



Article

Drawing, drafting, designing, and pasting.

Human figures (and cameos) in architecture design communication

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Abstract

In architectural drawings, human figures are generally requested to express the scale of design space and to illustrate the functions, but many cases demonstrate they are capable of playing cultural roles, indirectly revealing the architects' ideological positions toward society. By comparing their use in the work of Otto Wagner, Mies van de Rohe, Le Corbusier, and Mansilla and Tuñón, this article analyses their role as visual mediator between representation and reality according to the different graphical techniques and their intertextual potential to connote the representation and the specific figures adopted. In particular, it focuses on the case of the cameo, and the cameo of the architect in particular, to discuss the semantic consequences on the drawing and to frame it into the wider, pictorial typology of the portrait of an architect.

Keywords

Human figure; Architecture drawing; Architecture design communication; Portrait of architect; Photomontage

1.0 Introduction

As explained by Kornelia Imesch-Oehry (1998), the "open window" model enunciated by Leon Battista Alberti (1404-1472) in his *De Pictura* (1435) does not foresee an illusory connection between the space of the painting and the space of the beholder. On the contrary, Alberti's architectural conception is fundamentally anti-illusionistic, as evidenced from the censorship he imposed on architects against decorated models and perspective drawing. He considered perspective as a geometric structure that orders the figuration of space but it should be always at the service of the story to provide a spatial coherence entirely internal to the image. Alberti's window was designed to show a world in perspective as seen by the portrayed characters that crowd the pictorial space. Those figures, often showing "modern" clothes and faces, act as mediators that invite

the spectator into the pictorial space, not too differently than a movie does. The interaction between the beholder's space and the pictorial space is therefore subliminal and non-illusionistic, mental and not only sensory, active and not passive.

The communication of an architectural project, especially the perspective views of buildings and parts of the city conceived by the mind of architects and engineers, still adopts this visual stratagem today. Human figures placed in the architectural scenes act as mediators between the virtual, futuristic world of the project and the real world the beholder belongs to. Often the figures are chosen for their skill to attract the attention, to present the project or to semantically enrich the image, working like a para-text. This mediation can therefore be limited to a purely spatial role, providing an optical dimensional reference and accentuating the illusion of depth, or

it can be extended, by virtue of intertextual or even intermedia links, to a cultural function, involving elements that are external to the drawings and conveying their meanings within the project. While still a student, in the 1990s, I used to include figures borrowed from the Italian Milo Manara's (1945-) graphic novels in the perspective views of my projects. I used to enlarge a figure with a photocopier and to copy the figure on the view with my *Rapidograph* pen. It was not an original idea. I had seen it done by an anonymous colleague of mine and I found it brilliant, as it allowed me both to provide a metric reference to the design space, and to give it further meanings, through the stories that those characters brought with them and through my personal passion for comics (Fig.1). The use of figures, therefore, can be a narrative stragem to involve the observers while, from the opposite point of view, it can reveal the latent interests and intentions of designers and visualizers engaged in the project representation.

In recent decades, the interest in this kind of graphic accessories has grown both for a number of reasons. Surely, the advent of digital has boosted the communication of the architectural project but it seems to have accelerated a process of formal and iconographic homologation. This is also a consequence of the frequent outsourcing of the architectural communication to specialized offices that only in last decades have been orienting their work towards narrative and cinematic atmospheres, as testified by the Norwegian MIR or the British Forbes Massie. At the same time, digital technologies promote the exchange between distant artistic and productive fields, increasing the opportunities for interaction and contamination (as well as the figures available to visualizers), with the strange consequence that the figures often appear more significant than the architectural forms behind them.

Anyway, architects' visual attention to human figures has remote origins and recent researches on them have focused on purely technical and operational issues (*Designing People*, 2015; Falcón Meraz, 2015), anthropological and sociological aspects of the architectural project (Anderson 2002; McGrath and Hsueh, 2016), political and racial visions of human body (Hosey, 2002; Zollner, 2014), and the attitudes of the architects themselves

(Imrie 2001). This article, which takes into consideration issues partially discussed elsewhere (Colonnese, 2012, 2016, 2018, 2019), analyses the visual and cultural mediation role played by the figures between the project (and its designers) and the reality it is conceived for to discuss their ability to connote the design space. Starting from the definition suggested by the terms in the title (drawing, drafting, designing, pasting), it is possible to identify and interpret different attitudes, which articulate the role of mediation of the figures themselves according to peculiar purposes and outcomes. Examples produced by architects of the last 150 years (Wagner, Mies van de Rohe, Le Corbusier, Mansilla and Tuñón) are here quickly presented and discussed to demonstrate the variety of situations and intentions that lie behind these graphic accessories. In particular, the way of representing the figures may reveal different positions along the invisible and blurred threshold that separates representation from reality. Then, the particular issue of the cameo of architects is discussed in relationship with spatial and temporal interpretations it raises, connoting itself as an innovative typology of the portrait of an artist/architect.

2.0 Human body and architectural body

For centuries, the representation of architecture and the human figure went hand in hand, both because the architects had an all-round artistic education, and because the architectural body was conceived in close proportional and functional analogy with the human body. This is what could be deduced from the reading of Vitruvius, who also deeply influenced the Renaissance artists (Lovic, 1983). Not only their drawings and written reflections but also their constructive terminology is a proof of this approach. The many terms architects borrowed from the anatomical field to commonly identify parts and functions of the building (*head, body, arm, wing, and later circulation, backbone, skeleton, etc.*) demonstrate the osmotic relationship between anatomical and architectural speculations and indirectly attribute it a scientific connotation (Forty, 2000). Vice versa, in the title of Andrea Vasalio's *De humani corporis fabrica* (1543), Rykwert (1989, p. 45) noticed an "extraordinary and unregistered mutation occurred in the use of the word *fabrica* (...) and, with an unavoidable analogy, a shift in the way of considering a building and the role of our bodies inside it". In the following centuries, the conceptual transformation of

the human body first in a *fabrica*, then into a machine capable of producing work and, finally, into an interchangeable element of an assembly line, caused the gradual loss of what Marco Frascari (1987, p. 124) has defined the “ontological dimension as can still be appreciated in a Jacob Bakema’s (1914-1981) small sketch (Fig.2), the human figure in architectural drawings consequently being reduced to a size reference.

