VisProcH

Visual Reasoning Process for Heritage Valuation

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***Abstract*— This article describes the methodology that results in a visual reasoning process for heritage valuation, which has been based on a descriptive modeling process and have characterized three levels: meta-, analysis and operational. The proposed approach is not only about heritage but the complex relationship between people and heritage. The agents are the protagonists in the process, along with heritage; they give value to the testimonies of past life and imbue them with meaning. The hypothesis of this research argues that a visual reasoning process for heritage valuation allows people involved in the process to initiate an interaction with a heritage and to build its mental image to reach certain conclusions regarding its value and meaning. Therefore, this approach of a visual reasoning process is used to detect changes in value of heritage and its polyhedral dimension in spatial and temporal terms. The proposed process enables potential agents to be actively involved in their own heritage valuation.**

***Index Terms*— heritage, heritage process, heritage valuation, visual reasoning process**

I. Introduction

The subject of this paper is heritage valuation and it argues that heritage is "*a cultural process concerned with negotiating, creating and recreating cultural memories, values and meanings*" [1]. At origin this definition of heritage is on intangible heritage, but it can extrapolate for 'heritage' in general. Recently heritage as a process has seen a consolidation in the research, although the idea that heritage is a 'thing' is dominant in the international debate and is supported by policies and practice of UNESCO. Seeing heritage as a process enables a critical view, underscoring the significance. That is, it is the correlate involved in defining something as 'heritage', or converting it into heritage. This view of the concept allows the possibility to understand not only what has been valued, but also what has been forgotten and why.

The main objective of this research is to explore the characteristics of a visual reasoning process in order to apply it to a heritage valuation. The goal of the process is not centered on producing an environment that is undifferentiated from physical reality. Thus, the objective of the process is to provide the ability to communicate the 'polyhedral' dimension of heritage. For this new process to be viable and sustainable, it is necessary to consider what is to be achieved: heritage valuation. It is important to note that it is a process in which dynamics of learning, behavior and exploration heritage are directly related to its valuation. Therefore, we need to know how this valuation takes place in order to be able to develop a process that is adapted to these dynamic.

II. Evolution in the Definitions of Value

How is ascribed value to heritage? How valuable is this? What kinds of social value do it represents and where do these come from? Each stakeholder ascribes different values to heritage and will compose his own favorite heritage list: "*all places and landscapes are individually experienced, for we alone see them through the lens of our attitudes, experiences, and intentions, and from our own unique circumstances*" [2], [3], [4] and "*always involves a process of selection*" [5].

The aim of this section is to define the concept and to subsequently propose a new value-scheme, through a synthesis of the existing ones. Prior to going this, it is important to examine in brief the dimensions of the value of heritage proposed by Aa [4] in order to set the framework within which the polyhedral character and role of heritage is understood.

- Which values: functional values. Dix [6] and Carver [7] discern a number of functional values under different headings with more or less the same meaning.
- Whose values: person- or group-dependent. Different actors assign different values [8], [4]. The valuation of heritage is often a privilege for "*elite groups and individuals rather than an articulated expression of the values of all members of a community*" [2], [9], [4]. The question of who selects the past "*is a question of who is able to identify him- or herself and the other at any given time and place*" [10], [4].
- Where values: local, national or global level. Heritage can be differently held in esteem at various scale levels, between the individual and the global, as this "*depends upon our interpretation of history*" [11], [4].
- When values: past, present or future. The outcome of a heritage valuation varies over time [6], [8], [4].
- Uniqueness values: a heritage can be valued between the extremes of exceptional and general [4]. Glantz and Figueroa [12] argue that "*nominations of many of the heritage proposed for world heritage status use*

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superlatives to describe these sites in order to meet the criteria of outstanding universal [value]: 'the largest', 'the only', 'the last', 'the first', 'the best', 'the oldest' and 'the worst'. Not all world heritage are superlative in nature but may be of a global importance because they are representative of a genre".

The concepts of value, significance and importance were much debated and discussed (e.g. [13], [14], [15], [16], [17]). In such context, not only research's role is indisputable, as the mediator between the past and the present, but also as a generator of value. Both in theory and practice archaeology, and other heritage disciplines, are a highly selective process. Aside from the differences in terms of definition, most scholars conceive value and valuation in similar ways. Most of them concur on that value is not inherent in the heritage but it is attributed to them through the process [13], [18], [19], [7].

