URBAN DESIGN: GREEN DIMENSIONS

Cliff Moughtin

Department of Urban Planning
University of Nottingham

THE URBAN STREET BLOCK

7

INTRODUCTION

The degree to which a city is sustainable is affected both by the form of the urban street block and also by the composition of the activities it accommodates. The way in which the street blocks are designed and the land use mix within street blocks also affects the quality of the built environment. Current conventional wisdom adopted by those in the field of sustainable development rejects the cruder notions of land use zoning in favour of more subtle urban structuring based upon a mix of uses and activities. The traditional city with residential and office accommodation arranged over ground floor shopping streets is often cited as an ideal arrangement for a lifestyle which is not dependent upon high levels of mobility. It is also argued that a city with a fine grain of land use, rather than the homogeneous zones of residential commercial or industrial uses common in modern metropolitan areas, is more likely to reduce the need for travel, and, incidentally, also be more likely to create an interesting and liveable environment. There is little doubt that a city is judged by the quality of its public streets and squares: by their form, the façades which enclose them, the floor plane on which visitors tread, and the great sculptures and fountains which delight the eye. It is, however, the size, function and structure of the street block which gives form to public space and contributes to the vitality of those spaces. This chapter examines the various ideas about the form and function of the street block and its role in structuring the city, analysing, in particular, the street block in a sustainable city.

The street and street block of the traditional nineteenth century city received great criticism during the 1920s and 1930s from the leaders of the modern movement in architecture. Le Corbusier, for example, said of the street: 'Our streets no longer work. Streets are an obsolete notion. There ought not to be such a thing as streets; we have to create something to replace them' (Le Corbusier, 1967). Gropius was expressing similar sentiments: 'Instead of the ground-floor windows looking on to blank walls, or into cramped and sunless courtyards, they command a clear view of the sky over the broad expanse of grass and trees which separate the blocks and serve as playgrounds for the children' (Gropius, 1935). Projects of the time speak most clearly to this aim of destroying the traditional urban fabric of the city and replacing it with ranks of
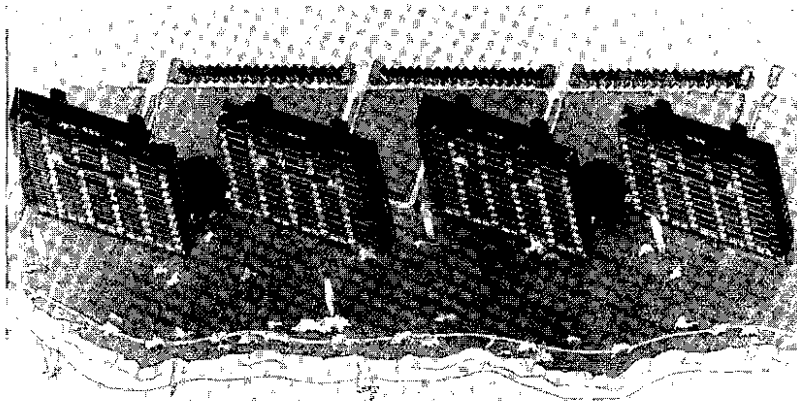
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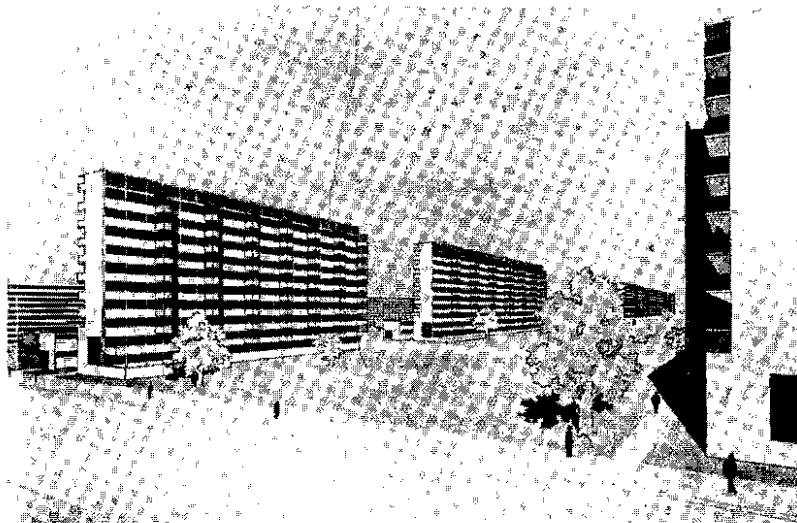
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Figure 7.1 Project for a
riverside or lakeside
(Gropius, 1935)
Figure 7.2 Project for a
group of ten-storey
dwellings (Gropius, 1935)

