

ILDEFONSO CERDÁ

His Plan for Barcelona and Egalitarian Urban Science

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Abstract

Compared with the work of Soria y Mata, Ildefonso Cerdá's contribution to urban planning has been unjustly overlooked outside Spain. This paper reviews Cerdá's City Expansion Plan for Barcelona (1855), with particular reference to the theory behind its physical structure and the nomenclature of its component parts. Problems in implementing the scheme are given prominence and accounted for in the light of vested commercial interests and legal constraints prevailing in nineteenth century Spain. Cerdá's preoccupation with general spatial inequalities is also highlighted and the view propounded that his influence on planning thought is likely to increase as further evidence of his work is re-discovered.

Biographical Note

Martin Wynn graduated in geography from the University of Durham in 1973 whereafter he held the post of Lecturer in Environmental Studies for one year at Durham Technical College. He then returned to his university and in 1977 completed an MA on planning and development in Barcelona. Since 1977 he has been a PhD research student at Trent Polytechnic engaged on local planning case studies in Spain. He already has a sequence of published articles to his name and a book in the press on city planning problems in southern Europe.

CONTENTS

Page

Section 1	Introduction	1
2	Scenario of Cerdá's Work	3
3	Description of the Plan Cerdá	5
4	Plan Analysis - Design Basics and the Underlying Model	8
5	Implementation of the Plan Cerdá	13
6	Cerdá as the Founder of an Urban Science?	15
	References	20
	Appendix - The Published Works of Cerdá.	21

Figure 1	Cerdá's 'Topographical Plan of Barcelona and its Suburbs' (1855).	2
2	The Plan of Antonio Rovira y Trias (1859).	4
3	The Plan Cerdá (1859).	6
4	Terms used in Cerdá's Street Layout.	9
5	Micro and Macro Services in Cerdá's Underlying Model.	11
6	Micro and Macro Services in the Plan Cerdá.	12
7	The Infilling of Cerdá's Manzana.	14
8	A Section of the Plan Cerdá.	18
Table I	Land Use of 'Manzanas' (blocks) in the Plan Cerdá.	9

1. Introduction

1.1 The importance of Arturo Soria y Mata and his 'Ciudad Lineal' has long been recognised inside and outside Spain, but only recently has the name of Ildefonso Cerdá been talked of in a similar context. Inside Spain this was largely due to pioneering research of Miguel Domingo, Salvador Tarrago and Arturo Soria in the early and mid-70's, culminating in the Cerdá Centenary Exhibition in Barcelona in 1976. Much of this material has subsequently been translated into English and was presented in a similar exhibition organised by the Architectural Association in London in February 1978.

1.2 This article is based on part of a wide-ranging review of literature on urban planning in Barcelona, undertaken by the author between 1974 and 1977, which formed the basis for his M.A. Thesis - "The Role of Planning in the Evolution of Barcelona (1714-1977)", Department of Geography, University of Durham, June 1977. The article corresponds approximately to a seminar paper given at the Department of Town and Country Planning in September 1977, although certain additions have been made as new material has been published over the past two years. Above all, the works of Arturo Soria, Salvador Tarrago, Miguel Domingo and Ramon Grau have been drawn upon, to whom the author is much indebted.

1.3 Indeed, throughout much of the post-war era, Cerdá's work has been criticised by commentators such as Gutkind (1967) and Choay (1969). Gutkind in particular says that: "Cerdá submitted a plan that combined extreme rigidity with stereotyped dullness in a masterly fashion. His chequerboard scheme received the Royal consent, although a public competition had been arranged at the time, and the winning design (by Rovira i Trias) was far superior". But in Barcelona, research into his 1859 plan for the city and his written works have revealed more about Cerdá's theories and concepts that debatably place his work in the forefront of the development of urban planning and planning theory in the 19th and early 20th centuries.



Figure 1 Cerdá's Topographical Plan of Barcelona and its Suburbs', 1855.

To the left of the old city is the Montjuich Hill; the river to the right is the Besos. The settlements on the plain road are (left to right) : Collblanch, Bordeta, Sans, Pedralbes, Hostafranchs, Corts de Sarria, Sarria, San Gervasi, Putxet, Vallcarca, Gracia, Camp del Arpa, La Llacuna, Clot, Icaria, San Andres de Palomar, San Marti de Provencals, and San Adrian de Besos.

Source : Archivo Historico Municipal de Barcelona (AHMB).

2. The Scenario of Cerdá's Work

2.1 Cerda was born in 1815, the son of a farmer and merchant, in Cantanellas in the Province of Barcelona. He first came to Barcelona in 1834, then a walled, overcrowded city with problems "graver than those of any other industrial city, in France or in England". (Soria and Tarrago 1976). In 1836 he registered in the School of Civil Engineers and left in 1841, a qualified Engineer. In the 'forties he worked on the construction of roads, railways and aqueducts, but gave up his career in 1849 because of his "already irresistible affection for the study of urbanisation". (Cerdá 1867) He had been left the family fortune following the death of his father and two brothers and spent the rest of his life (he died in 1876) working on his studies, although he also held local administrative and political posts, notably vice-president of the Provincial Government (Diputación) during the first Republic (1872-4).

2.2 Barcelona in the mid-nineteenth century was demographically expanding very rapidly, yet was physically constrained by its medieval walls. The city grew from 111,000 in 1787 to 159,000 in 1849. According to Cerdá (1867) there were more deaths than births in the city between 1836 and 1847, but over 53,000 in-migrants arrived in the city during this period. In 1859 the population density in the medieval city as a whole was 859 inhabitants per hectare, with 1,724 inhabitants per hectare in Zone 10 of District 2, figures higher than in any other European city at the time. But despite the obvious need for city expansion, the Central Government and its local representative, the 'Captain General', maintained that the preservation of the walls was necessary for defence purposes.

2.3 There was much unrest in the city while the walls remained. During the cholera epidemic of 1835, the mob rose and burnt the convents (which still had large open gardens) to the ground. In 1841, Dr. P F Monlau wrote a much publicised pamphlet entitled "Down with the walls" (see references) in which he attacked unhygienic conditions in the old city and argued for the destruction of the walls and extension of the city inland. In 1843 a large procession was dispersed by the army and widespread uprisings preceded the so-called Liberal Biennium (1854-6)