Obviously, valuation is approached here as very complex processes, which can involve many actors, acquire many meanings and have multiple functions. Accordingly the value of heritage should not be regarded as static and unitary, but variable and plural, heavily dependent on context, especially under the current economic, social and cultural global conditions. McGimsey [20] identifies public interest. Inspired by Lipe's [18] associative or symbolic, informational, aesthetic and economic values, the proposed set of values aims at showing the different meanings and qualities assigned to the past. Bourdieu [21] has contributed greatly to the value debate by introducing the concept of cultural capital; a symbolic and social power that someone subtracts through prestige, honor, recognition, status or reputation. Dix [6] distinguishes three types of values concerning heritage: emotional-, cultural- and usage value. Droste [22] distinguishes aesthetic-, historic- and scientific value. Carver [7] identifies more specific values and distinguishes between the associative, aesthetic and economic value. One of the undisputed merits of Thompson's [23] study is that he does not perceive value as a fixed concept. In fact he endorses and celebrates its complexity. He says: "*people in different cultures may value different things, and they may value same things differently, but all cultures insist upon some distinction between the valued and the valueless*" [23], [17]. In this respect, he introduces three categories of value: durable, transient and rubbish. His intention is set out the relationship between the status, possession of objects and the ability to discard objects. Feilden and Jokilehto [24] break the functional value down into eight possible dimensions: identity, artistic, rarity, economic, functional, educational, social and political. For Herzfeld [25] "*monumentality implies permanence, eternity, the disappearance of temporality except in some mythological sense*". Thus, eternal life corresponds to this stage in the biography of a site, when its symbolic, political, mythical, national and global significance and visual prominence hugely grow, attaining 'absolute' value [17].

In this paper the following three types of values concerning heritage has been adopted [26]:

- Usage value: when considering the use value is assessed if heritage serves to meet a specific need or responds to a challenge or opportunity, it is comparable to the economic and scientific-informative values of other authors. Heritage through the prism of this value is used and makes the most: materiality, strength and possibilities of practical applications. An example of this approach is to consider that there is a logical relationship between the material achievements of the Italian Renaissance and the Italian design value today. In retrospect it may speculate on the value that could reach the income generated historically by a heritage as that has remained in the hands of the Italians many years.
- Formal or aesthetic value: it is the attraction that awakens the senses, aesthetic pleasure, emotion and other difficult attributes to conceptualize, such as rarity, exotic or genius. The artwork is the obvious example of artificiality in the highest degree, goes beyond the functionality required by the current item is the result of a singular act and capable of transmuting the reality. An example, a beautiful work of art from Renaissance or Baroque has a formal value. A beautiful work of art unites the exceptional nature of the act of human creation. This transcends mere functionality to become something unique and irreplaceable. But apart from this ability to morph and transcend reality, is relevant to consider an additional factor of value: the human artifice.
- Symbolic value: in considering this value evaluates the heritage in relation to its creator or its users in the past. Signs and symbols are used to describe and relate to evoke or represent. Heritage designates, represents or evokes a character, an event or a culture. Heritage is a vestige created in the past that is present today and is valued by us. Heritage has the peculiarity to participate at the same time to past and present, so serves as a link between two points in time, in fact it is a single link. Heritage has the ability to liaise with the past and this gives it an exceptional value.

The hypothesis of this paper argues that a visual reasoning process for heritage valuation allows people involved in the process to initiate an interaction with a heritage and to build its mental image to reach certain conclusions regarding its value and meaning.

III. Visual Reasoning Process

In this paper the process of visual reasoning is proposed from three perspectives. The first claims that the visual reasoning is a cognitive process that links abstract, concept knowledge and perception-based knowledge [27]. It refers to the drawing of inferences from visual representations to abstract knowledge. Consequently, sketches are different from images such that sketches physically reflect conceptualizations of the visual reasoning process.

