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## Abstract

The different names used to call the new modern visions that appeared around the middle of the nineteenth century in association with each European country (Town Planning, Städtebau, Urbanisme, Urbanistica, Urbanismo) are proof of the diversity in the approaches and traditions that accompanied the emergence of modernist urbanism. Despite these early approaches, architectural historiography has tended to see the emergence of ‘modernist urbanism’ linked to the avant-garde who reached their climax in the twenties and thirties of the twentieth century. This chapter is based on the interpretations that recent historiography has made of the nature and emergence of modern functionalist urbanism, virtually parallel to the birth of the urban planning as a discipline. After studying the principles laid out in the Athens Charter, applied to some paradigmatic cases, it goes on to consider the impact of functionalist urbanism after the Second World War.

## Keywords

Modern urban planning • Modernist urbanism • Functionalist urbanism • Athens charter • CIAM

## The Modern Discipline of Urban Planning as a Technical Tool for Intervention and Control of Urban Growth

The nature and emergence of modernist functionalist urbanism, virtually parallel with the birth of urban planning, has been the subject of different interpretations in recent historiography. The contrast between them might be ascribed to the different views that the history of urbanism has taken (see approaches by Sutcliffe (1981), Hall (2014) Ward (2002)) on urbanistic historiography with an architectural approach (as shown by Benevolo (2000), Choay (1965) o Gravagnuolo (1991)). The difficulty of unifying different approaches and traditions only proves the complexity of a

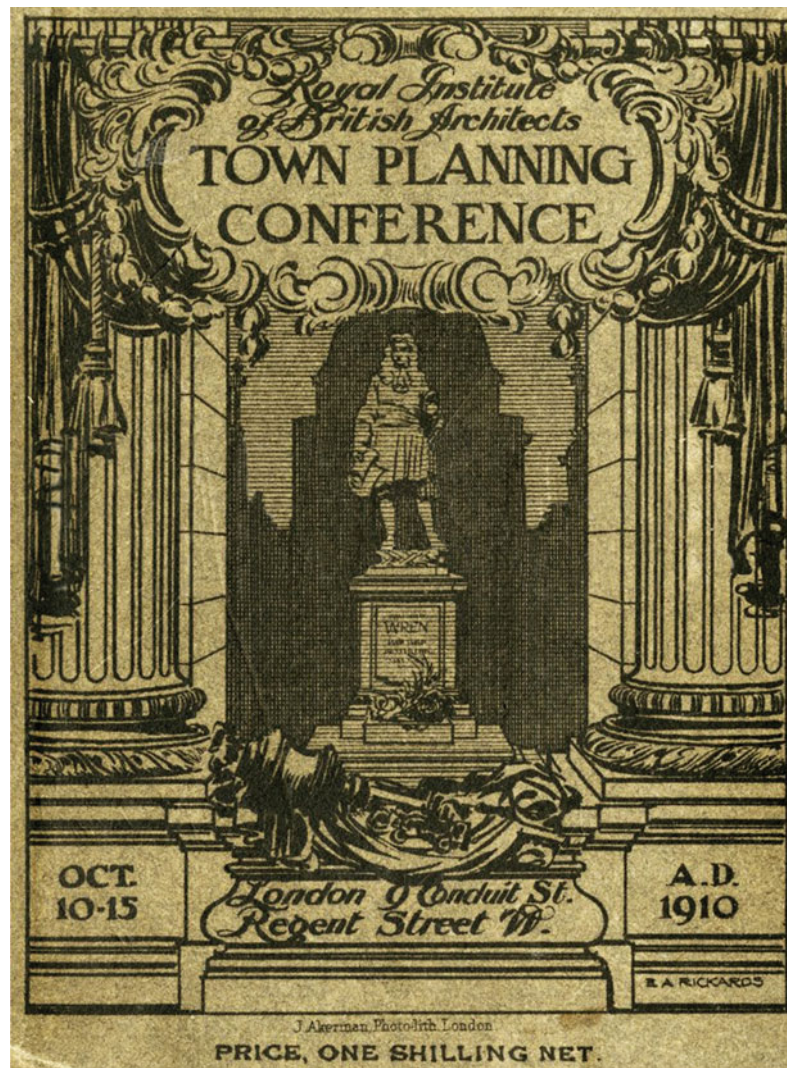
discipline with ambiguous status and different meanings depending on national and cultural traditions.

Some authors ascribe the roots of the new ‘modern visions’ to the eighteenth century, when a new discourse paved the way for seeing cities as entities subject to being entirely transformed (Gravagnuolo 1991). However, more recent historiography places the origins of modern urbanism to the middle of the nineteenth century in response to the new conditions arising from the industrial revolution. Indeed, Leonardo Benevolo, in his classic “*Le origini dell’urbanistica moderna*”, believes that “modern urbanism was born to try to correct the flaws of industrial cities: with the Utopian proposals on the one hand, and the new urban planning legislation on the other” (Benevolo 2000).

