CENTRALITY OF DESIGN AND SURVEY FOR THE PROTECTION AND ENHANCEMENT OF CULTURAL HERITAGE

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ABSTRACT

The conservation and enhancement of the cultural heritage moves in parallel with the themes of design and survey: starting from this, the contribution exposes an already started work of identification, cataloging and networking of rural churches in Puglia, to allow usability.

KEYWORDS: survey, drawing, cultural heritage, atlas, taxonomy

INTRODUCTION

The contribution intends to bring out the centrality of the role assumed by drawing and survey, in the field of conservation and enhancement of cultural heritage; in particular, the aim is to provide, or rather try to provide, a possible *methodology of investigation*, open and dynamic, whose ultimate aim is the realization of an iconographic atlas, basis for a subsequent networking of the collected data, which makes it possible to make the asset usable on several fronts, be they physical or telematic.

The graphic restitution of the data collected during the survey campaigns, after a meticulous identification and cataloging of the slice of heritage that we intend to analyze and study, passes through drawing, which through a critical-interpretative act chooses which elements to bring out and which 'conceal' at the time of graphic restitution; in this sense, the design becomes a useful tool for the knowledge of the forms, but also of the space within which they develop, a fundamental aspect in the field of investigation, an expression of the ductility of the instrument offered by the representation and whose ultimate aim remains the investigation of the existent and the prefiguration of what still does not exist.

THE ROLE OF DRAWING AND SURVEY

The practice of drawing, in close correlation with the practice of survey, assumes a fundamental importance for the protection and enhancement of cultural heritage, as it is an important tool for investigation, reading and interpretation.

In particular, the encoding of a language, of which drawing becomes a means of manifestation, becomes the basis on which to formulate the construction of the design, expression of the data collected during the survey campaigns. In this perspective, the practice of drawing assumes an important critical dimension, combining the potential offered by the practice of survey, expression of the dimensional and spatial data.

Drawing as a conceptual and interpretative tool, critical act, means of documentation and communication

The common matrix to any architectural practice is the drawing, which, by playing a fundamental role, becomes an expression of the identity of the author who produced it, but also of the content to be

shown. "The very expression «architectural drawing» (...) defines both the design of an architect and the architectural representation. In other words, it can be defined by its content or by the identity of its author" (Recht-2001).

Drawing, in the practice of preserving and enhancing of the architectural cultural heritage, becomes an instrument of knowledge of the forms, but also of the space within which they develop, a basic and necessary presupposition, whose ultimate purpose is the investigation of the existent and the prefiguration of what is not yet there. In this sense, drawing is a conceptual and interpretative tool of reality, but still a critical act, as it is the result of a choice about the elements to be shown and / or hidden in the moment of representation.

Finally, the drawing becomes a fundamental moment of documentation and communication: the collected data merge into a set of representations that attest to the condition of the artefacts, an expression of reality, while maintaining an aesthetic value.

Survey the existing

A territory, a city, an architecture or even a single artifact turn out to be something very complex, albeit sometimes in their apparent simplicity, so the qualities to which they are subjected can refer to multiple factors, such as the compositional form, to dimensional data, or the material one, to the structure, or to the perception of the space used, or to the temporal events that interested them; thus the relief becomes an instrument of quality sorting, establishing those that for the purposes of the investigation are considered useful and significant, whose synthesis flows into a graphic model, of which the design becomes the ultimate expression.

Therefore, survey the existing means to know the artifact in its entirety, attributing to each quality highlighted a value, which will be chosen whether to highlight or conceal, through appropriate choices that will concern both the relevant operations themselves, be direct or indirect, instrumental or photogrammetric, as well as those of restitution and re-elaboration of the collected data.

To detect the existing means therefore to know the artifact in its entirety, attributing to each quality highlighted a value, which will be chosen whether to highlight or conceal, through appropriate choices that will concern the relevant operations, be direct or indirect, instrumental or photogrammetric, both the restitution and re-processing of the collected data.

Not ultimately, the scale of representation that we intend to use also plays a fundamental role: it is in fact important to guarantee the recognition of the data, and the survey operations are fundamental from this point of view.

The survey is therefore an expression and manifestation of information relating to the past, thus allowing a historical reading of the artifact and also a direct comparison with the data found during the phase of archive research, but also with respect to contemporary or geographically comparable assets.