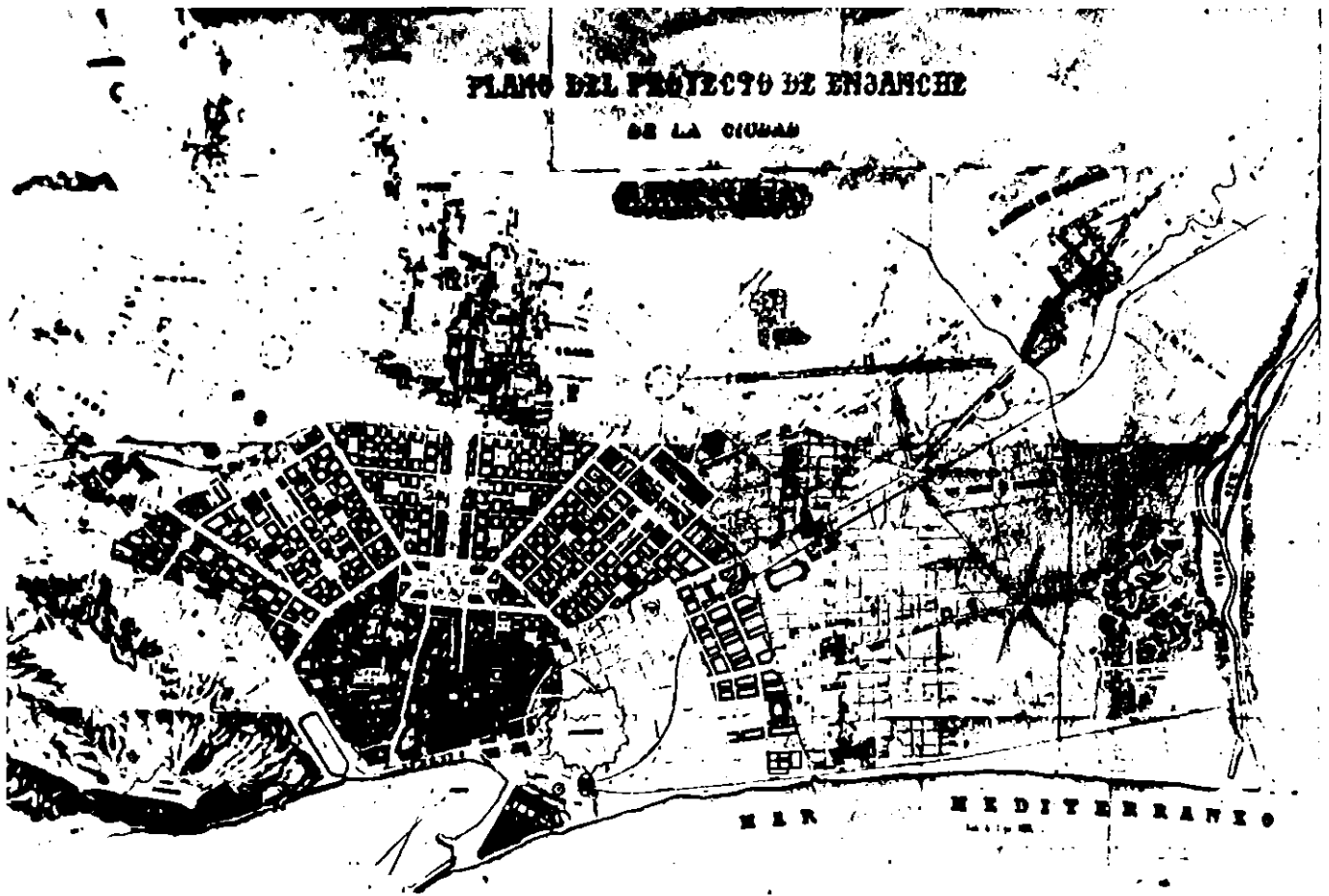


Figure 2 The Plan of Antonio Rovira y Trias 1859

Source : AHMB

of General O'Donell, when the destruction of the medieval walls was finally authorised and the expansion (ensanche) of the city across the plain at last became a realistic possibility. The 'Captain General' was replaced by the 'Civil Governor', who put Cerdá, engineer of roads, canals and ports, in charge of the "works of drawing up a plan of the suburbs of the city, by virtue of his high authority" (Martorell, Florensa and Otzett, 1970) which he completed in 1855 (Figure 1).

2.4 In 1859 the Barcelona Council announced that this plan would form the basis for all entries in a competition to find the best City Expansion Plan for Barcelona. But in the meantime, the Central Government put Cerdá in charge of drawing up such a plan, which to the anger of the Barcelona authorities, was officially approved by the Central Government in 1860. The Barcelona Council protested long and hard, arguing that they had adjudged the Plan of Antonio Rovira y Trias (Figure 2) to be the winner of their competition, a plan which the Madrid Government considered "did not fulfil the principal conditions of the programme". (Martorell et al, 1970) Protest after protest followed, but the decision stood; the Barcelona City Expansion Plan was to be that of Ildefonso Cerdá.

3. Description of the Plan Cerdá

3.1 "Barcelona lost the opportunity of becoming a city that even today would be one of the most modern and, what is more, one of the most beautiful in Europe." (Garrut 1963)

3.2 Cerdá's City Expansion Plan (Figure 3) was officially entitled the 'Plan of the Suburbs of Barcelona and Project of their Reform and Expansion' but is usually referred to as the 'Plan Cerdá' and this term will be used from hereon. Figure 3 shows how the outlying villages were to be joined with the old city, some being completely enveloped by the quadricle road pattern (Camp de l'Arpa, Clot, La Llacuna, Icaria) whilst others remained on the borders of the plan (Sants, Bordets, Gracia) and others were not included at all (Collblanch, Pedralbes, Sarria, San Gervasio, Horta). Two settlements, Hostafranchs (to the left) and San Andres de Palomer (top right) form a kind of in-between group between the first two groups