In any case, it is clear that there are notable differences depending on respective national traditions and the different rates and forms of urban growth, some conditioned by the industrial revolution and others depending on the need to regulate growth through expansion or renewal responding to new developments in transport and housing. In this sense, the

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**Fig. 4.1** Cover page of the publication by the Royal Institute of British Architects (RIBA), designed by one of its members, Edwin Alfred Rickards, in honour of Sir Christopher Wren. Published in *Town Planning Review*, 1911, 5

turning point occurs during the early decades of the twentieth century, when the first international conferences were held and these new terms were coined. The different names that appear in each country are proof of the diverse visions and traditions that accompanied the emergence of modern urbanism: town planning, *Städtebau*, *urbanisme*, *urbanistica*, *urbanismo* (Monclús and Díez Medina 2017), each with its particular set of manuals, projects, competitions, etc. In addition, this new urban planning discipline was linked to the need to identify the ‘modern’ techniques which permitted systematising and integrating visions of the various sectors in the new concept of town planning and the technique of zoning.

### **Town Planning, Städtebau, Urbanisme, Urbanistica, Urbanismo**

Although it is possible to recognise the coexistence of different urbanistic traditions during the twentieth century as a whole (Calabi 2004), one can also see their convergence in the discipline of town planning. Despite the originality and importance of Cerdà’s theory and the 1859 *Ensanche* (city extension) of Barcelona, the superiority of the *Städtebau* is obvious, understood as the modern practice of controlling urban growth that emerged so strikingly in Germany beginning at the end of the nineteenth century. As Stephen



