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Experiences of Public History and ICT for the Representation of Cultural Heritage.

Public History is a field of the historical sciences where historians carry out activities related to the research and communication of history *with and for* different audiences.

This article aims to analyze the role of Public History in a post-earthquake context and to illustrate the experiences conducted in L'Aquila after 2009, in a synergy between academic institutions, schools, associations and cultural networks.

In L'Aquila, historians intervened with their research within the INovating City Planning project through Information and Communication Technologies. Through ICT (digital technologies),

Public History activities aim to enhance the historical and Cultural Heritage of the city and to restore memory and disappeared traces of places and re-emerged architecture.

Information and Communication Technologies may allow a wide and differentiated public to approach the knowledge of their cultural heritage. It is precisely through ICT in L'Aquila that new experiences allow the fruition and communication of no longer visible *facies* and no longer visitable places, with the aim to propose new areas of research as well as educational and tourist itineraries.

Keywords:
Public History; ICT; reconstruction; earthquake; memory

1. MAKING PUBLIC HISTORY

Public History offers rich dialectics in the dialogue between new kinds of sources and renewed approaches but also in the use of transversal codes towards the sensibilities of communities as for the knowledge of the past in the present [1]. It is a field of the historical sciences where historians carry out research and communication of history *with* and *for* various audiences [2]. In the field of Public History we can find practices and experiences which aim at an active involvement of groups, social networks, associations and cultural networks [3].

Nowadays public historians are called to interpret the past and its memories by experimenting projects, including digital ones, in museums, archives, libraries, archaeological sites, but also during events such as exhibitions, festivals and re-enactments [4].

Among their objectives is the promotion of historical knowledge and methodologies of historiographic research within different audiences [5]. Through collaborative practices and multidisciplinary dialogue, public historians aim, also through the support of ICT, to enhance different types of historical, cultural, material and immaterial heritage. What is the role of Public History in making cultural heritage and community dialogue in a post-earthquake reality?

The case of L'Aquila, in its uniqueness, represents a laboratory of confrontation with a memory that stopped in a few hours, in the night between 5th and 6th April 2009, when an earthquake crumbled places and memories. The city's historic center disappeared for a decade, uninhabited, silent, broken. Reconstruction often returns new cities, different from those of before. An earthquake is part of history: it leaves its scar; it is a sign that belongs to the body of territories and cities.

After a catastrophe, History has to relate with new languages, connections, digital archives, virtual and three-dimensional reconstructions to bring back to light, in addition to the new architectures, what has disappeared forever or in part (but whose traces can be perceived) in its original form. The public historian is called to transmit, through

documentary research in archives and libraries, the History of the places, events and subjects which have built the city identity over the centuries.

2. REBUILDING HISTORY AFTER THE EARTHQUAKE

The earthquake generated profound changes, according to processes still in progress today, far from complete, connected to different factors: the emptying of homes; the access restrictions; the transfer of activities and ways of using places; the changing of the urban landscape with cranes and scaffolding popping up and reconstruction work sites; the timing of reconstruction/restoration [6]. The synergic language of public historians intersects that of engineers, art historians, architects, restorers, archaeologists to communicate traces showing the city before the earthquake's "great divide".

The historians intervened with their research in the INovating City Planning through Information and Communication Technologies (INCIPICT) project [7]. INCIPICT promotes the development of experimental services in the field of structural monitoring, building automation, energy efficiency improvements, and enhancing of cultural heritage through ICT.

In the project, experiments are being carried out on parts of the historical centre of L'Aquila which allow for the rediscovery of urban landscapes, as they were in past times, through 3D reconstructions [8]. The connections between history and new technologies can make the regional cultural heritage usable, implementing the communication of sites with the translation of scientific research into collective knowledge. The telecommunications engineers who coordinate the INCIPICT project involved historians to bring the story of the past into the present, starting from primary archive sources.

The transformation of the historical research into a communication experience is not easy for public historians, especially if they do not deal with contemporaneity and, therefore, do not research a history with photographic and film sources, but just manuscripts, prints or iconographic sources.