The second perspective is the transformation that takes place when the information is represented in a form that can be perceived by encouraging senses to explore the spatial structure of representation and interpretation. Information visualization presumes that "*visual representations and interaction*

techniques take advantage of the human eye's broad bandwidth pathway into the mind to allow users to see, explore, and understand large amounts of information at once. Information visualization focused on the creation of approaches for conveying abstract information in intuitive ways" [28]. And the interface is part of the interaction between the user and technology [29].

And finally, from the perspective of a process of data visualization and issues related to their nature, types, properties and therefore different methods of collection and storage. Visualization is any technique for creating images, diagrams, or animations to communicate a message. Visualization today has ever-expanding applications in different disciplines (e.g. engineering, education, medicine). Data visualization is a related subcategory of visualization dealing with statistical graphics and spatial data that is an abstracted in schematic form. The purpose of scientific visualization is to graphically illustrate scientific data to enable scientists to understand, illustrate and glean insight from their data. The aspects of visualization research [30] are mutually interrelated as: data, purpose, technology, impact and form. The London Charter for the Computer-based Visualization of Cultural Heritage [31], [32] was conceived as a means of ensuring the methodological rigor of computer-based visualization as a means of researching and communicating heritage. The choice of computer-based visualization method (e.g. dynamic or static; more or less photo-realistic, impressionistic or schematic; representation of hypotheses or of the available evidence) or the decision to develop a new method should be based on an evaluation of the likely success of each approach in addressing each aim [32].

IV. Conceptualization of VisProcH

The Visual Reasoning Process for Heritage Valuation (VisProcH) has been conceptualized as a descriptive process modeling. Scacchi [33] defines a descriptive model as that describes how it has developed a system in particular. Descriptive models can be used as a basis for understanding and improving the process of software development, or as an empirical basis for the construction of prescriptive models. Lonchamp [34] identifies the main:

- Express a real process or a less formal way to understanding, communication or education.
- Analyze the description of the real process, such as validation, simulation or verification of ownership to a deeper understanding technical.

Based on the principles of descriptive process modeling [35] VisProcH has been conceived as a process in 3 levels. The three levels characterized are: meta-, analysis and operational.

Finally, in a descriptive modeling, user groups are grouped according to the types of data, their behavior, their expressed interests and other descriptive factors.

A. Meta-level

Meta-level is the level where the phases are used as generic concepts that have a different period in the change process and also part of the development from the visual reasoning process for valuation of heritage.

VisProcH is divided into five phases: significance, preservation, interpretation, diffusion and awareness (Figure 1). These are not watertight compartments due to the heritage complexity. VisProcH develops cyclically in order to be able to feed back, although maybe the completion of each phase is not necessary for occur heritage valuation. Each of these phases is described in more detail below:

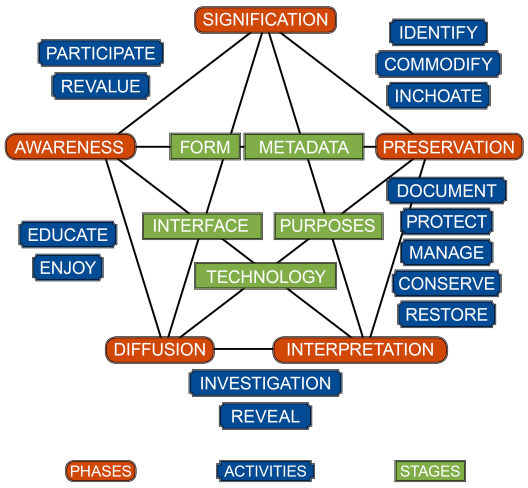

Fig. 1. Phases of meta-level, activities of the level of analysis and operational level stages.

- Signification: how is heritage selected? From a wide range of possibilities: what must happen to something so that it becomes heritage? What principles and ideas are guiding the selection of heritage? Signification is the start of the process and it begins with the awakening of consciousness of heritage. Heritage is valued in order to assign meaning to it, i.e.: it is being assigned a value. Meanings denote what a heritage signifies or evokes. "*The Past escapes us, what can we do to keep it? The Past becomes unintelligible, what can we do to get its meaning?*" [36].
- Preservation: it is an endeavor that seeks to preserve, conserve and protect heritage. Heritage preservation is defense and conservation of it. Although, some possible heritage was destroyed or plundered. This goes so far as to consider the exceptional nature of heritage, since much of that heritage is preserved today is due to the destruction of other similar and this loss has provided an exceptional value of the preserved heritage. Digital heritage proliferation has led to emergence of digital preservation. Digital preservation has some specific activities related with the digital format and other similar of the traditional preservation. The digital heritage can be corrupted or damaged and can be easily altered, hence the need for its conservation. In VisProcH, metadata are a key to

ensure that the digital heritage survives remains accessible in the future. VisProcH has the qualities to integrate preservation in this triple perspective: heritage, digital heritage and documentation about of these heritages involved into the process.

