From landscape to cities.
The digital co-creation of cultural heritage in Visualizing Venice and DOLOM.IT

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*Multimedia attachements **at this link***

Introduction

As the fastest information revolution in known history, the World Wide Web added two significant changes in the habits and ways of knowledge transmission, shifting from a model of consumption to a platform for creation.

First of all the Web carried a new model of co-creation, by encouraging consumer's primary role in the creation and sharing of content. The resulting platform model has completely changed the way in which we deliver both information and products and it is extremely effective in places where knowledge is traditionally shaped and shared: academic and educational institutions as well as cultural organizations.

Secondly, the Web gave substance and reproducibility to the intangible. Nowadays everyone can enter a museum simply by browsing its virtual space, as well as gain quick access to billions of photographs and images, audios, videos and digitized documents. This is, furthermore, only the beginning. Intangible knowledge, in fact, pervades our lives: spoken words and unspoken meanings, culturally driven relations and expectations, awareness of the multilayered history of cities and landscapes, old dialects, ancient habits, legends and so on. Although none of these things can be touched, they are a fundamental part of personal and community heritage. Web and digital tools allows this heritage to be recorded and shared regardless of distance and time.

Museums, libraries and archives - which are by definition the realm of "material" heritage – can thrive in this new environment. The first step is considering – and involving - people and communities, as the core of any cultural heritage. This vision originates from the Council of Europe's *Convention on the Value of Cultural Heritage for Society* (2005). For the first time individuals stand at the center of the definition of heritage. A concept anticipated by the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage* (2003) - which makes the vitality of cultural heritage dependent on people's ability to recreate and re-vitalize the intangible elements of such heritage. It is noticeable that these Conventions express the very same instances that the web has brought to the fore: the active role of everyone in shaping his/her experiences and in defining what "heritage" really is; and the recognition of the intangible dimension as an integral part of our social and cultural life.

The following case studies stem from these issues and share two essential traits: the co-creation of digital cultural content together with an educational community: the landscape, its history and perceptions that digital tools allows to record, visualize, re-shape and share.

VISUALIZING VENICE

Visualizing Venice is a Digital Humanities initiative that consists of students, scholars and architects at all levels of their careers who are actively involved in research projects to generate digital models and maps of the city of Venice, its territories, and its lagoon. Our goals are: 1) to enhance the understanding of the city, the lagoon, and its region as an on-going process of change and transformation over time and 2) to communicate new knowledge about place and space to the public through portable devices and on the Visualizing Venice website. Our research is based on archival and printed sources (documents, cartography, images) from which we generate three-dimensional models and animations that address questions of change and transformation. Begun in 2009, Visualizing Venice is collaboration between Duke University, the Università Iuav di Venezia and the Università degli Studi di Padova. The team now consists of approximately 30 faculty, post-docs and graduate students (http://visualizingvenice.org).

As part of our mission, the Visualizing Venice Summer Workshops - organized by the Duke Wired Lab for Visualizing Digital Art History & Visual Culture in collaboration with Venice International University and our VV campus partners - have become an important component of our efforts to widen the circle of co-creators of digital heritage applications. Begun in 2011, the workshops are two week experiences on site in Venice and are designed for an international group of graduate students and early career scholars all sharing an interest in the potential of new technologies for transforming scholarship and its communication. The teaching team members are a mixture of historical and digital media experts, all focused on mapping, modeling, and digital storytelling around the art, architectural, and urban history of Venice.
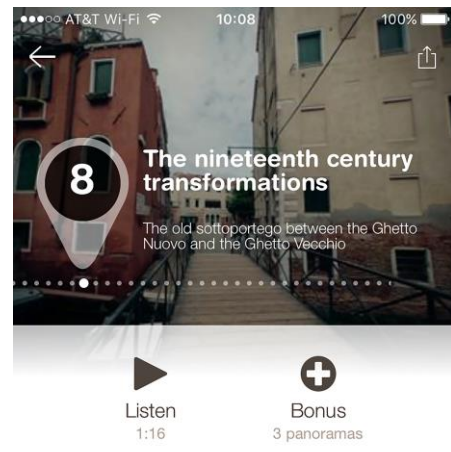
Each workshop is organized around a theme (i.e. The Cistern Network of Venice, The Islands and the Lagoon, the Biennale and the City, the Venetian Ghetto) and a final group project. The 2016 edition - sponsored by the Getty Foundations - became an opportunity to bring students further in to the creation of digital exhibition content. By taking advantage of previous research material, we created a multimedia app to launch alongside an exhibition that some of our original collaborators - and workshop alums – were helping to put together. The exhibition was "Venezia, gli l'Ebrei e Europa" at the Palazzo Ducale museum in San Marco (June 19, 2016- November 13, 2016) and it was organized as part of the city-wide commemoration of the 500th anniversary of the founding of the Venetian Ghetto.