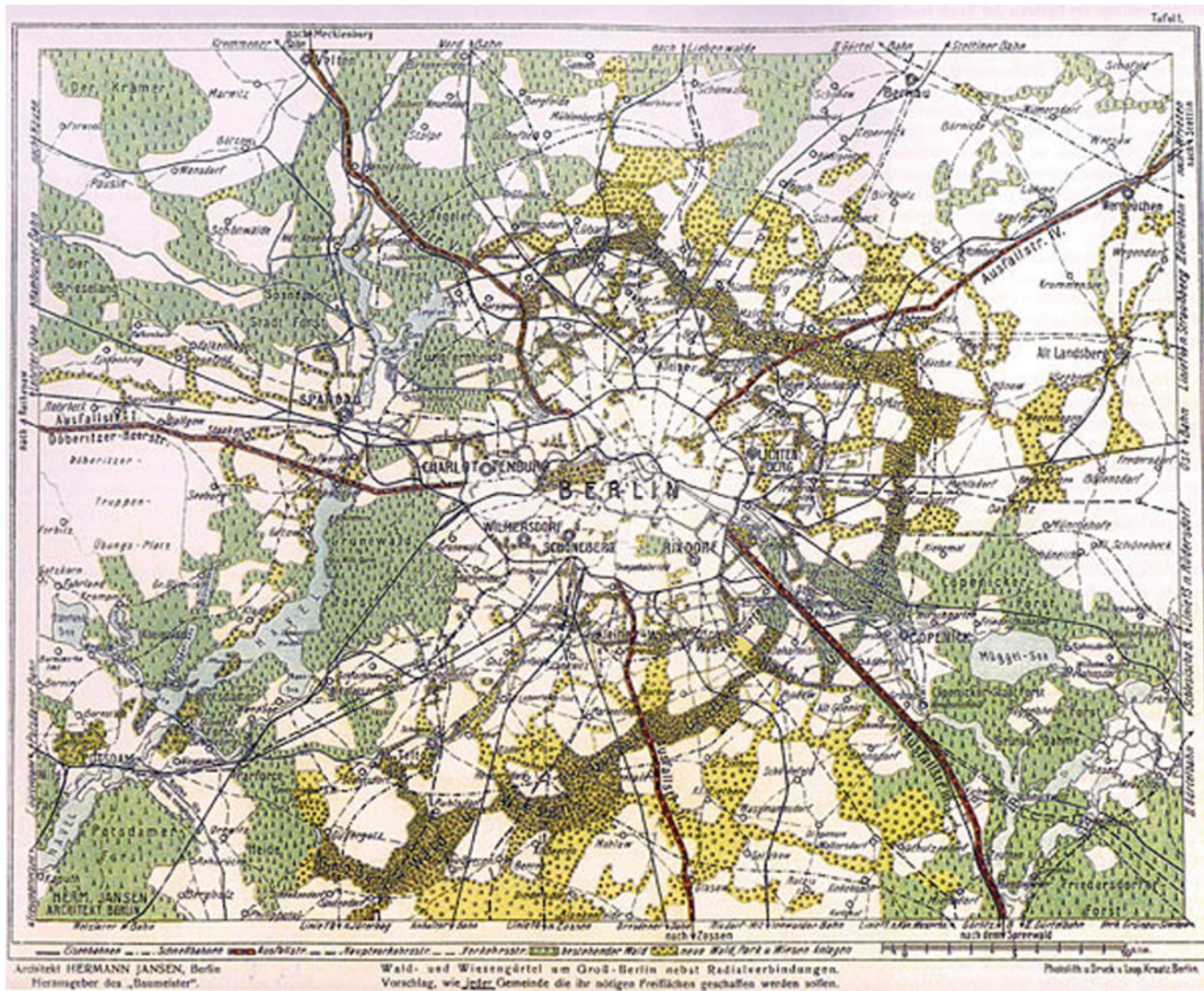


Fig. 4.2 Hermann Jansen, plan for the Great Berlin competition, 1910

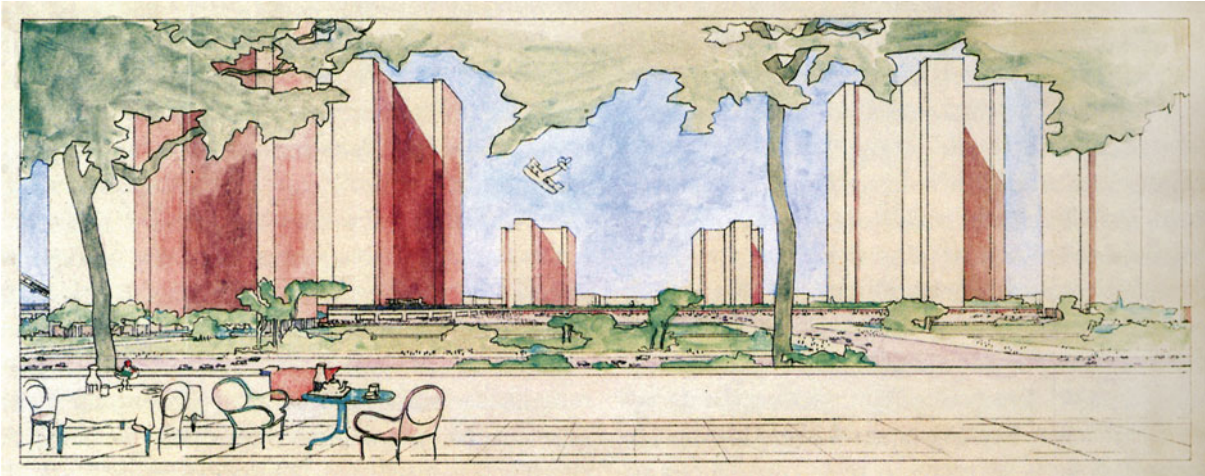
Ward remarked, “(...) most key innovations took place in the recently united Germany, or at least in the German speaking world” (Ward 2002, 26). There is nothing comparable in England or any other countries to the urbanism manual *Der Städtebau* (1890), the monumental work by Josef Stübben, author of over thirty plans of city extensions. His leading role in the development of modern urbanism has been established in urban historiography (Piccinato 1974).

Some authors compare the Anglo-Saxon visions of Planning to *Urbanisme* in the Latin European culture. Anthony Sutcliffe, one of the sponsors of urban history, referred to the culture of *urbanisme*, in the sense of contextualised planning and architecture, as something specifically Latin (Sutcliffe 2002). In Spain and Italy, modern urban planning emerged and was institutionalised later than in the UK or Germany, due to a slower process of industrialisation. Michel Hebbert also referred to this difference in traditions in his article ‘Town Planning versus Urbanismo’ in which he stated: “Town planning is Anglo-Saxon, whereas *urbanismo* is Latin”

(Hebbert 2006). We might see this as a ‘battle between two paradigms’, one of a more social, reformist nature and the other more closely linked to architecture. In essence, the nature of ‘Planning’ refers to the beginning, when it emerged as a number of techniques used to control urban growth in complex socio-economic situations. Architecture did not play a leading role in them, as it did at the *École Française d’Urbanisme* (EFU). In any case, the dearth of English translations of the copious literature on Latin Urbanism hinders a better understanding by the Anglo-Saxon researchers on Planning History.

The terminology that appeared at the birth of modern urbanism is key to understanding the origins of the discipline. The Spanish word ‘*urbanización*’ appeared for the first time in 1867, in the *Teoría General de la Urbanización* (General Theory of Urbanisation) by Cerdà. “For Cerdà, *urbanización* covered both urbanism, with its urban implications, and urban planning, with its economic, social, political, ideological and philosophical aspects. This made him the founder of a new discipline, which started to be





**Fig. 4.3** Le Corbusier, contemporary city of 3 million inhabitants, 1922



**Fig. 4.4** Le Corbusier, sketch of a contemporary city, 1922



**Fig. 4.5** Le Corbusier, diagram with the four functions of zoning, 1933

developed at the end of the nineteenth century, and above all in the twentieth century” (Lampugnani 2011). The French term ‘*urbanisme*’ arrived a little later, at the beginning of the twentieth century.<sup>1</sup> This is a fascinating story that goes way beyond the ‘parenthood’ of the term. According to some authors, the term ‘*urbanisme*’ was coined in 1910. Nevertheless, Henri Prost, one of the most representative architects of the EFU, claimed that “the term was created by four architects and an engineer”, including himself and Léon Jaussely, winner of the 1905 competition for a new plan for Barcelona. Of course, Jaussely knew of Cerdà’s work and

<sup>1</sup>According to the German architect and urban planner Oskar Jürgens, ‘From the word *urbanización*, coined by Cerdà, the French formed *urbanisme* to replace the terms used until then, a term which Spaniards later adopted as *urbanismo* to designate their urbanism (*Städtebau*)’ (Jürgens 1992, 271).