2.1 Otto Wagner, or on drawing figures

As an homage to the social role of the new urban infrastructure, the German architect Otto Wagner’s (1841-1918) designs for the Vienna *StadtBahn* (1894-1900) are often enriched with refined ladies, elegant gentlemen and uniformed officials but also workmen carrying heavy sacks or cleaning the streets, as well. Wagner used figures taken from the everyday experience in the streets both for “things that have their source in modern views correspond perfectly to our appearance” (Wagner, 1988, p. 77). Together with cars and other urban accessories, Wagner used human figures to convey a sense of present time or *Zeitgeist* in his designs, and to promote his idea of *Baukunst* against the architecture of past styles. Drawn as the architecture is, with the same lines, colours and shadows, sometimes elegant “foreground figures [are] so large or important that they dwarf the architecture or lead the eye from it” (Guptill, 1922, p. 162), even looking at the observer behind the so-called “fourth wall” (fig.3A). It is no coincidence that contemporary architects such as James Stirling (1929-1992) or Richard Meier (1934-) will copy his figures in the perspective views of the Derby Civic Center project (1970-73), the former, or the Museum for the Decorative Arts in Frankfurt am Main (1979-85), the latter, to provide a nostalgic atmosphere and force the beholder to formulate conjectures about their contradictory presence.

2.2 Ludwig Mies van de Rohe, or on drafting figures

While Arthur Leighton Guptill (1891-1956), in his 1922 book *Drawing and Sketching in Pencil*, wrote the human figure as “the most difficult of all the architectural accessories”, highlighting that “the figures should be correct in size, as they give scale to the architecture itself, and should be arranged in a natural disposition” (Guptill, 1922, p. 156), Ludwig Mies van de Rohe (1886-1969) was gradually banning human presence from his designs.

The black shadows quickly drafted by Mies– as well as Paul Rudolph and others later inspired by him – in many of his perspective views look like ghosts or zombies. Maybe he was inspired by the blurred people caught in the photograph of Friedrichstrasse, Berlin, he used as a base for the photo-montage of his famous glass skyscraper design (1921-22). Anyway Mies’ drafted figures are mainly “scalies”, references to understand the size of architectural bodies, which are generally represented from very distant points of view. Somehow, this address was also stimulated by the abstraction and sterilization operated by the German Ernst Neufert and the other authors of the main design manuals of the 20th century, who promoted the reduction of human body to numbers and “highly stylized figures” (Anderson, 2002, p. 238) that only remotely resemble it.

Somehow, Mies conceived figures (and bodies) of actual people as antithetic to his architecture, or to the presentation of it, at least. Since the statue in the pool of the German Pavilion in Barcelona, the role of mediation to design space is rather played by “mediated images” of human body as an impalpable silhouette, a rough doodle or the image of a sculpture (Fig.3B). Even in the photo-montages he used to present his post-war designs with, he entrusted cut-and-paste pictures of sculptures with the task of referencing human scale. Like many others, he was aware that the human measure in a perspective view may be implicitly marked by the height of the horizon as well as by the presence of windows, doors, cars, furniture or other elements that can be used to indirectly figure out the size.

2.3 Le Corbusier, or on designing figures

While the Italian architect Piero Portaluppi (1888-1967), who used to produce caricatures and satirical sketches for magazines, adopted comic-like figures to add a self-ironic sense to his design presentations, Le Corbusier (1887-1965) did the same to demonstrate the unconventional sense of freedom and *les modes d'emploi* of his spaces. He did this in order to engage middle-class potential clients, as testified by the famous comic-strip letters to Madame Meyer (Atta da Silva, 2002). Le Corbusier’s vernacular interiors are inhabited by unusual people acting, reading, painting, cooking or playing which generally show an intense bodily presence, shadows and interact with furnishing and objects. For exam-

ple, in a sketch of *Wenner Project*, a residential structure designed for Genève in 1929, a boxer (Fig.3C) is training with a punching-ball, stared by an elegant lady that is hanging a carpet on the handrail of the upper catwalk. According to Le Corbusier (1986, p. 275), “The lodging is there to receive and welcome the human animal, and the worker is sufficiently cultivated to know how to make a healthy use of [his] hours of liberty”. This idea of “human animal” is expressed also by *Architecture d’Aujourhui* (1930), a short movie by Pierre Chenal and Le Corbusier himself showing some of his 1920s houses in which the architect and the actors can be seen while stepping up quickly on stairs and ramps or doing gymnastic exercises, acting like machines.

After the publishing of the Modulor proportional system in early 1950s, human figures in Le Corbusier’s drawings have been acquiring the additional meaning of indicator of spaces proportioned on human body’s size. Le Corbusier himself made his own stamp to mechanically reproduce the Modulor-man, for example, in the sections of Olivetti buildings, Ivrea (Bodei, 2014).