In its current version, Ghett/App is a augmented reality multimedia app designed to be used on-site in the Venetian Ghetto. It highlights fourteen geolocated points of interest, drawing attention to the built features of the space as they have changed over time, through text, audio, image, video, and augmented reality experiences. While some of the app content was adapted from the museum exhibition as a way to situate the user, the augmented reality features were designed especially for use on location, and to take advantage of being in the actual space under discussion. Users can use the phone's motion features to explore the panorama scenes dynamically. The ghostly edifices of the past rise up through the phone display, highlighting the changing nature of experience in the space.

While this version of the project was rolled out in conjunction with the exhibition opening, the team is also developing an application infrastructure into which current workshop student work will be inserted in the coming months.

DOLOM.IT: A virtual co-created museum

DOLOM.IT (www.museodolom.it) is a participatory project ideated by the cultural association ISOIPSE and the ADOMultimedia Heritage lab. Born as an educational project, DOLOM.IT has become a true virtual museum shapen by the inspirational principles of the Web: the platform as a model of bottom-up co-creation and the intangible dimension of cultural heritage that is brought to life. The collaborative creation of contents involves schools, museum educators, inhabitants and stakeholders of the territory. The first edition saw the participation of 200 students from 9 high schools in the province of Belluno and 9 cultural institutions including museums, archives and libraries.
As a "born digital" museum, since it was founded directly on the web, its intangible nature has a twofold perspective.

The first one is *digital accessibility*: DOLOM.IT gives access to the so-called "digital as cultural heritage" of cultural institutions of the territory that opened their digital archive to the creative reinterpretation of the students. As a result, each class based its project on virtual resources, such as digital images of paintings of the Civic Museum in Belluno, Napoleonic maps of the National Archive, historical photos of the Belluno Civic Library, the Museum of Glasses in Pieve di Cadore and the Museum of Rafters in Codissago, records of oral narratives from the multimedia archive of the Ethnographic Museum of the province. And each digital resource is conveyed to became part of a digital exhibition: audio-mapping of water-themed paintings, interactive timelines about the history of industrial districts, geo-referenced maps related to the old watermills along the Ardo river, cataloging cards for the anthropological interviews.

The second aspect is the *digital reinterpretation*: DOLOM.IT fosters students to create original multimedia contents, by developing their own perceptions and interpretations from fieldwork. Their digital projects take into account both the material components of cultural heritage, explored during physical visits to museums and archives, and the immaterial ones, represented by oral testimonies, popular sayings, knowledge and skills throughout the area, all elements that tell us about the close relationship between man and the landscape. From these premises result video interviews with former employees of Safilo factory and with the senior keepers of popular legends, a theatrical performance of ancient legends, audio records of proverbs on water, a videoreportage about an historical event ispired by the contemporary journalism.

The two multimedia tour created using izi.TRAVEL open platform add a further level to the collaborative creation. In order to explore new ways to make web contents more accessible, these was turned into a mobile user experience by digital heritage educators and researchers.