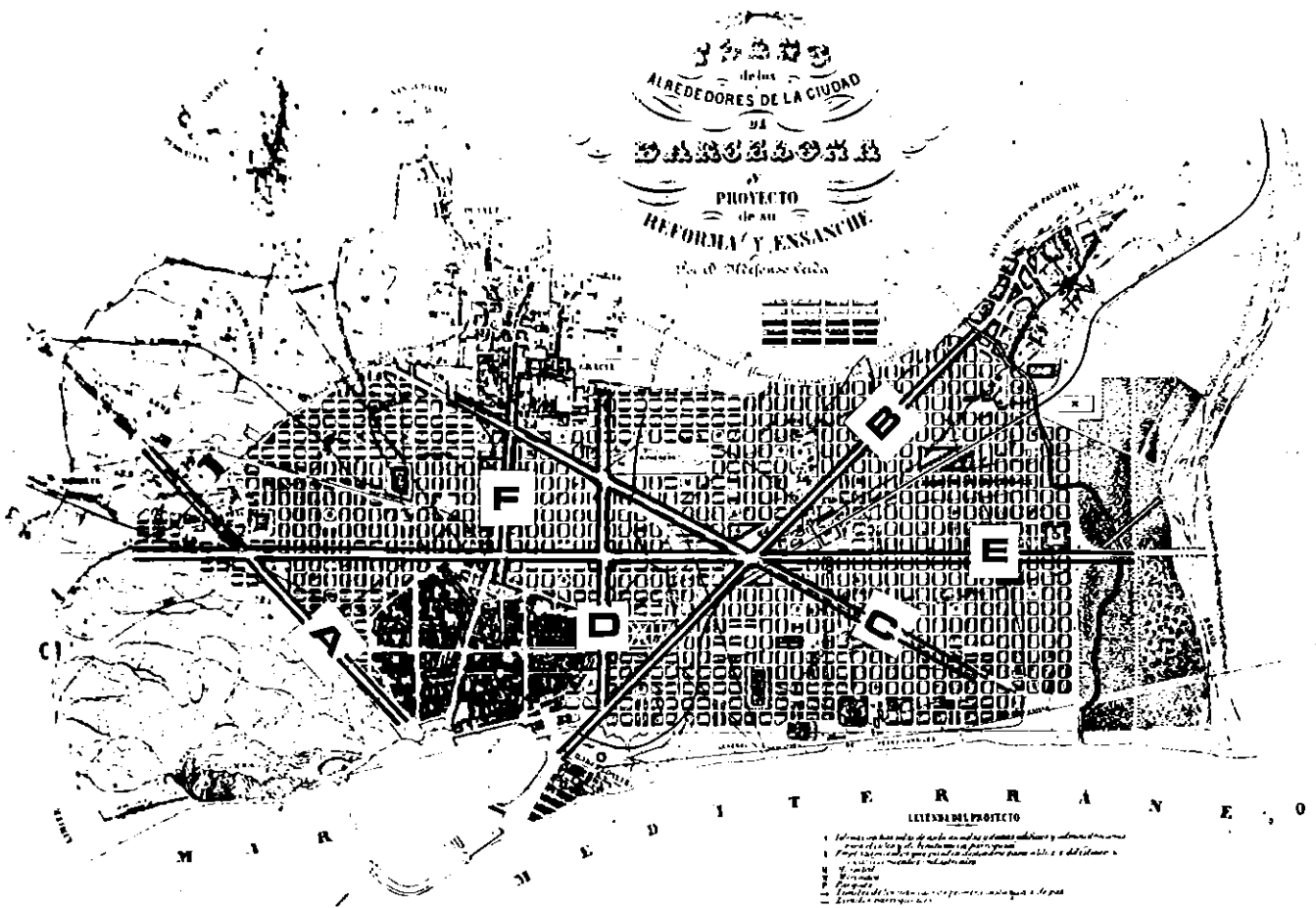


Figure 3 The Plan Cerdá 1859

A - Paralelo; B - Meridiana; C - Diagonal; D - Paseo de San Juan;
 E - Gran Via; F - Paseo de Gracia.

Source : AHMB

mentioned. They were both 'within' and yet because of the necessary adaptations in the road pattern, they remained in many ways 'without'. Something similar could be said of Gracia.

3.3 To use Cerdá's terminology, the road system consisted of a 'warp' of streets more or less parallel to the coastline and a 'weft' of streets crossing the former at right angles, running from the inland mountain range (Collcerola) to the sea. All streets were 20 metres wide except two in the warp and two in the weft which were 30 or 50 metres wide. There were two large diagonals crossing the quadricle pattern ('Meridiana' and 'Diagonal') and one bordering the 'Ensanche' on the left ('Paralelo'), all three being 50 metres wide (Figure 3).

3.4 Within the road pattern, Cerda planned octagonal 'manzanas' (blocks) consisting of squares with their corners bevelled off to form 'chaflanes'. The chaflanes were to be 20 metres long, forming octagonal 'plazoletas' (small squares) at every cross-roads, (Figure 4). Within the 'manzana', buildings were to occupy only 2 sides and be 20 metres deep and 16 metres high (maximum). The 'manzana' itself stretched 133 metres from road centre to road centre, a sector of 9 'manzanas' thus forming a 400 metre square. Within each 'manzana' the blocks of buildings were not always parallel, nor did they always occupy the same side of the 'manzana'. In general, however, the interior of the 'manzana' was occupied by orchards and gardens. Of the 20 metres average street width, 10 metres were to consist of pavement.

3.5 Table 1 summarises the numerical allotment of services within the Plan. Excluding the old city, the Besos wood (right), the Montjuich Hill (left), Gracia, San Andres and other settlements outside the Plan, the 'manzanas' and the grid-road system occupied 16 square kilometres. Outside the built-up area, three hospitals, a cemetery and a slaughter house were planned. Around the social centres and state administrative buildings, the adjacent roads were widened from 20 to 40 metres and surrounding 'manzanas' often included a 'plaza' or were at least well divided by passageways to enable a good view of buildings. The streets were also widened at various other points in the Plan to act as stopping places for traffic or as viewpoints.

3.6 The streets of the 'warp' and the 'weft' were oriented so that the bisectrices ran north-south and east-west or, to put it another way, the 'chaflanes' of each 'manzana' faced one of the four points of the compass (bottom left 'chaflanes' facing south). The routeways 'La Meridiana' and 'Paralelo' (Figure 3) were so called because of their orientation west-east and north-south respectively. The Plan was adjusted to accommodate existent and planned railways and pre-existent rivers were diverted into the River Besos or around the Montjuich Hill (Figure 1) by drainage canals.

4. Plan Analysis - Design Basics and the Underlying Model

4.1 Having briefly described Cerdá's Plan we can now move on to examine the design basics and underlying model which have come to light in recent years as researchers have scrutinized the plan in search of insights into Cerdá's 'urban science'. The plan has become the major focus of attention, because so much of Cerdá's other work is incomplete or missing - most critically, volume three of Cerdá's 'General Theory of Urbanization' (1867), which according to Cerdá was "to establish the fundamental principles of the science of urbanization" (ibid, Vol 1, p. 337).

4.2 Cerdá's study of the old city and its surrounds in the early and mid-1850's led him to view a linear expansion along the coast as the best form of city growth for Barcelona, and indeed, some writers, notably Ortiz (1977) see Cerdá as the founder of the linear growth concept, later employed by Soria y Mata, Garnier, Le Corbusier, Miliutin and others. The old city was situated close to a relatively straight coastline with a few isolated settlements on a plain that stretched inland to a mountain range (Collcerola), running more or less parallel with the coast. Thus, in his plan, although the Montjuich Hill blocked immediate growth down the coast, the 'Gran Via' (Figure 3) running across the plan parallel with the coast and just above the old city, nevertheless formed a linear axis that could be extended as necessary.

