

## **The VENetIan Virtual Archive Project: Cultural Heritage and On-line Publishing**

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### **ABSTRACT**

The ever-changing and growing reality of on-line communications and of the World Wide Web has posed the need for a general rethinking of the tasks of all the participants involved in the process of creating and using a 'cultural product'. Publishers and all those institutions involved in the dissemination and preservation of cultural heritage cannot ignore the risk of being left behind and gradually replaced by different participants who, since they own the new information technology, can become the new, unique vehicles for its dissemination. But the challenge that publishing houses and primary source repositories such as libraries and historical archives have to face nowadays is not only that of safeguarding their experience and know-how, and bringing it into the new information technology world. The change of roles has to involve singling out new kinds of 'cultural products' and value-added services that properly exploit all the potentialities of the new technology.

In this paper, we will describe the experience of a publishing house which has moved into the non-traditional sector of on-line publishing. Specifically, we will examine its close collaboration with European libraries and historical archives on the one hand, and with software houses and technical universities on the other, in order to develop innovative editorial services on the World Wide Web.

### **1. Introduction: the VENetIan Virtual Archive Project**

The VENetIan Virtual Archive project (VENIVA, ESPRIT Project 20638, <http://www.tin.it/veniva/>) is a two-year long initiative in the Research and Development programme of the European Commission. Several cultural institutions from Austria, Italy and Greece, together with multimedia and traditional publishers, technical universities and a software house are participating in the development of a pilot application that enables remote and on-site access to selected primary documents via distributed databases which relate to Venetian history. The Internet will allow users to navigate a virtual archive, where documents have not only been catalogued, but digitized, too. At the same time, users will also have the possibility of reading critical works in which the materials preserved in the virtual archive have been analysed or simply mentioned as primary sources.

In the following chapters we will briefly describe the pilot application and its functionalities currently under development. Then we will illustrate some of the initiatives that have been realized so far, as a prelude to the creation of a fully functional virtual archive on Venetian history.

## 2. The pilot application and its functionalities

The pilot application offers remote as well as on-site users the possibility of hypertextually navigating, searching and retrieving information from several distributed databases. From the reading-room of the institution or from home, users will access a database containing selected documents from the Marciana National Library of Venice, the Venice State Archive, the Oesterreichisches Staatsarchiv of Vienna and the Greek national archives<sup>1</sup>. It has been decided to concentrate on cartography, and therefore geographical maps, sketches and drawings have been catalogued, digitized and inserted in the databases. However, in order to offer a more flexible application, the system has been so structured as to allow the cataloguing and inclusion of several types of documents.

The innovative feature of the system is not simply that it allows the user to navigate via hypertext through distributed databases of libraries and archives located in various European countries - and thus, thanks to the ISAD(G) and the ISBD standards of cataloguing<sup>2</sup>, move beyond geographical boundaries. It also gives the researcher the possibility of consulting archival and bibliographic repositories in a unified form, and so to overcome the traditional cultural separation between these two kinds of conservation institutions.

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<sup>1</sup>The documents that have been selected and inserted in the databases so far come from the Oesterreichisches Staatsarchiv (120 military maps of the 19th century, portraying the land around Venice), the Marciana National Library (72 documents and transcriptions from a manuscript of the 17th century by Raffaello Monanni, *Descrizione topografica della città di Candia* and three documents from the manuscript Ms. It. VII, 200 (=10050) entitled *Carte topografiche, piante di città e fortezze, disegni di battaglie della guerra di Candia*), the Venice State Archive (38 documents from the Atlante Mormori and from the series Provveditori Terra Mare and the fond Provveditori alle fortezze).

<sup>2</sup>ISAD(G) General International Standard Archival Description. The work of the Commission on Descriptive Standard of the International Council on Archives had its origin in a meeting held in Ottawa in 1988. In 1992 this Commission met in Madrid and the result was the *Statement of Principles Regarding Archival Description*.

