WHAT DESIGN HAS DONE AND MIGHT DO FOR THE SUSTAINABLE CONTEMPORARY CITY

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City and design: some premises

The historical trajectory of Italian design, defined until twenty years ago by designers trained as architects, is essential for the perception of design as the planning and production of urban equipment of formal quality. That occurred with a strong sense of authorship and often with little connection to the context and the purposes the use of urban spaces would require, especially in terms of sustainability. Otherwise, the conviction of the need to keep the two thoughts – architecture and design – integrated with each other may allow to consider both as closely interconnected legacies equally worthy of consideration today.

Concerning the specificity of the relationship between design and city, the scope is to consider the two disciplines as deeply connected and to plan, in the near future, a new way of using – and teaching – both as different but united to achieve the goal of improving the quality of our cities not only from a formal point of view.

Retracing, within a historical flow, the mutual link between design and cities since the very beginning of their relationship seems useful to understand and recover the original meaning of the city designed for its citizens. Indeed, however much it has changed over the centuries, it seems urgent to keep it in mind in order to return to using design as a service to the community.

Hence, we can conventionally place the beginning of this genealogy in the industrialised West, at the time of the great reforms of the city of Paris ordered by Napoleon III (Tamborrino, 2005; Zucconi, 2022).

The idea of setting up a more modern capital city, dotted with service buildings (from schools to theatres, to planned open-air public spaces, and large avenues), with the aim of achieving magnificence but also hygiene and public health, led to the conception, production and use of equipment that had never existed before. Street lighting, benches, public toilets and sign supports are mass-produced in cast iron structures with painted sheet metal finishes. They require existing manufacturers to acquire patents for the production of large metal objects through electroplating and electrolysis processes, to all intents and purposes the first results of industrial design (Dellapiana 2024).

The Industrialised elements, such as the ones listed by Adolphe Alphand (Alphand 1867-1873) in his regulatory work, are present in every corner of the city. They convey the presence of the State (and its "public" meaning) and care for citizens, who will be able to sit along the avenues, use toilets, deposit rubbish, and be informed about the latest events. They also contribute to the image of the city shared by the citizens themselves, somehow what we now call city branding, which is also useful for stimulating the growing consumer society (Trentmann 2017; Dellapiana, 2025).

Following Napoleon III's *grandeur*, in many European cities people and administrators started to talk, legislate and act in the name of 'public art', referring not only to urban facilities but also to squares and gardens designed with the contribution of architects and artists (De Laborde,1856), the mix that will generate the category of designers. The influence of urban equipment is also quickly recognised in its negative social effects in terms of accentuating inequalities between classes and groups of the urban population. For example, the large number of advertising billboards in the streets of large cities is favourably received for their intrinsic quality and the birth of a real 'aesthetic of the street' (Kahn, 1901), besides highlighting the discomfort of those who cannot even imagine approaching the products or experiences advertised: «Was this useless provocation necessary to communicate to the underprivileged of the opposite tenement block that climates, springs, valleys, mountains, woods, a holiday in the mountains, at the seaside, in the countryside, reinvigorate the weak.... [...]?» (Descaves, 1886).

However, the products are created and spread as a consequence of the new vision of the service city. The network of Paris metro stations, to mention a very well known case in point, is a perfect example of an industrialised object, structures made of cast iron components that can be assembled according to the location and importance of the station, covered either in whole or in part with pressed sheet metal that always has the same decorative elements.

Similar phenomena occur in Vienna and in other European capitals, which are equipped with urban facilities at various scales in accordance with the city design (Magnago Lampugnani, 2021).

After World War II, the expansion of cities made it difficult to harmonise urban facilities and design.

Moreover, designers begin to be distinct figures from architects, and the two trajectories tend to separate.

The size of cities and the critical economic and social situation as well as the very compressed timeframe make it impossible to proceed as at the end of the previous century. They provide urban 'decorum' along with the provision of services, while opportunities for social conflict are accentuated.

City and design: conflict points and practical solutions

Different trajectories are defined in which design, increasingly specialised (industrial, visual, strategic), demonstrates that it can, or cannot, have an effect on the city, particularly in connection with the effects on the social and environmental framework. Examples of design integrated with urban planning and administration policies are rather rare, despite many theorists, such as the American activist Jane Jacobs expressing the

need for reactive planning, taking into account the different scales involved at the basis of urban complexity (Jacobs, 1961). One is the legendary case of The city of Curitiba in Brazil (state of Parana), which doubled its inhabitants in 1940 within a few years, and where rapid industrialisation caused severe social imbalances (the well known South American slums) and a very high degree of pollution[1].

In 1972 Jaime Lerner, an architect, became the mayor of Curitiba and instituted his plan for a sustainable city by adopting a design approach. Not an action of traditional urban planning nor new infrastructures, but a «soft revolution» aimed at an efficient social impact achieved thanks to small artefacts managed following concrete strategies guided by a *learning-by-doing* philosophy, namely the typical design approach. In this regard it is perhaps worth remembering that the debate on the legacy of the Bauhaus and the subsequent Ulm school was effectively present in Latin America thanks to Tomas Màldonado and Gui Bonsiepe, before and after they moved to Europe (Fernández and Bonsiepe, 2008).

