Chapter 16

New Fruition Possibilities for the Historical Archive of Architectural Drawings in Rome

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ABSTRACT
The historical archive of architectural drawings of the former department of survey, analysis and drawing of the environment and architecture (Radaar) of the Faculty of Architecture, Sapienza University of Rome, contains the drawings produced during the following courses: Survey of Monuments, Elements of Architecture and Survey of Monuments, and On-location Drawing held in the period 1940-1980. So far about 70% of this patrimony has now been digitalized and it is still work in progress. We have taken these digitalized original drawings and given, through a special QR code on each, the possibility for the researcher to also access the photo-history of the same view, its geometrical reconstruction and to compare it to how it is today. Features of special cultural interest have also been taken from the drawings and given their own QR codes. This whole process also permits the understanding of both the tangible and intangible heritage of each location.

INTRODUCTION
The Radaar Department was established in 1984 by bringing together all the teachers of the design disciplines present in the Faculty of Architecture and Engineering.

This precious archive testifies to the historical, architectural and urban heritage in Rome and the academic training imparted to architects at that time.

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Some of these drawings illustrate the history of the city and describe architectures and places that have changed over the years.

Based on carefully selected archival drawings, this paper will use drawing to retrace history and produce images that exploit the potential of current graphic systems in order to study several lost images of the city of Rome.

The study will first analyse the on-location drawings, their form and representation methods; it will recreate the perspective by first finding the observer’s viewpoint. This graphic interpretation will consider the intuitive aspects of free-hand, on-location drawing.

After obtaining this graphic information, a concise model will be developed based on the archival drawing, including the buildings in the image at the time the drawing was made.

The study will focus on several very interesting aspects: fruition of the archival documents, identification of the features considered, and the layout of the volumes and spaces in the drawing. Understanding and communicating this superimposed data requires an interactive cartographic support that can not only influence consultation, but also provide the necessary tools.

The cartographic material will be supplemented by concise, accurate, three-dimensional models of the urban set-up portrayed in the drawings. Based on the current set-up, these models will be created using high-speed survey techniques and will assist in consultation of the archive.

It will be possible to not only spatially locate the viewpoint from which the drawings were made, but also visualise the drawings and pinpoint, where appropriate, any changes in the layout of the urban space.

The system is organised like a big database allowing user interaction; by its very nature it can accommodate more and different contents focusing on drawing the city. Each reconstructed image involves a process merging the data in the archival drawing and news from other sources of information (historical maps, views, iconographic sources, paintings, and aerial photogrammetry). This operation will be performed on selected archival drawings using selection criteria based on the current conditions of the study areas.

The archival data will have a QR Code referring to the 3D graphics. For example, an on-location drawing of a square will be accompanied by a model of the urban space; a building will be coupled with a concise model of said building.

During the study, the situation as it was when the drawings were made (c. 1950) will be compared to the current situation (2017).

The selected drawings are like a snapshot; a lost image of a street corner in Rome or a view of one of its districts. Although every drawing is always influenced by the author’s skills and artistic sensibility, a drawing of built heritage is like a memory; it is like objective, absolute proof that always conveys news and information about both the tangible and intangible features of a place. It also transmits the aesthetic and calligraphic values of the period when the drawing was executed. In this case, it illustrates the type of training imparted to architects during that period not only by universities, but also by schools of architecture. Sometimes the urban configuration depicted in the drawing is still intact, either in its entirety or in part; at others it has changed or, for the most diverse reasons, has even disappeared.

Archives have always been an extremely important scientific resource, but they are also complex, and this complexity involves the cataloguing, housing and consultation of the documents. Often their precious contents can only be consulted by professionals and specialists.

Although the digitalisation of documents launched several years ago has undoubtedly simplified some procedures, it has obviously required new interpretation and consultation mechanisms. However, this has often limited the possibility to perform a direct, hands-on analysis of drawing and photographic