- Interpretation: it is a means of communicating ideas and all the ways of presenting the cultural significance of heritage. Tilden described interpretation as art and an artists use tools to express meaning [37]. Technical language associated with the Heritage, sometimes polyhedral, a simple and understandable way for stakeholder results. It can then be understood as the art of presenting to the public the heritage and encourage knowledge about them. The measure of interpretive success is not the stakeholder's ability to parrot the interpreter's theme. Rather, it is the stakeholders' personal and meaningful connections to heritage.
- Diffusion: the spread of heritage is to make it known, by means and instruments to be appreciated, respected and enjoyed by more people. These are various educational strategies and enjoy heritage. Why do we value? Clearly part of the answer is that it is part of the identity, traditions and values of history. What gives us the heritage? This is where the process is going to direct positive impact on those groups that promote and their territories; for considering heritage can provide economic, educational and cultural benefits to reverse over the territory and people.
- Awareness: make someone to be conscious of something is to make aware. It is a double step in the process, since participation in the process who creates awareness and who makes aware.

For each phase of VisProcH were recognized fundamental activities to contemplate a heritage in context, linking or strengthening of links, as it tries to establish or re-establish its meaning and value.

B. Level of Analysis

The level is divided into activities and these are defined for each phase (Figure 1). The following sections describe the activities of the signification phase:

- Identify: heritage does not become such until it is not recognized, that is, until it is not marked or identified.
- Commodify: heritage commodification is the activity by which cultural expressions come to be evaluated primarily in terms of their exchange value. These cultural expressions and aspects of heritage become 'cultural goods'; transformed into commodities to be bought, sold and profited from in the heritage industry.
- Inchoate: begin the process of legal consideration of heritage. Also this is the start of preservation at government level.

The following sections describe the activities of the preservation phase:

- Document: the purpose to document is to preserve an accurate record of historic properties that can be used in research and other preservation activities. To serve these purposes, the documentation must include information that permits assessment of its reliability. The size and quality of documentation materials are important factors in the preservation of information for future use. In order for documentation to be useful for future research, written materials must be legible and understandable, graphic materials must contain scale information and location references. Usually this method of recording provides sufficient information and accuracy to begin conservation.
- Protect: the community has the right to protect the heritage and for this there are regulations and institution tools. Likewise the owners of heritage or the community in general recognize preservation and the authorities are obliged to provide what is necessary for these purposes.
- Manage: it is the vocation and practice of managing heritage. Heritage management, according Ballarat & Tresserras [36], is understood as a set of actions, in order to achieve optimal valuation of heritage and its more suited to contemporary social demands.
- Conserve: it is maintaining change to a heritage in a way that sustains and where appropriate enhances its significance. This is to be interpreted as 'preserve from harm' that is harm to its significance, not simply its fabric. Heritage should be conserved for the quality of life they bring to this and future generations.
- Restore: its aim is to preserve and reveal the aesthetic and historic value of the heritage. It is based on respect for original and authentic documents. It must stop at the point where conjecture begins and in this case moreover any extra work that is indispensable must be distinct from the original composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by a research study.

The following sections describe the activities of the interpretation phase:

- Investigation: a general term used to describe the acquisition of information of all kinds pertinent to increasing knowledge of heritage.
- Reveal: it is strategic communication, which helps connect intellectually and emotionally to the person concerned with the meaning of heritage to be enjoyed and appreciated. Communication generates emotional and intellectual connections between the interests of the individual and the significance of the heritage.

The following sections describe the activities of the diffusion phase:

- Educate: the four pillars of learning are fundamental principles for reshaping education [38]: learning to know, learning to do, learning to be and learning to live together. It is considered to teach the whole teaching and learning content, both formal, non formal and informal, in which many variables and elements (institutions, teachers, instructors and students) interact with the aim of obtaining the training of individuals as part of a community and active members of society.