Lerner identified several integrated lines of action for which design and designers worked without focusing on the dominant stylish approach, but rather on functionality, economy, flexibility, affordability and, in synthesis, social impact (Fig. 1).

One of the biggest innovations that Curitiba put in place was a *Bus Rapid Transit System*. Roads with express lanes for buses, specially designed coaches for quick boarding, and cheap and uniform ticket prices have helped Curitiba maintain a quick, cheap and low emission transit system. Streets allocated for pedestrians only and designated bike lanes have also contributed to this. Bus stops that could be changed according to traffic intensity and time slots have changed the efficiency of public transportation and made all areas accessible, even to inhabitants of peripheral and poor areas, to provide easier access to work and sociability. In an interconnected way, the city administration paid attention to the green public spaces, planting 1.5 million trees in Curitiba since the 1970s, and building 28 public parks. Furthermore, to combat flooding, which had previously submerged the city, Curitiba surrounded the urban area

with grass fields, saving itself the cost and environmental expense of dams. To maintain the fields, the city uses sheep rather than mechanical means, saving money and oil, while providing manure for farmers and wool. Curitiba recycles around 70 percent of its garbage thanks to a programme that allows for the exchange of bus tokens, notebooks and food in return for recycling. The underlined idea was not only to protect the environment, but also to boost education, increase food access, and facilitate transport for the city's poor. In order to collect the garbage, all industrially manufactured equipment neglects the formal aspect to get straight to the point of social and economic function. This kind of social impact, design-oriented efficiency and avoidance of the 'cuteness' of contemporary design did not collide with the presence of great works of architecture, such as the local museum designed by Oscar Niemeyer (another author deeply involved politically) in 2002.

The Instituto de Pesquisa e Planejamento Urbano de Curitiba (IPPUC) continued its work despite changes in administration until 2004, becoming a worldwide model of green and smart city, somehow guiding public policies also "against" design, preferring the possible social impact to profit and aesthetic factors. This is the case of the Sao Paõlo administration which, in 2007, intervened with the Lei Cidade Limpa and had 15,000 billboards and more than 300,000 oversized signs removed over a few months (Harris, 2007). In this case it was not just a question of general aesthetic aspects. Indeed, the law, introduced by the social democrat mayor Gilberto Kassab aimed to reveal the degraded areas of the city, the *favelas*, and those where foreign workers were exploited in illegal factories hidden by the *billboards* themselves, as well as fighting a symbolic battle against the large multinationals (Goodyear was also among those 'expelled'). The identity, however uncomfortable, of the former Brazilian capital was stated.

Graphic and visual design are not only 'enemies' in cities with aspirations of social justice. They have also been used for social purposes with some interesting results, despite the common feeling that tends to associate the proliferation of urban visual signs with the dystopian visions shown in Ridley Scott's film Blade Runner (1982).

By way of example, and limiting ourselves to the last ten years (Mahdawi, 2015), the French artist and graphic designer Nicolas Damien caused a stir by virtually 'stripping' the commercial districts of Tokyo of *billboards* and illuminated signs. His fellow countryman Etienne Lavie covered the Parisian advertising boards with reproductions of art classics, this time for real. In 2015, the Teheran administration authorised the replacement of the city's advertising apparatus with giant posters of ten Persian art classics for ten days. In 2014 a *crew of* New York street artists, Re+Public, released the free app NO AD, which uses an augmented reality system to frame the Big Apple's subway stations and replace advertisements with artworks[2].

However, the use of urban art approaches could polarise urban spaces by making them landmarks often without attention to context, social impact and everyday use, looking more to consumption, advertising and the market (city-branding) than to the needs of the population. Furthermore, it contributes to increasing the alienating gentrifiers of neighbourhoods as in the case of the controversial digital and interactive billboard by Tom Wiscombe Architecture on the Sunset Boulevard, LA (2022) (Miranda, 2022), or Thomas Heatherwick's *The Vessel* in New York (2019).

On a smaller scale and with certainly less negative effects – but close meanings – the growth of this kind of authorship, in architecture as well as design, originates a large number of objects for street furniture, site-specific installations or multiples, which become a sort of "catalogue" from which administrators and officials can choose to give certain areas a distinct character. Authored benches or public lighting systems offer formally very interesting, sometimes outstanding, examples of industrial design that help reinforce city branding, but they do not care about the social impact on the community dedicated to their use.

Design and cities. Next steps Contemporary cities feature a number of experiences proposed and managed (often from below) by groups of young designers who, with the typical philosophy of design thinking (breaking down problems, solving them separately and recomposing them), merge the design and production of street furniture (industrial design) and the design of public spaces, based on compatibility with urban development largely managed by real estate (Fig. 2).