unadorned blocks standing serenely in a field of
green (Figures 7.1 and 7.2). Giedion, the apologist
for the Modern movement in architecture is quite
clear in his condemnation of the street block.
Berlage's fine development in Amsterdam South is
composed of streets and street blocks: for this and

other shortcomings, Giedion dismisses Berlage as an
architect of the previous century: '... Berlage's
schemes reflect the central difficulty at that date:
the inability to arrive at new means of expression in
the solutions offered for the problems peculiar to
the times. In the 1902 plans particularly (and to
some extent in the later version of 1915) we sense
the struggle involved in Berlage's attempt to break
with the formulae of previous decades ...' (Giedion,
1954). In contrast Giedion, in his discussion of the
Cité Industrielle, commends Garnier for his arrange-
ment of lots at right angles to the road and for his
elimination of the street block: 'The closed blocks
and light-wells of Hausmann's time are completely
eliminated' (Giedion, 1954). It is time to reassess
the value of the street and street block in the light
of the new imperative of the green agenda for the
city and in particular in the light of the need to
reduce atmospheric pollution caused by the burning
of fossil fuels. The green agenda for the city renders
obsolete the critique of the street and street block
by the masters of the Modern movement in architec-
ture. It is necessary to turn for inspiration, once
again, to the great traditions of city building: to
interpret those traditions in today's context in order
to develop a new and enlightened vision for the
sustainable city.

In the design of street blocks there are three
broad sets of considerations. The first is the socio-
economic function of the block; the second is the
visual or physical role of the block in the city struc-
ture; and the final set of considerations is concerned
with making the block work in terms of technology
and includes considerations such as the lighting,
ventilation and heating of the buildings which
comprise the block. When form was considered the
product of function and technology then the street
block varied in size according to function and to the
limits set by technological feasibility. The result is all
too obvious: cities with large blocks of single use
disrupting the intricate network of public paths; a
coarse-grained city dying at night, a fearful place for
citizens unprotected by the comforting envelope of

a fast-moving car (Figures 7.3 and 7.4). Most urban functions, however, can be accommodated reasonably in urban street blocks of similar shape and form (Turner, 1992). Street blocks or insulae in historic towns dating back many centuries have been modified a number of times as they have changed ownership or use. The following paragraphs, while addressing function and technology, will place greater emphasis on the visual and structuring role of the street block in the city. If a reasonable size and form for the street block can be determined from considerations of its structuring role within the urban fabric, then it is argued here that it will accommodate, with modification, most city needs.

While the theory of sustainable development points clearly towards a mix of land uses in the city, the quarter and the street block, neither the precise nature nor the degree of intricacy of land use mix is specified. Clearly the placing of buildings designed for large-scale noxious, noisy or dangerous activities next to family homes would be unacceptable to both professional and citizen alike. More difficult is the decision about the juxtaposition of homes where peace and quiet may be the expectations of some with pubs, 'takeaways' and other small-scale commercial activities which may cause noise, litter and other nuisance. Such activities in a city, however, add to its life and liveliness. To what degree, therefore, should land uses be mixed in the city? In particular, should the street block itself be of mixed use? These two questions are part of the debate in sustainable development. Theories can only give part answers; an examination of developing practice will provide the evidence for definitive answers.

