	6	6	6	5	6	5	6	5	5	5	5	6	6	5	5	0	1	2	221	
10,0	10,0	1,7	10,0	10,0	8,3	10,0	10,0	10,0	8,3	10,0	8,3	10,0	8,3	8,3	8,3	8,3	10,0	10,0	8,3	8,3	0,0	1,7	3,3	8,2	
7,2			9,4			10,0			8,9			8,9			8,9			8,9			1,7				
8,9												7,1													

MONIAL VALUES										POTENTIAL AND FEASABILITY VALUES											
/ Id.	7. Artistic			8. Landscape			9. Educational			10. Social agents			11. Participation			12. Profitability			13. Vulnerability				
6.3	7.1	7.2	7.3	8.1	8.2	8.3	9.1	9.2	9.3	10.1	10.2	10.3	11.1	11.2	11.3	12.1	12.2	12.3	13.1	13.2	13.3	Points	Value
0	1	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	20	5,1
1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	0	1	1	0	34	8,7
1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	1	0	35	9,0
2	3	2	3	3	3	2	2	3	3	0	2	2	2	2	1	2	2	0	2	2	0	89	
6,7	10,0	6,7	10,0	10,0	10,0	6,7	6,7	10,0	10,0	0,0	6,7	6,7	6,7	6,7	3,3	6,7	6,7	0,0	6,7	6,7	0,0	7,6	
	8,9			8,9			8,9			4,4			5,6			4,4			4,4				
8,7										4,7													

RIMONIAL VALUES									POTENTIAL AND FEASABILITY VALUES															
8. Simb. / Id.			9. Artistic			10. Cultural			11. Awareness			12. Particip.			13. Social agents			14. Vulnerability			15. Accesibility				
8.1	8.2	8.3	9.1	9.2	9.3	10.1	10.2	10.3	11.1	11.2	11.3	12.1	12.2	12.3	13.1	13.2	13.3	14.1	14.2	14.3	15.1	15.2	15.3	Points	Value
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	37	8,2
																								8,2	
10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	0,0	10,0	0,0	0,0	10,0	10,0		
10,0			10,0			10,0			10,0			10,0			6,7			3,3			6,7				
10,0									7,3																

Source: own elaboration.

3.2. Participatory evaluation

The participatory evaluation of the elements located in the archaeological site of Chan Chan and its environment is obtained through the development of actions of participation by social agents. These procedures are based on two types of tasks: surveys on residents and panels with local specialists.

3.2.1. Surveys on the local population

3.2.1.1. Sample size and sampling method

The survey application allows us to know the opinion and assessment of the inhabitants about their heritage. Surveys have been carried out by sampling the population of the areas of Huanchaco, Huanchaquito Alto, Huanchaquito Bajo, Villa del Mar and Trópico, in the district of Huanchaco, a total of 28,228, according to the last census made by the Peruvian state (2017). Table 2 shows the number of inhabitants for each locality.

Table 2. Population of Huanchaco in the areas evaluated.

Huanchaco	Population
Huanchaco	11.012
Huanchaquito Alto	12.445
Villa del Mar	3.399
Huanchaquito Bajo	973
El Trópico	399
Total	**28.228**

Source: Peruvian statistic census (2017)

For the sample size, the statistical formula for the finite population was considered, with a confidence of 95%, (Z=1.96), an assigned error of 5% (e=0.05) and a prevalence percentage of 50% (P=0.5) maximizing the sample size.

$$n = \frac{N \cdot Z_{\alpha}^2 \cdot p \cdot (1-p)}{e^2 \cdot (N-1) + Z_{\alpha}^2 \cdot p \cdot (1-p)}$$

n= 379.01 ~ 380 inhabitants

Stratified sampling was applied proportionally according to the size of each zone. The sample was selected according to some criteria identified for the purposes of the study. For data collection, the study units that were available at any given time were taken (Canales, Alvarado and Pineda, 1994).[2]

The reliability is a way to ensure that any instrument used to measure variables always provides the same results, after the pilot sample has been applied to 30 individuals, the internal consistency method based on Cronbach's Alpha is performed.

The instrument contains three variables: tangible goods, with six evaluated items of 15 items each; intangible goods, with three evaluated items of 13 items each; and landscapes with 15 items. Finally, item 2 is considered inverse according to the Expert

[2] *CANALES, H.; ALVARADO, L.; PINEDA, B. (1994): Metodología de la investigación. Manual para el desarrollo de personal de salud. Ed. Limusa, México.*

Advisor's appreciation. It has been processed using SPSS Software version 25 getting the result shown in Table 3.

Table 3. Reliability statistics of the sampling.

Reliability statistics	
Cronbach's Alpha	Nº of elements
951	144

Source: Own elaboration.

Internal consistency is frequently measured with Cronbach's Alpha, a statistic calculated from even correlations between items. It has a range between zero and one. The commonly accepted rule describing the magnitude of internal consistency is noted in Table 4.

Table 4. The magnitude of the internal consistency of the Cronbach Alpha method.

