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HISTORICAL PERSPECTIVE AND WOMEN (UNDER) REPRESENTATION

Missing in Action
Stories of Women of (Digital) Design

Letizia Bollini
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Keywords
Women and Technologies, Digital Designers, Women of the Digital Design, Digital Design History, Women in Design History.

Abstract
In recent years the focus on the role of women in the design world has opened up significant spaces for exploration and research. However, in worlds bordering on other disciplines such as Information Communication Technologies, STEM and Computer Science, i.e. the world that involves design in the digital field, the mapping of their contribution becomes blurred. The article addresses the problem of research and mapping the presence of women in the field of digital technologies and design according to a historical perspective. In particular, it addresses and analyses the research context and the lack of documentation and sources that often highlight not the absence of female protagonists, but rather the lack of their narrative. In particular, it suggests a revision focused on the (under)representation of women in knowledge gatekeepers, such as Wikipedia, or inside the community represented by tech and international conferences, as a symptom and need for a change of perspective.

1. Antecedent (a Post-Forward)

> History is written by the writers! We have to write ourselves back into history. (Christina Wodtke,[1] 2020)

In the last few weeks, during the COVID19 lock-down, the closure of schools, university and educational institution, together with museums theatres, cinemas and so on, an intense debate has been raised about the role of culture and art in the present and future society. Scrolling the twitter streaming of debate-related hashtags, a tweet of a girl in the last high-school year discussing the Italian literature programme to be prepared for the final exam has gained a lot of attention. She pointed out that in the whole school year, she was never taught about, nor even met a female author, poet or novelist. I was personally astonished, remembering that decades ago at least authors such as Grazia Deledda, a Sardinian novelist, who received the Literature Nobel Prize in 1926 (the second one in Italy), Elsa Morante and Natalie Ginzburg were read and studied. According to the Italian Literature programme for the last two high-school semesters,[2] the official schedule lists 83 lessons, but only 13 have women as a subject. A "Women in Italian Literature" projects[3] is proposed as integration, including 17 novelists and poets in a sort of history-ghetto since the 1200s throughout XXI Century. If the intention to restore the female presence is commenda-

1 Co-founder and past president of IA Institute, author and lecturer in HCI at Stanford University.

2 Wikiversity (2018). *Letteratura italiana per le superiori 3*. URL: https://it.wikiversity.org/wiki/Materia:Letteratura_italiana_per_le_superiori_3.

3 Wikiversity (2017). *Progetto "Le Donne nella Letteratura Italiana" (superiori)*. URL: https://it.wikiversity.org/wiki/Progetto_%22Le_Donne_nella_Letteratura_Italiana%22_(superiori).

ble, the overall effect is not. Women are not part of the official narration, just set aside. It seems that in almost three decades, instead of to balance the presence of women in books about literature – but also art, philosophy, sciences, math and other knowledge fields as well in design – they are further omitted, actually cancelled or just added as an excrescence.

2. History: Missing in Actions

Paraphrasing the statement of Paola Pallottino (2019) – in her recent book about the history of Italian female illustrators – it could be said that like other stories, the history of *female designers* is an erasure operation from history too. In fact, one of the main cultural problems is to restore the presence of women, whose existence is witnessed by pictures, but faded in the official debate and historiography – from the Bauhaus epic to the Silicon Valley revolution – finally telling their stories (Bollini, 2016).

Tracing back the history of design, from its ideal modern foundation – i.e. the Bauhaus, which last year celebrate the centennial – to the digital world, the presence of women is documented, but not narrated. One of the most famous photos of the school portraying the teaching staff on the roof of the school in Dessau: 13 people, including one woman. Yet if you ask to name her, few recognise her.[4]
As stated by Sabine Weier (2017), editor at the 11th Berlin Biennale for Contemporary Art, presenting an exhibition about Benita Koch-Otte's work:

4 By the way, she is Gunta Stölzl, first student and then teacher at the Bauhaus.

> Auch die Geschichte des Bauhauses ist eine der männlichen Helden. Von den Frauen der Schule, die Kunst und Technik zusammenführte und Maßstäbe für Architektur, Design und Kunst setzte, erzählt im Bauhaus-Archiv jetzt eine ganze Reihe. […] Hinter Koch-Ottes gerunzelter Stirn scheint sich die Wut zu ballen. Wütend wird sie in ihrem Leben noch oft sein […] 1968, wenn sie im Katalog zur 50 Jahre Bauhaus–Ausstellung in Stuttgart nicht erwähnt wird.[5]