In Madrid, a draft of a *General International Standard Archival Description* based on these principles was also adopted. The aim of archival description is to identify and explain the context and content of archival material in order to promote its accessibility. ISAD(G) rules present a structure for any given description incorporating elements governed by the rules. Within this structure the elements are grouped into six information areas: 1. Identity Statement Area; 2. Context Area; 3. Content Area; 4. Condition of Access and Use Area; 5. Allied Material Area; 6. Note Area.

*ISBD. International Standard Bibliographic Description.* In the bibliographic field an International Standard adopted in the whole world exists which is called ISBD and that provides the cataloguing rules for all of the material typologies preserved in the library (modern and ancient printed book, serial publication, cartographic material, printed music, audiovisual, etc.)

The VENIVA virtual archive adopts standards of document description and cataloguing in such a way that they do not create any incompatibility with the single national standards that have been adopted so far in each European country. At the same time, the VENIVA virtual archive has developed the 'common view modality' which, starting from the archival and bibliographic standards mentioned above, combines them so to enable the user to accomplish a search for documents in the database independently from the institute that owns them. This becomes particularly useful for all those scholars who are interested in a particular research topic, but it could also turn out to be an interesting example for archives and libraries themselves that wish to start a similar collaboration.

When finalised, the pilot application of the VENIVA virtual archive will be endowed with a series of tools that will help the user to navigate, such as full-text search and retrieval of documents, the automatic generation of indexes and a thesaurus of terms related to places, people and topics as they appear in the digitised documents of the virtual archive.

### **3. On-line editorial services for libraries and historical archives**

The publishing house for which our group is working has an extensive experience of highly specialized publishing services at national level. For instance, Marsilio has managed and organised the creation of a photographic archive of primary sources relating to Napoleonic cadastral records: full-scale photographic reproductions have been made of ancient documents, including cartographic material. Readers at the Venice state archives will now view these reproductions and, only exceptionally, the original items.

In this way, thanks to the new technology and in particular to the World Wide Web, it has become possible to make a step forward by providing a digitized copy of bibliographic and archival documents. A greater number of users can be reached and their requests satisfied. Hopefully, it will also be possible to increase the interest in that part of the cultural heritage owned by historical archives which, for various reasons<sup>3</sup>, has previously been neglected.

Of course, new problems arise - the duration of the digitization phase for a huge number of documents (for instance, the Venice State Archive owns over 90 km of shelves of ancient documents related to the Republic of Venice), the fast-evolving nature of the technological tools and supports, the scanning quality, the digital storage that images require, etc. - but it is also important to recognise that a virtual archive is not the digital copy of a real entity, although this might be the final goal<sup>4</sup>. Rather, it is important to devise and define intermediate

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<sup>3</sup>Among the reasons why the collections owned by historical archives are less known than the museums' collection is certainly that of the different institutional roles that archives and museums play. In very general terms, one can say that while museums show to the public their ownings, archives preserve them so that to represent the certainty of law. The main question therefore is that of enhancing the visibility of the archival collections without jeopardizing their institutional role. As for libraries, the terms of the problem are different because preservation and at the same time exploitation of their ownings is not a conflictual relationship from the institutional role's point of view.

<sup>4</sup>In its guidelines, the G7 commission has clearly stressed the need for the digitisation of European primary sources. Several initiatives have been started to set the rules and achieve this goal: the Multi-Media Access to Cultural Heritage group, promoted by the European Commission, has prepared a memorandum of understanding that hundreds of cultural institutions from all over Europe have already signed, thus committing

steps. It is from this perspective that, in the following sections, we will describe a series of added-value services marketed on the World Wide Web that relate to the documentary collections of the cultural institutions involved in the VENIVA Project. We will describe the participants involved in the process of management and the relationships between them and the end-user. Finally, we will illustrate two aspects of editorial experience developed within the project: a virtual exhibition and a limited version of the Venetian Virtual Archive, both available on the Internet.