2.4 Mansilla + Tunon, or on pasting figures

The diffusion of digital tools has boosted the practice of cutting and pasting photographic figures onto architectural drawing. Being one of the last elements to be incorporated into the drawing, they often appear to be merely pasted into the scene, having nothing to do with the structures around them. On the contrary, some architects use them to add a narrative sense to the architectural scene as well as to convey more semantic levels. The digital collages of the Spanish architects Luis Mansilla (1959-2012) and Emilio Tuñón (1959-) are pictures composed exclusively of geometric fields – only occasionally colored with saturated hues – and black-and-white figures. Images are devoid of lines and depth, with a rough perspectival structure which is occasionally contradicted by the position and shape of accessories. The mission of cut-and-pasted figures is only apparently enhancing the depth effect and to express size, uses and routes of design space. They are chosen with no consistency with the view in terms of robes and actions and are often pasted with no care for the perspective structure, color or shades. But while some of them depict anonymous people, generally taken from the same, restricted library, some stars can be easily recognized, such as

Mulder and Skelly from the X-Files TV series, the German artist Joseph Beuys (1921-1986) virtually walking toward the observer (Fig.3D), the Portuguese architect Alvaro Siza Vieira (1933-) sketching with his biro pen on a wall, or Le Corbusier himself, while looking around. Like a friendly heterogeneous circus – or *Circo*, the title of Mansilla and Tuñón’s architectural fanzine – they are constantly moving from a design to another, to contextualize, in geographic, social and philosophical terms, the project and the authors themselves.

3.0 Cameo, or the architect as a figure

The reiterated presence of Le Corbusier’s figure in Mansilla and Tuñón’s digital renderings is an architectural cameo. Commonly defined as the fleeting appearance of directors or celebrities in films, the cameo was originally adopted by Honoré de Balzac (1799-1850) as an intertextual stratagem to insert historical figures in his novels or recall his own characters in different novels. After all, to an architectural visualizer who 100 years ago copied the figures from a magazine, who 50 years ago inserted them with industrial dry transfer (or rub-down transfer), or who today insert them from a professional Photoshop library, the experience of pasting the same characters in the views of different projects is not very different. These are really “actors” ready to play a part on different “stages”: a condition that seems perfectly represented by Alison and Peter Smithson’s collage renderings for the Golden Lane project in 1952, starring singers, actors and sport champions (Hight, 2009, p. 232). But of course, cameos of friends, colleagues or clients are also quite common in architects’ drawings, generally in the sketches, like in Carlo Scarpa’s (Frascati 1987).

The cameo of an artist or architect, and of recognizable architects such as Le Corbusier, presents a more intricate issue and may reveal a multi-level communication strategy.

On the one hand, the cameo of *an* architect in a project drawing constitutes an opportunity to pay homage to a beloved master and to underline the designers’ cultural vocation. For example, many perspective views produced by Mansilla and Tuñón demonstrate that they adopted the figure of Beuys as a sort of guardian angel, “the model of an attitude in front of the creative act, for his ambition to expand the concept of art and recover lost capacities – emotional, political, religious, even ‘healing’

– that bind man to nature. In particular, through the figure of Beuys, M+T invoke his desire to cancel the boundary between art and life, an ambition that Beuys has always defended starting from the ‘social sculpture’, art as an everyday experience, potentially open to everyone” (Molins, 2007, pp. 12-13). Of course, only people knowing Beuys can recognize his figure and interpret him as a putative mentor called to play a cameo, giving them a personal gratification and involvement.

An interesting historical case is provided by the French architect Paul-Marie Letarouilly (1795-1855). In the life-long work *Edifices de Rome Moderne* (1840-55), he used to add the figures of the Renaissance architects he supposed to have designed the Roman convents, palaces and villas he had surveyed, “corrected” and illustrated. The figures of Bramante, Baldassarre Peruzzi, Raphael, Vignola or Michelangelo are not only “measuring” the space in the perspective views and welcoming the spectator but also indirectly legitimizing Letarouilly’s restoration of buildings’ original form, after all a project as well (Fig.4).

This example introduces the topic of the cameo of *the* architect, the designer of the represented space or even his or her collaborators, in the rendering itself. One of the first documented cases is offered by Milan-based architect Piero Bottoni (1903-1973). A pupil of Portaluppi and a lover of art, photography and cinema, in 1936 he inserted a cut-out photography of himself and some of his friends in the rendering of the project for Piazza del Duomo, Milan (Colonnese, 2018).¹

Maybe the cinema, and the example of the British director Alfred Hitchcock in particular, is one of the central keys to explain this address, as evidenced in the communication of Alberto Campo Baeza (1946-) and Raphael Gabrion’s design for a Louvre new building in Lievin, France (Colonnese, 2019). The Scottish architect James Stirling, another architect who loved watching movies (Stirling, 1992), is occasionally an actor in his own drawings (Fig.5). In two perspective views of the Olivetti Headquarters in Milton Keynes (1971), his talented and ironic collaborator Leon Krier (1946-) drew himself as a statue and his boss talking at the phone or sitting on one of his beloved Thomas Hope’s chairs, ambiguously

1 - Piero Bottoni, Gian Luigi Giordani and Mario Pucci, Design for Piazza Duomo, Milan. Archive Piero Bottoni, op. 155, ph. 18.

placed onto the black line framing the view. Stirling also appears in a photo-montage, flying over the Lingotto in Turin (1982-83): he looks huge, proud and smiling in the black-and-white picture cut-and-paste on the linear bird’s eye view, standing like Jules Verne’s Phileas Fogg inside a hot-air balloon’s basket. Years later, Stirling’s figure is back in the perspectives of the Cornell Performing Art Center College at Ithaca (1983-88), walking with the drawings rolled up under his arm through the door and in the hall.