She's another of the long-forgotten or underrated presences, such as Lucia Moholy (born Shultz). Writer, under the male alias Ulrich Steffen and then a talented photographer whose works has been mainly credited to her husband, she then intended a legal battle against Gropius to (not) have her work acknowledged, although she had contributed, with her photos, to the school's image and identity (Ambrosio, 2020). Not to mention that also in one of the most recent Bauhaus celebrations, the exhibition: *50 Jahre nach 50 Jahre Bauhaus 1968 Ausstellung* held in Stuttgart in 2018, Marianne Brandt was the only woman included. As Jonathan Glancey points out when presenting the text by Ulrike Müller (2009) about Bauhaus women:

> And yet the photographs of those seemingly liberated women tell, at best, a half-truth. Yes, the world's most famous modern art school accepted women. But few became well known. While the men of the Bauhaus [...] are celebrated, names like Gunta Stolzl

5 "The history of the Bauhaus is also one of the male heroes. The Bauhaus Archive is now telling a whole series of stories about the women of the school who brought art and technology together and set standards for architecture, design and art. [...] Behind Koch-Otte's wrinkled forehead, anger seems to clench. She will often be angry in her life [...] 1968, if she is not mentioned in the catalogue for the 50th anniversary of the Bauhaus exhibition in Stuttgart".

> (a weaver), Benita Otte (another weaver), Marguerite Friedlaender-Wildenhain (ceramicist), Ilse Fehling (sculptor and set designer) or Alma Siedhoff-Buscher (toymaker) mean precious little. If these bright young things came to the Bauhaus as equals, why are the women so obscure? (Glancey, 2009)

Only recently I saw some of the students depicted in one of the icon images of the school properly identified, thanks to the patient research and dissemination work of the *Women's Art project*[6] curated by PL Henderson and based on the *Women's Art: a manifesto* written in 1972 by Valie Export.

Figure 1. Tweet posted by the Women's Art project curated by PL Henderson, 2020.

6 www.womensartblog.wordpress.com.

The artist ends her declaration with a sort of oxymoron: "The future of women will be the history of women" inviting to look at the past to be able to build a different further history.

The story of Denise Scott Brown and Robert Venturi and the awarding of the Pritzker Architecture Prize only to the latter in 1991, demonstrates the continuous non-recognition of women even in the contemporary world (Capps, 2013). The life-long experience to be ignored as a professional, is explained by the protagonist herself in an essay:

> When Praeger published a series of interviews with architects, my name was omitted from the dust jacket. We complained and Praeger added my name, although objecting that this would spoil the cover design. On the inside flap, however, "eight architects" and "the men behind" modern architectures were mentioned. As nine were listed in the front, I gather I am still left out. (Scott Brown, 1989)

The disappearance seems to be the key to interpreting these phenomena: documentary sources, such as the photographs that demonstrate the presence and participation, the narrated story that systematically erases them (Bollini, 2017).

The phenomenon becomes paradoxical in the world of STEM, ICT and digital design. Often in the early stages of technological revolutions, women are on board, from Ada Lovelace to Hamilton, from Lamarr to Katherine Johnson to Marissa Mayer, precisely because the camp is not yet colonised. Also, in this context, the images refer to a wealth of presences and protagonists.

However, it is precisely from photos collected in folklore.org – a web site devoted to collective historical storytelling about "The Original Macintosh. Anecdotes about the development of Apple's original Macintosh, and the people who made it" that we can trace the presence of some of the protagonists and pioneers who contributed founding the company's myth of Apple.

Joanna Hofmann depicted on the cover of *Revolution in The Valley: The Insanely Great Story of How the Mac Was Made* (Herzfeld, 2004), hired in September 1980 as the fifth member of the team and for more than a year the only marketing resource dedicated to launching the Mac on the international market.

Figure 2. Picture of the official Mac Design Team taken by Norman Seiff for Rolling Stone, in the lobby of Bandley 3. Credits: folklore.org, Creative Commons License.

