# Design *Arts* Médias

## Women in Sciences

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# 1. Abstract

For this fifth thematic dossier, the online journal *Design, Arts, Media* is launching a call for contributions on the relationship between women and science.
How to confront, reread and question the role of women at the crossroads of historiographies in science, art and design? Without reducing the roles devolved to creation and research, but on the contrary by looking at the friction, confrontations, nuances, paradoxes and demarcations between practices and knowledge, how can we think about histories together, but also their specificities?
What are the new critical stakes for thinking the role of women as creators of knowledge?
Particularly sensitive to the place of women in the theorization of design and media, this issue wishes to welcome contributions in visual and cultural history, sociology, philosophy, anthropology of humanities and social sciences, art, design and architecture, since the beginning of the twentieth century.

# 2. The theme of the dossier

2022 is the 100th anniversary of Marie Curie's entry into medical school. 2023 will be the 70th anniversary of the publication of the photograph revealing the structure of DNA by Francis Crick and Maurice Wilkins in the journal *Nature*, which earned them the Nobel Prize in Medicine in 1962. This photograph, taken by Rosalind Franklin, makes her one of the researchers whose work was ignored and illustrates the "Matilda effect", theorized by Margaret Rossiter in the early 1980s[1]. This theory has been re-mediatized over the last ten years, and particularly since the end of the 2020s, in the wake of debates on the valorization of women's work. It has allowed for the resurgence and valorization of forgotten works and figures, but also for the initiation of new research more concerned with equality.

Indeed, women are involved in the construction of knowledge in various ways - as practitioners, theorists, consumers, historians, and as objects of representation[2]. Yet their implications, past and present, have been and still are too systematically ignored, or disqualified[3]. As a direct consequence of specific historiographic methods and institutional logics that involve the selection, classification and hierarchization of types of expertise, these disqualifications lead to cleavages in categories of professions, styles and modes of production, and social recognition.

Historians, theorists, and practitioners of science, art, and design are coordinating through teaching strategies, conferences, exhibitions, and publications to expand the question of behind-the-scenes research, forgotten histories, and the actuality of relationships whose genres, forms, and knowledges are articulated between design, art, and media.

In the early 1980s, a feminist approach to design history, notably carried by Griselda Pollock, was put on the agenda[4]. According to her, a feminist approach was neither a secondary issue nor a new historical perspective - it was to make it a central concern of contemporary design history[5]. Forty years later, are we engaged in a race to occupy "ideologically strategic" ground[6] ?

While the history of objectivity is fundamental in the construction of experimental sciences, and other practices and knowledge have been defined precisely by insisting on it, how has the notion of feminist objectivity been born and used in the fields of creation?

# 3. Terms of submission

- January 10, 2023: Send proposals (3000 signs) to the issue coordinator: anne-lyse.renon@univ-rennes2.fr

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Proposals must include a title, the author's first and last name and a few lines of presentation (quality, institutional affiliation or place of practice, one or two bibliographical references specific to the author).
This issue of the journal *Design, Arts, Media* accepts contributions in French and English.

- January 18, 2023: Responses after review of proposals
- February 15, 2023: Submission of complete articles (from 30,000 to 50,000 characters maximum, including blanks and spaces)
- March 15, 2023: Returns to authors after double-blind expertise
- April 12, 2023: Submission of articles (final version)
- April 26, 2023: Online publication of the thematic dossier

# 4. Three possible axes of reflection are proposed:

## Axis 1. Case studies and historiographies of the role of women in science, art and design

The first of the proposed approaches is that of enriching the history of women's contributions to scholarly research in the sciences and the arts.

Historians of the arts, design and architecture, have also contributed to reinforcing the place of women in the sexual division of labor. Reyner Banham, in *Theory and Design in the First Machine Age*, identified two genders: men and housewives[7]. He defines housewives by a life "transformed by machines controlled by women", such as vacuum cleaners, for example. Philippa Goodall cites the microwave oven and the freezer as products ostensibly designed to lighten household chores but which ultimately created more work than free time[8]. Both products were widely introduced into the home under the guise of convenience. Convenience for the family means having quick access to food at all times, almost as if it were the woman's duty to perform.

Since the middle of the 20th century, many women have contributed to the evolution of research, from medicine to computer science, including the environment, philosophy, politics, architecture, etc. These women scientists remain symbolic even today, being considered as exceptions.

Many portraits have already been made and the bibliography is important, but what about the personalities who have not crossed the "glass ceiling"? And if the literature is beginning to grow in the history of science, what about the fields of art, literature, media and design?

## Axis 2. Figure of the author and construction of the self. Feminist objectivity

The feminization of engineering, medicine, and computer and digital technologies has undoubtedly known particularly the subdivision of work and the recognition of research, women being confined to certain professions considered as subordinate, when it was not purely and simply relegated to administrative fields, or considered as such[9]. The global policies of democratization of education in the post-war period have reinforced the number of girls and women in science throughout Europe, although their careers have had to face the glass ceiling and even the deskilling of their professions[10].

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Elizabeth Fee and Hilary Rose, Donna Haraway, Carolyn Merchant, among others, have placed the development of the individual psyche in the division of intellectual labor in modern industrial society[11]. The historical construction of gender roles would have accompanied the rise of modern market economies.

This social division of labor created divisions in intellectual labor, and skills such as reason and objectivity became necessary to participate in the public spheres of government, commerce, science, and information transmission. At the same time, feeling and subjectivity have become skills confined to the private sphere of the home and hearth[12].

How to define a new regime of feminist objectivity that would take into account new technological models, especially in design and digital humanities?

## Axis 3. Mediation and scientific popularization. Illustration and pedagogy as levers.

This last axis, in addition to the thematization it proposes, could be a graphic commentary on the previously proposed axes.

At the start of the 2022 graphic literature season, Camille Van Belle's comic book, *Les oubliés de la science*, was published. A scientist by training and illustrator for the "Trou de mémoire" column in *Science et Vie junior magazine*, the author offers 48 portraits of men and women whose work has not been recognized or has been deliberately avoided. The book is prefaced by Nadine Halberstadt, CNRS research director in molecular physics and active member of the association Femmes & sciences. This association, founded in 2000, had 420 members in 2021, as well as numerous institutional partners, and two other associations on the Board of Directors: Femmes ingénieures and Femmes mathématiques. The meeting of an associative commitment to promotion, valorization and the constitution of a mutual aid network, with that of a graphic narrative of mediation, diffusion and popularization is particularly interesting. For a few years now, collaborations between artists, illustrators, designers and scientists have been multiplying in order to disseminate a science whose comprehension would place it at the heart of its visuality, and the latter would be a particularly effective and playful lever for pedagogy.

Kits, graphic novels, fabrication workshops, immersive virtual spaces and escape games are multiplying to inform and sensitize the public, especially young people, to societal issues such as global warming, world history, economics, politics, biodiversity, rights and the status of women.

How do graphic narratives, object manipulation, and fabrication spaces that go beyond the traditional classroom by mobilizing graphic design and data visualization in particular, allow access to discourses, and in this case to discourses on science? By making it possible to raise awareness of controversies, which for the sociology of science is one of the fundamental issues in the construction of collective knowledge, does the illustrative medium specifically allow for a critical and reflective discourse?

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