Art and science. Mediality and Materiality

XXI Spring School in Art History

University of Trento, Trento, Italy, 26-30 June 2023

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The 21st École de Printemps (EdP) will be held at the University of Trento, Italy, from June 26-30, 2023. Doctoral students and post-docs can propose a contribution in connection with the topic of this year's EdP: *Art and Science, Mediality and Materiality*. The EdP is a research and higher education initiative in art history, organized by RIFHA (Réseau international de formation à la recherche en histoire de l'art), an international network in which universities and institutions from eight countries (Canada, France, Germany, Japan, Italy, Spain, the United States, and Switzerland) cooperate. For the duration of one week, fifty professors, post-docs and doctoral students will reflect on the relationship between art and science considering the latest theories that have contributed to the porosity of the disciplinary boundaries between humanities and science.

The topic

In the modern era, Art and Science have long constituted contrary endeavors that paradigmatically distinguish culture from nature, the environment and genetics, and humanity and technology. In recent decades many disciplines have begun to rethink this paradigm, highlighting the artificiality of this binary opposition. In disciplines that are increasingly in dialogue, such as anthropology, biology, and geology, the notion of the anthropocene and concepts such as habitat and landscape have emerged, rethinking nature in a way that no longer separates the actions of humans (or other beings) from their interaction with the environment (Ingold 2013). In philosophy and sociology, Actor Network Theory (Latour 2005) has reconfigured social interactions within a network of actors (*actants*) in which technology and objects play as decisive a role as concepts and people. All these connections, in a sense, resume a dialogue that informed both art and *philosophia naturalis* - the term employed for "science" until at least the 18th century - throughout the early modern age. The first two decades of our century, moreover, have witnessed the rise of important studies that re-establish the extent to which interest in nature has largely formed the basis for culture in general, introducing into the interactions between art and science a range of long-neglected actors, such as artists, architects, and artisans (Long 2011; Smith 2006).

From an epistemological perspective, moreover, there is increasing evidence for the importance in the context of scientific experiments of factors commonly associated with art, such as improvisation and chance, recognizing serendipity as a guide to scientific knowledge (Rheinberger 1992, 1997). Finally, cognitive sciences have also questioned phenomena already known in artistic theory, such as imitation and empathy, considering them as foundational mechanisms of brain activity (one of the most famous studies in this field is undoubtedly the one on mirror neurons, conducted by Giacomo Rizzolati, Vittorio Gallese, et al. See Ammaniti, Gallese 2014).

Since the pioneering studies on the influence of scientific theories (Alpers 1983, Henderson 1983, Smith 2006), art history has gradually introduced the history of science into its research. The latter not only offered hypotheses and notions as important stimuli for artists, but also provided the tools and media through which art has been able to develop its forms of aesthetic, technical, cultural, social, and bio-political agency. Since the medieval period, the invention of perspective, first as a

geometric model in Arabic science and then as a system of representation in Italian visual culture, based on identification with the human gaze, demonstrates an early cross-cultural sharing of the knowledge of the two disciplines (Belting 2011). In visual culture, for example, the awareness of the ability of optical media and scientific discoveries to structure vision has emerged: in the Early Modern period with the research on Kunst- and Wunderkammern (Findlen 1996), with the introduction of innovative instruments in the field of observation, such as the telescope (Payne, Reeves...) and the microscope, in the nineteenth century with material and scientific developments in optics (Crary 1991). From the point of view of image theory, the question has been raised to what extent preparations can be considered as images (Rheinberger 2003; Grave 2009). Recent media theory, on the other hand, no longer disregards the raw materials necessary for technology and reconsiders media with a "geological" approach (Parikka 2015).

Art historians have also ventured into the study of scientific images (Elkins 1995), examining the need to investigate scientific images according to aesthetic and rhetorical criteria and to transform complex problems into visually comprehensible iconic schemes. A similar investigation has looked at so-called "epistemic images," -a term recently introduced into art history to refer to images from the Early Modern and after that have an ambiguous status, designed for scientific purposes but simultaneously also endowed with aesthetic value (Daston 2015, Marr/Heuer 2020). The same objects produced either by artistic or scientific cultures may then have the capacity to change status and move from the aesthetic to the technical sphere (Roger 2022).