- Enjoy: these playful components channel at the contact with the heritage, as well as achieving other objectives the development of aesthetic sensibility.

Finally, the following sections describe the activities of the awareness phase:

- Participate: to participate effectively in the process users should be able to realize about heritage. The purpose is to provide this user interested in heritage ability to understand why and in what sense is singular and the degree of significance that has to be considered that the heritage values.
- Revalue: From this moment begins the process feedback. In this proposed process the inability to die having heritage arises, since one of its main functions is memorial service [39]. Awareness by the individual and the community tends to increase value, not an inevitable loss and this is an exceptional situation.

C. Operational level

VisProcH involves creating views and defining relationships between them in a process of visual reasoning. The goal of the process is not centered on producing an environment that is undifferentiated physical reality. With VisProcH is intended to provide the ability to communicate the polyhedral dimension of heritage, i.e. heritage in context, linking or strengthening of ties. Each of the stages is associated with two phases (Figure 1):

- Characterization of metadata: this stage is related with significance and preservation phases. Metadata is a key element in VisProcH and although they may be considered as a formality, are a necessary tool that enables access to and use of heritage. Beyond defined as 'data about data' and widely used in all types of information resources [40], VisProcH metadata describing the content, quality, condition and other characteristics of equity. The following definition of metadata has been adopted: "*Structured dataset describing other data, their internal structure and their services, whose purpose is to increase knowledge about them and answer questions of the type 'what', 'who', 'where', 'when', 'how much' and 'how'. They may also be considered independent products associated to data that allow keeping an inventory of the data, facilitate their publication and query through the catalogs in the SDIs and favor the reutilization of data and the exploitation of the services*" [41]. Many institutions have been working on the development of standards for documentation, i.e. for documenting the systematic collection and storage of records, not only for conservation, but also for the preservation of related information for future reference. These institutions have defined guidelines and instructions that help in collecting information about the heritage, the adoption of thesauri and controlled for standardized vocabularies terms. Some of these are standards (CIDOC-CRM), national data standards, such as ICCD (Italy) scheme, MIDAS (England) and SDAPA (France). Heritage usually categorized depending on the purpose of use thereof, needing one kind or another metadata, or even several [42].
- Customizing the purposes for which performs the visual representation and its use by agents. This stage is related to the preservation and interpretation phases. We used the techniques of handling and processing, as they allow direct interaction between the interface, the form and the agent. The VisProcH must meet three basic requirements in its design to ensure proper functionality: navigation, interface, interaction between agents and process feedback.
- Identification of the technology should support visuals and familiarity of agents with this technology. This stage is related to interpretation and dissemination phases. Improvise [43] was selected for the implementation of VisProcH. Improvise is a fully-implemented Java software architecture and user interface that enables users to build and browse highly-coordinated visualizations interactively. Improvise is a free software distributed under the GNU General Public License (GPL). The modular architecture of Improvise offers flexibility in design and exploration, allowing users to create and interactively connect data sets, queries and views.
- Development of the interface, in such a way that it becomes an access point to allow valuation of heritage. This stage is related to dissemination and awareness phases. The interface represents the connection between the agent and the heritage influencing on the design of the content. The agents' access to a catalog of metadata through the interface in order to search and evaluate metadata, bearing in minds the different activities of a phase. This involves understanding the elements of metadata and value domains. First the agents expressing search criteria using the facilities offered by the interface, typically a query interface. Agents face the dilemma of formulating criteria exhaustive or complete enough to retrieve all relevant data sets hunting, but are also sufficiently precise to avoid retrieving large amounts of irrelevant data. However, in current systems metadata, the facilities to perform advanced queries are not a standard feature. At this stage at the latest, the users have to transform their requirements metadata elements. These may be implicit starting early in the process agents by roughly search. After studying the results of the search to identify potential data sets and only then consider the requirements properly. From this point you can already make a new search or to conduct an evaluation of the alternatives. The valuation process itself is iterative. The agents studied the metadata to determine if they can meet your requirements, be knowledgeable about the alternatives, studying their differences and perhaps reconsider the requirements and start the search.

