

Preface

Graphic expression is a primordial characteristic of architectural activity and its most common way of representation. Architecture and urban planning have in graphic representation their basic tool not only for making projects a reality, but also for their reflection and research. Practically every day, architects, urban planners and designers make use of any graphic tool to think, face problems and propose solutions, in different phases and at different scales. If we add to these facts the large number of methods and techniques that can be used, we can understand that architectural graphic expression represents a fairly broad field of knowledge.

In this sense, the departments and areas of architectural graphic expression of the different European universities are responsible for improving teaching and promoting research in this discipline. To this end, the EGA International Congresses are a meeting point where they can present and share the main advances in their lines of research. This Congress series started in 1986 in Seville and has been held biannually since this year. As usual, these events revolve around a central theme proposed by the Congress and sub-themes or thematic lines that try to cover the different areas of work of professionals and researchers within the field of architectural graphics.

After two years that have shaken the world, in which our habits and our habitat have been transformed, where uncertainty has been declared a variable to be assumed in our daily lives, we have been able to observe how different independent initiatives have emerged from the most diverse areas of society to provide solutions to new problems and adapt to new situations. All of this made it pertinent to reflect on the capacity of our area to provide solutions to these new scenarios. For this reason, the central theme chosen for the last EGA Congress was the transfer of knowledge to a society in a process of change, from the different points of view and the specialties that we can cover. This volume is an offspring of the 19th International Congress on Architectural Graphics, held in Cartagena in June 2022. Each author or group of authors contributed an abstract, in their mother tongue, which was included in the Congress proceedings, published by Universidad Politécnica de Cartagena.

As an independent, external activity, the Scientific Committee selected a number of authors and invited them to contribute a different, longer text, about a series of specific topics connected with the main issues in architectural graphics which are included in this volume. These topics were proposed by the Organizing Committee, and they are as follows: Analysis, for the graphics tools as a method for detailed studies; Knowledge, for the study of the evolution of graphics methods themselves; Production, for researches related to architecture contributions; Thought, for critical and reflective works; and Education, for recent results in the field of teaching graphics.

For that purpose, researchers and professors belonging to the architectural graphic expression departments from all Spanish Schools of Architecture were invited to write and send a paper in which they describe their research related to the proposed topics. This invitation was also extended to researchers in the field of architectural graphics from other countries, belonging to different European universities from Portugal, Greece, Belgium, Italy and Germany, which are: Évora (Portugal); Bologna, Pavia, Genova, Reggio Calabria, Milano, Campania, La Sapienza di Roma, Molise, Bari, Firenze, Pescara, Padova, Palermo, Cagliari and Torino (Italy); Siegen and Dresden (Germany); Thessaly (Greece); and Leuven (Belgium). In addition, American authors from Colombia International University, Buenos Aires University (Argentina) and Guadalajara University (Mexico) have been also participated and even from Cuesta College in California. As a result, more than 250 researchers participated in the selection process, and 135 research works were received with the aim of being published.

The selection process of the works contained in this publication consisted of a double-blind peer review of the papers. Around 50 reviewers from different countries, who are recognized experts in the field of architectural graphics, were carefully chosen according to the papers presented. Finally, after this exhaustive review process, 130 papers were definitively accepted and classified by research topics: 47 chapters for Analysis, 33 chapters for Knowledge, 9 chapters for Production, 19 chapters for Education and 22 chapters for Thinking. Consequently, this publication consists of three volumes distributed as follows. *Volume 1: Graphics for Analysis* with 47 chapters, *Volume 2: Graphics for Knowledge and Production* with 42 chapters and *Volume 3: Graphics for Education and Thought* with 41 chapters.

Under those circumstances, we can define this publication as a compendium of research works in the field of architectural graphic expression developed in some of the most relevant architecture schools in Mediterranean Europe. Therefore, we can consider it a faithful proof of what is being done in our universities right now. This is not only about the academic scope, but also about the research works that

are being carried out, the new trends in graphic education, and the evolution of teaching adapted to the rapid changes to which universities are constantly subjected.

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