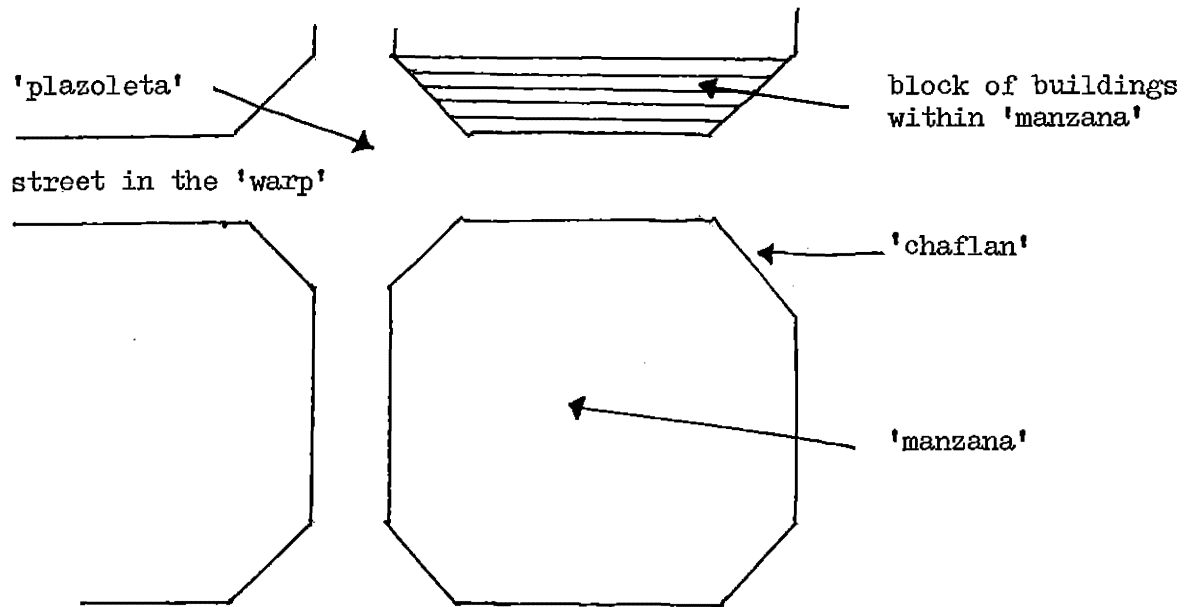


Figure 4 Terms used in Cerda's Street Layout.

Land Uses	<u>NUMBER IN PLAN</u>	<u>NUMBER OF MANZANAS OCCUPIED BY EACH ONE</u>	<u>TOTAL NUMBER MANZANAS</u>
MARKETS	10	1	10
PARKS	7	2 - 9	38
HIPPODROME	1	14	14
'SOCIAL CENTRES'	32	1	32
STATE BUILDINGS AND INDUSTRIAL ESTABLISHMENTS	8 groups	2 - 4	30
HOUSING (excluding San Andres and The Old City)	776 (approx)	1	776
TOTAL AREA			900

Note : 3 hospitals, a cemetery, a slaughter house and the Besos wood were planned outside the 'Ensanche'.

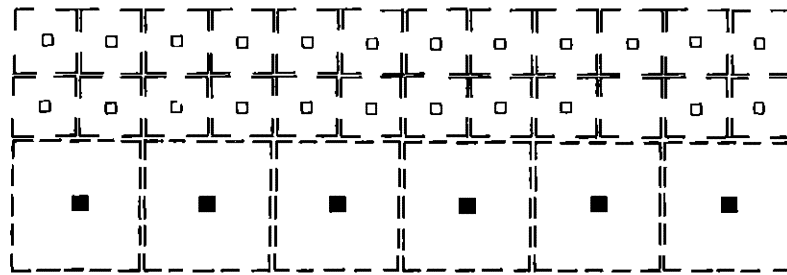
Table 1 Land Use of 'Manzanas' (blocks) in the Plan Cerdá

4.3 The road system within the Plan Cerdá constituted the synthesis of two different sub-systems, one radial (for external communications) and the other quadricular (for internal communications). The radial system consists of two roads ('Meridiana' and 'Paralelo') (Figure 3) set at an angle of 45 degrees to the quadricule pattern, forming a 90 degrees angle at their theoretical meeting point in the port. These two roads lead inland by the Llobregat and Besos valleys, the natural routeways linking Barcelona with its hinterland. 'Diagonal', running across the city from bottom right to top left (Figure 3), acts as both external routeway supporting 'Paralelo', and also complements the internal system linking the pre-existent settlements on the plain (Sarrria, Las Corts, Gracia, Clot, and Pueblo Nuevo - Figures 1 and 3). The internal communications were based on the quadricular road pattern that centred on Paseo de San Juan (running N.W. to S.E.) and the 'Gran Via' (S.W. to N.E.), this latter, as we have noted, being of particular importance as the axis of possible future linear development.

4.4 Cerdá was aware, however, that streets should be more than just a passageway for vehicles. He took into account the demands of both vehicles and pedestrians and designed a variety of central islands in the space created by the existence of 'chaflanes'. Cerdá's intention was to save the long walks round the 'chaflanes' that pedestrians must make today. There were also to be 92 trees in each 'manzana', 36 in the interior and 56 on the edges of the pavements - one every 8 metres. Along larger avenues, lines of trees were to be doubled.

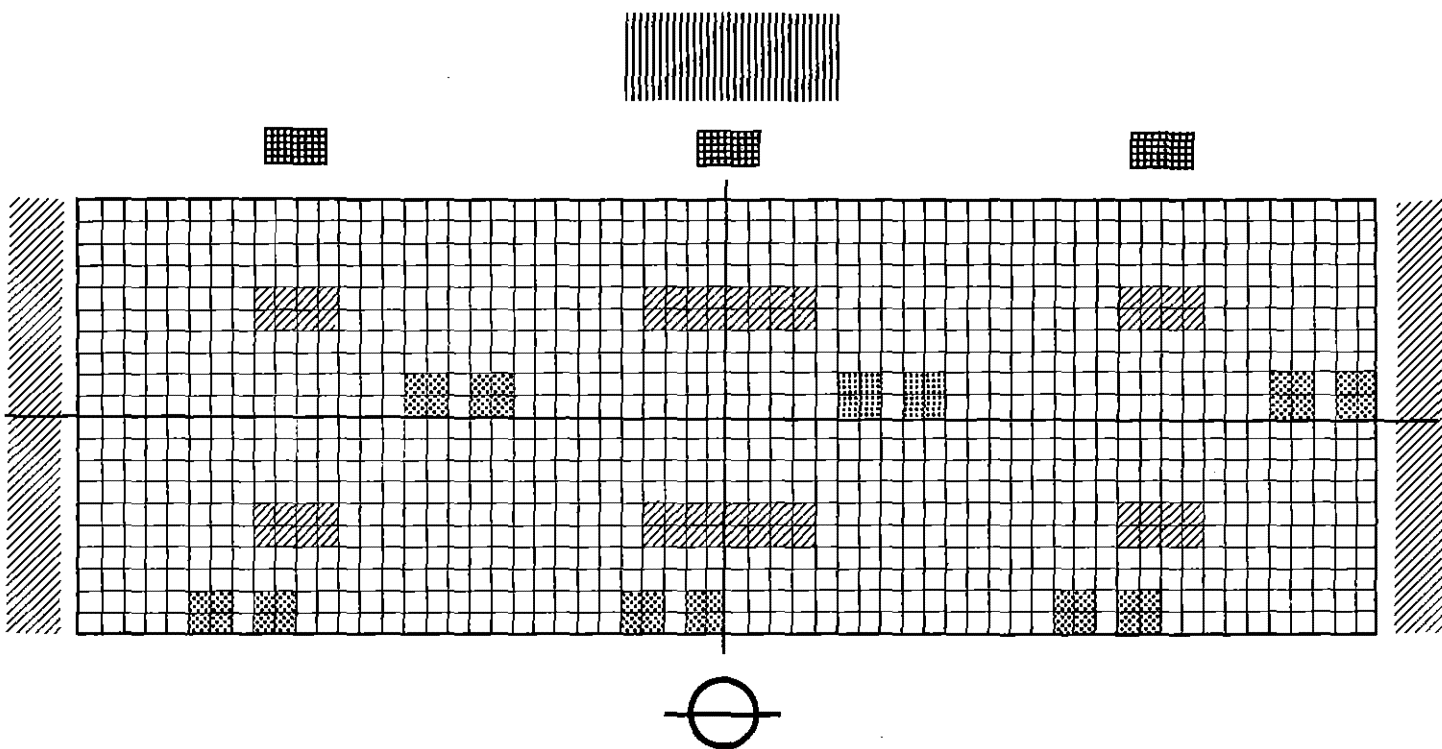
4.5 If we now move on to consider the distribution of services in the plan, there is clear evidence (as Soria and Tarrago point out) of a hierarchical policentric model adapted in the plan to the physical reality of the Barcelona plain. In this idealised model there were four hierarchical tiers, to which the distribution of different service buildings and green areas corresponded.