Cronbach's Alpha	Assessment
[0.95 a + >	Excellent
[0.90 – 0.95 >	High
[0.85 – 0.90 >	Very good
[0.80 – 0.85 >	Good
[0.75 – 0.80 >	Very respectable
[0.70 – 0.75 >	Respectable
[0.65 – 0.70 >	Minimal acceptance
[0.40 – 0.65 >	Moderate
[0.00 – 0.40 >	Inacceptable

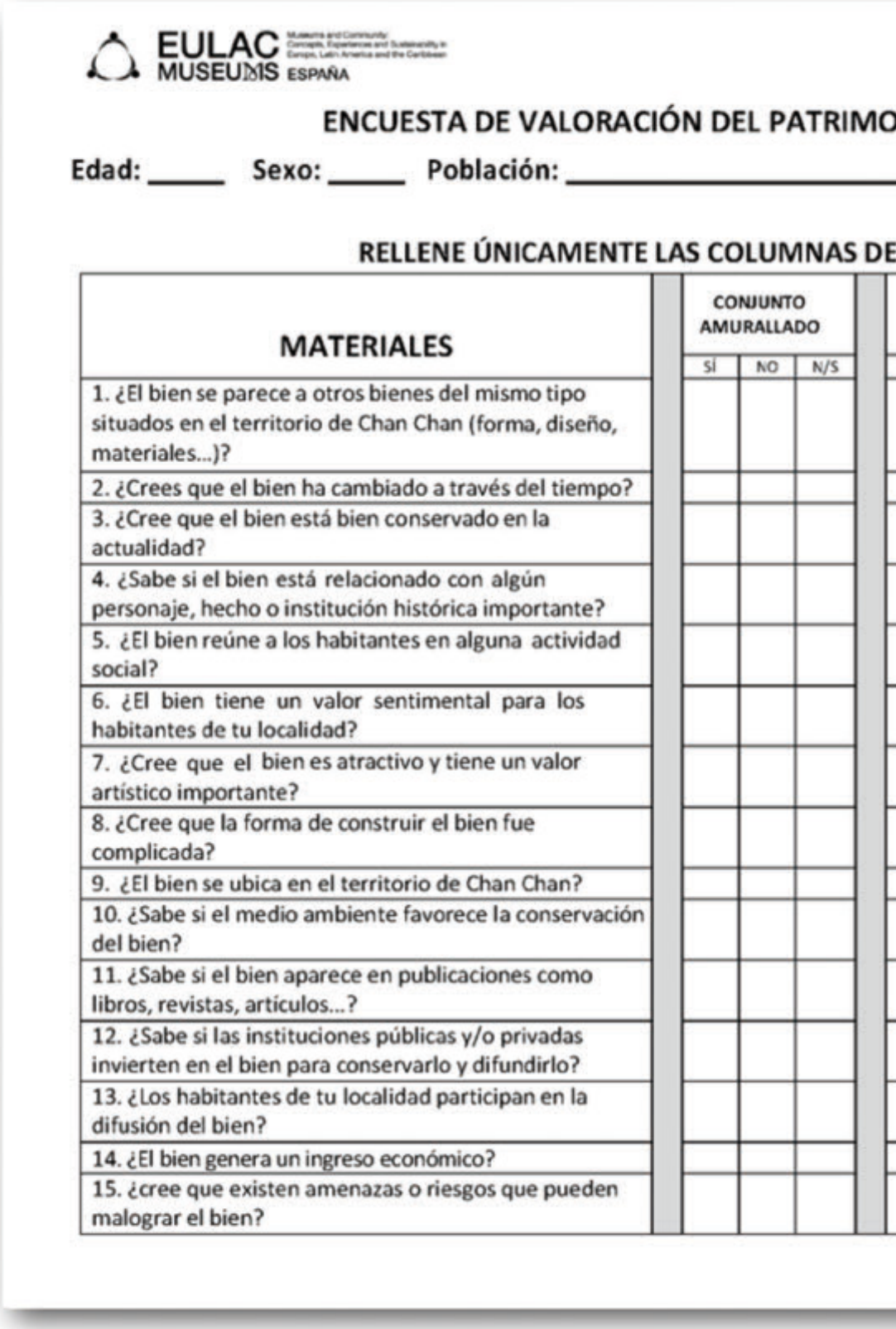
Source: Own elaboration.

Note that the Cronbach's Alpha result is 0.951, EXCELLENT RELIABILITY. If any item is deleted, a larger alpha result will occur. Negative correlations have been found in some items, exclusively to improve some of the proposed ones. In these cases, the maximum value achieved in the test is 0.952, which differs to the result obtained, so it is suggested to keep all the proposed items.

3.2.1.2. Application of the questionnaire on the local population

A questionnaire has been designed for each type of cultural heritage asset: tangible, intangible and landscape. The tangible and landscape are composed of 15 different questions in each method, while the intangible has 13. These questionnaires are used for the valuation of the 10 goods evaluated in the Chan Chan area, consisting of 6 tangible goods, 3 intangibles and a landscape. Figure 1 shows the questionnaire of tangible goods and Figure 2 shows that of intangible goods and landscape.

Figure 1. Survey of valuation of the property of tangible cultural heritage of the Ch



EULAC MUSEUMS ESPAÑA

ENCUESTA DE VALORACIÓN DEL PATRIMO

Edad: _____ Sexo: _____ Población: _____

RELLENE ÚNICAMENTE LAS COLUMNAS DE

MATERIALES	CONJUNTO AMURALLADO		
	SÍ	NO	N/S
1. ¿El bien se parece a otros bienes del mismo tipo situados en el territorio de Chan Chan (forma, diseño, materiales...)?			
2. ¿Crees que el bien ha cambiado a través del tiempo?			
3. ¿Cree que el bien está bien conservado en la actualidad?			
4. ¿Sabe si el bien está relacionado con algún personaje, hecho o institución histórica importante?			
5. ¿El bien reúne a los habitantes en alguna actividad social?			
6. ¿El bien tiene un valor sentimental para los habitantes de tu localidad?			
7. ¿Cree que el bien es atractivo y tiene un valor artístico importante?			
8. ¿Cree que la forma de construir el bien fue complicada?			
9. ¿El bien se ubica en el territorio de Chan Chan?			
10. ¿Sabe si el medio ambiente favorece la conservación del bien?			
11. ¿Sabe si el bien aparece en publicaciones como libros, revistas, artículos...?			
12. ¿Sabe si las instituciones públicas y/o privadas invierten en el bien para conservarlo y difundirlo?			
13. ¿Los habitantes de tu localidad participan en la difusión del bien?			
14. ¿El bien genera un ingreso económico?			
15. ¿cree que existen amenazas o riesgos que pueden malograr el bien?			

han Chan area and its surroundings.

