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Luis Agustín-Hernández ·
Aurelio Vallespín Muniesa ·
Angélica Fernández-Morales
Editors

Graphical Heritage

Volume 2 - Representation, Analysis,
Concept and Creation

 Springer

Editors

Luis Agustín-Hernández
Escuela de Ingeniería y Arquitectura
Zaragoza, Spain

Aurelio Vallespín Muniesa
Escuela de Ingeniería y Arquitectura
Zaragoza, Spain

Angélica Fernández-Morales
Escuela de Ingeniería y Arquitectura
Zaragoza, Spain

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Preface

This book, titled 'Graphical Heritage,' contains the contributions to the XVIII International Congress of Architectural Graphic Expression, held at the School of Engineering and Architecture of the University of Zaragoza. The call for papers was answered by 239 contributions, which underwent a blind peer-review process. The initial analysis of the extended abstracts and, subsequently, of the full contributions discarded 59 papers and finally accepted 180. As a complement to the review performed by international experts, the contributions have been submitted to an anti-plagiarism software check and an examination of their English language academic style, in order to obtain a publication of the highest scientific level.

The geographical origin of the accepted contributions is very varied. With 126 from Spain and 54 from an international origin, it can be said that it is a clear exposition of the most contemporary knowledge in the Architectural Graphic Expression field of research.

As previous congresses, the main theme has been established. This theme has been heritage, understood as architectural heritage, as graphic heritage and as the graphics of heritage; its study, documentation, intervention, conservation, inventory and recovery ultimately point out its value. In support of this theme, invited conferences will be held, including speakers such as Rafael Aranda of RCR Arquitectes, Antonio Almagro, Professor Emeritus of the CSIC or Asunción Hernández, professor at the University of Zaragoza, as well as Luis Franco, architect, Ricardo Usón, PhD architect and Javier Ibargüen, architect, experts in restoration and intervention in architectural heritage.

This congress not only addresses the matter of heritage but every scientific research line related to the area of knowledge, geometry, architectural drawing, color, formal research, representation, diagrams, conceptualization, modeling, rendering, BIM, GIS, cartography, landscape, virtual reality, augmented reality, without forgetting teaching research.

To collect all these initiatives, the following topics have been considered:

1. Heritage and history.
2. Representation and analysis.
3. Concept and creation.
4. Mapping, cartography and landscape.
5. Teaching innovation.

From drawing, the creator's first decision in architecture, painting or sculpture, as the ability to transfer an idea onto a support, the ability to direct the hand in a specific line, as the first creative element, to virtual reality, the virtual building, far beyond reality. It all is reflected in the communications included in this book and in this congress.

The chapters included in this book, the second in a set of three volumes, are organized into two main sections: *Representation and analysis* and *Concept and Creation*.

Representation and Analysis

The importance of drawing as a means of studying and disseminating architecture has given rise to theories and principles that have set trends and played a fundamental role in their transmission. The approach to the drawing and the image of architecture from a theoretical perspective allows making a historical tour, contributing to recompose the history of the current forms of representation and analysis.

The reflection on the graphic representation arises from its ability to interpret architectural works and spaces through their reflection or codification using different languages. Together with the drawing in all its aspects—technical, sketches, etc.—the digital tools—renders, photomontages, etc.—which provide with essential concepts and a new imaginary in the current communication of architecture, are analyzed.

The study of graphic analysis is interpreted from the conceptual and formal decomposition of the work of architecture. This allows knowing the intention and inquisitiveness that originated it, the link with the artistic movements and lines of thought that influenced it, the relationship with the physical and historical context that surrounds it, the criteria that rule it and the configuration and articulation of the elements that constitute it.

Descriptive geometry and representation systems, which have accompanied the practice of architecture and conditioned its representation and structural systems, and therefore its shape, are also considered as evolving means that have allowed for the exploration of new possibilities for the graphic narrative.

Finally, together with the graphic means, the scale model is considered as a three-dimensional representation in order to work the materiality and spatiality of the architectural work or to synthesize the project idea. The models made with traditional systems currently coexist with virtual models (BIM) and digital

manufacturing prototypes, which have contributed to new ways of working and communicating.

- Theories, principles and masters
- Graphic representation
- Graphic analysis
- Geometry and projectivity
- Mock-ups, models and prototypes

Concept and Creation

This line refers to the idea and its graphic materialization in heritage, in its broadest sense, the graphic heritage and the graphics of heritage. This broad topic is divided into five main sublines.

The first subline is ‘built and unbuilt graphic concepts.’ Ideas do not differentiate between what is built and what is not built, and the concept does not distinguish between what is built and what is drawn. As Vasari argued, ‘drawing is nothing more than an apparent expression and materialization of the concept that is within the artist’s mind and that which provokes in those who contemplate it.’

The second refers to ‘graphic concepts of heritage.’ It should not be forgotten that the biggest graphic evolution in the past years has occurred in the heritage field, due to the creation, development and use of new representation technologies.

Of course, concept and creation also hold a third subline related to ‘artistic creation.’ This is understood as the graphic materialization of the idea.

The fourth is ‘phenomenology, perception and interaction.’ Both, concept and creation are closely linked to perception and phenomenology in the architectural graphic representation.

Finally, the concept of ‘shape grammar’ will be approached. It includes the grammar of the form and the new parametric ways of design. It is important to work on the concept of the different rules that generate these new languages.

- Built and unbuilt graphic concepts
- Graphic concepts of heritage
- Artistic creation
- Phenomenology, perception and interaction

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