4.6 Every zone of 25 (5 x 5) 'manzanas' was built around a 'social centre', described in the plan as a "church, sanctuary, asylum, school or administrative centre for the cultural benefit of the parish".



□ Social Centres

■ Markets



 Cemetery

 Hospitals

 Parks

 Administrative and Industrial Buildings

 Slaughter House

Figure 5 Micro and Macro Services in Cerdás Underlying Model

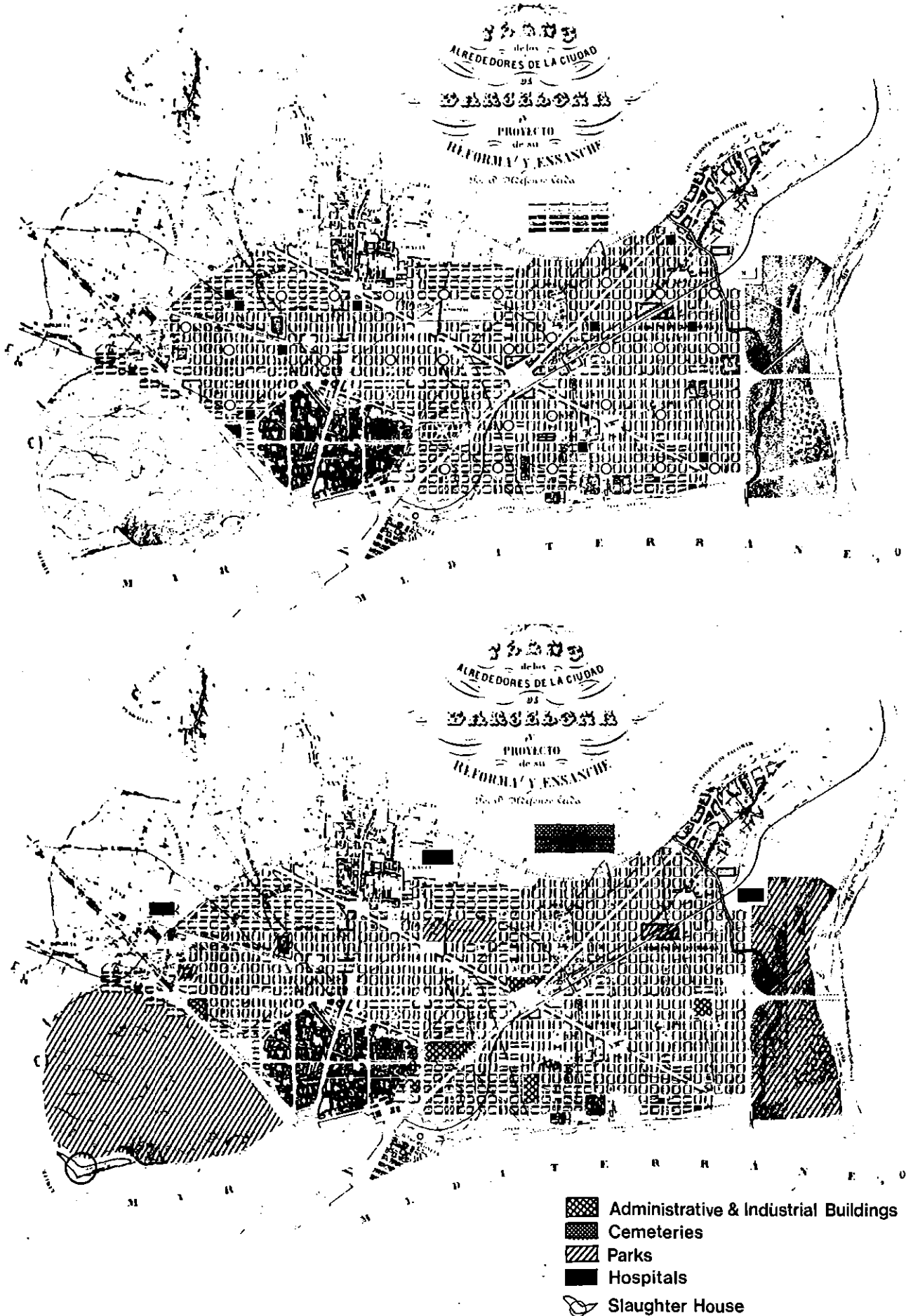


Figure 6 Micro and Macro Services in the Plan Cerdà

Districts of 100 'manzanas' (comprising 4 zones) were centred on a market, and delimited by streets with a continuous row of houses on either side. Then to every sector of 20 x 20 manzanas (comprising 4 districts), public and industrial buildings and parks were allocated. Finally, two large recreational areas, three hospitals, a cemetery and a slaughterhouse bordered the model city, which comprised 3 sectors - 1200 'manzanas' in all (Figure 5).

4.7 The actual plan in fact included only 900 manzanas (Table 1) because of the incorporation of the old city and existing settlements on the plain, and the constraints imposed by the Montjuich Hill. Nevertheless the distribution of these services within the plan (Figure 6) clearly reveals the basics of the model outlined above.

5. Implementation of the Plan Cerdá

5.1 The population of Barcelona grew from 241,000 in 1860 to half a million by the end of the century. The first growth came in the zones immediate to the old city, previously occupied by the walls and along the axis that joined the city with Gracia, at that time the most important settlement on the plain of Barcelona. This axis, the Paseo de Gracia (Figure 3), constituted the commercial and service centre of the 'ensanche'. In this way, the homogeneity of the model city described above disappeared in the first stages of construction. The main services (market, schools, etc) were concentrated around this axis, whilst those that should have been regularly distributed throughout the 'ensanche' were often replaced by housing, and the land designated for use as public parks was frequently used for the location of macro services e.g. the church of the Sagrada Familia, the slaughterhouse, 'Hospital Clinico' and the prison. Although most of the road layout in the Plan Cerdá was adhered to in practice, the 'manzanas' were generally built up on all four sides and within, representing a qualitative as well as quantitative change in urban morphology (Figure 7).