In the case of the Swiss-Italian architect Mario Botta (1943-), the cameo is a constant of the works in the 1980s and 1990s (Fig.6). He did not limit himself to completing his sections with small figures of the Modulor-men, to express both the proportional matrix of the design spaces and their link with the design philosophy of Le Corbusier (where he began his apprenticeship), but he depicted himself in several perspective views. He can be seen waiting on the pedestrian crossing in front of the headquarters of the Union of Swiss Banks in Basel (1986); arguing with rolls of paper under his arm in front of his residential complex at Porte D’Aix in Marseille (1988); inviting an indignant masked figure to enter his Palazzo del Cinema in Venice (1991); walking with drawings rolled under his arm in the lobby of his San Francisco Modern Art Museum (1989-1995); even inciting the rowers (his collaborators?) on a boat on the coast of San Sebastian, before his Cultural Center building.

4.0 Discussion

The collection of figures provided by Meredith, Sample and MOS (2019) or by Noor Makkiya (2016) on her website shows the many ways, from simple doodles to photographic images or even three-dimensional models, a human body can be incorporated into a perspective view, indirectly expressing the methodology and personality of the architects. The examples seen so far also show remarkable differences both on the technical and graphic level and on the semantic and intentional level. Otto Wagner followed the traditional process, which is often still pursued today, in the midst of the digital age. The figures were drawn directly in the project drawings, developed from a quick anatomical sketch in perspective or copied from photographs or other drawings. They were “made up” of the same “matter” as the architecture was, generally belonging to the same time and space,

even when they are taken from a photograph. In a word, they were blended with the architectural scenario with the aim of representing the present, or rather, a very close future.

In Le Corbusier's drawings, the figures come from neither magazines nor reality but rather the world imagined by the architect. Like the architecture, they appear designed to engaging the reader and "marketing an aspirational lifestyle" (McGrath and Hsueh, 2016) that does not concern a single building but a deeper and farsighted evolution process involving the whole human society. On the contrary, Mies is cautious towards the emotional or narrative elements that human figures and faces could unintentionally add to his communicational images. In this sense, the cut-and-pasted photograph of an artwork, his famous armchair or his drafted "ghosts", which seem to come from a timeless limbo to oppose their ectoplasm transparency to the building geometric purity and permanence (Espuelas, 1999), work as an "anaffective" visual size reference.

The use of photographic figures requires further considerations. In traditional photomontages, the figures are cut out of other printed sources: once they came from newspapers or glossy magazines, and they often looked out of scale or inconsistent with the perspective structure and shadows of the architectural forms. Then, the photocopiers' mechanical reproduction has solved the problem of pasting figures that looked out-of-scale or out-of-place. Today, thanks to the countless sources offered by commercial digital libraries and the World Wide Web, an architectural visualizer can find the most suitable figure and optimize it in seconds thanks to photo editing software. Today, whenever the figures are to some extent inconsistent with the architectural scene, as in some of Mansilla and Tuñón's views, this represents the consequence of no technical limit but of a precise formal choice, aimed at exhibiting the montage itself or asking the reader for an additional interpretative effort. Some of their renderings are so abstract that most of the task of manifesting space is entrusted with the figures themselves.

In any case, by pasting photographed figures in an architectural drawing means an architect can contextualize the project in a specific idea of reality and, at the same time, can contaminate the drawing with "exotic" visual fragments that convey additional meanings. While in

geometric digital renderings, such as those of Mansilla and Tuñón, the contrast between figures and drawing is still remarkable, it is greatly attenuated in the case of photo-realistic images. Here we have been witnessing for many years a process of homologation of both the figures used and the stereotyped cultural models to which they allude. Someone wrote that all the figures in the rendering, with their baseball caps, skate-boards, t-shirts, etc., look like San Francisco residents and employees in Silicon Valley companies (King, 2015). Architectural visualizers, who work according to generic professional guidelines, tend to use stereotyped figures according to the aesthetic models of global capitalism, which vary only when one moves to very different cultural contexts, such as Arab, African or Far Eastern countries. Thought as an antidote against this homologating derive, *Skalgubbar*, an inventive Swedish web site, presents "a carefully curated collection of cut out people by Teodor Javanaud Emdén and all the fantastic people he knows": true pictures of true people.

It is evident that, in the complex system of text and para-text constituted by the project representation and all of the visual and textual supporting elements, the photomontage enhances the intertextual and semantic potential of human figures, which can easily be used to bring further meanings to the text itself. The same can be said of cameo, which indirectly testifies to the implicit intermedia quality featuring architectural communication, as in the case of *MIR_Architettura* (Fig.7), an Italian office which bases most of the communication of its projects on the interaction between figures of famous people, buildings depicted and textures from artworks (Colonnese, 2016).

In addition, architectural cameos raise specific questions, notably a spatial and a temporal one.

Just as the anonymous figures that appear in several renderings mutually link, more or less intentionally, design spaces to each other and allude to the existence of a sort of hyperuranium all the projects develop from, so does the figure of the architect himself. It can be a way to put a visual signature on the drawings, a precise communicative choice or just the consequence of the initiative of an ironic draftsman, inspired by the physical presence of the architect himself, connoting the two-dimensional space of drawings as a sort of virtual extension of the real space of the office. For example, Stirling on his

armchair seems to watch over the ambiguous borderline between the virtual and real domain, giving the perspective view the value of an open window on the architect's own imagination. His figure plays the role of Virgil, to accompany the beholder across the border into the design space, often interacting with other subjects involved in the project and adding, as in the case of Botta, a note of irony or of disappointment.

The temporal question is instead linked to the reception of the drawing. In a movie, the cameo of a character lasts a few seconds while in a drawing it can be stared at for a long time, the architect can be recognized and the project can be associated to him or her.