She was also responsible for the first draft of the *User Interface Guide Lines* that, in fact, inaugurate the concept of user experience and usability. Hoffman, moreover – with a doctorate in archaeology and a background ranging from anthropology to physics to linguistics – is the forerunner of that multifaceted culture and hybrid in which technology and art meet and merge to put, in one sort of "computer humanism", the user at the centre. Caroline Rose, part of the Mac Team since June 1982, he has written most of the three technical volumes Inside Macintosh, the Mac developer documentation and takes care of the complete edition. The excellent technical writer continues the publicity experience in 1986 first in NeXT and then again in Apple as editor of Apple's technical journal for Mac developers for about ten years. Patti Kenyon (often portrayed with her newborn daughter Tracy), the software librarian, perhaps best remembered as Larry's wife and hardware design expert (Notarianni, 2014) or as *the Twiggy Mac*. More difficult to reconstruct the stories of Rony Sebok, Hasming Seropian or Ann E. Bowers in the photographs, but not mentioned either as protagonists or authors in folklore.com nor in machistory.net (the information is mainly inferred in from their LinkedIn profiles). Or, as Megan Smith, CTO of United States, points out, in an interview with Charlie Rose about the Jobs biopic:

> There are these incredible photographs from the launch of the Macintosh in the 80s, and the Rolling Stone pictures that were published. The historic record shows this group of 10 people in a pyramid – actually 11, seven men and four women. Every photograph you see with the Mac team has Joanna Hoffman, who was the product manager, a great teammate of Steve Jobs, and Susan Kare who did all the graph-

> ics and user interface on the artist side. None of them made it into the Jobs movie. They're not even cast. And every man in the photographs is in the movie with a speaking role. It's debilitating to our young women to have their history almost erased. (Gruber, 2015)

However, it takes at least two biopics on Steve Jobs for at least one female figure to be mentioned in the row and somehow returned to the narrative. The first *Jobs*, directed by Joshua Michael Stern in 2013, has 15 main characters: there's not one woman among them. The other one *Steve Jobs* – Danny Boyle, 2015 – includes at least among the first 5 protagonists Joanna Hoffman played by Winslet, giving her back visibility.

Figure 3. The software team, photographed for Rolling Stone in January 1984, demonstrating teamwork in a human pyramid. On top: Rony Sebok, Susan Kare. Middle row: Andy Hertzfeld, Bill Atkinson, Owen Densmore. Bottom row: Jerome Coonen, Bruce Horn, Steve Capps, Larry Kenyon. In front: Donn Denman, Tracy Kenyon, Patti Kenyon. Credits: folklore.org, Creative Commons License.

A separate speech deserves Susan Kare. Author of the icons and typography to which the Mac owes much of its success, she is a figure already recovered on a historical level, especially thanks to the culture of graphic design. Moreover, from the interview given to Pang (2000) from Kare shows the testimony of a more comprehensive presence of women, also in top positions, within the different Apple divisions including – beyond to Patti Kenyon, Caroline Rose and Kare herself – Ellen Romana from Creative Service, Sandy Miranda and Debbie Coleman, CFO; not to mention Angela Ahrendts, the only woman among Apple's 11 top managers, totally unknown to most.[7]

3. *This is a Man's World*

All the more reason, when exploring the world of technology, the situation seems even more complicated. As mentioned by the research *Elephant in the valley* (Vassallo et. Al., 2015) – meaning the Silicon Valley epicentre of the electronic and digital revolution – the technical world has a problem of representation that effectively excludes women.[8] For instance, the role of Adele Goldberg has been only recently restored, along with the work of her husband Alan Kay, and included as coauthor of many of the research works that led to Dynabook invention and Smalltalk development (Kay & Goldberg, 1977) as other women working at Xerox Park.