Considering all these intersections, which also stimulate a reinterpretation of the past in current thinking, the upcoming EDP invites contributions to the following topics:

- **The common language of art and science: rhetoric and poetics**. To the extent that art and science share methods, knowledge, techniques, and media, how does this commonality condition the two disciplines? Can the rhetoric of innovation and discovery and the poetics and methodologies of exploring and knowing nature converge in their outcomes (works, patents, theories, etc.) or in human practices associated with this interest (approaches, explorations, experiments, etc.)?

- **Nature and the senses: exploring, experiencing, perceiving nature**. In which ways is it possible to explore nature? What about the dominance of vision that would seem to eclipse the other senses? Through which artistic works and scientific discoveries was the paradigm that separated the discourse of the two disciplines, by which art was committed to the realm of sensuality and science to that of truth, first consolidated and then challenged? Over the centuries, the two practices have undoubtedly been able to change our view of the world, but what disciplinary interactions have emerged in the process?

- **Cataloging the world: classifying, collecting, exhibiting**. What kinds of collections and classifications have developed since the beginning of the early modern era with the advent of the new sciences, scientific innovations, and a newfound interest in the natural world? In what ways did these collections connect scientific classifications, cultural and exotic curiosities, and works of art? Does the emergence of exhibitions represent a shared opportunity to give new pedagogical value and epistemological evidence to scientific and art historical discourse?

- **Materiality: technology between art and science**. Since pre-modern times, techniques and materials have been common objects of study and experimentation. The specificity of the goals of each discipline did not prevent a continuous exchange of knowledge and refinement of techniques, which in some cases, such as photography or lighting technology, also led to a common purpose. With the Industrial Revolution, however, science took over the task of leading technical progress, leaving art to readapt its discoveries and patents for aesthetic purposes. What forms of collaboration confirm or challenge this division of tasks? For example, can restoration today be interpreted as an

act in which technology is used to restore the original materiality of an object or an artist's technical choices?

- **Media interference and contamination: engraving, photography, multiples, new and mixed media**. Today media studies and theories understand the medium as a means of interaction between people and reality. The breadth of these studies has made it possible to highlight the common role of certain media: the importance of iconic media in the dissemination and demonstration of scientific theories, the free or critical reuse of obsolete or applied media from the sciences by artists, the need to resort to immersive representations and environments from planetarium to diorama, from botanical garden to augmented reality. So, what are the interactions interferences between artistic and scientific media? And to what extent is this division still plausible at all?

Practical information and deadlines

The EdP offers doctoral and post-doctoral students of various backgrounds and specializations the opportunity to share their research, methodologies and experiences in seminars that will also involve researchers at a more advanced stage of their career. Participation in the EdP with its international exchange opportunities is an important complement to the training of an art historian. All applicants are invited to submit an abstract of the paper they intend to present, with no limitations as to chronological period, geographic area, or form of artistic expression. Each 15-minute presentation will be discussed in a half-day thematic session with the participation of art historians who are members of RIFHA. Attendance at the seminars is mandatory for the duration of the EdP. The call for applications is published on the website of RIFHA (www.proartibus.org) and its affiliated institutions. PhD students wishing to participate in the EdP should send an abstract of their paper proposal (15 minutes), as well as a short CV specifying their language skills, to the following address before Sunday, February 19, 2023: EDPTrento2023@gmail.com.

Postdoctoral fellows interested in chairing one of the sessions are also invited to apply with a CV by the above deadline, highlighting the links of their research to the EdP 2023 theme. Abstracts should not exceed 2000 characters (300 words) and should be written in one of the following languages: French, English, Italian, Spanish, German. The proposal must include the applicant's email address, institutional affiliation, and place of residence. The proposal and CV should be sent in a single multi-page PDF that should be named as follows: "Name_of_the_proposal_Institution" (e.g., Proposal_Maria_Rossi_UniversitàdiTrento). The subject line of the email must include the name of the applicant and the country of the institution (e.g., Maria Rossi - Italy). The organizing committee, in consultation with the RIFHA members, will finalize the final EdP program. The results of the application selection will be announced in March 2023. Within two weeks of the acceptance date, participants will be required to send in a translation of their abstract into one of the other official languages of RIFHA (see above). One month before the start of the EdP, participants should send the full text of their paper. PowerPoint presentations should be uploaded by June 18, 2023, to a link that will be provided to participants. For more information about RIHFA and the Spring School, see https://www.proartibus.org

Visits to the following institutions are planned: MUSE, Castello del Buonconsiglio, Trento; Mart, Rovereto; Museion, Bolzano.

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