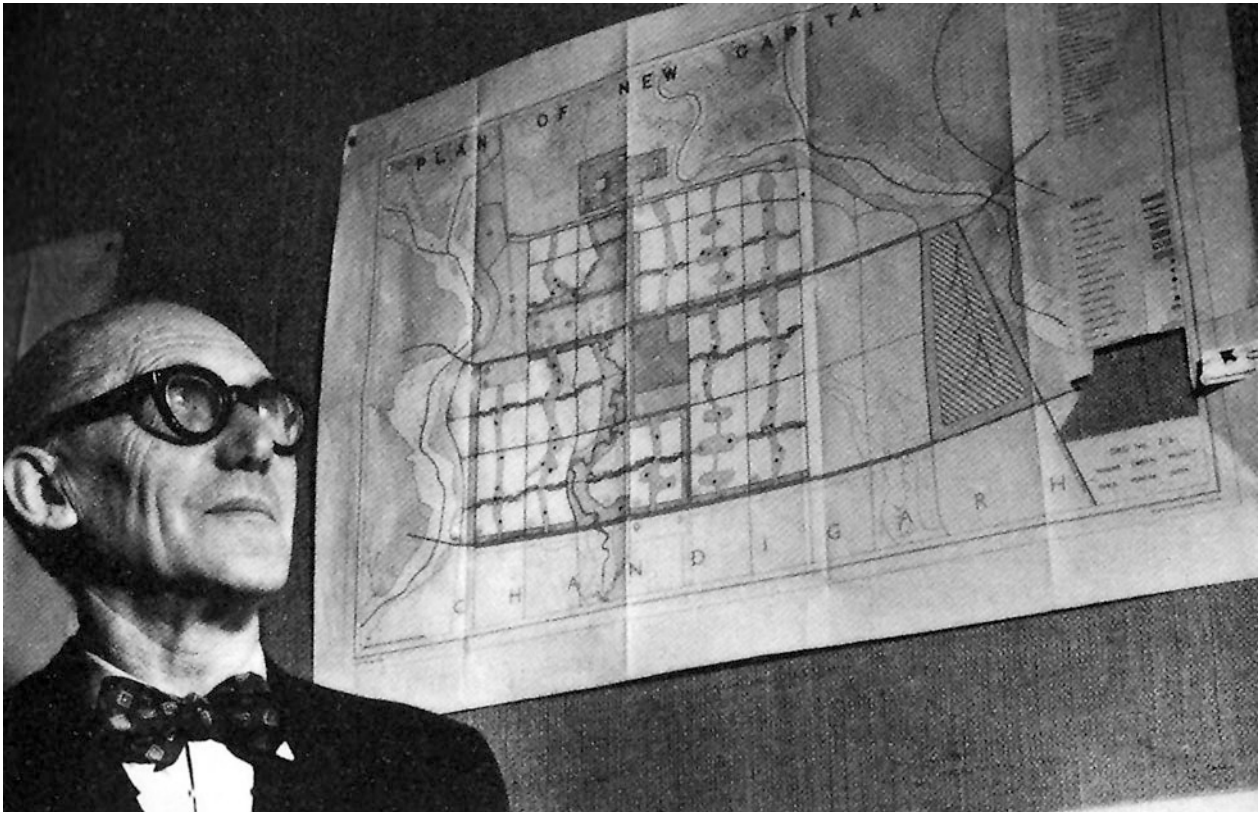
his ‘*urbanización*’ neologism. It is hardly surprising that some years later *urbanisme* became the official term, both for the field of urban studies and for the modern discipline of planning (Choay 1983). Despite the complex nature of *urbanisme* or *urbanismo* as a field of study and as a modern discipline, urbanists, or better said ‘Latin urbanists’, appropriated the term, emphasising the physical aspects of the concept (Monclús and Díez Medina 2017).

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### CIAM and the Athens Charter

In response to those visions of the modern discipline of urbanism, focussing on the development of general plans and zoning as fundamental techniques in planning urban growth, architectural historiography has tended to see the emergence of ‘modernist urbanism’ as linked to the





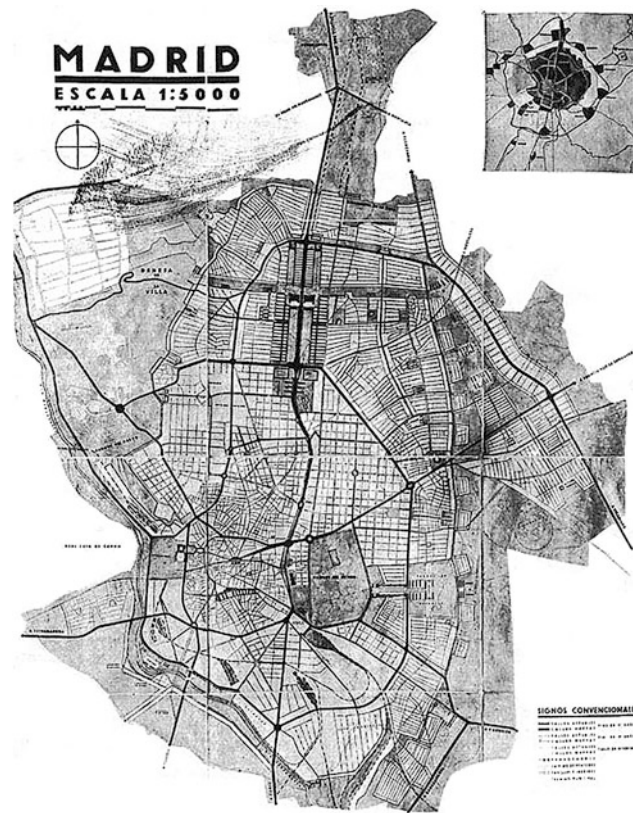
**Fig. 4.6** Le Corbusier, plan of Chandigarh, 1951

avant-garde which reached its climax in the 1920s and 30s. In these interpretations, there is a tendency to identify modernist urbanism as another aspect, although fundamental, of the gradual imposition of modern architecture.