ESTEPA
ESTUDIOS DEL TERRITORIO PAISAJE Y PATRIMONIO

ONIO CULTURAL DE CHAN CHAN Y SU ENTORNO

_____ Asociación o Colectivo: _____

E LOS BIENES CULTURALES QUE USTED CONOZCA

HUACA			MURALLA (DE ADOBE O PIEDRA)			HUACHAQUE			ARQUITECTURA POPULAR			IGLESIA DE SAN JOSÉ DE LA LEGUA		
SÍ	NO	N/S	SÍ	NO	N/S	SÍ	NO	N/S	SÍ	NO	N/S	SÍ	NO	N/S

Source: Own elaboration.

Figure 2. Survey of the valuation of intangible cultural heritage and landscape as

EULAC MUSEUMS ESPAÑA

RELLENE ÚNICAMENTE LAS COLUMNA

INMATERIALES	LEYENDA DE LA HUACA DE TOLEDO			BAJADA QUINQUENAL DE LA VIRGEN CANDELARIA DEL SOCORRO DE HUANCHACO		
	SÍ	NO	N/S	SÍ	NO	N/S
1- ¿La expresión del bien cultural es igual o parecida a otras de los lugares cercanos al territorio de Chan Chan?						
2- ¿Sabe si la expresión del bien cultural se mantiene activa desde sus inicios sin haber tenido interrupciones?						
3- ¿Sabe si la expresión del bien cultural se transmite de generación en generación?						
4- ¿La expresión del bien cultural está relacionada con algún personaje, hecho o institución histórica importante?						
5- ¿Los habitantes de tu localidad participan activamente en relación al bien cultural?						
6- ¿La expresión del bien cultural tiene valor sentimental para usted?						
7- ¿Cree que el bien cultural tiene valor estético importante?						
8- ¿La expresión del bien cultural conserva el medio ambiente?						
9- ¿El bien cultural aparece en publicaciones como libros, revistas, artículos...?						
10- ¿Las instituciones públicas y/o privadas invierten en el bien cultural para conservarlo y difundirlo?						
11- ¿Los habitantes de tu localidad participan en la difusión del bien cultural?						
12- ¿El bien cultural genera ingresos económicos?						
13- ¿Los habitantes de tu localidad tienen interés en conservar y transmitir el bien cultural?						

sets of the Chan Chan area and its surroundings.

ESTEPA
ESTUDIOS DEL TERRITORIO PAISAJE Y PATRIMONIO
DEPARTAMENT DE GEOGRAFIA - UNIVERSITAT DE VALÈNCIA

AS DE LOS BIENES CULTURALES QUE USTED CONOZCA

TÉCNICAS DE ELABORACIÓN TRADICIONAL DE LOS CABALLITOS DE TOTORA			PAISAJE DE CHACRAS HUNDIDAS PREHISPÁNICAS UBICADAS EN LA PARTE BAJA DE CHAN CHAN	PAISAJE DE LAS CHACRAS HUNDIDAS PREHISPÁNICAS DE CHAN CHAN		
SÍ	NO	N/S		SÍ	NO	N/S
			1- ¿El paisaje es parecido a otro dentro del territorio de Chan Chan?			
			2- ¿Cree que el paisaje conserva su imagen tradicional?			
			3- ¿Cree que la cantidad y variedad que existen de las especies vegetales o animales es elevado?			
			4- ¿El paisaje tiene formaciones de agua importantes?			
			5- ¿El paisaje puede ser observado ampliamente desde diferentes lugares?			
			6- ¿El paisaje se relaciona con algún personaje, acontecimiento o asentamiento histórico importante?			
			7- ¿En el paisaje se desarrollan trabajos tradicionales?			
			8- ¿El paisaje tiene un valor sentimental para los habitantes de tu localidad?			
			9- ¿El paisaje es atractivo y tiene un valor artístico importante?			
			10- ¿El paisaje aparece en publicaciones como libros, revistas, artículos...?			
			11- ¿Las instituciones públicas y/o privadas invierten en el paisaje para conservarlo y difundirlo?			
			12- ¿Los habitantes de tu localidad participan en la difusión del paisaje?			
			13- ¿El paisaje genera empleo o ingresos económicos?			
			14- ¿El paisaje está bien preservado?			
			15- ¿Se puede acceder y transitar por el paisaje sin dificultad?			

Source: Own elaboration.

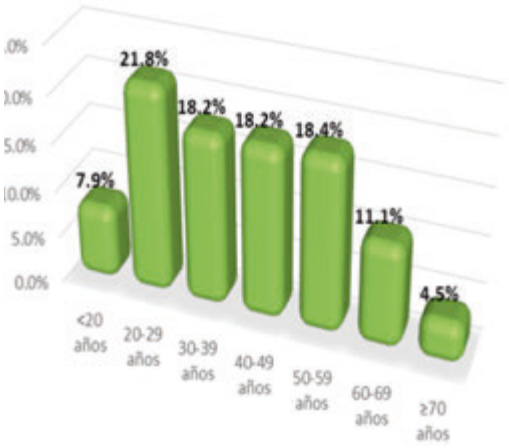
In the different populations of the Huanchaco district, 380 questionnaires were collected. For the selection of the individuals, we used the technique called incidental sampling, in which subjects are chosen for their greater availability and accessibility. To this end, they were addressed to the different associations present in that space and meetings were arranged with each group. This led to a high number of questionnaires in a short period of time. The many groups present in the Huanchaco district allowed a wide variety of people to take questionnaires. The sample consists of individuals belonging to different sectors of society, who have a fairly similar distribution, in age (table 5 and Figure 3) and sex (table 6 and Figure 4). This makes the sample of respondents a representative picture of the population group.