### *3.1 The Search on Demand and Document Supply services*

#### *3.1.1 The services (<http://www.tin.it/veniva/services/>)*

For all those users cannot physically visit the institute in which they would like to perform their searches (either for personal, editorial, commercial or administrative use), or are not able to because they do not know the structure of the institute, its rules and collections very well, the internal service provider<sup>5</sup> can offer a series of articulated services. On the one hand, these attempt to ease access and consultation in archives and libraries and, on the other, help the personnel of these institutes to manage requests they cannot otherwise answer. It is often the case that libraries' and archives' personnel receive requests they can only answer in a general way. Complex searches, e.g. retrieving all materials related to the Fondaco dei Tedeschi palace in Venice, or similar open questions, cannot be performed by the archives' personnel because they do not correspond to administrative needs. Similarly in libraries, it is not possible for the personnel to spend a long time in performing searches commissioned by remote users: general advice is given and the user will be invited to come to the institute to peruse personally the available material.

The 'search on demand' service seems not to have been formalised yet. Professional archivists or librarians are paid (most often on a time basis) to perform specific searches that companies or individuals have directly commissioned from them. In Great Britain this service exists in some specialised libraries, where it is performed by the personnel of the library. In Italy, there is no such service available at present. In the United States, each institute follows its own regulations, but it seems that there is no specific professional figure who only works on this task, even among the reader service staff.

We have designed two different typologies of 'search on demand' service: the guided search and the complex search. In the first case, we intend to answer precise requests from users who already know the material they are looking for, i.e. they can tell with precision all the

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themselves to working towards open access, by the public, to the resources of cultural institutions through multimedia communications systems by the year 2000. Among the goals described in the memorandum, there appears '50% or 1,000,000 objects from public collections and resources in participating [institutions] to be accessible over electronic networks by 2000'.

<sup>5</sup>The internal service provider is a term defining a figure that undertakes the role of providing added-value or free electronic services for the library's or archive's end-user (either remote or on-site). This role can be played by a multimedia publisher, for instance.

specifications necessary for the retrieval and consultation of the materials. In the second case, we would like to answer those requests that are rarely managed by the institutes, i.e. open investigations in which the users specify the topic, its chronological and geographical terms and at which site they would like to have this search performed (the possibility of a combined search in archives and libraries is here included). In this latter case, the search can be commissioned in two separate ways: the user can ask for an evaluation of the material available, in order to know the likely success of the commissioned search; otherwise, if they already know that the search will be successful, they can ask for a full search directly.

The 'search on demand' service is accompanied by a series of other services which can be complementary to it, or independent. In particular, users can ask for the transcription of the documents retrieved, a translation and/or abstract of the contents, they can also ask for reproductions and to have all the materials delivered to their own location. The support for the delivery and the payment operations as well as the submission of requests can be diversified. The Internet is the preferred support for the submission of the forms requesting the different services, as well as for information exchange and update. As for the delivery and payment options, users decide the method they prefer, but again, the Internet is also considered and evaluated.

### *3.1.2 The participants*

The internal service providers entrust information specialists to work for them: these experts are professionals with extensive experience in archival and bibliographic studies, as well as palaeography, who know very well the institutes where they perform the searches. They take care of each request, while the internal service provider works as an intermediary subject between the user, the expert and the institution.

The internal service provider's task is that of signing agreements with the cultural institutions in order to improve the service: so special facilities guarantee the quality of the service and consequently attract a larger number of customers. These facilities mostly concern the reproduction service, since the digitisation and distribution of digitised copies of archival and bibliographic materials is one of the main goals of the VENIVA Project. At the same time the internal service provider takes care of the update of the services offered in the Web pages. The institutions involved in the project constitute the experimental basis for the service, but users can also ask for searches to be performed outside these institutes and arrange all details with the information specialist.

## *3.2 High-quality reproduction service*

### *3.2.1 The service*

The high-quality reproduction service is part of the more general document supply service. Users can request different types of reproductions of the materials preserved in the institutes that collaborate with the VENIVA project, following the usual procedures of the institutes. However, the internal service provider behaves as an intermediary between the institute and the end-user when the user's request is related to high-quality reproductions, either in digital or in print format. Usually, these requests are submitted when the publication of these

reproductions is desired. The digitised document, most probably cartographic material, must have such a quality as to be published in a book; the print copy is similarly used by publishers for their publications, but is also requested by users for other reasons (poster-size reproductions, for example).