On the one hand, this can be considered as a visual strategy to bypass the anonymity required in the architectural competitions; such a "cameo strategy" becomes evident only when, retrospectively, one can see a series of works all together in an exhibition or a monograph. On the other, from a strictly iconographic point of view, the architect's cameo may turn some of these drawings into something particular, that can also be considered an evolution of the historical typology of the portrait of an architect as it was configured by Italian painters Lorenzo Lotto and Tiziano in first half of 16th century, the architects generally standing with compass and sheets or a model before a window open on their major built works (Fig.6). Thus, the foreground figures of Botta or Stirling with their paper rolls under their arm and their project represented behind them, both negotiate the design space with the observer, as in Alberti's tradition, and represent the idea of the modern architects, more and more called to work as a medium of themselves.

5.0 Conclusion

The visual products of architectural design communication, in particular the perspective views, occasionally show a use of human figures that goes beyond their institutional role of dimensional or functional reference, denoting them as visual and cultural mediators between the design space and reality according to practices that have originated in painting, comics and cinema. As this attitude is particularly evident in the work of traditional or small-size offices, the technical and qualitative aspects of these figures may reveal the architects' different attitudes towards the agency of their projects on the society. At the same time, the figures may denote

a multi-level communication strategy with intertextual links to convey outer meanings and narratives onto the projects and, for extension, on the architects themselves. This kind of cultural agency is particularly evident with the practice of cameo, and the cameo of architects, which provides a range of different media functions and may connote the whole view as an indirect and innovative portrait of the architect.

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References

- Anderson, A.T. 2002. On the Human Figure in Architectural Representation. *Journal of Architectural Education*, 55, 4, 238-246
- Atta da Silva, F. 2002. Os desenhos de para a Villa Meyer, in: Massilia. *Annuaire des Etudes Corbuséennes*, Barcelona, Fundacion Caja de Arquitectos, pp. 47-70
- Bodei, S. 2014. *Le Corbusier e Olivetti. La Usine Verte per il Centro di calcolo elettronico*. Macerata: Quodlibet
- Chenal, P. 1930. *Architecture d'aujourd'hui*. Paris.
- Colonnese, F. 2012. Man as Measure. Human figure in modern architectural drawings. *International Scientific Journal. Architecture and Engineering* 1, 2 (n.p.)
- Colonnese, F. 2016. Human Figure as a Cultural Mediator in Architectural Drawings, in: Koç Yıldız, G., Claes, M.-Th., and Christiansen, B. (Eds.), *Cultural Influences on Architecture*, Hershey, PA, IGI Global, 2016, pp. 90-129
- Colonnese, F. 2018. Collage and Photomontage in 1930s: Piero Bottoni's Architectural Designs. *Studies in Visual Arts and Communication*, 5, 1 (n.p.)
- Colonnese, F. 2019. 'Characters in Search of an Author'. Human figures and storytelling in architectural design communication, in: L. Lescop and A. Kępczyńska-Walczak (Eds.), *SHS Web of Conferences* 64, 14th EAEA (Nantes, 2019), https://www.shs-conferences.org/articles/shs-conf/abs/2019/05/shsconf_eaea142019_01009/shs-conf_eaea142019_01009.html

- Designing People. 2015. Exhibition at the Environmental Design Archives at the University of California Berkeley, <https://archives.ced.berkeley.edu/blog/upcoming-exhibit-designing-people>
- Emdén, Teodor Javanaud. Skalgubbar, <https://skalguubar.se>
- Espuelas, F. 1999. El claro en el bosque: reflexiones sobre el vacío en arquitectura. Barcelona: Fundación Caja de Arquitectos
- Falcón Meraz, J.M. 2015. El espacio gráfico habitado: la figura humana en la comunicación visual arquitectónica / Inhabited graphic space: The human figure in architectural visual communication. *Arquiteturarevista*, 11, 1, 31-45
- Frasconi, M. 1987. The Body and Architecture in the Drawings of Carlo Scarpa. *Res 14* (autumn 1987): 123-142
- Guptill, A. L. 1922. Sketching and rendering in pencil. New York, NY: The Pencil Points Press, Inc.
- Hight, C. 2009. Pervasive intimacy. The Unité d'habitation and Golden Lane as instruments of postwar domesticity, in: Di Palma, V., Periton, D., and Lathouri, M. (Eds.), *Intimate metropolis: Urban subjects in the modern city*, London: Routledge, pp. 218-238
- Hosey, L. 2001. Hidden Lines: Gender, Race, and the Body in Graphic Standards. *Journal of Architectural Education*, 55, 2, 101-112
- Imesch-Oehry, K. 1998. Modi prospettico-spaziali e prospettiva come elemento retorico nella visualizzazione della "istoria": gli affreschi del Mantegna a Padova e del Foppa a Milano, in: Sinigalli, R. (Ed.), *La Prospettiva: fondamenti teorici ed esperienze figurative dall'antichità al mondo moderno*, Fiesole, pp. 145-157
- Imrie, R. 2003. Architects' Conceptions of the Human Body, Environment and Planning. *D: Society and Space*, 21, 1, 47-65
- King, J. 2015, March 15. Architectural renderings reveal narrow vision of the future, Sfgate, <https://www.sfgate.com/bayarea/article/Architectural-renderings-reveal-narrow-vision-of-6106932.php>
- Le Corbusier. 1986. *Towards a New Architecture*. New York: Dover Publications
- Lowic, L. 1983. The Meaning and Significance of the Human Analogy in Francesco di Giorgio's Trattato. *Journal of the Society of Architectural Historians*, 42(4), 360-370
- Makkiya, N. 2016, March 17. Figures, <http://makkiya.net/Figures>.
- McGrath, B., C.-L. Hsueh, P.C. Hoi Shan. 2016. Rendering the Social in the Architectural Scene: Digital Representation and Social Inclusion on Architectural Design, Thinking, and Education. *AMPS*, 8, 4, 1-16
- Meredith, M., Sample, H., MOS. 2019. *An Unfinished Encyclopedia of Scale Figures without Architecture*. Cambridge: MA, The MIT Press
- Molins, P. 2007. *Mansilla + Tuñón Arquitectos*. Milano: Electa
- Rykwert, J. 1989. Il corpo e la mente. *Casabella*, 563, 45-49
- Stirling, J. 1992. Architecture in an age of transition. *Domus*, 741, 17-28
- Wagner, O. 1988. *Modern Architecture: A Guidebook for His Students to This Field of Art*. Intr. and transl. by H.F. Mallgrave. Santa Monica, CA: Getty Center
- Zöllner, F. 2014. Anthropomorphism: From Vitruvius to Neufert, from Human Measurement to the Module of Fascism, in: Wagner, K and Cepl, J. (Eds.), *Images of the Body in Architecture: Anthropology and Built Space*. Tübingen, Berlin: Ernst Wasmuth, pp. 47-75