Table 5. Distribution by age.

Age	Number of surveys
<20 años	30
20-29 años	83
30-39 años	69
40-49 años	69
50-59 años	70
60-69 años	42
≥70 años	17
Total	**380**

Source: own elaboration

Figure 3. Percentage distribution by age.



Source: own elaboration

Table 6. Distribution by sex.

Sex	Number of surveys
Hombres	182
Mujeres	198
Total	**380**

Source: own elaboration

Figure 4. Percentage distribution by sex.

Source: own elaboration

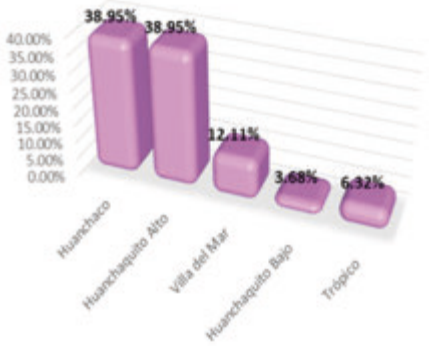
The selected sample consists of 182 men and 198 women. The largest age group includes the ages between 20 and 29, with 21.8% of respondents. The intervals between 30 and 39, 40 and 49 and 50 and 59 years have around 18% of individuals each. Finally, the remaining 23.5% is distributed among subjects between 60 and 69 years old, children under 20 and those aged 70 or older.

Table 7. Distribution according to the residence of the respondents.

City	Number of surveys
Huanchaco	148
Huanchaquito Alto	148
Villa del Mar	46
Huanchaquito Bajo	14
El Trópico	24
Total	**380**

Source: own elaboration

Figure 5: percentage distribution according to the residence of the respondents.



Source: own elaboration

Table 7 shows the sample distribution according to the fixation proportional to the sample size, being the areas of Huanchaco and Huanchaquito Alto the ones with the highest number of responses (38.95% each), since they have a larger population, with more than 11,000 inhabitants in both cases. The fewest responses correspond to Huanchaquito Bajo, with only 14. Its population is the second smallest, with 973 inhabitants. In El Trópico, 24 responses were obtained, with its population being only 399 inhabitants, according to the 2017 census.

3.2.1.3. Results of the implementation of the questionnaire among the local population

The questionnaires let us know the opinion and the assessment that citizens have about the cultural heritage of their surroundings. Each respondent had to answer only the questions for those goods they knew, which allows us to obtain accurate figures of the degree of knowledge of each of the elements. The study of favourable and unfavourable responses gives us the score for each heritage asset.

As table 8 shows, the population's knowledge about the heritage elements is usually high, although there are notable differences between the different assets. Tangible goods are better known, with a percentage of 87.85%. Among them, the highest score corresponds to the walled ensembles of Chan Chan, with 94.97%. All other tangible elements have a percentage higher than 82%, indicating that they are known and valued by the local community. With the exception of the Church of San José de la Legua, the rest are part of the archaeological complex of Chan Chan. When it comes to intangible goods, the traditional elaboration of the Totora's caballitos and the descent of the Virgen Candelaria del Socorro de Huanchaco are above 86%. However, the average is only 61.84%, as a result of the Legend of the Huaca of Toledo being less known, with only 11.84%. The landscape of the pre-Hispanic Chacras Hundidas in the Chan Chan complex has 27.63%.

Table 8. Valuation of the cultural heritage assets of Chan Chan evaluated by the local population and degree of knowledge (%).

Type	Elements evaluated	Points	Knowledge (%)
Tangible goods	Chan Chan's walled ensemble	9,45	94,47
	Chan Chan's *huacas*	9,29	92,89
	Chan Chan's walls	8,45	84,47
	Chan Chan's Huachaques	8,39	83,95
	Chan Chan's popular architechture	8,26	82,63
	Church of San José de la Legua	8,92	88,68
	AVERAGE	**8.79**	**87,85**
Intangible goods	Legend of la Huaca de Toledo	4,59	11,84
	Descent of la Virgen Candelaria del Socorro de Huanchaco	9,16	86,05
	Traditional elaboration of the Totora's *caballitos*	9,07	87,63
	AVERAGE	**7.61**	**61,84**
Landscape	Pre-Hispanic Chacras Hundidas	5,80	27,63
	AVERAGE	**5.80**	**27.63**

Source: Own elaboration.

The overall rating of each of the three types of goods evaluated (tangible, intangible and landscape) has been calculated by the relationship between the number of surveys favourable to the element and the total responses obtained, without counting the category of "no-reply". The 6 levels adapted to a decimal scale are Very High (8.6-19), High (7.2-8.5), Medium (5.8-7.1), Low (4.4-5.7), Very Low (3-4,3) and No Interest (0-2.9). The score of tangible goods has very high values, average 8.79. Chan Chan's Walled Ensembles are the best rated, with 9.45 points, followed by Chan Chan's huacas,

with 9.29 points. They are the two elements of the archaeological site of Chan Chan perhaps more recognizable and better preserved. The descent of the Virgen del Socorro of Huanchaco and the traditional elaboration of the Totora's *caballitos*, with 9.16 and 9.07 points respectively. However, the average of intangible goods drops to 7.61 points due to the low valuation of the Legend of the Huaca de Toledo, with only 4.59 points. Meanwhile, the landscape of Chan Chan's pre-Hispanic Chacras Hundidas obtained an average rating of 5.8 points.

A detailed analysis of the results by categories and criteria is carried out in order to obtain a nuanced explanation of the general figures. The percentages have been established by the relationship between the number of favourable responses and all of those obtained, without considering the category of "no-reply". The percentages of favourable responses for each category for each of the goods evaluated are shown in Tables 9, 10 and 11 for tangible and intangible goods and landscapes, respectively.