### *3.2.2 The participants and the process*

The internal service provider signs special agreements with a cultural institution for the management of the high-quality reproductions. In general, whenever remote users address the internal service provider via the Internet and express their wish to have high-quality reproductions of bibliographic and archival materials, then the internal service provider informs the institute and provides the users with the reproductions in the form they prefer. The internal service provider also takes care of the question of permission to publish the requested reproductions and promises to respect the copyright law.

### *3.3 The editorial collection on the World Wide Web*

The VENIVA publishers are working on an editorial collection of essays (and not only essays) concerning the materials preserved in the primary source repositories such as historical archives and libraries. To conceive and realize an editorial collection on the Internet implies a general re-thinking of the publishing process, and this presents some risks. Each work can be structured and organized in its own way - there can be academic articles and multimedia exhibitions, for instance. The editorial team can be composed of different professional figures confronting each other - suppose the author has never created a multimedia work, then somebody helping her/him to draw a navigational map is needed, etc. The distribution and advertising of the final product follow untraditional channels, like the Web, which may not be reliable or easily controlled. Moreover, from a commercial point of view, the possibilities of financially exploiting the on-line publication are very limited<sup>6</sup>.

Yet, the challenge that an on-line editorial collection presents is worthwhile taking for several reasons: it encourages certain types of electronic product to be written, it improves the quality of the on-line products available, and, in our particular case, it proves useful in that it highlights the publications' hypertextual nature. It is not just a question of internal links (links leading from a part of the publication to the other), but rather, a question of links leading users to the virtual archive itself, showing them where the primary sources are preserved, perhaps introducing them to institutions they have never visited.

We have prepared two publications so far: a virtual exhibition and a simulation of the virtual archive. At the moment we are working on a new on-line publication combining historical

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<sup>6</sup>On-line editorial products are nowadays distinguished by a high dynamism: Web-pages move from one site to the other, change contents and are often replaced by newer products that can attract new visitors. This aspect of the Internet has led us to believe that it is necessary to move the on-line editorial products onto different supports, such as the CD-ROM, also because this will bring the profit that the Internet seems not to offer at this moment.

academic essays and a hypertextual guided tour, leading the users to the virtual archive. In the following sections we briefly describe these products.

### 3.3.1 *The virtual exhibition* (<http://web.tin.it/marsilio/veniva/>)

The aim of this exhibition has been to stress how historical materials preserved in archives, libraries and museums can be primary sources for a deep analysis of an historical situation, in this case the relationship between the Republic of Venice and the Ionian islands from the 16th to the 18th century. In particular, the exhibition presents three main topics - the passage from war- to peace-time, the relationship between colonised and colonisers, the change in the urban fabric due to war and the particular human conditions of the islands - each of which is presented in terms of three distinct historical periods.

The structure of the work is simple so as to help the navigation, but at the same time it is very tight and consistent. The home page allows users to choose the path they prefer, and there are a series of textual cards accompanied by images in icon format, images in panel format with a description of the bibliographic and archival collection they come from, a series of indexes (an index of images, an index of text cards), a glossary of terms illustrating the historical context and the bibliography. Several images are copies of cartographic materials whose originals are mostly preserved in Venetian cultural institutions, but some are also preserved in Greece, Austria or France.