At the moment, the tools and the survey methods have taken on a more scientific nature than in the past, both thanks to the metric unification, and thanks to the presence of more and more refined instruments, but also thanks to a greater sharing of operative methodologies and graphic techniques; but even if from formal copies of the monuments, typical of the nineteenth-century Academy, one goes towards increasingly scientific representations, the techniques of the survey cannot be traced back to a mechanics of doing, but imply formal and cultural determinations.

FOR AN ICONOGRAPHIC ATLAS: IDENTIFICATION, DOCUMENTATION, PROMOTION AND VALORISATION OF CULTURAL HERITAGE

Imagining to establish a univocal and homogeneous procedure of cataloging is practically unthinkable if we consider the inhomogeneity of the territories and of the assets in the context of the cultural heritage; however, some *procedural norms* that remain stable in their chain can recreate a recognizable image, transcription of the real, restitution of the true form, thus becoming a research and knowledge tool, as well as a guiding instrument, able to stabilize the state of the places, documenting any transformations or possible interventions, also aimed at protecting the building itself.

Inspired by the original tree of the *figurative system of human knowledge* proposed in 1751 by Denis Diderot as an introduction to the cyclopean work of the Encyclopédie, the attempt is to organize the cataloging of data, sometimes so uneven and discontinuous concerning the same theme of investigation, according to three moments that can be assimilated to those proposed by Diderot for the classification of human knowledge: SURVEY | DRAWING | INTERVENTIONS, like MEMORY | REASON | IMAGINATION, closely related to each other.

But if the three *faculties* of Diderot give rise to a synthesis of knowledge that, starting from the cataloging of experiences (connected to memory), passing through a reflection on them (connected to reason), finally arrives at an original revision (connected to the imagination), then the survey (documentation phase), passing through the critical drawing of what is intended to be cataloged (classification and cataloging phase), can only identify the criticality of the asset, becoming a guide, whose purpose is the possibility of identifying the interventions to be implemented on the asset itself (preservation and conservation phase), for the protection and enhancement, thus guaranteeing the fruition.

But what and how to draw? What is the most useful drawing for the codification of a system of representation of reality that is univocal and at the same time open, meaning the graphic representation as a datum of the present, therefore as a restitution and documentation, which passes for the survwy, understood as a means of documentation of the traces of the past? How is it possible to tell a reality through images? Or again, how is it possible to make the kaleidoscopic and changing image of cultural heritage readable? What is meant to be represented by drawing is the faithful interpreter of what is being analyzed or becomes a filtered tool according to arbitrary logic of 'censorship'?

Starting from these questions, the intervention aims to bring out the possibility of creating an *iconographic atlas*, whose ultimate and fundamental aim is to census and catalog the assets pertaining to the cultural heritage, for the purposes of protection, enhancement and use, thus making explicit a possible methodology for the recognition and taxonomic cataloging of realities and artefacts, in the attempt to restore centrality to the disciplines of design and survey within the interpretative context of urban and compositional dynamics.

CASE STUDY: RURAL CHURCHES IN PUGLIA

The case study that we have chosen to analyze and present concerns the rural churches in Puglia; in particular the study carried out starts from some promotion and enhancement initiatives promoted by the Puglia Region, whose ultimate aim was precisely to survey and make all those ecclesiastical property assets accessible and usable, with particular reference to those little known or left in the oblivion.

Moved therefore by what has just been said, the attempt was to start a first census that would bring out not only the presence of assets on the territory, but that also highlighted the criticalities relegated above

all to the sphere of fruition, widening the field of investigation to all the rural patrimony of Puglia, with reference to the cult buildings also of private property.

Too often, in fact, ecclesiastical and private assets, located in non-urbanized or marginal areas of the city, are abandoned or, just as often, while maintaining their religious functions, they do not provide for full accessibility and use by citizens or potential interested tourists. How can we enhance these places? And how is it possible to reconnect them together?

From the attempt to give answers to these questions, the proposal is to create an iconographic atlas that identifies and surveys, identifies and catalogs, and, ultimately, brings together all those resulting assets scattered over the rural Apulian territory.

The main purpose of the proposal is therefore to make usable the assets scattered throughout the territory, as already mentioned above, too often not accessible, thus encouraging a sustainable heritage tourism, both naturalistic and cultural.

Networking referred to, first of all provides a census, followed by a survey of the assets, whose data, result of an integrated approach, would converge in a database accessible online through telematic tools and appropriate ad hoc designed applications, thus favoring not only the enhancement of the heritage, but also new communication techniques and digital enjoyment.

