

VIRTUAL HERITAGE NETWORK – VHN (www.virtualheritage.net)

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This paper consists of a review of the Virtual Heritage Network – VHN - site, analysed between June 20th and July 20th (version 2.752). It focuses on two aspects: the way the interface works and how the content on culture and the built heritage is introduced in cyberspace, while discussing technological development.

What is virtual heritage? More than just being a question volume, the quality of cultural items (re)produced on communication networks - especially using the new information technologies – has bequeathed knowledge that some deem a virtual heritage. A system of symbols and codes specific to virtual communities has been built up around the huge technological advances and new modes of communication – internet + multimedia – which have become characteristic of the current generation. Part of this production is taking shape as a new form of cultural heritage, with specific values, representations, relationships and social practices, now assembled and represented in an environment of computer networks. They, therefore, form a class of codes and symbolic and representational systems in general, which are easily broadcast. Therefore, this leads to their being projected on a backdrop of universal, cultural values, set in different times and places.

However, the Virtual Heritage Network - VHN - is not just about cultural information produced on the Web, but rather VHN gathers together a virtual heritage, with cultural information which has practical applications, such as how technologies can be useful in preserving, restoring and also (re)constructing the heritage. It assembles and promotes studies on using cutting-edge technologies to conduct at-a-distance research or intervention in landscapes, buildings or objects that have heritage value. So, let us now move on to a short analysis of the functioning of the site and its contents before opening a debate on how a virtual heritage is formed.

Functioning

In general, site information has a simple organizational structure. It uses only one vertical frame. The body of the page is divided into the main corpus, a top bar and a lower bar. The main corpus is divided into three large blocks of information, organized thematically by column. The top bar, where the title is, has an access line for members and an entry box to search within the VHN (Virtual Heritage Network). Use of a lower bar displays general information (VHN Copyright), legal information, the site version number, the number of visitors, and the date last up-dated.

The information and services are accessed by links, represented by an arrow which takes you to the pages which contain more detailed articles or information, or by a word search, for which there is an entry field. The activation button for this is the icon for a magnifying-glass. The initials of languages are displayed to show what languages the documents, referred to by their theme or titles, are in, e.g. English (EN), French (FR) or Japanese (JP), at the time of searching the site.

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Moreover, while it presents information, the interface used shows, in a functional way, the contents and main themes of the network. As to the corpus on the site and its organization, the left-hand column serves to introduce topics for quick overview and immediate services - such as contact, partners, directors, and profile. It makes use of key-words, and features the help link for questions and answers (FAQs) and the link 'ADD your Info'. The right-hand column assembles more specific or detailed information about the VHN, shown as titles of articles, summaries, reviews, and extracts from publications. These contents are brought together using the divisions of the Digital Library, Technologies and VHN events.

It is worth giving a more complete description of this services. On first access, we see that the Digital Library seems to be the most sought-after service on the site as it is very visible. You can opt to access all the papers directly or go directly to the five articles most visited recently. The articles are presented by title, author's surname and city, and number of visitors. The presentational structure of the articles is very useful because it shows information about documents with related content. Thus, information is presented by category of themes dealt with as well as by link to publications by the same author. In fact, this is where the main content of the site is provided.

The section on Technologies offers a space to advertise major technological innovations in cultural heritage, whether in research, representation or interpretation. The most recent news is given on the main page, as a headline under "reports". The service VNH Events, advertises events by title, date and place.

In the central column the site presents recent information it judges of great importance, using illustration, headline and a summary. This news therefore occupies a central position, and may come from the Library, Technology or Event sections. In general, this structure to functioning brings together activities and content that help to promote the use of technology as applied to education, interpretation, conservation and preservation of the world's natural and cultural heritage. Further, it serves as a meeting place for research staff from various countries who are working with virtual heritage and assembles information in the several areas on the subject, as we shall see later on.

Contents

As previously mentioned, it is the Library which holds the largest volume of site content. These are publications which tackle the question of heritage according to the UNESCO categorization, as well as Cultural Heritage, Natural Heritage and Heritage Object. The approaches to heritage are also very assorted, ranging from *applications* (like the use of multimedia to features like 3D spatial representations, multiple exploration and navigation modes, and to distribute information resources on the Internet); *financial or legal information* (they serve as a database; give the legal basis for requesting restitution to ensure the preservation of cultural treasures; and include case studies and documents); *games* and *computer tools* (Hardware and Software Systems which integrate technologies in the field of Virtual Reality, Real-time 3D graphic, sensor fusion, and 3-D range sensing, for example).

The themes are very diverse, and set side by side essays precisely on fields of knowledge in which technological development has introduced a new approach. For example, the use of virtual reality by archaeologists in 3D models to restore ruins and even to create a multimedia database for legally protected objects. Many case studies cite the development of photogrammetry and geometrical modelling, especially because of the surprising effects when simulating a reality, even when records of it are very remote.

The virtualization of the built historical and cultural heritage redefines the reality of where each object came from, through the manipulation and simulation of the most diverse scenarios and insights possible. For example, it is possible to create, by simulation, a form of visualizing a building or even a landscape which existed in the past, based on archaeological remains, or even a way of tracing a future scenario for a given item of heritage, exposed to the elements, or for a study on the deterioration of the material or surface of objects or buildings – temples, palaces, monasteries, forts etc.

Besides this, virtual reality has allowed for a differentiated interaction regarding an ever-increasing number of users who can now immerse themselves in and walk through ancient monuments, landscapes or towns. This alternative has been well exploited in virtual museums, yet another important source of historical and cultural knowledge, used to educate, promote and alert people to preserving heritage properties and ecological reserves.

In fact, cyberspace provides a space for new social relationships and productions, and, thus for producing values, codes of conduct and knowledge. New symbolic systems are created, even when some of them are closely related to those of the original reality. As to heritage values, virtualization is a powerful way to transmit them, because digital media more easily represent, transmit and reproduce these values than other kinds of media. Cyberspace increases enormously the possibility of different communities sharing each other's distinct and specific cultural processes, and by putting their cultures in mutual contact makes them more active in cultural processes and in enlarging the cultural base of symbols, codes and values.

The capacity for representation in a virtual medium supersedes earlier forms of representing heritage such as through photography and cinema. The process of virtual heritage simulation includes seeing, touching and hearing, which helps people to understand, interpret and interact with the built heritage, all this in itself having become an object of knowledge. Although virtual heritage is intimately related to the real heritage, the former redefines some properties of the real one, using the techniques of intervention, interpretation and simulation that lead us to observe different dynamics in the real and the virtual ones, since they are produced exclusively out of distinct environments.

However this may be, both – virtual and real – contribute to the cultural and built heritage, even if with different impact as vectors of communication. Therefore they should be understood in terms of what makes them specific so that we may then have a precise awareness of the value of each in the processes of planning, protecting, promoting and (re)thinking what is contemporary cultural heritage.