### 3.3.2 *The Venetian Virtual Archive* (<http://www.tin.it/veniva/avv/home/>)

The archive here is a simulation, but it shows some of the functionalities of the pilot application the VENIVA consortium is preparing. It contains documents from the Venice State Archive and from the Marciana National Library of Venice. The HTML pages simulate a virtual archive, where users can navigate and search several databases of archival and bibliographic materials, retrieving texts and images on the computer screen. The documents which have been catalogued and digitised (at medium quality resolution) are the colour plates accompanied by descriptive cards and transcriptions of the manuscript Ms. It. VII, 889 (=7798)<sup>7</sup>; and of the manuscript Ms. It. VII, 200 (=10050)<sup>8</sup>, as well as the drawings preserved in the archival fonds of old magistracies which managed the maritime dominions of the Republic of Venice. The main topic is the defensive system which Venetians built on the islands of the Ionian sea (Crete, Corfu and Cephalonia) during their colonisation, which lasted for centuries, against the Turks' threats. In the cartographic materials shown in the virtual archive one can mainly see fortresses, harbours, castles, maritime arsenals, strategic schemes of naval battles, etc.

Users navigating in the virtual archive find two main directions to follow, a model of a library and a model of a historical archive which develop in a parallel way. The model of the library

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<sup>7</sup> Raffaello Monanni, *Descrizione topografica della città di Candia* (18th cent.), which contains 72 watercolour plates of the city of Candia (today called Crete); its fortresses and castles.

<sup>8</sup> *Carte topografiche, piante di città e fortezze, disegni di battaglie della guerra di Candia (1645-69)*, a manuscript of the 17th century.

describes the 'manuscript' and the 'geographical map' entities, whereas in the model of the archive, which is more complex because it is based on hierarchically structured objects, the entities are the 'owner', the 'producing body', the 'fond', the 'series', the 'units' down to the 'documents' (that is, the drawings). Beside the hierarchical navigation, it is also possible for the user to navigate hypertextually in both the library and archive models thanks to a series of indexes, 'places, people, topics' which enrich and widen the starting points for new searches.

### *3.3.3 An on-line publication on cartography and the city of Venice*

The VENIVA consortium is now at work on the first title of the editorial collection, an electronic publication of the well-known map of Venice by Jacopo de' Barbari which was printed at the beginning of the 16th century. The work is a good opportunity to envisage and evaluate a methodology for the next titles that will enrich this collection.

The collection of primary sources has been the first phase of the work which has another activity attached - the collection of the secondary sources (journal articles, extracts from other publications) to which the author of the electronic publication refers in his work. The authorisation for the re-publication of these secondary works has met no opposition either on the scholar's or on the publishers' sides: they have shown great interest in the initiative and willingness to support it with new publications.

The main problem that scholars have to face whenever they decide to put their works on the Internet is in fact of another nature: the academic associations do not consider these publications as on par with printed publications and thus jeopardise the development of an easy and inexpensive way of spreading academic results in the world. This implies that at the moment a hybrid genre is developing, consisting in the simple electronic re-publication of a work already published on paper. Original works tend to have two supports: one in paper, one on the Internet. The author prepares a sort of guided tour that, on the one hand, analyses the different critical elaborations and, on the other, supports one specific authorial thesis as in all publications. In addition to the author's personal guided tour, the work therefore presents an archive of journal articles that record the historical analysis developed over the years on that particular subject (in this case, whether Jacopo de' Barbari's map should be considered as a work of art, like several cartographic materials of his time, or whether it should rather be considered as a first hint of a new, more technical mentality that developed in the 16th century) and an archive of primary sources that help the author to support his thesis.

In the guided tour it will be possible to move to both archives of primary and secondary sources and to directly view the object of this interesting debate, i.e. the digitised copy of the map. The map itself will be clickable on all the details that arouse discussions among historians, architecture and art history scholars and cartography experts, thus becoming a visual index.

## **4. Conclusions**

In this paper we have briefly described the experience of a traditional publishing house as it brings its know-how into the less traditional field of on-line publishing. We have illustrated the



services that primary source repositories can offer on the Internet through the support of a publisher, and have finally presented some 'cultural products' available on the World Wide Web. The exploitation of cultural heritage outside the institutions that preserve the objects is a crucial point that publishers together with libraries and historical archives can solve, thus guaranteeing the quality and scientific level of the final product. In order to do so, it is important to diversify the services offered and at the same time to encourage authors to publish on the Internet.

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