Even Muriel Cooper's contribution has blurred edges. On the one hand, she is recognised for her pioneering role in inter-

7 For an extended version and in Italian compare with Bollini, 2017

8 The recent book written by Claire Evans: *Broad Band: The Untold Story of the Women Who Made the Internet*, published in 2018, retraces the stories of women in the STEM/internet sector.

face design in exploring and building a bridge between the disciplines of graphic design and the new potential of digital media. The *Visual Language Workshop* held at the MIT Media Lab since 1973 opens a new chapter in the world of both electronics and communication, as highlighted by Bill Mitchell:

> I think she was the first graphic designer to carry out really profound explorations of the new possibilities of electronic media—things like 3-D text. She didn't just see computer-graphics technology as a new tool for handling graphic design work. She understood from the beginning that the digital world opened up a whole domain of issues and problems, and she wanted to understand these problems in a rigorous way. (Abrams, 1994)

Nevertheless, as underlined by Jane Abrams (1994) in the Cooper's biography for AIGA web site: "when Cooper showed the latest work of the VLW at the TED 5 conference in February 1994, no less than Bill Gates of Microsoft personally asked for a copy of the presentation". But it still remains ambiguous and is part of the progressive revision of certain historical narratives, the role of Cooper within the MIT Media Lab. In some versions, in fact, she is co-founder, together with Nicholas Negroponte who directed it (Reinfurt & Wassember, 2017; Goodman & Shen, 2014),[9] in others she seems to have been one of the members of the group (Abrams, 1994) as pointed out by Erin Malone – chair of the Interaction Design BFA program at California College of the Arts and co-author of *Designing Social Interfaces* – in a recent thread on Twitter.

9 See also the Wikipedia page: https://en.wikipedia.org/wiki/Muriel_Cooper.

4. #wikigendergap

The more we broaden the perspective and move away from the contemporary point of view; therefore, it seems that some pieces of a puzzle find their place in the historical image of the digital design phenomenon. However, this image is still sharply fragmented and incomplete also because of a bias underlying the whole narrative that finds in the major collective tools of knowledge sharing - such as Wikipedia - its most ambiguous expression. The recent hashtag #wikigendergap denounces this phenomenon of under-representation or systematic deletion of women's profiles from the *free* encyclopedia precisely,[10] which has become, willingly or not, the primary access point for many kind of researches.[11] The problem is widespread and transversal and affects even fewer niche-sectors than the world of design and digital technologies. Suffice it to say that the Nobel Prize for Physics 2018 – Donna Strickland – was initially denied inclusion in the entries/bio of Wikipedia because

> Strickland is an associate professor of physics and astronomy at the University of Waterloo and former president of the Optical Society, but when a Wikipedia user attempted to create a profile for her in March, the page was denied by a moderator. "This submission's references do not show that the subject qualifies for a Wikipedia article" said the moderator.[12] […] She is the first woman to win the

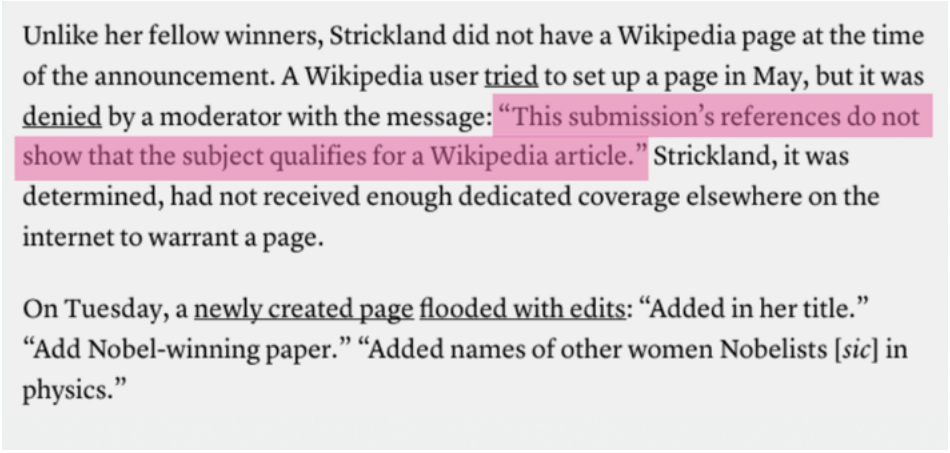
10 "The free encyclopedia that anyone can edit" is the original motto. For a deeper discussion on the value and role of user-generated and curated contents on Wikipedia platform (Lovink, 2007; Keen 2007; Metitieri, 2011).

11 In general, the article mainly uses Wikipedia in English and the Italian version only when referring to Italian-speaking issues and people.

12 It is also very interesting to look at the versioning page of the Wikipedia entry: https://en.wikipedia.org/w/index.php?title=Donna_Strickland&offset=&limit=500&action=history.

award since it went to Maria Goeppert-Mayer in 1963. Marie Curie was the first to win in 1903.