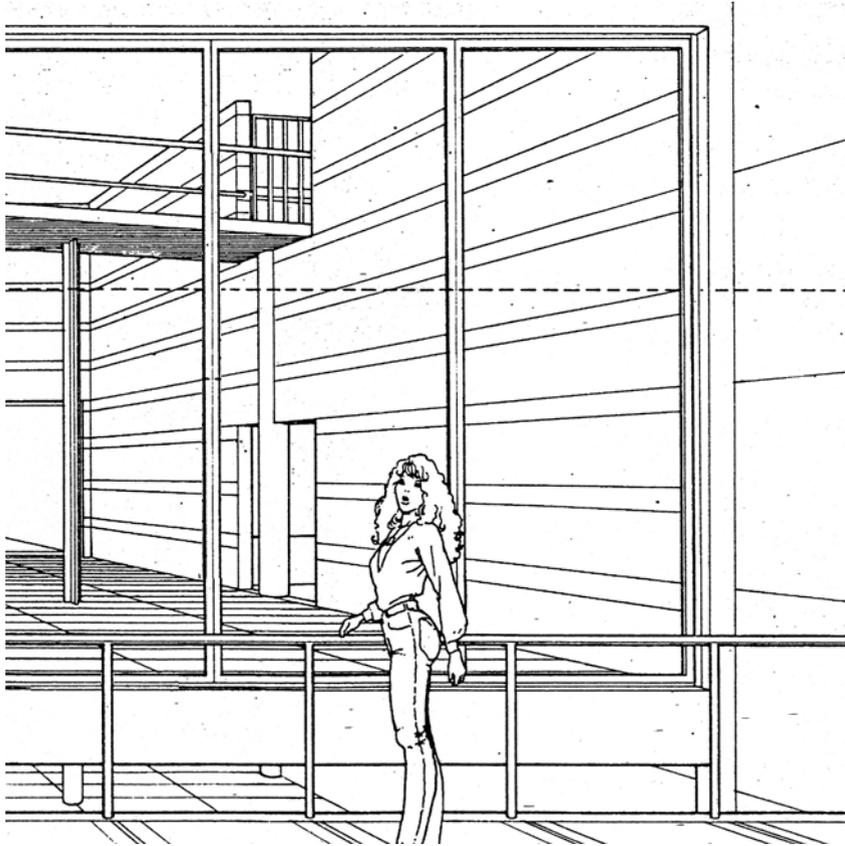


Fig. 1 Fabio Colonnese, Cultural Center in Rome, Perspective view (detail), 1993.

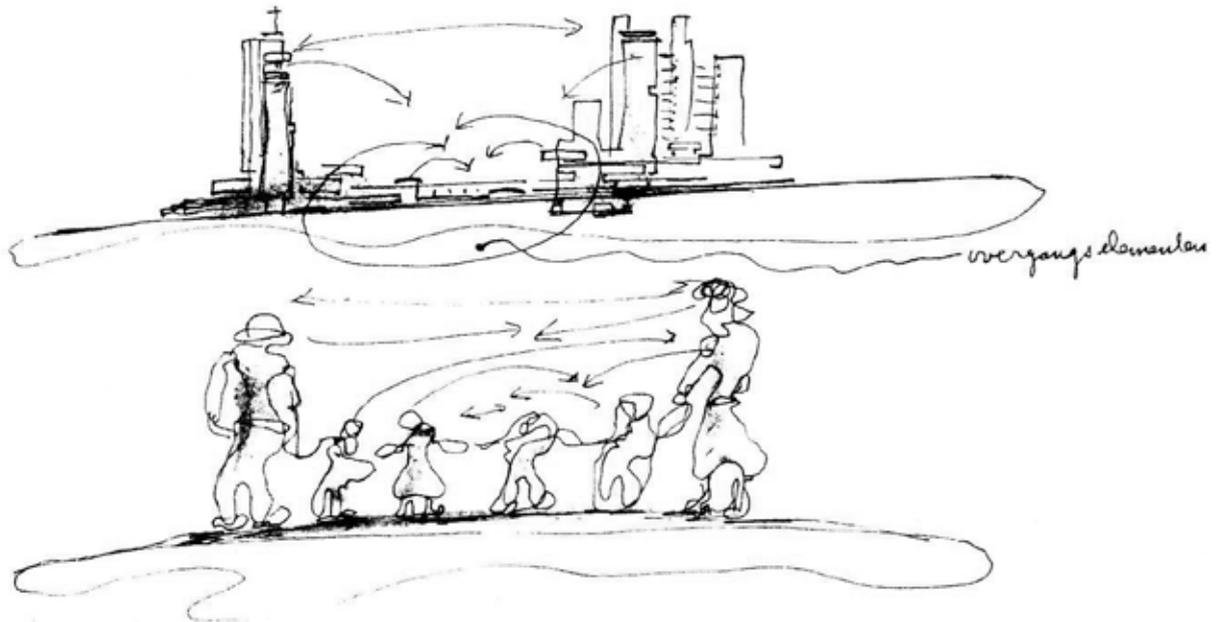


Fig. 2 Jacob Bakema, 1963. Rotterdam, Het Nieuwe Instituut, BAKE d276.