As shown in Table 9 the best-valued criteria for tangible goods are artistic, with 94.69% favourable responses, and territorial, with 93.99%. The territorial criterion evaluates the interaction of the good with the culture or traditional uses of the territory, which in the archaeological complex of Chan Chan is very high. The criteria with the lowest assessment are the participation and integration of local communities (35.26%), due to the low involvement of the population in the tasks of management, research and dissemination of the good, and the social (42.24%), since the respondents have not considered these elements as dynamics of the territory.

When it comes to intangible goods (table 10) the criterion with the best valuation is integrity, with 65.96%. This result must be nuanced, since both the traditional elaboration of the Totora's caballitos and the descent of the Virgen Candelaria del Socorro de Huanchaco have percentages of 90.79 and 89.21% respectively. However, the valuation of this criterion is significantly lowered by the Legend of the Huaca of Toledo, which only reaches 17.89%. The worst-rated criterion is representativeness, with only 16.23%.

The landscape of Chan Chan's pre-Hispanic Chacras Hundidas' criteria best valued are social, artistic and profitability, with approximately 36% favourable responses. The economic profitability of crops based on these traditional irrigated systems makes it a criterion with a higher valuation. Criteria with a lower rating are representativeness (12.63%) and awareness of social agents (13.95%).

Table 9. Criteria of the evaluation methodology of the tangible goods according to the local po

	PAT						
	1. Represent.	2. Autenticity	3. Integrity	4. Historic	5. Social	6. Simbolic	7. Artistic
Huacas	63.68	81.32	64.21	82.63	37.89	85.26	96.84
Huachaques	53.42	75.79	51.32	80.26	32.37	78.95	96.05
Church of San José de la Legua	16.58	68.16	71.05	81.05	61.58	85.53	93.16

Table 10. Criteria for intangible elements according to the local population (% of favourable re

TANGIBLE GOODS	NTRINSIC VALUES					
	1. Represent.	2. Historical	3. Integrity	4. Historic	5. Social	
Legend of Huaca de Toledo	6.05	11.32	17.89	30.00	11.32	
Virgen Candelaria	25.53	84.21	89.21	75.53	77.63	
Totora's *Caballitos*	17.11	85.26	90.79	76.84	73.68	
AVERAGE (%)	**16,23**	**60.26**	**65.96**	**60.79**	**54.21**	

Table 11. Criteria for landscape according to the local population (% of favourable responses)

LANDSCAPE	NTRINSIC VALUES						
	1. Represent.	2. Authenticity	3. Ecological integrity	4. Geophysical structure	5. Visibility	6. Historic	
Pre-Hispanic Chacras Hundidas	12.63	29.21	20.79	33.42	28.42	33.16	

pulation (% of favourable responses).

TRIMONIAL VALUES				POTENTIAL AND FEASABILITY VALUES			
8. Téc.	9. Territorial	10. Landscape	11. Educational	12. Awareness	13. Participation	14. Profitability	15. Vulnerability
68.68	95.00	46.05	90.26	65.79	40.26	82.89	92.37
69.74	93.16	43.95	82.37	60.26	34.21	65.26	90.53
66.58	94.47	43.95	64.47	50.00	31.58	58.68	91.05
67.37	94.74	42.89	70.26	47.37	31.58	56.84	92.37
67.11	94.21	43.42	58.95	46.32	33.42	55.26	91.05
67.63	92.37	47.89	64.21	46.32	40.53	60.53	90.26
67.85	**93.99**	**44.69**	**71.75**	**52.68**	**35.26**	**63.25**	**91.27**

Source: Own elaboration

esponses).

PATRIMONIAL VALUES				VIABILITY AND FEASABILITY VALUES			
6. Simb.	7. Art.	8. Landscape	9. Educational	10. Awareness	11. Participation	12. Profitability	13. Vulnerability
12.89	18.68	20.26	13.68	16.05	9.21	12.37	11.32
69.74	82.63	45.00	79.21	55.79	78.68	75.26	82.89
83.95	92.63	74.47	71.05	35.79	63.16	67.63	75.53
55.53	**64.65**	**67.85**	**54.65**	**35.88**	**50.35**	**51.75**	**56.58**

Source: Own elaboration

.

PATRIMONIAL VALUES				POTENTIAL AND FEASABILITY VALUES				
7. Social	8. Simbolic	9. Art.	10. Cultural	11. Awareness	12. Participation	13. Profitability	14. Vulnerability	15. Accesibility
36.58	30.53	36,32	15.79	13.95	19.47	36.05	20.53	23.68

Source: Own elaboration

3.2.2. Local Specialist Panel

The implementation of a panel of experts on cultural heritage is an effective procedure for obtaining relevant qualitative information. In the panel itself, there were 9 local specialists from different disciplines: 3 archaeologists, a museologist, an anthropologist, a lawyer, an architect, an economist, and a social communicator. These specialists applied the evaluation methods to the 10 selected elements by assigning binary scores to variables. At the archaeological site of Chan Chan, the questionnaires were also passed to some of the specialists who work there: 7 archaeologists, 2 plastic artists, a conservative technique and a restorer technician.The scores set by these local experts for each property are shown in Table 12. The tangible goods have an overall high rating (7.82 points). The element with a higher score is Chan Chan's walled ensemble (8.8 points), as in the technical evaluation. All other tangible goods have high ratings, with the exception of Chan Chan's popular architecture, which reaches an average score of 6.54 points. This low score is a consequence of its poor condition, as well as its vulnerability because this type of construction has not been excavated and restored in its entirety, opposite to other areas of the archaeological site.

