Digital Exploration in Archival Heritage. Research for the Knowledge, Use and Communication of Architecture Archives Through Digital Representation

Caterina Palestini[✉]

Dipartimento di Architettura, Università degli Studi "Gabriele d'Annunzio",
Viale Pindaro 42, 65127 Pescara, Italy
palestini@unich.it

Abstract. The application of digital representation technologies in the archives of architecture is an important support for the knowledge, use and the most effective communication and enhancement of the documentary heritage.

In this sense the contribution proposes some research experiences aimed at the acquisition of graphic materials from private archives that risk disappearing without an appropriate systematization.

The goal is to present case studies that investigate the contribution that the drawing can offer as a tool for educational and popular analysis of these assets, in which cultural moments are summarized linked to different historical periods and different territorial realities that express the material values and intangible ones from which they were generated.

The acquisition in digital environment of collections of drawings, photos and other materials that accompany the compositional process developed by designers of different historical periods, allows, first of all, to transmit and consult in an interactive way the cultural heritage, procedures and professional experiences from which they derive, it also allows to retrace and analyze in detail the construction events of built and unbuilt architectures, also rediscovering the undisclosed experiments, remained on paper.

The study specifically examines the activities of designers who have worked in Abruzzo, between the nineteenth and twentieth centuries, highlighting the presence of unpublished materials from which merge figures of valid professionals and compositional events that deserve to be investigated and brought back to the internal of the national archival system.

Keywords: Digital representation · Heritage · Archives · Architecture · Communication

1 Introduction

Researching and bringing out the graphic-documentary patrimony held in the archives of twentieth century architecture is the goal of various cultural associations connected with public bodies and departments, among these the Associazione Archivi AAA-Italia, dedicated to the promotion of activities aimed at the knowledge and to the

valorization of design materials that risk to disperse in private and local situations. The coordination between the institutions and the researchers, among the persons interested in the study themes that investigate the architectural archives, has allowed gathering in a systematic collection, the work of professionals often ignored (Guccione, 2009).

From this synergy derives the research started and carried out in the university field that, in collaboration with the Archival Superintendence for Abruzzo, gradually adds cognitive elements to be brought back into the national archival system (Guccione, 2002).

The problems encountered are mainly related to the retrieval of data, to their systematization and to the precarious conditions of conservation, in particular, to private archives that are exposed to a progressive deterioration without attention.

In this sense, the initiative launched by the bodies responsible for protection appears to have been important, and they have undertaken the task of drafting and publishing, already in 2013, of a first catalogue of designers who worked during the twentieth century. On this occasion, the historical documentary values of 24 private archives, relating to engineers and architects who carried out their professional activity in the provinces of Abruzzo, have been made known. From this partial list, only 7 authors have converged on the portal of the national archival system that brings together the documentary corpus related to the Archives of Italian Architects (Toraldo, 2013).

In this direction, the digital acquisitions, the studies conducted through the representation that gradually evolve allowing progressive and ever increasing technological advances such as multimedia installations, interactive platforms and immersive experiences, have provided a collaborative support and continue to offer valid graphical support for analysis and comprehension of graphic materials, already archived or being acquired (Palestini, 2016).

2   Objectives and Methodology

The survey, conducted with the objectives previously exposed, proposes a repeatable operating methodology structured in various forms.

The survey therefore proposes different declinations and levels of detail that starting from a first overall analysis is directed towards the individual specificities of the archives examined. It is a vast and widespread work to be explored in different cases with cross-searches that allow to reconstruct the sources in an organic way to fully understand the composition and the idea for the realization (Palestini, 2017). The works and methods developed by the architects examined will then be traced back to the national platform, which will take on the task of making authors and projects available for consultation in a taxonomic manner to compare the various typological themes in their entirety and in relation to the distinct local realities.

The archives contain a myriad of technical drawings, photos, models, more or less complete information, often inhomogeneous between them that require specific keys for understanding the events, related to the construction or design of pieces that actually define the image of the contemporary city.

