

Enrico Cicalò

University of Sassari Department of Architecture, Design and Urban Planning enrico.cicalo@uniss.it The second issue of IMG journal publishes some in-depth contributions presented at the second IMG conference held in Alghero in 2019, after the first edition held in Brixen in 2017¹. Although all the contributions have been already published in the proceedings of the conference², has emerged the need to deepen and to give more visibility to the debate on the topic of the conference, or the exploration of the 'graphic sciences' and their role in contemporary society. Indeed, the IMG2019 conference was aimed to recompose the elements detectable in the international panorama of research in the fields of studies focused on the production of images; that can be labelled through the "expression graphic sciences" (Cardone, 2016).

Within the international literature, the "graphic sciences" are only partially recognizable through this name (Massironi, 2002; Suzuki, 2002). Instead, these fields of investigation are often included within academic disciplines that assume different names, such as, the "visual sciences" (Bertoline, 1998), or the "image sciences" (Mitchell, 2015). 'Visual sciences', 'image sciences' and 'graphic sciences' are just some of the different possible definitions that can be found in literature which, although representing different approaches and disciplinary traditions, are often used as synonyms.

The *IMG2019* conference was conceived not only as a colection of research presentations but was itself a research experiment aimed at verifying a hypothesis—i.e. the definition of a field of knowledge definable as 'graphic sciences'—, through a method—i.e. the collection and analysis of data from call responses—, to achieve a result—i.e. the verification of the possibility of defining and representing the hypothesized 'graphic sciences' and its different fields of investigation. The verification of the hypothesis was made by analysing the submissions sent in response to the call for paper and for images and by creating a knowledge taxonomy linked to the contents of the 'graphic sciences', also through the use of a infographic representation able to visualise the complexity of the results thus obtained.

Each edition of the *IMG* conferences explores the world of images through a particular focus, and the *IMG2019* does so by proposing the keyword *-graphics* with the following meanings. *-graphics* is a linguistic suffix that adjectives what come from the sphere of *-graphia*, that is, description, study, writing, drawing. What is graphical uses signs on different supports and means. What is graphical consists of a weave of significant signs, concerns the drawing, is expressed in an image.

-graphics is the suffix that distinguishes the arts and sciences that have as their object the description of a subject also through images.

-graphics is a suffix that can be combined with several roots to create neologisms and new images, experimental and alternative forms for the description of subjects, even unusual. -graphics refers to a plural vision of the modes, techniques, sciences and arts of description and representation drawn through images.

-graphics can be the scientific visualizations, design images, communication techniques, modes of expression, works, forms of narration, strategies of learning and construction of thought. -graphics are the bodily or mental elaborations that the individual produces through his perceptive, cognitive and executive functions.

-graphics are the encodings through which the representations of invisible, intangible, ephemeral or immaterial phenomena and subjects are experienced.

-graphics can be defined the sciences involved in the study of methods and techniques for the production of visual artefacts, images and their uses in the most varied fields of knowledge and society.

Therefore, *-graphics* is the extension that *IMG2019* imagined to use to indicate the nature of the subjects on which it intends to focus and the domain to which the themes that the conference intends to study and deepen belong. The responses to the conference calls have declined the proposed keyword in a plural way, outlining six major fields of interest of the 'graphic sciences' hypothesized:

- graphic thinking and learning;
- drawing, geometry and history of representation;

www.img-network.it

- digital modeling, virtual and augmented reality, gaming;
- graphic languages, writing and lettering;
- graphic communication and digital media;
- data visualization and infographic.

These areas have made it possible to represent the complexity of genealogy and geography of what have been hypothesized to be the the 'graphic sciences' that find different names and characterizations in the international arena but that are united by their contents, belonging to the sphere of production, analysis and interpretation of images in the most varied fields of application. This genealogy and geography of the 'graphic sciences' has been represented in infographic form through an image that has been taken as a map and graphic index of the conference. Starting from Massironi's diagram of the graphic production (Massironi, 2002), and in line with his internal rules, an update of the diagram has been hypothesized in the light of the new digital technologies.

The diagram drawn takes into account not only the technological innovations, but completes the taxonomy of Massironi with the elements missing in it but present in the other taxonomies analyzed³. The new graphic representation of the subjects of study of the 'graphic sciences' thus obtained, even if without any ambition of exhaustiveness and objectivity, allows to highlight the genealogy, the geography and the taxonomy of these knowledge to start a discussion on the different fields of their study and on their mutual relations.

In conclusion, Massironi's graphic model inspired by a river network continues to highlight the possibilities of movement, exchange, contributions, confluences and ramifications within a liquid network and therefore in a continuous transformation in which the knowledge produced in one node passes through the various ramifications reaching all the others, almost following the principle of communicating vessels that restores unity to a system of apparently non-communicating nodes that are actually strongly connected, as the fields of the 'graphic sciences' which appears to be not a single discipline with monolithic methods and univocally and preventively determined objectives, but rather as a set of linked fields of study with a non-unitary repertoire of interests.

Notes

- 1 The proceedings of the first IMG International and Interdisciplinary Conference Immagini? Image and Imagination between Representation, Communication Education and Psychology are published by MDPI at the link https://www.mdpi.com/2504-3900/1/9
- 2 The proceedings of the second IMG International and Interdisciplinary Conference on Image and Imagination are published by Springer at the link https://link.springer.com/book/10.1007/978-3-030-41018-6
- 3 The full version of this article was published in Cicalò E. (2020). Exploring Graphic Science, in Cicalò E. (Ed.), Proceedings of the 2nd International and Interdisciplinary Conference on Image and Imagination IMG 2019, Springer, pp. 3-14.

References

Bertoline, G. R. (1998). Visual Science: an Emerging Discipline. *Journal for Geometry and Graphics*, 2(2), 181-187.

Cardone, V. (2016). Immaginare un'area culturale delle immagini visive. XY, 1(1), 12-27. Cicalò, E. (2020). Exploring Graphic Science. In E. Cicalò (Ed.), Proceedings of the 2nd International and Interdisciplinary Conference on Image and Imagination IMG 2019 (pp. 3-14), Cham, CH: Springer.

Massironi, M. (2002). The psychology of graphic images: Seeing, drawing, communicating. New Jersey, NJ: Lawrence Erlbaum Associates.

Mitchell, W. J. T. (2015). *Image Science. Iconology, Visual Culture, and Media Aestetics.* Chicago, IL: Chicago Press.

Suzuki, K. (2002). Activities of the Japan society for graphic science - research and education. *Journal for Geometry and Graphics*, 6(2), 221-229.

www.img-network.it