When it comes to intangible goods both the descent of the Virgen Candelaria and the traditional elaboration of Totora's *caballitos* have a very high rating (9.8 and 9.6 respectively), close to the maximum. In both cases, these are manifestations that have existed for several centuries and have outstanding importance at the historical, social, symbolic/identity level and the participation and integration of local communities. The sentimental values of these traditions and their aesthetic qualities make up some of the most significant aspects for experts. The Legend of the Huaca of Toledo has a high rating (7.2 points), although its lower rating is mainly due to the criterion of Integrity, re-

Table 12. Evaluation of the heritage elements according to local experts.

Type	Elements	Points
Tangible goods	Chan Chan's walled ensemble	8,8
	Chan Chan's *huacas*	7,89
	Chan Chan's walls	8,05
	Chan Chan's Huachaques	7,86
	Chan Chan's popular architechture	6,54
	Church of San José de la Legua	7,83
	AVERAGE	**7.82**
Intangible goods	Legend of la Huaca de Toledo	7,2
	Descent of la Virgen Candelaria del Socorro de Huanchaco	9,8
	Traditional elaboration of the Totora's *caballitos*	9,6
	AVERAGE	**8.86**
Landscape	Pre-Hispanic Chacras Hundidas	7,7
	AVERAGE	**7.7**

Source: Own elaboration

ferring to the intergenerational transmission of the good and the preservation of the tangible elements associated with intangible expression.

The landscape of the pre-Hispanic Chacras Hundidas has also obtained a high rating (7.7 points), although slightly lower than that of the technical evaluation, which was 8.2. The criteria best valued by experts have been Social, Geophysical / Environmental Structure and Historical. The criteria with the lowest scores have been Ecological Integrity, Vulnerability and Accessibility.

3.3. Final thoughts

Table 13 shows the three types of valuations for each asset. Different groups show certain differences between the scores given to each property. The highest scores according to the technical valuation, the local population and the local experts, are obtained by the descent of the Virgen Candelaria del Socorro de Huanchaco and the traditional production of the Totora's caballitos, both with 9.22 points. At a very short distance is the walled ensemble of Chan Chan, with 9.18 points, the better valued tangible good.

If we analyze tangible goods, the average scoring obtained by the local population is higher than the technical valuation and the local experts' (8.7 compared to 8.2 of the technicians and 7.8 of the experts). The local population usually gives a higher valuation of these goods, except for the Chan Chan's walls (8.7 by the technical valuation and 8.4 by population), and the Huachaques, with an equal score in all the groups.

Table 13. Overall valuations

TYPE	ASSET	TECHNICIAN EVALUATION	LOCAL POPULATION	LOCAL EXPERTS
Tangible goods	Chan Chan's walled ensemble	9,3	9,4	8,8
	Chan Chan's *huacas*	8,9	9,2	7,8
	Chan Chan's walls	8,7	8,4	8,0
	Chan Chan's Huachaques	8,4	8,3	7,8
	Chan Chan's popular architechture	7,3	8,2	6,5
	Church of San José de la Legua	6,4	8,9	7,8
	AVERAGE	**8.2**	**8.7**	**7.8**
Intangible goods	Legend of la Huaca de Toledo	5,1	4,5	7,2
	Descent of la Virgen Candelaria del Socorro de Huanchaco	8,7	9,1	9,8
	Traditional elaboration of the Totora's *caballitos*	9,0	9,0	9,6
	AVERAGE	**7.6**	**7.6**	**8.8**
Landscape	Pre-Hispanic Chacras Hundidas	8,2	5,8	7,7
	AVERAGE	**8.2**	**5.8**	**7.7**

Source: Own elaboration.

For intangible elements, the average between the scores of the technical valuation and the local population are identical (7.6), although the assessments of the local experts are clearly higher (8.8 on average). In the landscape of the pre-Hispanic Chacras Hundidas of Chan Chan, the highest score corresponds to the technical assessment (8.2), being the local population the one that gives a lower value, only 5.8 points. Although they are integrated into the archaeological complex of Chan Chan they do not have as much recognition for the inhabitants as other tangible and intangible elements.

The technical and participation results obtained for the assets located in the Chan Chan site and its surroundings reflect a very valuable cultural heritage and important attributes. The full application of the method in this area of Peru confirms its validity, which makes it an effective instrument of management, which can be assumed by the institutions for decision-making for their conservation and value.

In addition to the methodology carried out and, in order to improve the knowledge of the neighbouring population, other indicators of valorization of Chan Chan's cultural heritage and its surroundings, awareness-raising and training workshops could be held as strategies to raise awareness. This would improve the quality of cultural and tourist manifestations while moving towards the sustainability of tourism programmes and improving the quality of life of the inhabitants.

A previous experimental study with a specific group or sector of the population would be applied to test the effectiveness of these workshops. This type of design would consist of administering a stimulus in the modality of pre-test and post-test, in order to measure the effect and subsequently be able to raise awareness and commitment.

PHOTOGRAPHIC APPENDIX

1. APPLICATION OF THE METHODOLOGICAL SYSTEM OF HERITAGE EVALUATION BY THE LOCAL SPECIALIST PANEL, DDC, TRUJILLO, PERÚ.

DDC experts during the assessment process, with the principal investigator of the project in Spain via Skype.

DDC experts during the assessment process, completing the questionnaires.