Beginning in the 1920s, modern urbanism developed some radical innovations in housing and in urban forms that became consolidated with the support of the CIAM (International Congresses of Modern Architecture) which began in 1928. In 1924, El Lissitzky had been instrumental in the formation of an international modern architecture congress and for this purpose had approached Le Corbusier who, four years later, was to implement the idea albeit with a different format (Lampugnani 2011, 407). The subject of the debate began with basic considerations concerning minimal housing (*Die Wohnung für das Existenzminimum*, CIAM 2, 1929), but shifted onto the subject of the functional city which gradually took over the debates, most likely under the influence of Cornelis van Eesteren, who replaced Karl Moser as president of CIAM in 1931. The spirit of that ‘new urbanism’ was the subject of a great deal of academic literature that emphasised its relationship with certain urban visions, such as the well-known *Ville Contemporaine* model by Le Corbusier (1922), a radical proposal for cities of the industrial era. Although different proposals coexisted during those

years, such as *Vertikalstadt* by Ludwig Hilberseimer (1924), it can be said that the differences are not substantial (vertical zoning) (Monclús and Díez Medina 2016). Other later proposals are in line with the spirit of new urbanism, in which urban blocks with conventional ‘corridor streets’ are generally rejected in favour of open arrangements, independent of the highway system. Previously, in CIAM 3, the high linear block had been gaining ground as an alternative. Moreover, the arterial system of high-speed highways isolates high-rise buildings, and the green areas became dominant in modern planning. This was actually a significant change of paradigm related to the prestige of Taylorism and Fordism which involved in new ways of arranging urban spaces (Hilper 1978; Monclús 2014).

The clearest and most concise expression of the principles of modernist urbanism can be found in the so-called Athens Charter which came out of the 4th CIAM Congress, held in Athens in 1933 (starting on-board a ship which had set out from Marseilles) which consecrated ‘functionalist urbanism’ as it is understood in the language of international urbanism. The baseline for that extraordinary congress was an exchange of analyses and diagnoses of 33 cities, using a systematic approach translated into plans of the same scale (van Es et al. 2014). The centre role taken by the Amsterdam



**Fig. 4.7** Secundino Zuazo and Hermann Jansen, Plan for Madrid, 1929



**Fig. 4.8** Le Corbusier, José Luis Sert, Plan Maciá, Barcelona, 1933



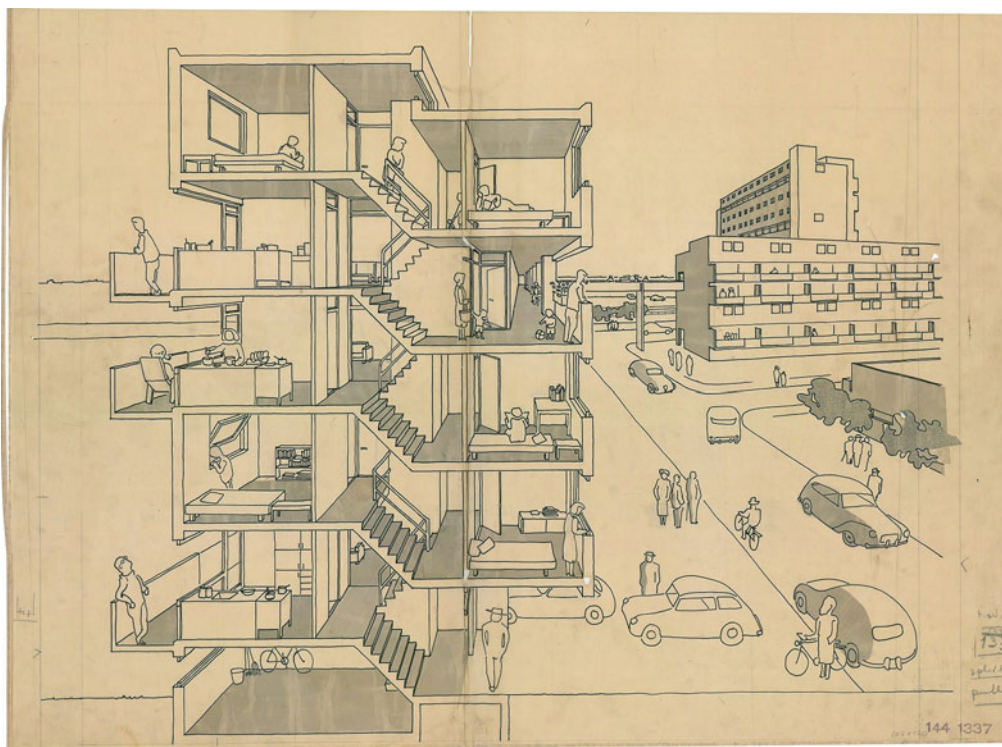
Plan (1933), drafted by the Van Eesteren team, explains its paradigmatic nature (Galindo 2003). Although there was no official publication with the results of the CIAM 4 analysis, the keys to the new urbanism were canonised as the famed four functions: dwelling, work, leisure, circulation. It was to be José Luis Sert who, during his exile in the USA, published a book, *Can our Cities Survive?*, with the subheading *An ABC of Urban Problems, Their Analyses, Their Solutions: Based on the Proposals Formulated by CIAM* (1942). The book, like a manifesto, might be considered the ‘North American Version’ of the Athens Charter and appeared a year before Le Corbusier published a version of his own (Le Groupe CIAM—France 1943).