Public History aims to involve different kinds of audiences, including school students, who can be active protagonists in interpretative processes by sha-

ring projects, ideas and visions of the past. As part of the local school's Alternanza Scuola-Lavoro" (work-study) programs, mobile cultural heritage has represented in L'Aquila an interesting example of collaborative practice between students from the third and fourth year classes of the Liceo Scientifico (the city's science-focused secondary school).

The pupils took part in a unique experience of cohesion between historical research and public fruition which led them to discover and learn about the history of their territory also through digital devices. The Alternanza Scuola-Lavoro project started in 2017 and was based on a systematic link between the Liceo Scientifico and the University of L'Aquila. Appropriately guided by their tutors [9], the students produced a mobile application for smartphones based on the Android system.

Inside the app they included monuments from the Cultural Heritage catalogue of the Abruzzo, already viewable as an Open-Source resource on the MIBAC platform. By activating the camera of each smartphone, it is possible to visualize the characteristics of identified cultural heritage, through Augmented Reality applications which allow to add further information with respect to perceptual data. Also in the context of the Alternanza Scuola-Lavoro, after having taken care of the development of the app, the students focused specifically on the study of a monument in the city of L'Aquila, the statue of King Charles II of Habsburg in Piazza Santa Margherita. Through surveys and research conducted from the existing historiographic literature [10], the students collected information about the monument and its historical context.

Through the application, they reconstructed and disseminated data concerning the genesis of the work, the life of the monarch and his family, and the existence of similar statues dedicated to Charles II throughout the peninsula.

These Public History initiatives were shared with publics of citizens, enthusiasts, students, historians and others during the 2017 and 2018 editions of European Researchers' Night.

3. THE "LAQUILA LABORATORY"

Starting with the United States where Public History in the 1970s was born, each country follows its own path to Public History. In the Italian case Public History has developed rapidly in the last ten years following different paths. With the aim to enhance practices and experiences fostering the active participation of communities, the Italian Central Council for Historical Studies and the International Federation for Public History have promoted the establishment of an Italian Association of Public History (2016). The AIPH aims to promote the culture, the practice and the teaching of Public History in the scientific, academic and civil fields [11].

During the first AIPH conference, held in Ravenna from 5th to 9th June 2017, historians illustrated in a panel, together with computer and geomatic colleagues, a model of virtual reconstruction of memories and evidences related to the city of L'Aquila. The reality represented regarded the headquarters church of Santa Maria Paganica, built from the 13th century and completely destroyed by the earthquake except for the walls [12]. Such a model can represent an exportable link between the professional experience required to public historians with new paths of communication and languages, which require the creation of transdisciplinary working groups.

The second AIPH Conference, held in Pisa from 11th to 15th June 2018, represented a further occasion to examine in depth the opportunities and methods spread in Italy, within local universities, libraries and archives, museums, and associations. In the session concerning the posters' exhibition, the project, concerning Palazzo Camponeschi in L'Aquila was explained in its progressive steps. This building has a fundamental importance for the cultural and civic history of the city. It was seat

Fig. 1 - Poster on the INCIPCT Project (<http://incipict.univag.it/>) presented at the 2018 Conference of AIPH (Italian Association of Public History).

<http://disegnarecon.univag.it>

IL PROGETTO INCIPCT

*Innovating City Planning through Information and Communications Technology:
NUOVI STRUMENTI PER LA PUBLIC HISTORY*

IL PROGETTO INCIPCT

A nove anni dal sisma del 6 aprile 2009 L'Aquila si contraddistingue per la presenza di un centro che occupa la quasi totalità del centro storico. Con lo scopo di sostenere la ricerca, il Comitato Interministeriale per la Programmazione Economica (Cipe) ha finanziato il progetto triennale (2015-2018) INCIPCT.



Ci sono città che attraversano le città e L'Aquila è certamente tra loro l'esempio più estremo.