However, the usability that is hoped for does not only concern the physical possibility of accessing artefacts, but is part of a wider project of digitalization of the historical-artistic information of the asset itself: the possibility of survey the assets, would allow the creation of a profile of the asset that through virtual reconstruction technologies, augmented reality, immersive and interactive fruition, would make the property 'visitable and accessible' regardless of the real possibility of physical access, exploiting the digital 3D methodologies which simultaneously provide a visual, metric and spatial overview of the asset itself.

In addition, the proposal provides for the possibility of making goods accessible even to people with reduced or impeded motor or sensory capacity, through the design and realization of physical three-dimensional models of the most significant elements, exploiting the technology of 3D printing, with cognitive and investigative function.

The main objective of the proposed intervention, for which we are already proceeding with a first acquisition of the cartographic and necessary archive material, it is hoped will also be a useful tool for investigating and governing the territory: the mapping of the sites

scattered throughout the territory can be a useful tool that, by explaining the geometric / spatial relationships and relating the architectural scale to the urban one, can predict the reconnection of all the cultural heritage assets that we have chosen to investigate, through a network of sustainable paths, which therefore includes cycle-pedestrian paths that favor tourism and sustainable use of space. The possibility of connection between the sites includes in itself also a riammagliamento of the same rural fabric in which the goods are inserted with the urbanized areas of the city, assuming the possibility of having a widespread linear park, through which, in addition to the enhancement of cultural heritage, we can implement a desirable and perhaps necessary enhancement of the landscape.

The results shown and implemented as reported above, concern a first phase of census and acquisition of data concerning the area around Fasano, a municipality in the province of Brindisi, whose first traces of ruperial settlements are dated around the XI century, period during which the populations felt the need to move inland, gradually abandoning Egnathia, due to the repeated invasions following the fall of the Western Roman Empire.

As previously mentioned, the methodological approach involves several phases, all closely connected and interlaced with each other, albeit in their almost thematic inhomogeneity. Schematically, the methodological process is structured according to the following:

1. *Identification* of assets through a historical-archival research;

2. *Mapping and localization* on geographical maps of the territory, also through telematic / GPS network systems;

3. *Survey* and acquisition of the metric and photographic data of each asset, using direct and instrumental survey methods, also using laser scanners and drones;

4. Data processing and graphic restitution, through 3D modeling software and 2D drawing, useful for graphic documentation, integrating a geometric and typological study, as well as an analysis of the different types of degradation present; (Figure 2- 4)

5. *Networking* of collected and processed data that converge in a territorial information system;

6. *Enhancement of assets* through the possibility of fruition, physical and telematic, including the development of technologies related to augmented reality on mobile devices, which allow the visitability of places, providing indications about the asset itself;

7. Reconnection of assets, through the *design of a sustainable road system,* which can also revalue the landscape system with cycle-

pedestrian routes; (the connection of goods at the territorial level, obviously involves the assets divided by micro-geographical areas or surrounding areas, however, is not excluding the possibility of connection between macro-areas);

8. Creation of an *iconographic atlas*, which can be of support both for the identification of the possible interventions to be implemented for the protection and enhancement of the assets, as well as for the knowledge and use of the territory, integrating every datum both inherent to the relevant campaigns, be it inherent in the design action.

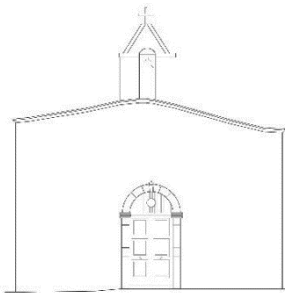Figure 1: photopiano processing of the church of San Michele in Frangesto, Fasano

Figure 2: drawing of the prospectus of the church of San Michele in Frangesto, Fasano

Figure 3: photopiano processing of the church of San Michele in Frangesto, Fasano | rearward prospectus

Figure 4: three-dimensional reconstruction of the church of San Michele in Frangesto, Fasano

CONCLUSION

Therefore, as already mentioned, the proposed methodology making use of an integrated approach and it looks like a possible system of investigation and reading of the assets but also of the territory, a system of restitution and historical viewing, which, implemented with data concerning the state of degradation and/or abandonment, it allows to establish also the possible interventions to be carried out for the purpose of valorisation and protection, as well as of the possible use of the asset itself; an open system of cataloging, a mirror of the typical being of cultural heritage, that is being a dynamic reality in continuous change and becoming.

In this perspective, the iconographic atlas, the ultimate goal of this investigation, it looks like an open cataloging system, also in continuous evolution, which in its development can hope for the definition of a linguistic system whose design becomes a means of communication and knowledge, but also a documentation tool supported by the potential offered from the relief.

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