### The Impact of Modernist Urbanism After World War II

Adopting modernist functional urbanism prevailed among the cities affected by World War II. London, with the two plans by Patrick Abercrombie and his team, was an exemplary model of modernity: both the County of London Plan (1943) and the Greater London Plan (1944) were key moments in the maturing process of urbanism in the post-war period (Gold 2007; van Es et al. 2014). On a different level, particularly concerning the design of new residential areas, there was a greater commitment to a functional

approach. Despite criticism, the functionalist paradigms were widely imposed in the 1960s. Curiously, this coincided precisely with more widespread criticism. That was not only due to the ‘arrogance’ of some of the main players in functionalist urbanism, such as Le Corbusier (Hall 2014). But other factors also came into play, particularly those associated with the extraordinary process of construction and proliferation of mass housing estates in Europe in the 1960s and 1970s, for several reasons: first of all, owing to the critical shortage of housing and the intent to quickly solve the problem and secondly, because standardisation and prefabrication led to increasingly rapid construction. Consequently, both architects and urbanists and their respective governments believed it was correct to apply the CIAM theories. The problem arose when these principles were indiscriminately applied in a context of rapid urban growth (Monclús and Díez Medina 2016, 5) (see Chap. 7).

One of the most widely debated issues in architectural historiography is that of continuity and changes of paradigm which took place after World War II in relation to the revisions of the principles defended by CIAM and the Athens Charter which had begun to emerge during the first post-war period. Of special interest were the debates on the significance of CIAM 8, held in Hoddesdon in 1951, dedicated to ‘The Heart of the City’ illustrating a renewed attention to public urban space after the rejection and indifference to the streets and plazas of traditional urban



**Fig. 4.9** Johannes Hendrik van den Broek and Jacob Berend Bakema, proposal for Lekkumerend housing in Leeuwarden, Holland, 1962



fabric which had characterised the former approach of functionalist urbanism (Mumford 2000).

On the other hand, the counterpoint or the ‘Socialist version’ of the Athens Charter may be found in the document under the title ‘16 Grundsätze des Städtebaus’ (16 Principles of Urbanism) published in 1950, a year before the ‘Heart of the City’ congress was held. This text combined the ideas of functionalist urbanism of the thirties with Stalinist concepts of the Soviet era. Paradoxically, in spite of the principles of the Athens Charter being widely disseminated in the 1950s, the Socialist document partly added to a parallel process of review in the re-examination of traditional urban forms began to gain strength (Monclús and Díez Medina 2016, 4).

In western Europe, criticism of the CIAM proposals began to grow within the very heart of the organisation itself. Team 10 efforts to overcome the coldness of the models that had marked the beginnings of the CIAM are well known. In the 1960s, structuralist concepts dominated the field of architecture and urbanism. Although structuralism was initially introduced as a scientific method in anthropology and other human sciences, the strong reaction to the excessive radicalism of the ‘functional city’ had given rise to a profound review of its principles at CIAM 10, held in Dubrovnik in 1956. Abandonment of the CIAM spirit in favour of the proposals by Team 10 at the meeting in Otterloo in 1959 began to become evident through rejection of the four functions of the Athens Charter in favour of other more complex visions associated with ‘Urban Re-identification Grid’.<sup>2</sup>

It is important to bear in mind that the work of Alison and Peter Smithson, including the paradigmatic project for Robin Hood Gardens (1969–72), formed part of a wider movement which included other architects. In this context, a mode of technological urbanism appeared as an alternative to the traditional city, structured around networks of ‘streets in the air’, elevated volumes and spaces, with vehicles travelling at ground level, etc. Nonetheless, it is worthwhile to recall that optimism with respect to technology formed a long tradition, with peaks in periods of accelerated urban growth, as was the case in the 60s and 70s.

As part of the heated debate on the impact of the Athens Charter, a wave of criticism has addressed urban forms generated by a system of strict zoning—that separates housing from industry and attempts to rationalise transport—which has contributed to disintegration of urban fabric. The negative effects of what was initially a bold effort to create open space have also been recognised. The causes for the loss of ‘urbanity’ are undoubtedly generalised and complex (see Chap. 7).