The realized projects allow comparison with the current image, those left on paper, the many solutions proposed and not materialized, allowing vice versa visualizing alternative scenarios, on which to be able to make new explorations, rethinking them to the built.

Fig. 1. Archive Antonio De Cecco, Borsa Merci Competition in Pescara 1958. Perspective view of the building. Original drawing tempera on table, Motto: "two for two"

3   Case Study: Competition for the New Commodity Exchange in Pescara

The contribution examines a case study shown to clarify the methodology adopted in the analytical rereading conducted through the drawing.

In this regard, digital representation technologies provide a contribution to communicate and make the original materials more usable, to understand and display in an alternative way the spatiality and the contents hidden in the many hypotheses left on the drawing sheets.

The analysis concerns in particular an unrealized project drawn up in 1958 in occasion of the National Competition for the new Commodity exchange in Pescara, to be built adjacent to the building of the Chamber of Commerce, built in the thirties on a project by Vincenzo Pilotti (Fig. 1).

The project rediscovered during the systematization and digital acquisition of the private archives of the architect Antonio De Cecco (1971–1971) who carried out his activity after the Second World War, between 1950 and 1970, mainly in the Abruzzo region and the Marche, reconstructs the vicissitudes of a public work in the city providing unpublished information and details.

Fig. 2. (a) Private Archive Antonio De Cecco, Borsa Merci Competition in Pescara 1958. Original drawings on watercolour table. Meeting room perspective; (b) View from the atrium (to the right of the trading room).

The drawings drawn up for the competition show an attention for the pre-existing structure that it joins by looking for a more modern stylistic language.

It is interesting to retrace through the graphs, products on gloss and paper, elaborated canons, plans, elevations and sections, which illustrate the rough 1:100 scale project which is accompanied by three perspective views that allow perceiving the three-dimensional image of the building. In particular, tables, made in tempera on cardboard, show in a corner view the two fronts of the new commodity exchange, proposed in a realistic inclusion in the city context, where it is possible to observe the graft with the neighboring Chamber of Commerce. Two watercolors further highlight the representative spaces of the interior, the entrance hall and the double-height first floor meeting room (Fig. 2).

This corpus of drawings made it possible to appreciate the prerogatives of the missing project, allowing it to be compared with the one produced by the architect Antonio Cataldi Madonna with engineer Giustino Cantamaglia, winners of the competition (Fig. 3).

Examining the plans drawn up by architect De Cecco, the close correlation with the adjoining building is evident, and is connected to it through the large double-height saloon, arranged in the central space of the internal courtyard. The ample space for the negotiations was the beating heart of the activities, the fulcrum of the project that foresees two accesses, the main one from via Conte di Ruvo, in continuation of the front of the Chamber of Commerce, and the side one from via Catullo. The latter is highlighted on the façade by the glazing of the meeting room framed by the original jutting parapet with decorated railing and bas-relief panels placed to mark the band between the first and second level. On the first floor, in addition to the meeting room, there were offices and service areas, while on the two upper floors, intended for the residence, there were apartments equipped with loggias.

The building finished with a modern terrace roof bounded by a shelter area supported by the succession of pillars.
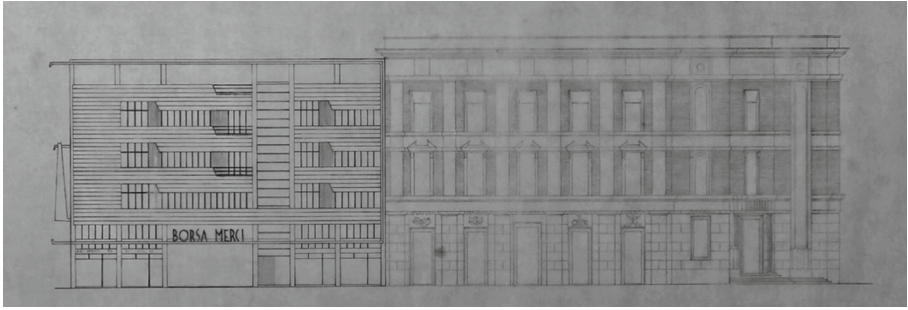
Fig. 3. Archive Antonio De Cecco, Borsa Merci Competition in Pescara 1958, original drawing.