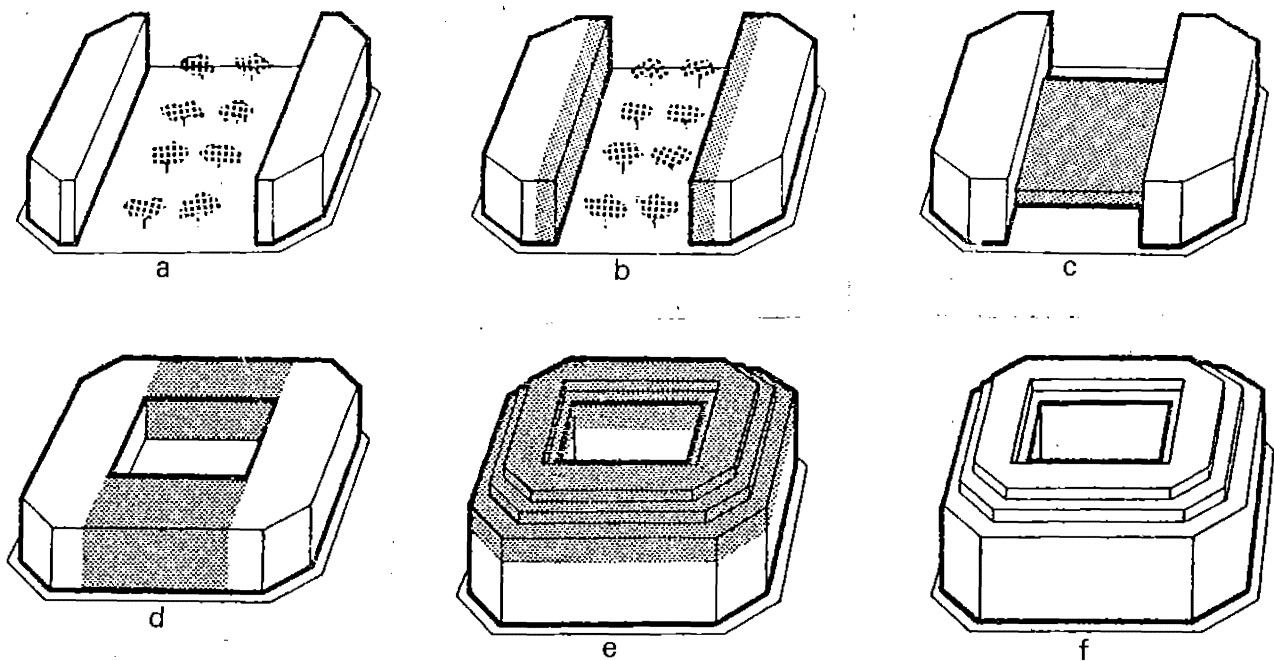


Figure 7 The Infilling of Cerdá's manzana. The built volume in the average manzana increased from 67,000m³ in the Plan Cerda to 295,000m³ in 1963.

Source : E. Bordoy, 'Principios basicos del urbanismo en el plan Cerdá', in A. Florensa (ed), 'Ildefonso Cerdá, el hombre y su obra', Talleres Graficos Raiclan, Barcelona, 1959.

5.2 Why, then, was the content of the Plan Cerda so drastically changed in its implementation? Cerdá himself has envisaged the development of the 'ensanche' as a self-financing operation, based on the following four-point plan :

- i) Convenient re-parcellation of land plots.
- ii) Free cession to the Council of all land destined for use as streets.
- iii) Financing of street construction and consequent urbanisation by landowners themselves, who thereby profited from urban rents derived from new property.
- iv) Expropriation of land needed for opening of new streets in the old city.

These proposals formed part of a draft proposal of the "General Law of Reform, Drainage, Expansion and Improvement of Cities" published in December 1861 that was inspired by Cerda and has been described by Bassols (1973) as "one of the most progressive and radical texts in the history of legislation".

5.3 Unfortunately, however, this 'law' was never approved by the Spanish Parliament although the City Expansion Acts of 1864 and 1876 did make it possible for Councils to expropriate land for city expansion, and set up Special Expansion Boards to direct city growth. In Barcelona, however, the Council directed the laying of roads and sewers and tree-planting, but then, as Miller (1977) has remarked "the whole area fully, serviced and cleared for building, was handed over on a plate to speculators".

5.4 In this context, it is clear that Cerdá misjudged the effect the destruction of the walls would have on property construction. In his treatment of this topic in the 'General Theory of Urbanization', Cerdá deliberates over whether the existence of the old city walls only contributed towards land speculation or whether it was in fact a major cause. If anything, he tended to favour the latter view, and this led him to believe that the increase in the availability of urban land was going to help rid the city of the property speculator.

5.5 In reality, the exact opposite was the case, as the Council remained dominated by property owning interests who failed to enforce the land-use specifications and building regulations contained in the Plan Cerdá, allowing the city to grow in anarchical fashion, albeit within the skeleton road-grid pattern of Cerdá's plan.

6. Cerdá as the Founder of an Urban Science?

6.1 Certain Spanish writers see Cerdá as a major contributor to the development of planning theory in the 19th century. Domingo (1973), for example, sees Cerdá as "the founder of an urban science, preceding Baumeister, Stubben, Unwin, Triggs and Haverfield". Let us now examine what evidence there is to support this assertion.

6.2 First of all, it can be argued that Cerdá invented the word 'urbanization' (urbanización) from the latin word urbs (city), to mean

"the act that brings about a grouping of buildings and regularizes the functioning of that group once formed. (Cerdá 1867, Vol. 1, p. 357) He drew the distinction between the 'containing' and 'contained' elements of urban areas, (the road system and buildings on the one hand, and the inhabitants on the other) and throughout his 'General Theory' he stresses that urban planning should fundamentally be concerned with man in his two states - that of movement from one place to another, and that of tranquility, when he relaxes in his home, (Cerdá 1867, Vol. 2, p. 677). Thus the 'containing' element was subdivided into the 'vias' (road system) and the 'intervias', which as we have seen, he termed 'manzanas' in his 1859 Plan.

6.3 Cerdá introduced a three way classification for urban roads - those connecting the city with its hinterland, those facilitating movement within the city and those that were essentially service roads for the home, although it is essentially the first two that figure in the Plan Cerdá. As for the 'intervias' or 'manzanas', Cerdá (1869, Vol. 1, p. 363) considered "that in each one of the spaces, cut off by the city roads, there exists a little world, a little civilization, the basic unit, if you like, that in all details is similar to the big civilization, the city itself, which is no more than a harmonious incorporation of these basic units, linked together by the great urban road system". He did not envisage these 'intervias' being used purely for housing, but also for community services at two general levels - for the old city as a whole (hospitals, cemeteries, woods, slaughterhouses) for each neighbourhood (markets, administrative buildings etc). This general theme was clearly apparent in his 1859 Plan, although as we have seen, it was further developed to incorporate a 4-tier hierarchy (zones/districts/sectors/whole city).