- Proposal for the fundamental form for the visual representation of heritage. Finally, this stage is related to awareness and significance phases. In addition, visual representation techniques are fundamental to the extent that support for the valuation of heritage through direct visualization of digital heritage and indirect information on these, such as metadata. The techniques of representation are grouped into: multidimensional, 3D visualization and graphs. Associated with the application of an appropriate method of visual representation, it is important to ensure that the level of data abstraction for representing display. It is also essential that, once deployed, will also be able to effectively navigate and link to other data already in the visual representation.

V. Agents Involved in VisProcH

An agent has been defined as a person who has the right and capacity to participate in the process [44]. An additional argument for collaboration is that it engages all interested parties in the decision making process by allowing them to take responsibility, enhance their self-reliance and their own awareness of heritage, all of which enables them to enjoy a greater degree of consensus and shared ownership. In addition, user profiles can belong to different types of communities and the potential agents in the process are divided into:

A. Owner

It is either the person having legal ownership of heritage. The owners are an agent with some peculiarities when contemplating their participation in the process, as they often delegate their actions on other agents.

B. Researcher

Users are belonging to communities that are engaged in the research, such as universities and research groups, which are responsible for studying how the valuation of heritage is made. Researchers, teachers and students are from different disciplines and research projects dedicated to the development of various methodologies and technologies for this purpose.

C. Custodian

Authorized agent or the person exercising professional custodianship over a heritage: included museum director, curator, archivist and librarian.

D. Stakeholders

It may include community groups, industry or business associations, citizens' groups, government departments, politicians, education institutions, ethnic groups, indigenous or aboriginal peoples, first nations and tourists.

VI. Case Study: Tossa de Mar

In this section is briefly presented the implementation of VisProcH and application in the case study. Improvise has been using to carry out the implementation of VisProcH. The case study was conceived, designed and built for the heritage of Tossa de Mar (Girona, Spain). The case study has been developed deemed an appropriate separation of scenarios and five scenarios taking into account the agents. The scenarios have been developed as examples; with limited documentation it was available on the heritage of Tossa de Mar. In this section is presented one scenario: the curator of an Ametllers site exhibition. The curator is a custodian agent. In this scenario the custodian is interested in the putting in value of movable archaeological heritage items, with certain aesthetic values. In Figure 2 describes the phases, activities and stages to be undertaken by the custodian.

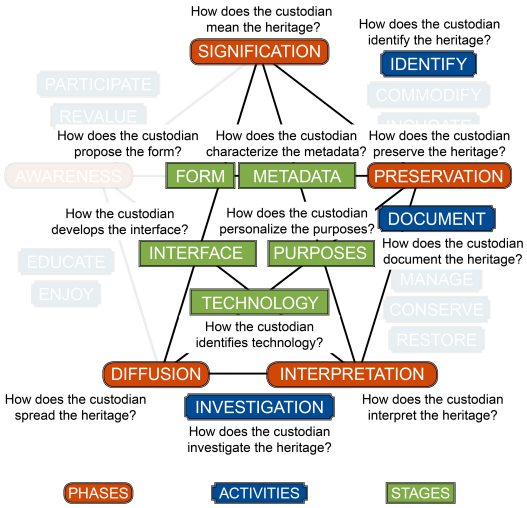

Fig. 2. Phases of meta-level, activities of the level of analysis and operational level stages to be undertaken by the custodian.

- How does the custodian mean the heritage? The custodian has realized the significance of the heritage from Ametllers site that was identified in several archaeological interventions. The principles used to select this heritage are linked to the archaeological methodology, combined with fieldwork and documentary. These interventions over several years have different methodologies, which means that the available documentation and the results are not always in the best condition.
- How does the custodian preserve the heritage? The custodian preserves the heritage for their preservation and conservation. In this case the digital heritage from Ametllers site is digitized and the available documentation is from the digital and original heritage.
- How does the custodian interpret the heritage? The custodian has made the interpretation of the Ametllers site. The site has identified and studied in various archaeological interventions, which revealed meanings and interrelationships of various heritage items of the Ametllers site and the Tossa de Mar town.
- How does the custodian spread the heritage? This phase is intended to raise awareness of the heritage of the Ametllers site by exposure that arises from a

practical perspective and convinces the enjoyment of the creative sensibility and aesthetic experience.