Il progetto ha l'obiettivo di sviluppare servizi sperimentali in tre diversi ambiti:

- * Monitoraggio strutturale degli edifici;
- * Automazione degli edifici e miglioramento energetico;
- * Valorizzazione del patrimonio culturale attraverso le ICT (Information and Communications Technology).

Il progetto INCIPCT e i suoi punti di riferimento:

- 1 Virtual mapping of buildings
- 2 Building Automation and Energy Efficiency Improving
- 3 Valorization of cultural heritage through ICT

Il progetto INCIPCT e i suoi punti di riferimento:

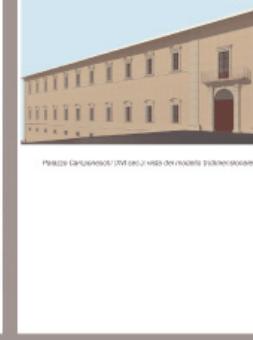
Strutturando l'anello ottico sperimentale, si intende sviluppare nuovi modelli virtuali di fruizione della città, che facilitino la comprensione delle trasformazioni storiche del tessuto urbano.



Riconstruzione virtuale delle trasformazioni storiche che hanno interessato la piazza San Basilio, visto dal monastero al San Basilio, nel XIX sec. e dall'ospedale San Salvatore nel XX sec.



Palazzo Camponeschi (XVII sec.), immagine fotografica post-sismica 2009 e post-esplosivo.



PALAZZO CAMPONESCHI (XVII sec.) VISTO DALLA PIAZZA SAN SALVATORE

Attestazione virtuale delle trasferte che caratterizzano la chiesa di Santa Margherita, progettata da Agostino Scilla nel 1625.

Orientamento a soluzioni private
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Bibliografia
Università degli Studi dell'Aquila, Dipartimento di Scienze Umane, Dipartimento di Ingegneria Civile, Edili, Architettonica e Ambientale
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INCIPCT
Innovating City Planning through
Information & Communications Technologies

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Fig. 1 -Application of Augmented Reality with the virtual reconstruction of the unbuilt facade of Santa Margherita Church in L'Aquila. The model, linked to a two-dimensional target, can be visualized in real time. The test app was created using Unity 3D and the augmented reality plugin Vuforia (<https://www.vuforia.com/>) (Brusaporci, Ruggieri, Sicuranza, Maiezza, 2017, p.9).

of the Jesuits since 1596 and is currently Rectorate of the University. The valorization of the area of Palazzo Camponeschi deals with the diffusion of information from manuscript sources of archives in a *Public History* perspective [13].

The placement of two touchscreen totems inside the building allows visitors to immerse themselves in the history of Palazzo Camponeschi, in the aftermath of the restoration and in the light of the stratification re-emerged after the earthquake. The interactive history of this restored palace, of the aristocratic families and the Jesuit fathers who lived there allows the users to recover personal stories (through the College and the University) but also to contribute to implement the collected data.

During the Third AIPH Conference, held in Santa Maria Capua Vetere and Caserta from 24th to 28th June 2019, the case of L'Aquila was tackled in a panel about manuscripts, virtual and three-dimensional stories in the modern city. 5G Applications for the enhancement of Cultural Heritage and interactive information systems for census portals are new frontiers for the practices and narratives of Public History in L'Aquila.

The opportunities offered by digital technologies make a wide and differentiated public approach to the knowledge of Cultural Heritage, returning memories which disappeared with the earthquake. The dialogue between ICT and History has allowed to build a model in L'Aquila which can be applied in realities affected by natural disasters and degradation to recover traces of lost memories and to reemerge stratifications.

The "L'Aquila" case study, in conclusion, represents a proposal that implements profitable modalities and intersections between academic history and Public History as for the sharing of methodologies and the acquisition of mutual professionalism. The "piazza" form is not only linked to the construction of real bricks, but above all to the activation of communication practices which propose an exportable model. This is a challenge not to be missed.

NOTE

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