2. FIELD WORK OF THE RESEARCH TEAMS FROM VALENCIA (ESTEPA) AND PERU INSIDE THE SITE OF CHAN CHAN

Technicians from Chan Chan show the site to the research unit ESTEPA

Identification of heritage elements during the field work

Visit to the Huachaque

Cycling route in the archaeological site of Chan Chan

3. HERITAGE ELEMENTS EVALUATED WITH THE IMPLEMENTATION OF THE EVALUATION METHOD

Caballitos de Totora and Church Virgen del Socorro, from the Huanchaco beach

Church Virgen del Socorro, beginning of the Bajada quinquenal

Huachaque in the walled enclosure of "Casa del centro o C. A. NICK AN EX TSCHUDI"

Exterior wall restored part of a walled enclosure Chan Chan

Chacras hundidas with their Huachaque

Landscape of a farming Chacra Hundida

View of walled buildings in de Chan Chan

The inside of la "Casa del centro" in the Archaeological site of Chan Chan

Huaca de Toledo

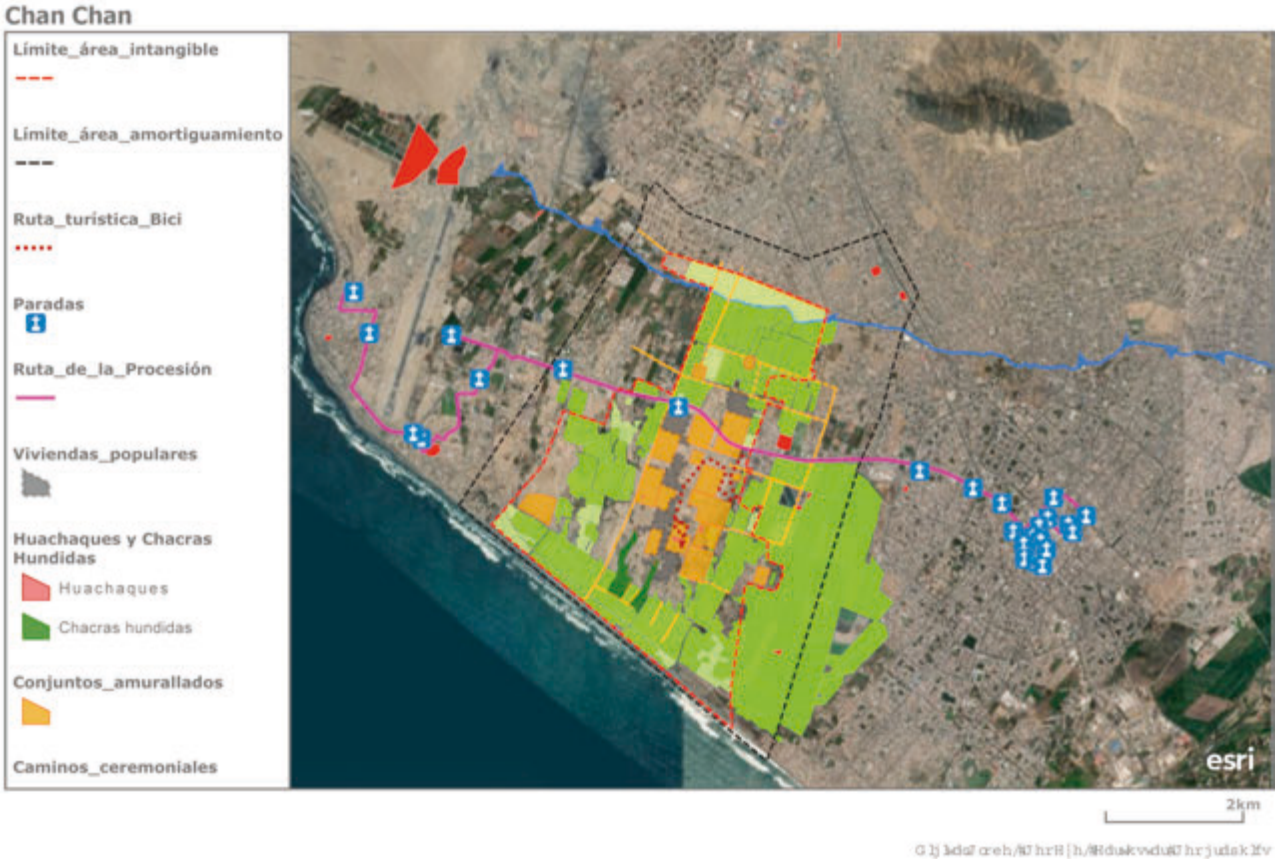
Huaca de Toledo

Church of San José de La Legua

4. GIS REPRESENTATION. SITE OF CHAN CHAN AND SURROUNDINGS

The Geographic Information System (GIS) shows the location of each of the assets in the evaluated area. In some of the intangible goods, such as the Descent of the Virgin Candelaria, the procession has been represented from its departure from the Sanctuary of Huanchaco to the city of Trujillo. The GIS shows the various stops and stages that take place during those days. You can view the ArcGIS Online through the link: https://arcg.is/1zSD8C0

ArcGIS Online-Chan Chan



Cartographic representation of the Procession and stops along the route in the old town of Trujillo.

Cartographic representation of Chacras hundidas-Chan Chan

CONCLUSIONS

The work carried out by the ESTEPA research group of the University of Valencia (UV) in Trujillo, Peru, within the framework of the EULAC-MUSEUMS project has succeeded in highlighting the applicability of Deliverables D5.1, D5.2, D5.3 and D.5 4 in the different territories of the project's partners. Through a process of adaptation to the area under analysis, reports - Strategic Planning, Cultural Heritage Management, Cultural Heritage Evaluation Method and Geographic Information System-, may be implemented in those territories that require it. It is recommended that all four documents are integrated and supplemented to achieve greater efficiency. However, the instruments that have been designed and worked with during the development of the EULAC-MUSEUMS project by the UV allow its application in a unique and individual way. They can be applied separately according to the needs of the museum or research centre.

The Valencia team stay in Peru was a success. The collaboration between two of the project partners and the results reflect an intense joint work, through which the importance of the exchange of knowledge and working methods is clear.

This report presents the work carried out in the Chan Chan area of Trujillo, Peru, as well as the results obtained by the Valencia and Peru teams in the implementation of the Eva-

luation Method and the creation of a Geographic Information System for the study area.