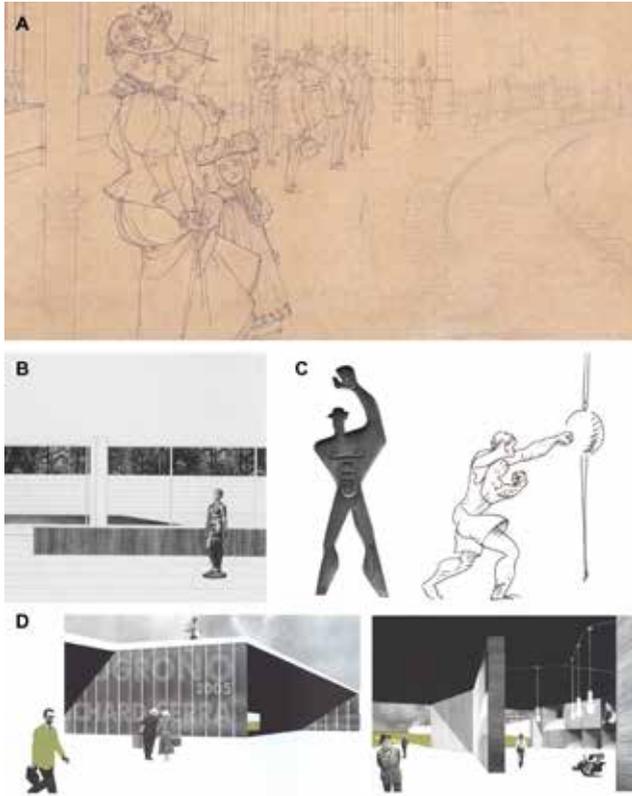


Fig. 3 A: Otto Wagner, Vienna *Stadtbahn*(detail), 1894-1900; B. Ludwig Mies van de Rohe; C. Le Corbusier, The boxer from Wenner Complex view, 1922, and a concrete-impressed Modulor-man, 1950s; D. Mansilla and Tuñón, Citadel in Logroño, 2003.



Fig. 4 Paul-Marie Letarouilly, Palazzo della Cancelleria with Bramante; Villa Farnesina with Baldassarre Peruzzi and Raphael; Michelangelo's house with Raphael; Villa Giulia with Vignola (Letarouilly, 1840-55).

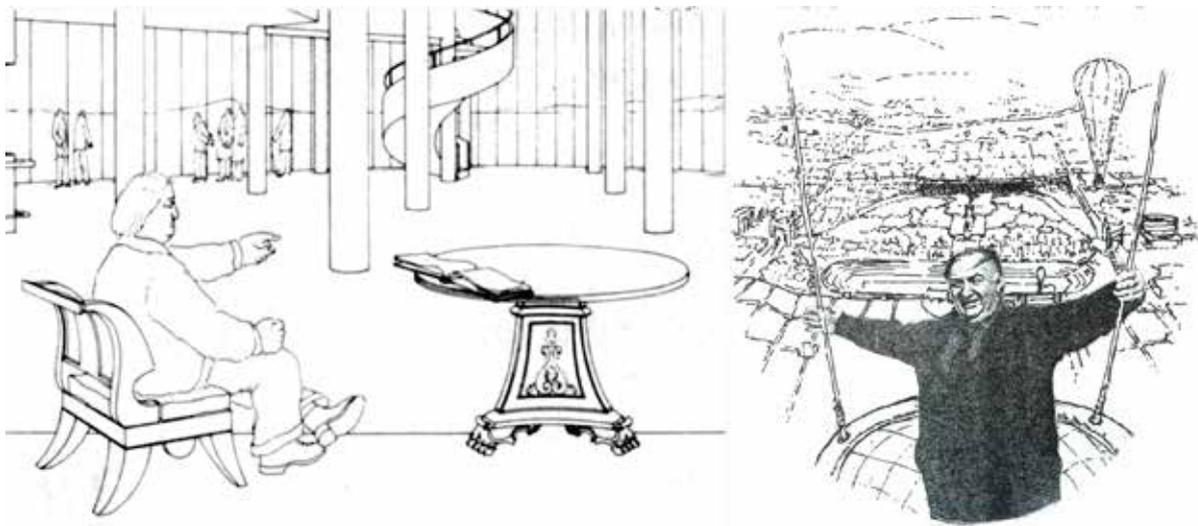


Fig. 5 James Stirling, Olivetti Headquarters, Milton Keynes, 1971; FIAT Lingotto Project, Turin, 1982-83 (details).