Fig. 4. Survey and comparison between the building and the A. De Cecco project

A singular project for the linearity of its decidedly contemporary forms, exhibited in the effective perspective views of the inventors, best explored through three-dimensional study models that allowed visualizing and walking through a video the designed spaces that took shape in the digital dimension.

The three-dimensional analysis also allowed dissecting and breaking down the significant parts examined individually and as a whole.

It was then made an unavoidable comparison with the current reality with the project realized by Cataldi Madonna and Cantamaglia (Fig. 4).

The survey reveals the richness and the possibilities of dissemination contained in archival materials that, if analyzed, can provide information on the inventors, on the urban events of the city, on the historical moments, the cultural and architectural choices that led to the configuration of the contemporary image with its viewable alternatives (Fig. 5).

It is important to reiterate the documentary importance of the data deriving from the original projects that after an initial phase of acquisition, study and systematization of the materials, require appropriate multidisciplinary skills to be understood and communicated as in the specific case, through representation tools.
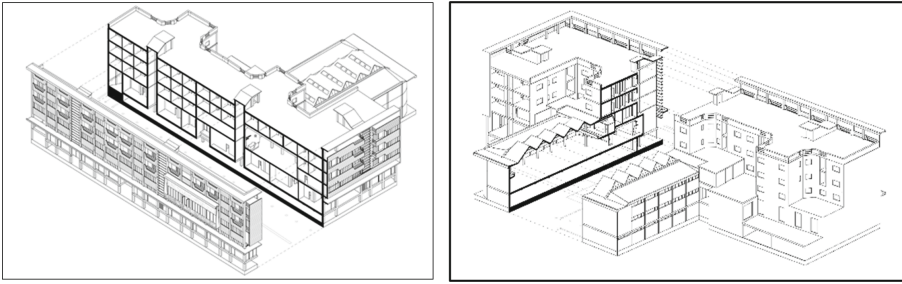
Fig. 5. Digital configuration of the original project, 3d sections

4   Conclusions

In short, the contribution that the methodologies and the increasingly extended formulas of digital design can offer in the analysis of architectural heritage, in explorations through three-dimensional models that exceed the boundaries of the drawing sheet, offer new semantic spaces to understand and disseminate with different approaches the precious inheritances kept in the archives of architects. The themes of the conference therefore constitute a moment of discussion and interdisciplinary debate on the educational communication of cultural heritage (Figs. 6 and 7).

Fig. 6. Digital configuration of the original project. Views of the three-dimensional model.

Fig. 7. Digital configuration of the original project. External view of the building

References

Palestini C (2016) Le ragioni del disegno come strumento di analisi e comunicazione per gli archivi di architettura del Novecento. In: Bertocci, Bini (eds) Le Ragioni del disegno. Pensiero, forma e modello nella gestione della complessità. Gangemi, Roma, pp 925–932

Palestini C (2017) Le frontiere del disegno per gli Archivi di Architettura. In: Territori e frontiere della rappresentazione. Territories and frontiers of representation, Gangemi, Roma, pp. 209–220

Toraldo F, Ranalli MT, Dante R (2013) L'architettura sulla carta. Archivi di Architettura in Abruzzo, Tinari, Villamagna Chieti

Guccione M (ed) (2009) Documentare il contemporaneo. Archivi e Musei di Architettura, Gangemi, Roma

Guccione M, Pesce D, Reale E (2002) Guida agli Archivi privati di architettura a Roma e nel Lazio. Da Roma capitale al secondo dopoguerra, Gangemi, Roma