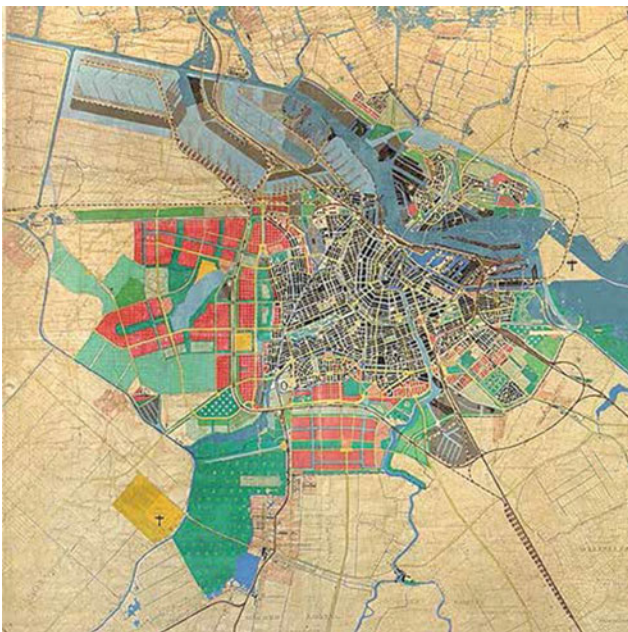
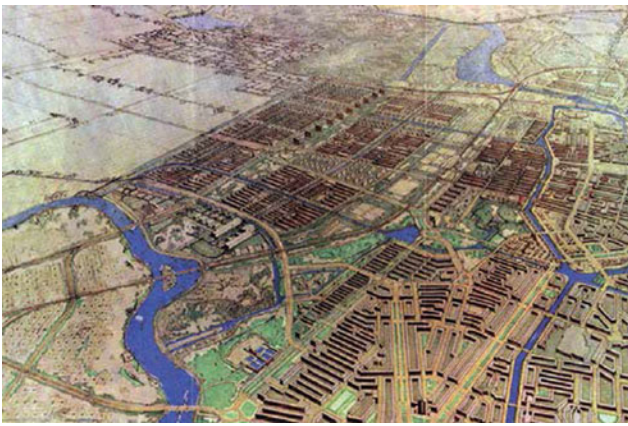
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<sup>2</sup>Mumford, *The CIAM Discourse on Urbanism*.

## Case Studies

### Amsterdam South Extension Plan (1934)

In the 1930s, the ‘architectural urbanism’ of Amsterdam South of H. P. Berlage opened up to the city of ‘modernist urbanism’ of the Algemeen Uitbreidingsplan (AUP) or 1934 Extension Plan by Cornelis van Eesteren. On the basis of this plan, new areas of expansion were configured, based on the principles of the Athens Charter (1933–42) that might be considered the bible of functionalist urbanism, in which the work not only of Le Corbusier but also of Van Eesteren



himself, President of the International Congresses on Modern Architecture (CIAM) from 1930 to 1947, had a lot of influence. The analysis of the Amsterdam Extension Plan, drafted by a team that he directed, represents one of the major milestones in modernist urbanism.

The model adopted is centralised, in direct connection with the economic structure of the city centre, but retaining the chief advantages of a garden city, i.e. a more independent nature, structural clarity and the use of detached houses. In the AUP report, this position was clearly stated: “A link with the city limits is possible, arranging the necessary surface areas to define residential zones, work areas and leisure areas in an organised fashion. Each residential area forms a complete urban complex, but the need for connection makes a comprehensive development a necessity. Hence, we find a centralised type of expansion, with the advantages of a garden city and its isolated nature but we avoid the disadvantages of a remote location which is both uneconomical and impractical”. Van Eesteren himself expresses that duality when defining the AUP assignment as a project in which the aim is to implement the quality of a garden city within the city limits.

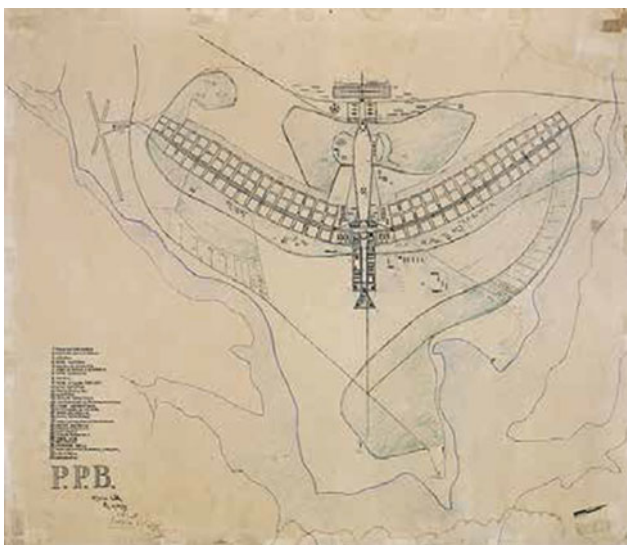
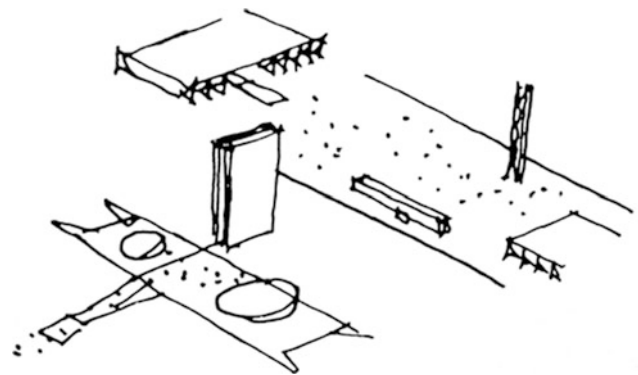




### Brasilia (1957–1960)

The new city of Brasilia, designed by Lucio Costa and Oscar Niemeyer, is a paradigmatic example of modernist urbanism. As in other newly founded capital cities (Washington, St. Petersburg, etc.), the conditions for construction of the new capital of Brazil were exceptional, comprising a true laboratory where one could experiment with 'the functional city' consecrated in CIAM 4. The starting point was an ambitious programme with the intention of transferring the political centre and part of the population along with business activities from the coast to the interior of the country. It was therefore an economic wager within the framework of 'developmentalism' in which the image of the new city was highly significant in the political context at the time.