Strickland herself has declared: "We should never lose the fact that we are moving forward. We are always marching forward" (Cecco, 2018).



Unlike her fellow winners, Strickland did not have a Wikipedia page at the time of the announcement. A Wikipedia user tried to set up a page in May, but it was denied by a moderator with the message: "This submission's references do not show that the subject qualifies for a Wikipedia article." Strickland, it was determined, had not received enough dedicated coverage elsewhere on the internet to warrant a page.

On Tuesday, a newly created page flooded with edits: "Added in her title." "Add Nobel-winning paper." "Added names of other women Nobelists [*sic*] in physics."

Figure 4. One Wikipedia Page Is a Metaphor for the Nobel Prize's Record With Women. Highlights by the author. Source: https://www.theatlantic.com/science/archive/2018/10/nobel-prize-physics-donna-strickland-gerard-mourou-arthur-ashkin/571909/.

It is therefore clear that the intermediation of informative gatekeepers becomes a crucial point of the narrative and how the first operation to get to know the protagonists is their "re-instatement" in the common timeline.
Actions like the one undertaken by *Art + Feminism, Wikipedia edit-a-thon* become crucial to enrich the landscape and presence, despite the often-fierce controversies.[13]

13 First-hand information about the Milan event 2017. http://andreavitalidesign.it/portfolio/art-feminism-wikipedia-edit-a-thon/.

In the Italian experience we can remember the event organised in 2017 in BASE Milan[14] by Annamaria Andrea Vitali. During an interview she underlined the problem of the Wikipedia gender gap:

> La bassa indicizzazione di biografie di donne che hanno fatto la storia in discipline come storia, arte, scienza, etc., è solo una delle conseguenze sintomatiche di questa condizione di disparità endemica in cui riversa la piattaforma dal giorno in cui è nata. […] Per fare un esempio, spesso le voci sui personaggi femminili esistono, ma non hanno lo stesso tipo di cura e attenzione di quelle dedicate a personaggi maschili.[15] (Garcia, 2017).

Besides, the problem is recognized both by research carried out by the same Wikipedia (2011) and by the page explicitly dedicated to the issue of gender bias in the activities of insertion and editing, as well as being thoroughly visualized in the work of Viola Bernacchi (2015). Nevertheless, soon after the event, the collaborative work of inserting and/or translation of profiles of artists, digital and game designers have been systematically frustrated by the deletion and the opposition by Wikipedia editors who have not recognised or emphasised the importance of this work.

14 https://www.facebook.com/events/1832336850372362/.

15 "The low indexing of biographies of women who have made history in disciplines such as history, art, science, etc., is only one of the symptomatic consequences of this condition of endemic disparity into which it pours the platform since the day it was born. […] to give an example, entries about female characters often exist, but they don't have the same kind of care and attention as those dedicated to male characters"

5. Writing Future Histories

If the reconstruction of the individual stories will involve patient and meticulous retrospective work, it is at least possible to start building the future story now as proposed by Valie Export. The problem of the lack of female presence in many cultural, public and educational contexts has become dramatically evident. Conferences with all-male panellists are now viewed with suspicion, and many organizations have begun to adopt ethical codes that explicitly require a fairer representation of underrepresented or excluded groups.

A cultural change that has to confront an inertia to change that mainly clashes against two phenomena. The first is *unconsciousness*, the second a sort of "laziness" in dealing with the issue. This first *attitude* has been targeted not only by extended social phenomena such as the #meetoo, but especially by the emergence of research and publications. These include Caroline Criado Perez: *Invisible Women: Exposing Data Bias in a World Designed for Men* (2019) and Emily Chang: *Brotopia. Breaking up the boy's club of Silicon Valley* (2018) that identify, circumstantiate and explain the phenomenon – respectively based on data as well as interviews – to the general public underlining how it impacts on society as a whole. Besides, women in companies and institutions are learning Sheryl Sandberg's (2013) lesson of *lean in* and are promoting the presence through initiatives such as *Women Talk Design*,[16] *Women who design*[17] a Twitter-based directory "of

16 https://womentalkdesign.com/.