6.4 Soria also stresses the importance of the 'egalitarian science' which he claims underpins Cerdá's works. "In studying Barcelona in the most minute detail, Cerdá found inequality in a thousand different forms but he did not stop at merely noting them; he quantified them. Cerdá demonstrated, for example, the relationship between the death rate in

Barcelona at the time and a variety of factors - social class, housing density, orientation of streets, floor of building, presence of interior garden etc. Knowing the importance of these factors, he could see no 'rational' way of distributing them other than to do with maximum possible equality". (Soria 1976)

6.5 For Soria, then, Cerdá's plan of 1859 is the expression of an egalitarian science that rejected reinforcement of the centre to the detriment of the periphery, social segregation, excessive functional specialisation and unequal distribution of services. Grau, (1974) however, has posed several questions regarding the Plan Cerdá that cast considerable doubt on Soria's analysis. Grau sees our ignorance about the place of industry in the Plan Cerdá as particularly damning. The Old City, he suggests, was not satisfactorily integrated into the new Barcelona, perpetuating the existence of a large 'mixed' industrial/residential zone. Similarly he sees in the minute adjustments to the road pattern around Icaria, La Llacuna, Clot and Campo del Arpa (pre-existing settlements on the plain) a barrier that he suggests would isolate the area between there and the Besos River, which would then be used (as indeed happened) for the expansion of the industry concealed in the 'super-manzanas' (not classified as industry by Cerdá, but nevertheless consisting largely of industrial establishments - Figure 8). Tarrago (1972), however, argues that the questions surrounding the place of industry in the plan is due to our ignorance rather than Cerdá's failing. He suggests that whilst the artisan workshop would be left to co-exist with housing, medium and heavy industry would be located in some of the 4- 'manzana' blocks classified for 'Administrative or Industrial' use in the Plan Cerdá (Figure 6).

6.6 In addition, Grau notes that Gracia, San Gervasio and Las Corts (Figure 1), the traditional secondary residence areas of the upper classes, were conspicuously left out of the plan, whilst the further distant suburbs to the east were incorporated within the plan. Grau's analysis suggests, in fact, that we cannot, as yet, be sure about Cerdá's place in history as a true social and political egalitarian. Grau considers that the compromises Cerdá made between his ideals and the political

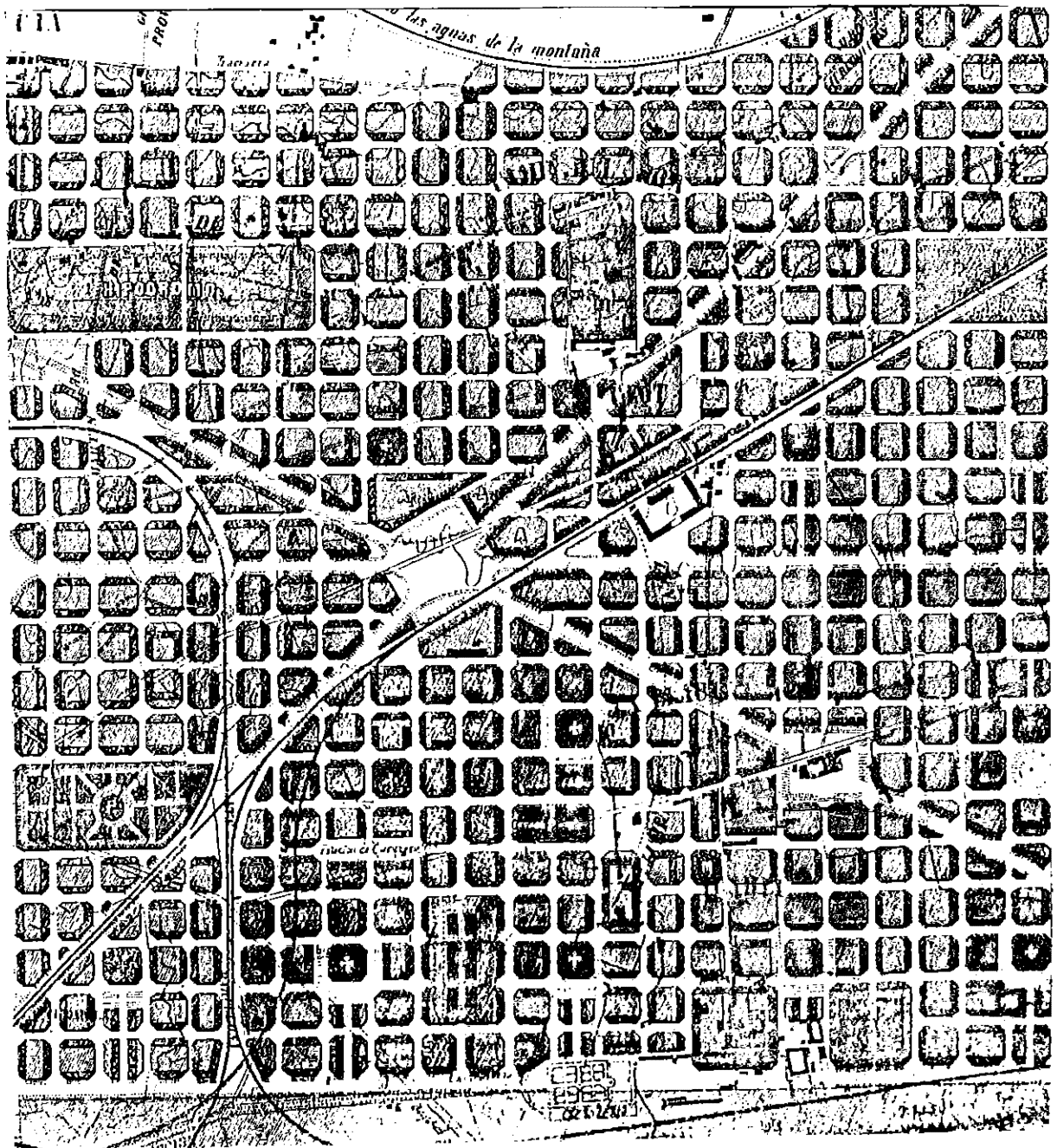


Figure 8 A Section of the Plan Cerdá.

Around the nuclei of Camp del Arpa, Clot, La Llacuna and Icaria, Cerdá employed two strategies to accommodate pre-existing buildings within his road pattern, making either a series of minute adjustments to the road and building layouts or creating 'supermanzanas' within which previous settlements were preserved intact.

