THE DIGITAL IMAGE AS COMPLEX ENVIRONMENTAL INTERFACE

A SCENARIO

ADDITIONAL READING

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DIGITAL IMAGE
INTERFACE
ENVIRONMENTAL INFOSPHERE

The digital society has transformed our cognitive, social, productive and aesthetic experience of the world. Many deep and continuous changes, still in progress and harbingers of the next adjustments, will occur due to the imminent evolution of digital technologies into environmental holistic infosphere, where it seems to delineate the integration between virtual and physical.
The focus is on some changes of the Representation's scientific discipline and interrogations on the future scenarios: the following reflections deal with the impact of digital on architecture and representation and how much the mediascape has influenced the current digital processes of production, reproduction and distribution of images modifying our perception and experience of space, time, material, senses and identity.

INTRODUCTION. THE ISSUE OF THE STUDY

The current characterization of the digital society and infoculture is based on the large and easy co-production of ideas and contents and has transformed our cognitive, social, productive and aesthetic experience of the world. Many deep and continuous changes, still in progress and harbingers of the next adjustments will occur due the imminent evolution of digital technologies from infosphere on devices to digital technologies on environmental infosphere, a holistic habitat where the *media convergence*[1] seems to delineate the integration of the virtual and the physical.

Abundant literature, no longer recent but significant for its predictivity (Negroponte, 1995; Levy, 1997; Buffardi & de Kerckhove, 2011; Maldonado, 2015), prefigured at the beginning and today deals with the subject of the deep cultural impact of mediascape on the processes and expressions of our interest, referring to how the current digital processes of production, reproduction and distribution of information and images influence our perception and experience of space, time, material, senses and identity[2] (Packer & Jordan, 2001; Lichty, 2013; de Kerckhove & de Almeida, 2014; Campanelli, 2016; Bostenaru Dan & Craciun, 2016). These reflections refer to this and to the specialist literature on the impact of digital on architecture and representation (Sacchi, & Unali 2003; Balzani, 2017; Sacchi, 2018), focusing on some main changes of the Representation's scientific discipline and interrogations on the scenarios in front of us.

DISCUSSION. DIGITAL DRAWING AND SURVEY: THREE COORDINATE CHANGES

The trajectories along which the changes in the status of the Drawing and survey discipline have mainly taken place in recent years[3] can be briefly traced back to a series of transformations, which in turn may perhaps be summarized in

three main configuration changes of which we propose here a large scale synopsis, preparatory to subsequent hypotheses in final conclusion.

· *from point to cloud*: the two main terms that have always constituted the disciplinary topics of Drawing - survey and representation - have recently become less precise but more complex than in the past, becoming almost a semantic cloud full of intersections and contaminations[4] (similar to point-cloud, which shows the artifact's objective description and at the same time its multiple representations). It has emerged we could define a methodological cloud, constituted at least by the nodes *Survey*, *representation*, *drawing*, *visual*, *infographic*, *data visualization*, which has always been linked to the application cloud constituted by the finalization of the *project*, the *documentation*, the *enhancement*, the *education*, the *communication*. And between the two, the deep system transformation operated and mediated by an environmental context cloud: a digital ecosystem dotted with the virtual, the IOT, the big data, the AI.

· *from vector to spatial trajectory*: the well-established irruption of digital world seems, moreover, to have meant not only the introduction of a new third intermediate presence between the pre-existing methodological and application fields but also a change in the structure of mutual relations: if first among the individual terms from the methodological and from the application field there were two-way relationships, in which each point directly connects to another in a direct one-to-one relationship, the digital ecosystem modifies the relationship vectors in a multidimensional aggregative cluster that transforms the linear work tracks (survey applied to valorisation, representation applied to education, visual applied to communication and so on) in trajectories on metaphorically mesh-like surfaces, measurable and dynamically interpretable according to the given topological approximation.

· *from the triad to the scientific hybridization*: if the scientific triad that has characterized the discipline of Drawing in the analog era was based on the three epistemological elements

of method, tools and techniques, then digital seems to have induced on this model also transformations of convergence and hybridization between the three logical categories with an outcome of greater choice of outputs and flexibility of the consequent applicative impacts: it seems difficult, for example, to put the use of photomodeling by SFM exclusively in the methodology, omitting the overlap with the technique due to the automation of the entire images processing workflow.

RESULTS. SCENARIO CONFIGURATIONS

As widely seen for the theoretical and physical production of architecture, even in representation the digital paradigm seems to have functioned therefore as a catalyst that has profoundly transformed not only instrumentation but role, meaning and outcome of our discipline allowing to keep it closely linked to evolution of knowledge, society and professionalism.

Consequently, the field of work and the instrumental and conceptual materials on our table (and desktops) have continually been updated constantly changing in nature and prefiguring again today a different set that will soon invade in our daily life and work with IOT, AI and robotics.