The application carried out to the elements and expressions of the archaeological site of Chan Chan, Trujillo and Huanchaco, is convenient for its management by those responsible for this valuable cultural heritage. Likewise, the realization of a GIS in that territory is useful to those interested in the geographical and heritage knowledge of the area, from museum technicians to policymakers whose purpose is to value the cultural elements in the area.

In conclusion, the final document submitted by the University of Valencia is considered as a very convenient basic instrument of Planning and Management of Cultural Heritage, which is applicable to any territory that claims the value of its assets for conservation and tourist or economic purposes. We believe that the chosen format, a theoretical-practical manual for the management of a local museum, is valid and fits the objective that was intended with the participation of the ESTEPA Team of the University of Valencia in the EULAC-MUSEUMS project.

APPENDIX II

Proposed plan of participation of partners of the project EULAC - MUSEUMS

According to Annex A, Description of the Action, Grant Agreement 693669, which includes the final products ("deliverables") of the University of Valencia:

Deliverables in this WP are products of the research by the University of Valencia on sustainability and cultural heritage. They consist of designed models, documents, and a plan of communication and dissemination.

And specifically those planned for the first annual report (first 12 months):

D5.1. Document of Model of Owned Strategic Planning
Document of Model of Owned Strategic Planning developed by the University of Valencia in consultation with the partner museums, sites, containing technical diagnosis, integrated diagnostics, plans and strategic lines, obtainable results, and system of indicators

One of the objectives of the EULAC-MUSEUMS project is to enhance sustainable development and social inclusiveness in the museum sector in remote rural and island locations through dialogue between academics, policy makers, museums, and local communities, and also to ensure rigorous evaluation of project methods and outcomes for future EU-LAC platforms, building long-term sustainable relationships between institutions in EU and LAC, and especially within our partner countries.

In this "deliverable" (D5.1) stands out the opportunity (and obligation) of researchers at the University of Valencia, to consult the Valencian partner museums, which are the institutions related with Cortes de Pallás and "The Orchard of Valencia", the results of their work related to the Strategic Planning Model applied to museums (community) and cultural heritage. These partners were selected early in the planning stage in consultation with the project Coordinator, because of their relationship with ecomuseum practices and fit with other Work Package local museums and territories, in a way more appropriate than a university museum.

Bi-regional dialogue between higher education institutions in the EU and CELAC areas is one of the goals of the updated EU-CELAC Action Plan. As outlined in the Grant Agreement Part B, Valencia will not only develop and test their innovation in the region of Valencia, but also create models and methods capable of application in both Europe and LAC. In particular, the later deliverables of the Method of Evaluation of Cultural Heritage (M.E.C.H), Deliverable D5.3, and the design and application of the GIS system as

an instrument of management of cultural heritage, Deliverable D5.4, can be applied to any territory.

Following the indications of the meeting held with the external expert evaluators, and Project Officer of the European Commission (meeting 29th November, University St. Andrews), we raise to your consideration the following work plan that will allow the participation of the partners in the aforementioned "deliverable" D5.1.

A plan that pursues two general objectives:

- The information of the document prepared by the University of Valencia, in relation to the Strategic Planning Model.
- The design of a participation plan that facilitates even the validation of the proposed Strategic Model.

The proposal collects:

First. The dissemination and evaluation of the document *"Model of Participated Strategic Planning"*. For this purpose, the said document will be sent to the partners for their knowledge and information.

Second. The process of validation of the proposal of the *"Model of Participated Strategic Planning"*. It will be addressed to the project partners, in particular to two partners, both universities, from both continents: the University of St. Andrews (Scotland), and the Austral University (Chile). A proposal that will facilitate the vision of two groups of researchers integrated in their respective museographic realities, related to diverse territorial environments.

The validation process will consist of analysing the document and responding to a questionnaire prepared for the occasion. In addition to collecting the opinion of the evaluators (valid or not), it is intended to collect complementary comments on key issues of the document drawn up.

The period of time for this second phase will last one month.

Third. The researchers of the University of Valencia, taking into account the suggestions and the received documents, will complete the final document. For its final, public dissemination, it will be published. It will be presented at the next EU-LAC-MUSEUMS project scientific symposium, scheduled for the end of May 2018 in Valencia.

Codes	CONTENTS	VALIDATION Favorable (F) Not favorable (NF)
PSP-1	Participated Strategic Plan applied to Cultural Heritage and Museums. Conceptualization. Problems and advantages	
PSP-2	The benefits and qualities of the Participated Strategic Plan applied to Museum	
PSP-3	The general structure of the Participated Strategic Plan in Museums	
PSP-3-1	The Vision of the Museum and the definition of the Mission of a Museum. The first phases of the Strategic Plan	
PSP-3-2	The Integrated Analysis of Museums. Factors of the organization and the territorial environment. S.W.O.T. analysis	
PSP-3-3	The design of the Strategies. The Evaluation of the possible strategies	
PSP-3-4	The system of similar Museums. The opportunity for partnerships between museographic institutions	
PSP-4-1	The creation of the Product. The opportunity of territoriality: the “community” museum	
PSP-4-2	The creation of the Product. The Territory Museum, an evolved formula of the Ecomuseum	
PSP-5	The design of strategic objectives. The differentiation of specific objectives.	
PSP-6	The definition of the Strategic Lines of the Strategic Plan. The design of the derivative programmes	
PSP-7	The functions of Participation in the strategic planning process	
PSP-8-1	The Plan for Monitoring-Control of Strategic Planning. The Indicator System (10)	
PSP-8-2	The Monitoring Plan. The thematic areas: economic-territorial, sociocultural and environmental environment	
	COMMENTS, according to CODES-CONTENTS	


SCOTLAND
Canada
Russia
PORTUGAL
FRANCE
China
CARIBBEAN
ESPAÑA
Libya
India
COSTA RICA
Brazil
PERU
CHILE
Australia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