- How does the custodian identify the heritage? The custodian initiates the process and he has begun identifying the heritage that previously he or other agents have meant and safeguarded in a museum.
- How does the custodian document the heritage? The catalog of tangible heritage consists of movable items from the Ametllers site. CCO, DOMUS and CDWA are the standard catalog used. And the controlled vocabularies used are based on AAT and TGN.
- How does the custodian investigate the heritage? The custodian is responsible for studying the heritage of the Ametllers site. In addition, he completes the catalog that he began in the phase of significance. He made a catalog of references (MARC) and other one of images (VRA Core).
- How does the custodian characterize the metadata? In Improvise the relational metadata model consists of several schemes that describe the columns of tabular data sets by name and type of object. The schemes are used for two different purposes: to validate access to content metadata sets and define the characteristics of both input and output of query expressions.
- How does the custodian personalize the purposes? The custodian personalizes the purposes in Improvise. And these serve as variables and reusable expressions that can be invoked by the agent for multiple projections, filters and classifiers.
- How does the custodian identify technology? The custodian identifies the technology and as the researcher creates, edits and coordinates different variables that materialize in the visual representations.
- How does the custodian develop the interface? The custodian develops the interface, creating pages, parameterization frames and panel views. The result of the custodian proposed starts with the interface in Figure 3.
- How does the custodian propose the form? The custodian creates and parameterizes in Improvise a visual representation from the information available in the metadata.

VII. Conclusions and Future Works

VisProcH not intended as a substitute for the various tools and platforms to perform other processes on the heritage that already exist. It is an independent process of recognition of the value of heritage, for each of the phases and the necessary activities required heritage, being a dynamic process that feeds.

VisProcH defined and characterized the stages of meta-level the activities of the level of analysis and stages of operational level. The growing recognition of the need to consider the different meanings and multiple heritage value is evident. On the whole, the different types of heritage value testify from a purely instrumental, capable of self-replication as a set of values within the cultural dynamics.

VisProcH is presented, as a process that is continuous feedback, as it is a continuous valuation, there is a continuous awareness, both in the creation of cultural identity and heritage knowledge. Occasionally there is a fluctuation in the gain or loss in the value of heritage and as already mentioned, in exceptional cases, it is no longer considered as such.

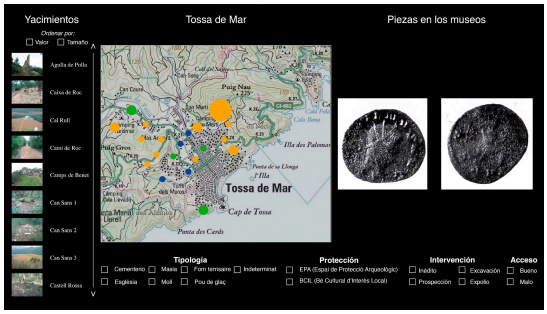

Fig. 3. Interface.

VisProcH is also proposed as a process that will support the maturation of awareness of the heritage of the communities and to promote the availability of heritage. The process consists of the valuation and prioritization of a particular heritage at the expense of another. That is, the process focuses on a particular heritage; agents' focus on selection necessarily implies the exclusion of another heritage. However the process is started or restarted easily and that allows equal opportunities for all.

The large number of potential agents VisProcH be used as a means of study and/or complement learning, user interface and content presentation can be very difficult for some of these agents and/or too trivial to others, depending factors such as age, knowledge that these agents may have on its use, among others. Evaluate the usability of VisProcH is becoming a critical issue because it is not only important to achieve the objectives of the process, but the creation of an environment that is attractive and will motivate the agent to facilitate the development. Therefore, the assessment of the usability of VisProcH could help to establish the extent to which application components meet the requirements of usability to support the process. The impact will be evaluated in the context of usability and in this context, is part of a question on whether VisProcH is good enough to meet the needs and requirements of the agents. Usability considers all aspects with which the agent can interact and main evaluation criteria (learning, communication operability and content). For example, the process must meet functionality present certain type of content, but VisProcH should be presented in an attractive and simple way the agent also practical use and easy navigation, to carry out an effective process.

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