In this framework of continuous transitions, by its multiple material and immaterial meanings till now the image has been an element of continuity and has maintained its centrality representing the fulcrum of every change of domain (Quici, 2018).

CONCLUSIONS. FROM THE IMAGE TO THE INTERFACE

Some characteristics of the information society and of the new media society described by Lichty (2013) coexist synergistically today, confirming again to the sight the gnoseological predominance already consolidated in history,

even if in a situation of progressive shift of paradigm towards holistic and multisensory approaches to the acquisition and representation of knowledge, an ongoing shift that prefigures a further adjustment of terms and concepts related to the role of images in the knowledge society.

The predominance of the sight established in Western culture in the Renaissance[5] is today called into question by the contemporary digital culture that despite is expressly based on visual languages, moves towards the holistic re-composition of the knowledge[6], in particular through the interactivity of augmented tactility as a technological extension of touch but also through the virtuality as proprioceptive expansion of all the senses[7].

In this sense, the sight is still at the center of knowledge and keeping of the real world, but the image will continue to transform in an interface to overcome the interval between the body and things and the perspective viewer's eye[8] will abandon its fixed position and immersively be placing itself into an articulated and complex system of information architectures.

The development of this theme in the coming years will tell us in what terms also in the net condition can be confirmed the lesson of Wöllflin and Panofsky –according to which the forms of vision identify the culture of each epoch and each society adopts the representation of the space that most correspond to its vision of the world– and if this shift from the image to the interface, it can also be considered symptomatic and paradigmatic of our condition of increasing complexity.

NOTES

1 "*Media convergence*": phenomenon involving the interconnection of information and communications technologies, computer networks, and media content. It brings together the "three C's" –computing, communication, and content– and is a direct consequence of the digitization of media content and the popularization of the Internet. *Media convergence* transforms established industries, services, and work practices and enables entirely new forms of content to emerge. It erodes long-established media industry and content "silos" and increasingly uncouples content from particular devices, which in turn presents major challenges for public policy and regulation (Flew, T. (2017).

2 Leaving aside here the whole interesting topic of thought in socio-cultural practices (Campanelli, 2010) not in the focus of discussion, one cannot to mention the fundamental contribution to these studies given in the decades by the media and communication theorists of the Toronto school, today above all focused on the themes of the relationship between technology and social experience of space and time, with the attention on how technologies intertwine with each other and together shape the architectural and urban environment by altering its rhythm, time and life.

3 The proceedings of the last three editions of the International Conference of the Professors in Representation disciplines are cited as a significant view of the progress of the discipline: Firenze 2016: Bertocci & Bini, 2016. Napoli 2017: Di Luggo, Giordano, Florio, Papa, Rossi, Zerlenga, Barba, Campi, Cirafici, 2017. Milano 2018: Salerno, 2018. Perugia 2019: Belardi, 2019.

4 Even in the digital world remains valid and become strong the identification, already emerged in the strong orientation towards visual representations of post-modern, of contamination as a powerful agent of cultural transformation: each category is even today more and more subject to a hybridization where a sphere can replacing another by expanding, with a process that has also deeply affected architecture and its representation (Baudrillard, 1993).

5 The predominance of sight in Western culture comes from antiquity but assumes almost characters of hegemony from the Renaissance, when it refers to the passage from the oral story to the printed story, that is from the oral culture acquired through the hearing and in community to the individual one acquired by mental and silent reading; Baudrillard, 1987; Parigi, 2004; Campanelli, 2016.

6 de Kerckhove & de Almeida (2014) point out in particular how the interval between subject and reality caused by the dominance of vision is being overcome, which isolates only one sense compared to the others: "An embodied sensation of the world and a re-sensorialization of the environment are described to visually biased perspective with a renewed sense of relationship to spatial and material surrounds. What is attempted to induce the topological reunion of sensation and cognition, of sense and sen-

sibility and of the body, self and world" (p. 2). And in the same sense Vercellone (2017) seems to go when says that the: "Image also tends more and more to constitute a culture that assumes the features of the embodiment, in which that is, the symbols tend to assume sensitive forms and even to be incorporated, to overcome the surface of representation for express oneself on a synaesthetic level".

7 "While the point of view is still central to the Western mental ecology, there are signs that other ways of apprehending the world involving more senses are evolving albeit in a paradoxical fashion. As it extends the nervous system, electricity expands the reaches of all the senses. The Internet, the Web and the electronic grid of the planet provide humans with an extension of their central nervous systems, linking body to the environment and vice-versa" (de Kerckhove & de Almeida, 2014, p. 3).

8 We then directly refer to the importance of perspective and the geometrical perspective viewer's eye also as a symbolic and cultural synonym; from the extensive bibliography on the topic we cite only a text still today fundamental: Panofsky, 1984.

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