17 https://womenwho.design/.

accomplished women in the design industry" or the recent (at least in Italy) *Ladies that UX Milan*[18] promoting activities to improve women's leadership and mentorship in design. The initiatives aim to give visibility to women in the technology, STEM and design sectors and perform a dual-task. In the first place, these projects have the scope map and include notable and relevant female voices in the field of design and tech to give them visibility and *findability*. Secondly, they empower, support and engage women in the field. Similar experiences are emerging on a local level, creating the contemporary and future ground to write a new narrative about digital and design, in which women are already there.

18 https://it.linkedin.com/company/ladiesthatuxmilan.

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IV

BIOGRAPHIES

Anna Barbara
Architect and Associate Professor in Interior and Spatial Design at Politecnico di Milano. She has been visiting professor at Tsinghua University, School of Art and Design, Beijing (China); Kookmin University, Seoul (South Korea); Hosei University, Tokyo (Japan) and many other international universities. She was Canon Foundation Fellow 2000 in Japan. Awarded by Premio Borromini, selected by Archmarathon and ADI-Index 2019. Sense/time_based design is her the main topic developed in education, conferences, publications, curatorship and professional works.
Author of *Storie di Architettura attraverso i sensi* (Bruno Mondadori, 2000), *Invisible Architectures. Experiencing places through the senses of smell* (Skira, 2006) and *Sensi, tempo e architettura* (Postmedia Books, 2012), *Sensefulness, new paradigms for Spatial Design* (Postmedia Books, 2019) and many other publications.
In 2021 she will launch with POLIdesign the first international course in Olfactive Spatial Design.
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Elisa Bertolotti
Elisa Bertolotti works with storytelling, moving image and communication design. With a Ph.D and postdoc from Politecnico di Milano, Elisa is currently teaching design at the University of Madeira, Portugal.
She is also co-curator of the Atlantic Wonder research program, focusing on alternative methods for learning outdoors and developing new ways to foster innovation between design and the natural sciences.
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PhD in Industrial Design and Multimedia Communication (Politecnico di Milano). Associate professor of Communication/Interaction/Transmedia Design at the Faculty of Design and Art, Free University of Bozen-Bolzano.
Research and design topics since 1995: interaction, experience, multimodal interface design, visual, social and spatial representation, with a strong focus on tech evolution, and accessibility in the field of Cultural and Intangible Heritage and Archives. Previously researcher at the Department of Psychology of the University of Milano-Bicocca (Theory and Technology of Communication; Psychosocial Science of Communication), professor at the Politecnico di Milano and faculty member of the HEC in User Experience Design, the University of Bologna (Internet Science) and the Milan State University (Digital Communication).
Coordinator of the Commission "Theoretical, historical and critical research and editorial projects" of the ADI Design Index, preselection of the Compasso d'Oro Award.
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She is Full Professor at the Design Department of Politecnico di Milano where she teaches "Visual Communication" in the Communication Design Degree and "Communication Design and Gender Culture" in the Design Master Degree (School of Design); she is Chair BSc + MSc Communication Design.
Her interest involves visual and gender identities in communication design field. She studies theoretical aspects of identity systems and their communication components and developed projects of basic and applied research. She is a member of the Ph.D Design board and of "Centro di Ricerca interuniversitario Culture di genere".
She won the "Compasso d'Oro" Design Award as co-author of the project for the multimedia catalogue of the Poldi Pezzoli Museum (Milan, 1995) and received Honourable Mention, Compasso d'Oro ADI (XXV), for the project "WeMi. La città per il welfare".
She is author of several books: *La messa in scena del prodotto* (1999), *Packaging design* (2005), *Altre figure. Intorno alle figure di argomentazione* (2011), *Anticorpi comunicativi* (2012), *Un'interfaccia per il welfare* (2017), *Progetto e culture visive* (2018).
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PhD Candidate at the Design Department of Politecnico di Milano, she works in the research area involving communication design and stereotypes concerning social discriminations, specifically gender discriminations.
After the master degree in Communication Design, with a thesis about gender stereotypes in the communication field, she joined the research group DCxCG (Communication Design for Gender Cultures) contributing to projects on gender issues

