Digital Archives for Preserving and Communicating Architectural Drawings

L

Roberta Spallone
Politecnico di Torino, Italy

Francesca Paluan
Politecnico di Torino, Italy

INTRODUCTION

Archives created by architects are unique and significant sources for scientific research in understanding architecture in all its features connected with multiple disciplines (history of architecture and representation, conservation, city planning and landscape). Contemporary architectural archives contain relations which cannot easily be read and contextualized because of the documents organization and order, given by the archival necessities and the producers themselves. According to the archival science, the documents reorganization is forbidden even if it could be helpful for their analyses. As researchers in the architectural representation field, the authors believe that the mere digitization of archival drawings is not sufficient to transmit the potential of knowledge and meaning that it is caught by the direct study of the sources. The use of digital databases at microscopic and macroscopic scale allows the contextualization of the archival data, in order to help the public to elaborate information and acquire new relations. The authors investigate this phenomenon underlining the benefits and the risks connected to the digitization of the contemporary architectural archives, focusing on their communicative potentialities thanks to the tools of the digital representation, in relation to the necessities of fruition and preservation of the original archival materials.

BACKGROUND

Contemporary architectural archives constitute more than a documentary heritage, recently recognized and validated (Domenichini & Tonicello, 2004). Since the end of the Seventies, effectively, the principal North-American and North-European institutions engaged in the knowledge and diffusion of Architecture have been working hard and more carefully into conservation and enhancement of contemporary architectural drawings, which need specific standards for their description, preservation and fruition guaranteed by international associations, like the ICAM (International Confederation of Architectural Museums) and the ICA (International Council on Archives) since 1979.

The international archives take part to the ICA, whereas the archival cooperation in the European Union sphere is developed by a working group called European Archives Group (EAG), born in 2006.

Such a recent interest about the architectural documentary heritage, in fact, is carried out by different fields of research that starts from the analysis of the drawings and is elaborated according to numerous purposes, the study of the representation, the history of architecture and city planning.Its value is moreover justified by the same meaning taken: in addition to being a proof of a phase in the design process and a historical

DOI: 10.4018/978-1-5225-2255-3.ch453

memory, the drawing may be considered a useful document to the reconstruction of the events happened to an artifact, or it could be evaluated as a work of art. For this motive, in the same years various institutions arose, engaged in the promotion and fruition of architecture in general, and particularly focused on the safeguard of the documentary heritage, made up of heterogeneous material. This trend, still of north European and North American origin, led to the foundation of museums or hybrid structures containing collections of architectural documents. Because of the documents complexity and heterogeneity, the need to establish new descriptive standard of the objects was immediately felt within the cataloging range. On the international level, the current state provides for standard (taken from the Library System and Document) derived initially from the archival cataloging specifications and gradually structured according to the new descriptive requirements for the architectural documents. Currently the standards most commonly used are those dictated by the International Council on Archives, such as: the ISAD (G), that is the General International Standard Archival Description; the ISAAR (CPF), that is the International Standard Archival Authority Record for Corporate Bodies, Persons and Families; the ISDIAH that is the International Standard for Describing Institutions with Archival Holdings (Ministero per i beni e le attività culturali, Direzione generale per gli archivi & Servizio documentazione e pubblicazioni archivistiche, 2003).

Since the nineties, the archival administration has arranged multiple informative systems, which matter as a kind of computerized registry of the archives.

The difficulties of managing information concerning the architectural documents arise from the different materials constituting this cultural heritage: not only drawings and correspondence, but pictures, scale models, audio and video recordings. The collections have been therefore expanded and layered as new materials have been introduced as support to the architects' project activities. Since the twentieth century, the traditional paper supports have been juxtaposed by other types of support, including acetates and derivatives from plastics. Another new type of worksheets has been introduced by the technologies and software for the architectural representation since the early nineties. These innovations have led to significant impact not only in the design phases, but also in the products in the matter of architectural drawings in digital formats. This phenomenon has involved the formulation of other cataloging approaches, as well as preservative and communicative strategies.

For this reason, several international projects have been activated to study the phenomenon of cataloging and preservation of the architectural design files born in digital format.

Among these plans, the International Research on Permanent Authentic Records in Electronic Systems (InterPARES) aims at "developing the knowledge essential to the long-term preservation of authentic records created and/or maintained in digital form and providing the basis for standards, policies, strategies and plans of action capable of ensuring the longevity of such material and the ability of its users to trust its authenticity" (www.interpares.org). This program, trained by the School of Library, the Archival and Information Studies at the University Of British Columbia, in Vancouver, has already developed four steps of research since 1998.

The archives of contemporary architecture are organized according to a structure in which the material is interfaced with the public, in accordance with the shared methodologies for the data search. The first research means that the user has to consult is the catalog of the archival groups that is an ordered and systematic list of the archival units (the individual documents) with sufficient details to identify them. This search tool is structured according to the database, a data archive of the archive itself relating to the same topic or more correlated to each other, whose management - which involves the entry, modification and research operations - is fulfilled by means of dedicated software. These databases are managed