Just to mention one, the case of NoLo in Milan (2019) used the name "tactical urbanism". It consisted in using industrially produced low-tech equipment with sustainable materials; the visual management of spaces at street level with reversible interventions to define pedestrian and leisure areas and vehicular flow, and to create meeting points for various groups of citizens (from young to silver) without separation, involving neighbourhood residents. The success of the first step of this initiative, also from the point of view of safety and greater equity in terms of access to services, prompted the Milan administration to identify several urban areas in the *Piazze aperte* programme in which to apply the same procedures[3].

In light of what has been briefly explained and extracted from the historical flow, from the origins of industrialised society, it seems clear that the current need for collaboration between the different scales of the project to achieve a socially, as well as environmentally and economically, sustainable result has required

several changes of perspective. Design, originally conceived as a general (and revolutionary for the time) reference to a concept of citizenship borrowed from the outcomes of the bourgeois revolutions, experienced socio-political phases, alternately attempting to address inequalities or somehow favouring them. In addition to new planning tools, the aforementioned tactical urbanism or urban ergonomics (Bonino and Mancini, 2021) can be traced back to what design can do for cities, with the aim of bringing urban design actions back to the dimension of the human body, since the principles of ergonomics were initially conceived in response to the critical use of the serial product.

It is otherwise also essential to use new interpretative tools such as environmental history (Barber, 2020) or trans-species history (Colomina and Wigley, 2016) with regard to both the history of architecture, which is already well underway, and the history of design, which still needs reinforcement (Scodeller, 2023) to encourage new sensitivities to support both design and public policies.

NOTES

[1] https://www.institutojaimelerner.org/ (March 2025).

[2] https://www.cultofmac.com/298127/ad-turns-new-york-subway-street-art-wonderland/ (March 2025).

[3] https://www.comune.milano.it/aree-tematiche/quartieri/piano-quartieri/piazze-aperte (March 2025).

REFERENCES

Alphand, A. (1867-1873), *Les Promenades de Paris*, J. Rothschild, Paris, 2 voll.

Barber, D. (2020), *A Modern Architecture and Climate: Design Before Air Conditioning*, Princeton University Press, Princeton.

Bonino, M. and Mancini, M. (2021)*, "Reconnecting Human Body and Urban Space: Reading Tools and Design Practices", World Architecture,* pp. 78-85.

Colomina, B. and Wigley, M. (2016), *Are we human? Notes on an archaeology of design*, Lars Müller, Zürich.

De Laborde, L. (1856), *Quelques idées sur la direction des arts et sur le maintien du goût du publique et De l'union des arts et de l'industrie*, Imprimerie Impériale*,* Paris.

Dellapiana, E. (2024) "Christofle: Grandeur Napoleon III e oggettini alla Ponti", *Il capitale culturale*, Supplementi 17, pp. 379-395.

Dellapiana, E. (2025) "La pubblicità è l'anima del commercio. Cartellonistica e città", in Ippoliti, A., Svalduz E.(eds.) *Oltre lo sguardo/Beyond the gaze*, Torino, AISU International, pp. 973-984.

Descaves L. (1886), *Le remède interdit*, L'écho de Paris, n. 4123, 5 july 1886, p. 1, in De Iulo (Ed.) (1996), *L'età del manifesto. Sguardi sulla pubblicità francese del XIX secolo*, Franco Angeli, , Milano, p. 56.

Fernández, S. and Bonsiepe, Gui (Eds.) (2008), *Historia del diseño en América Latina y el Caribe*, Editora Blücher, Buenos Aires.

Harris, D. E. (2007), *Sao Paulo: a city without ads*, "Adbusters" #73, 3 August.

Jacobs, J. (1961), *The Death and Life of Great American Cities*, Random House, New York

Kahn, G. (1901), *L'esthétique de la rue*, Fasquelle*,* Paris.

Magnago Lampugnani, V. (2021), *Frammenti urbani. Piccoli oggetti che raccontano le città*, Bollati Boringhieri, Torino.

Mahdawi, A. (2015), *Can cities kick ads? Inside the global movement to ban urban billboards*, The Guardian, 12 August.

Miranda, C. A. (2022), *Column: A Sunset Strip billboard yelds a puff piece. It should prompt a reckoning in architecture*, Los Angeles Times, 25 August.

Scodeller, D. (2023), *Design, community e limiti delle risorse*, Media MD, Ferrara.

Tamborrino, R. (2005), *Parigi nell'Ottocento. Cultura architettonica e città*, Marsilio, Venezia.

Trentmann, F. (2017), *L'impero delle cose. Come siamo diventati consumatori. Dal XV al XXI secolo*, Einaudi, Torino, (Penguin, London 2016).

Zucconi, G. (2022), *La città degli igienisti. Riforme e utopie sanitarie nell'Italia umbertina*, Carocci, Roma.