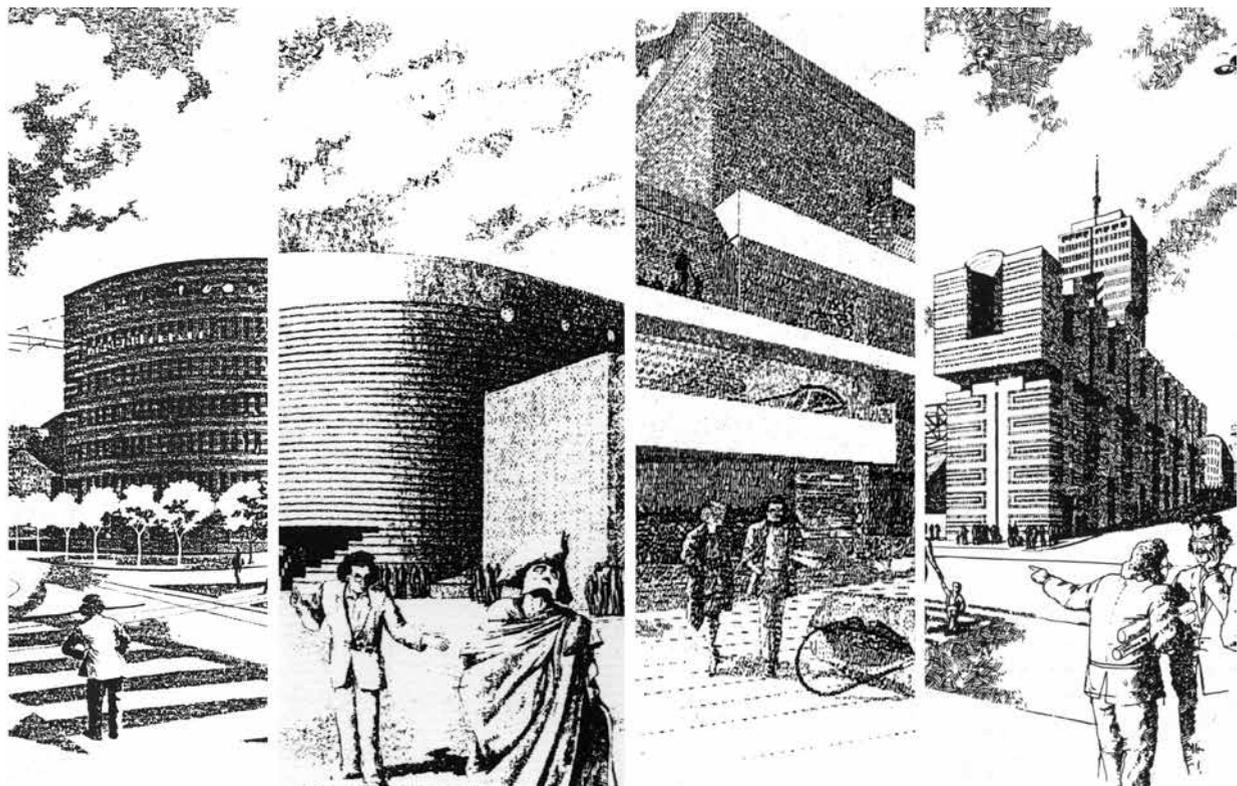


Fig. 6 Mario Botta, Headquarters of the Union of Swiss Banks in Basel, 1986; Palazzo del Cinema, Venice, 1991; San Francisco Modern Art Museum, 1989-1995; Porte D'Aix residential block, Marseille, 1988.

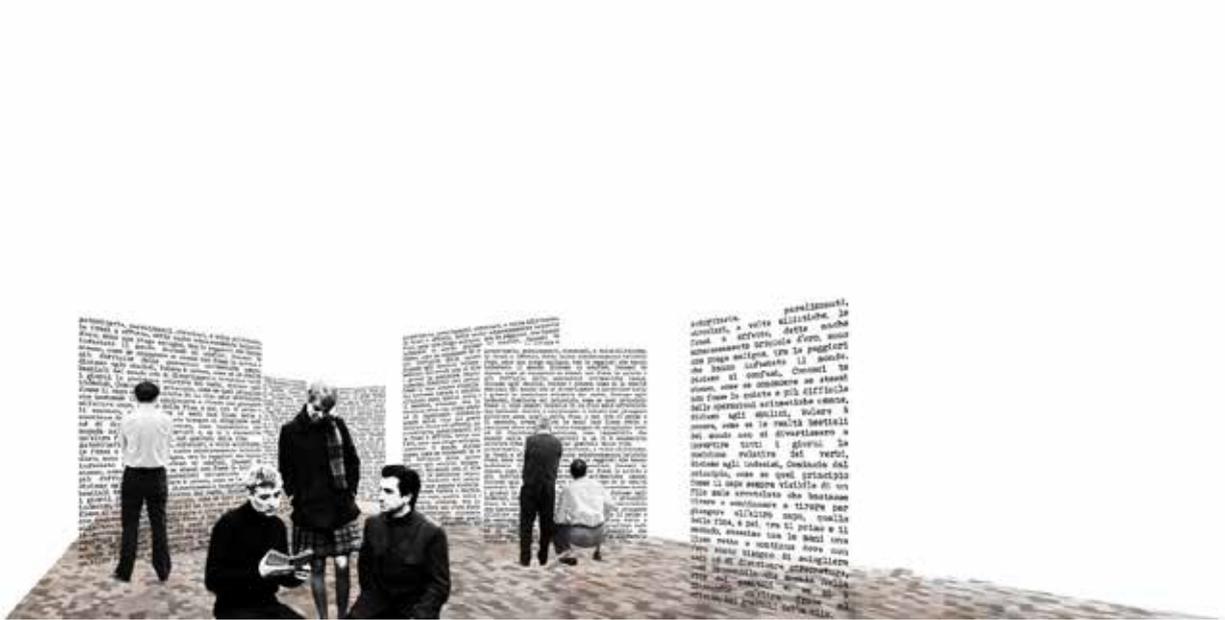


Fig. 7 MIR_Architettura, Three squares in Cesena, 2012.



Fig. 8 Portraits the architects in the centuries, according to: Lorenzo Lotto, 1536ca.; Pietro Fiacchetti, 1605ca.; Marguerite Gérard; 1789; King Vidor, 1948; David Mazzucchelli, 2009.