Source : 2C Construcción de la Ciudad No. 10, 1972.

exigencies of getting at least the basics of his plan implemented became more deeply rooted in Cerdá than the ideal of the new city and a new society with which he had started. "In emphasising the importance of technological change Cerdá gained his reputation as a man conscious of the historical significance of the age in which he lived. But the conflict between 'the old' and 'the new' technology left in the background the social conditions that were the starting point for investigations.

6.7 The confrontation between classes in 1855 had become for Cerdá, by 1867, a confrontation, much more general and ambiguous, between civilizations. The connection between these two historic conflicts - between the new technology and old urban space, and between the bourgeoisie and the workers - is not clear enough to leave us sure that his fight for 'the new' was also a fight for the interests of the proletariat". (Grau 1974).

6.8 This difference in interpretation between Soria and Grau emphasises just how much we still don't know about Cerdá and his work. Fortunately, the publicity that followed the 1976 Cerdá Exhibition in Barcelona, has brought to light a mass of previously unpublished material written by Cerdá and his contemporaries that will hopefully help fill some of the gaps in our knowledge over the next few years. In the meantime, it seems reasonable to surmise that Cerdá will be increasingly seen as a major contributor to the development of urban planning in the 19th and 20th centuries. But until more of his missing works are uncovered (and particularly volume 3 of his General Theory of Urbanization), it is unlikely that urban historians will reach any consensus of opinion on just how significant Cerdá's contribution was.

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SORIA, A. and TARRAGO, S., (1976), Ildefonso Cerdá 1815-1876, Colegio de Ingenieros de Caminos, Barcelona.

TARRAGO, S., (1972), 'Los Planes de Barcelona 1' in 2C Construcción de la Ciudad, No. 10, p. 30.

Appendix

The Published Works of Cerdá

- (1855) Statistical Information on Barcelona.
- (1855) Topographical Plan of Barcelona and its Suburbs.
- (1856) Statistical Monograph of the Working Class in Barcelona.
- (1859) General Theory of Construction of Cities, applied to the project of Reform and Expansion of Barcelona.
- (1862) Theory of Urban Movement and its application to inner city reform in Madrid.
- (1865) Theory of linkages between land and sea communications and its application to the port of Barcelona.
- (1867) General Theory of Urbanisation.
- (1873) Project of Regionalisation and Provincial Communications Network of Barcelona.

Of these works, large sections of many remain undiscovered. In addition, much of Cerdá's unpublished work has not yet been found.

STYLE GUIDE FOR CONTRIBUTORS

1. General

Trent Papers were initiated in 1977 to provide lecturers, students and associates of the Polytechnic with an opportunity to circulate ideas on any aspect of Town and Country Planning. Following an experimental period, in which authors were given freedom over presentation, all papers received from the start of 1980 (Paper 15 onwards) will be considered by referees and contributors are encouraged to adhere to a common format when preparing their final drafts. The guidelines set out below have been prepared to clarify points which authors habitually find difficult and will also assist the Editorial Committee in working papers swiftly up to publication standard.

2. Content

No restrictions are placed on subject matter. Papers on planning theory, practice, education and research are equally acceptable so long as they represent the fruits of original investigation or fresh ideas. Priority will be given to papers designed to disseminate provisional findings of continuing research programmes. Reports on aspects of planning in the East Midlands will receive especially favourable consideration where the information is unlikely to get published by central and local government departments. Proceedings of conferences and important seminars held at Trent will also be published where it is felt that the findings have some distinction.

3. Length

No common length is prescribed, but all submissions should ideally fall somewhere between 2,500 and 10,000 words. Very short papers with a journalistic flavour do not normally justify the resources which go into producing a separate publication. Likewise excessively long reports are not encouraged as it is usually possible to present a novel argument and supporting data in 10,000 words or less.

4. Structure

All papers should be divided into main sections (not chapters), which need not start on a new page. Sections should bear Arabic numerals and titles laid out in the manner of this Style Guide (i.e. lower case and underlined). Every constituent paragraph should be separately numbered as a decimal part of the parent section, e.g. 2.01, 2.02, etc.

Sections should assume roughly equal proportions while each paragraph should be kept reasonably short to assist readers in locating statements referred to elsewhere in the paper.

Where several matters are to be itemised, as in a Conclusions section, a paragraph (e.g. 8.02) may consist of subsidiary paragraphs bearing either lower-case Roman numerals (i), ii), iii), etc) or lower case letters (a), b), c), etc). Roman capitals (I, II, III, etc or A, B, C, etc) should not be used for itemisation.

5. Layout

Drafts should be typed using double spacing with at least an inch margin all round the page. One side only should be used and the pages numbered. The sheets should not be stapled but presented loose in a wallet for safe keeping.

Approximately one inch should be left between sections for editorial comments and corrections. Quotations of more than one sentence should be indented about one inch from the left-hand typing line and enclosed in double inverted commas.

6. Citations

In keeping with the majority of academic journals, all existing publications referred to in the text should be cited thus:

..... as a recent controversial report has exemplified (Coleman, 1977) OR
In her influential treatise, New Lives, New Landscapes, Nan Fairbrother (1970).....

Wherever words would be italicised in a commercially printed text, these should be underlined in the typescript (as above). Titles of articles, however, should be rendered in single inverted commas without underlining, e.g.:
Michael Dower's article 'The Fourth Wave' (1964) alerted professional interest

7. References

All works cited in the text should be listed alphabetically at the end of the paper. The distinction between books and articles should be consistently observed using the devices indicated above. Chapters within edited works, unpublished conference papers, and dissertations should be rendered in the same way as articles, but mimeographed reports may be rendered as bona fide books if they have been published. The various types of reference are rendered thus:

GRAY, D, (1953), Nottingham : Settlement to City, E P Publishing, Wakefield.

SHARP, T, (1953), 'The English Village', in Ministry of Housing and Local Government (editor), Design in Town and Village, HMSO.

HORNER, R,W, (1979), 'The Thames Barrier Project', Geographical Journal, 145 (2), pp 242-53.

The Guardian (editorial), 24 August, 1973.

WILLCOCK, J, (1971), 'Dereliction in Lindsey', (unpublished dissertation), Department of Town and Country Planning, Trent Polytechnic, Nottingham.

8. Footnotes

These should be kept to an absolute minimum and placed at the end of each section. They should never be used to refer to other works, only to make asides which would disrupt the flow of the text. Footnotes should be signalled in the text by consecutive numbers typed, half a space up from the line, at the end of a sentence or after a key word.

9. Preface

Papers should ideally have a short 'running title', followed where appropriate by an explanatory sub-title e.g. Central Place Theory : a Reappraisal. An abstract of about 150 words, covering the main aims, arguments and findings of the paper, should be supplied plus a short biography indicating the author's education, professional experience and scholastic interests. Acknowledgements of any assistance given in preparing the paper are also required for publication.

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-	<u>Current Research in the Department of Town and County Planning, Trent Polytechnic</u>	No 78/3	free
John Beynon and Paul Whysall	<u>Planning Issues in the Netherlands</u>	No 78/4	£1.00
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We regret that we cannot accept invoices.

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