The plan by Lucio Costa for the capital had a simple layout, defined by an axis running east–west, crossed by a curved line running north–south, depicting an allegorical aeroplane or bird entering the interior of the country. The principles of strict functional zoning are evident in the segregation of the residential areas from the industrial areas and open spaces, in addition to the predominance and autonomy of the transit system, with the clear distinction between the different types of traffic. The civic–commercial axis, both monumental and metaphorical, crosses the residential 'wings', grouped in '*super-quadras*' (super-squares) of 500 m × 500 m, in accordance with the neighbourhood unit criteria. Moreover, adopting the ideas by Le Corbusier to separate the 'Acropolis' or head of the city gives rise to the Praça dos Três Poderes.



## References

- Benevolo, L. 2000. *Le origini dell'urbanistica moderna [1963]*. Roma, Bari: Laterza.
- Calabi, D. 2004. *Storia dell'urbanistica europea*. Milan: Bruno Mondadori.
- Choay, F. 1965. *L'urbanisme, utopies et réalités. Une anthologie*. Paris: Seuil.
- Choay, F. 1983. Pensées sur la ville, arts de la ville. In *Histoire de la France urbaine. La ville de l'âge industriel, le cycle haussmannien*, vol. 253. ed. G. Duby, Paris: Seuil.
- Galindo, J. 2003. *Cornelis van Eesteren. La experiencia de Amsterdam*. Barcelona: Arquia.
- Gold, J.R. 2007. *The Experience of Modernism: Modern architects and urban transformation, 1954–1972*. New York: Routledge.
- van Es, E., G. Harbusch, B. Maurer, M. Pérez, K. Somer, and D. Weiss (eds.) 2014. *Atlas of the Functional City CIAM 4 and Comparative Urban Analysis*. Bussum, Zurich: Thoth Publishers, gta Verlag.
- Le Groupe CIAM—France. 1943. *Urbanisme des C.I.A.M. La charte d'Athènes: avec un discours liminaire de Jean Giraudoux*. Paris: Plon.
- Hall, P.G. 2014. *Cities of Tomorrow. An Intellectual History of Urban Planning and Design in the Twentieth Century [1988]*. 4th ed. Oxford: Wiley-Blackwell.
- Hebbert, M. 2006. Town planning versus urbanismo. *Planning Perspectives* 21: 233–251. doi:10.1080/02665430600731153.
- Hilper, T. 1978. *Die funktionelle Stadt. Le Corbusiers stadtvision: bedingungen, motive, hintergründe*. Braunschweig: Vieweg.
- Jürgens, O. 1992. *Ciudades españolas: su desarrollo y configuración urbanística [Spanische Städte: ihre bauliche Entwicklung und Ausgestaltung, 1926]*. Madrid: Instituto Nacional de Administración Pública.
- Lampugnani, V.M. 2011. *Die Stadt im 20. Jahrhundert. Visionen, Entwürfe, Gebautes*. Berlin: Klaus Wagenbach.
- Monclús, J., and C. Díez Medina. 2017. Urbanisme, Urbanismo, Urbanistica. Latin European Urbanism: Italy and Spain. In *Planning History Handbook*, ed. C. Hein. London: Routledge.
- Monclús, J., and C. Díez Medina. 2016. Modernist housing estates in European cities of the Western and Eastern Blocs. *Planning Perspectives* 31: 533–562. doi:10.1080/02665433.2015.1102642.
- Mumford, E. 2000. *The CIAM Discourse on Urbanism, 1928–1960*. Cambridge: MIT Press.
- Sert, J.L. 1942. *Can Our Cities Survive? An ABC of Urban Problems, Their Analyses, Their Solutions: Based on the Proposals Formulated by the CIAM*. Cambridge, Massachusetts: Harvard University.
- Sutcliffe, A. 1981. *Towards the Planned City: Germany, Britain, the United States, and France, 1780–1914*. Oxford: Basil Blackwell.
- Sutcliffe, A. 2002. Foreword. In *Planning Latin America's capital cities 1850–1950*, ed. A. Almandoz, vii–viii. London: Routledge.
- Ward, S.V. 2002. *Planning the Twentieth-Century City: The Advanced Capitalist World*. New York: Wiley.

## Further Readings

- Berman, M. 1982. *All that is Solid Melts into Air: The Experience of Modernity*. London: Verso.
- Borsi, K. 2015. Drawing the region: Hermann Jansen's vision of Greater Berlin in 1910. *The Journal of Architecture* 20: 47–72. doi:10.1080/13602365.2015.1004619.
- Díez Medina, C., and J. Monclús. 2017. On urbanity and urban forms. Some remarks on modernist urbanism's legacy. ed. M.G. Folli. *Urbanity. A New Opportunity for Ukrainian Cities*. Milan: Politecnico di Milano—Gioacchino Onorati editore.
- Gravagnuolo, B. 1991. *La progettazione urbana in Europa, 1750-1960: storia e teorie*. Bari: Laterza.
- Monclús, J. 2014. International Exhibitions and Urban Design Paradigms. In *Exhibitions and the development of Modern Planning Culture*, ed. R. Freestone, and M. Amati, 225–242. Farnham: Ashgate.
- Paquot, T., Y. Tsiomis, C. Secci, and S. Bonzani. 2003. La Charte d'Athènes, et après? *Urbanisme* 330: 35–36.
- Piccinato, G. 1974. *La costruzione dell'urbanistica: Germania, 1871-1914*. Roma: Officina.