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Archivist and record manager by training and profession, member of the DAP Digital Archives Perspectives group of the Università di Macerata, curator of the Ibridamente.it project. Contract professor in Università di Macerata for Master FGCAD, contract professor in APD School of the Archivio di Stato of Milan. Research lines: records management system design, historical archives valorisation.
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Architect and Visual Designer, Cinzia Ferrara holds a PhD in Industrial Design: she is Assistant Professor in the Department of Architecture at the University of Palermo, where she performs a series of duties such as conducting research on Visual Communication Design and holding courses for both the BA in Industrial Design and the MA in Design & Culture of the Territory. She's also the course leader for a series of masters and workshops, and an organiser of cultural events, conferences and exhibitions. From 2015 to 2018, she has been National President of Aiap (the Italian Association for Visual Communication Design) after serving as Vice President from 2009 to 2015. In 2017, she was one of 100 designers selected to be World Design Ambassadors for the Italian Design Day.
She's author of books and essays published on national and international journals: she's also part of editorial committees, observatories and European projects. She lives and works in Sicily, which is a continent, rather than just an island.
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Marinella Ferrara
PhD, associate professor of product design in the School of Design of the Politecnico di Milano. Since 2014 she has been the head of MADEC, the Research Centre of Material Design Culture in the Department of Design. Her researches are mainly focused on design-driven innovation, design for materials (advanced and smart materials), news technologies integration in product and interior design, Future Design Scenarios. With her research, she has made a significant contribution to methodologies of Design for Materials and historiographical work. Moreover, she deals other research topic like the design in Mediterranean countries, gender issues in design and Design History.
Co-founder of *PAD. Pages on Arts & Design* journal, since 2011 she has been the PAD editor in chief. Since 2015 to 2017 she has been a member of ADI's executive board, and currently coordinates the technical-scientific committee for long-life professional training of design professionals.
Since 2019 she has been a member of the executive committee of *AIS/Design. Storia e Ricerche* scientific journal.
Authors of more than 140 scientific publications, she is a member of scientific committees in international conferences, reviewer for international scientific journals, and research evaluator for academic research application in NL and PT.
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In the research field, she is member of GREDITS (Design and Social Transformation Research Group). She has specialized on Historical and Historiographical Research of Design. Her research work is focused on Pop Art Design, and specifically on the development of graphical Pop Art in Catalonia and Spain as a result of her PhD thesis.
She is currently interested on research projects that seed to make visible the contribution of female graphic designers.
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Assistant professor at Politecnico di Milano (Department of Design, School of Design, Bachelor in Communication Design), he is secretary of the BSc + MSc Communication Design Courses. PhD in Design and Technology for the Enhancement of Cultural Heritage, he has more than 25 years of experience as a graphic design consultant.
Board member of Aiap (the Italian Association for Visual Communication Design), actually he is coordinator of activities and researches for the Graphic Design Documentation Centre (Aiap CDPG). Since 2013 he is a member of the editorial committee of *AIS/Design. Storia e Ricerche* journal and since 2014 of *PAD. Pages on Arts & Design* journal.
Starting from 1997 his contributions on graphic design and visual communication are published in journals, books and conference proceedings.
His main research activities are in the fields of visual identities, speculative and experience design, and graphic design micro-histories.
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Chella Quint
She is a Brooklyn, US-born, Sheffield, UK-based designer, writer, performer, researcher and founder of the Period Positive movement. In between performing feminist sketch comedy and studying for an MA in Education, she coined the term 'period positive' to describe the zeitgeist of her zines, art and craftivism, and developed the concept into a well-known desing initiative and campaign to find long-term solutions to menstrual illiteracy. She launched the first annual Period Positive Week in May 2019.
She has recently joined Lab4Living's 100 Year Life and Future Home project at Sheffield Hallam University. Her doctoral research explores ways to navigate aging and lifecycle changes where embodied shame can be a barrier to agency in co-design. She co-hosts the annual Sheffield Zine Fest and her zines are held in a number of international zine libraries and collections. She performs and exhibits regularly at science, literary and comedy festivals.
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TI SENTI POCO BENE? AIAP HA TUTTE LE SOLUZIONI PER TE. SCOPRILE.

Aiap CDPG, the *Graphic Design Documentation Centre.* Working to collect, catalogue, archive, enhance and promote any documents related to graphic design and visual communication. These documents (originals as well layouts of projects, books, posters, prints, catalogues, correspondence, photographs) help reconstruct the history of graphic design in Italy and support research and educational activities, as it is the CDGP's intention to make these documents widely available.

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