Clearly there will be single-use street blocks in the city of the future; that is, street blocks given over to, or almost entirely to, residential, commercial, industrial or some other single land use. Where possible, large areas of the city devoted to such single use should, however, be avoided. As a guide, a city quarter of 20 000 to 100 000 people should contain within its boundaries a reasonable mix of city land uses. It should comprise a mix of uses to include opportunities for work, education, leisure, shopping and governance in addition to residential areas. The quarter is a town within a town and as such it should have a balance of land uses reflecting the balance in the city as a whole. It is the quarter and not the street block which is the main instrument for ensuring a balanced distribution of land uses throughout the city. The city street block, however, with great benefit for the environment, may house a mix of activities, including such uses as residential, shopping, office accommodation and a small nursery school. Many existing city centres would have remained safer and livelier places if the tradition of 'living over the shop' had survived. Some city councils are indeed pursuing a policy which aims at bringing unused accommodation over shops back into use as flats. It seems that in the sustainable city of the future there will be a range of city street blocks varying from single-use blocks to those of multi-use in varying proportions and with varying combinations of uses.
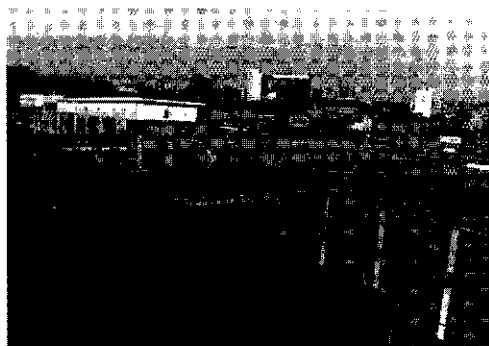
The size of an ideal urban street block cannot be established any more precisely than the size of a quarter or neighbourhood. As a rough guide Krier suggests that urban blocks should be: 'as small in length and width as is typologically viable; they should form as many well defined streets and squares as possible in the form of a multi-directional horizontal pattern of urban spaces' (Krier, 1984). The smallest street blocks are generally found in the centre of traditional cities. They represent a form of development which creates the maximum number of streets and therefore street frontages on a relatively small area: such a structure of street blocks maximizes commercial benefits. The high densities associated with this type of development stimulate intense cultural, social and economic activity, the lifeblood of city culture. The typical ground floor in this type of central city development has many doors and openings. The traditional European town centre has a quality of permeability: 'Only places which are accessible to people can offer

them choice. The extent to which an environment allows people a choice of access through it, from place to place, is therefore a key measure of its responsiveness' (Bentley *et al.*, 1985). The street in the traditional centre facilitates distribution in addition to its role in economic exchange and social intercourse. In contrast, large modern street blocks have a few guarded entrances and most of the interchange takes place inside the building where internal corridors, private streets or splendid atria facilitate movement and distribution: the corridor replaces the street, which loses its primary function. The larger and more homogeneous the street block the greater will be its power to destroy the social, economic and physical networks of the city. The large-scale single-use, single-ownership street block is the instrument most influential in the decline of the city: its effect together with that of its partner the motor car are among the real causes of the death of the great city.

It may be difficult to be precise about the size of the ideal urban street block, but it is possible to eliminate the block which is too large. Such blocks covering extensive areas are out of scale in a democracy where power is vested in the people and not with the board of a conglomerate or council of a university. Street blocks in the early industrial cities increased in size towards the periphery of the urban

area where land values were low and where development could be expansive. As a city grew in both wealth and population, so too would its centre. The central city expanded and consequently land values increased at its former periphery, resulting in development pressures and large overdeveloped street blocks surrounded by fewer but usually wider roads. Building programmes have increased in size throughout this century with single owners or developers building large sections of the city. The large development in single or corporate ownership, however, is not entirely recent as a phenomenon. The medieval castle or the cathedral and its ancillary buildings have in the past dominated the city. Where this has happened such institutions have presented an alternative power structure independent of the city and its citizens. In this century these alternative sources of power have multiplied in the city. Large industrial complexes, hospitals, universities and not least the extensive shopping mall are common to most cities (Figures 7.3 and 7.4). These large-scale single-ownership street blocks, or in some cases city districts, may be convenient for those who manage or own the establishment but citizen rights are not paramount: this is private property and those with legal possession have great autonomy within their ownership boundary. There seems, however, no reason why for example a city university cannot be

Figure 7.3 Broadmarsh Shopping Centre, Nottingham
Figure 7.4 Victoria Shopping Centre, Nottingham

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designed to occupy small-scale city street blocks
with buildings designed specifically for this purpose.
A good example of such development is Oxford
University with its rich mix of town and gown
(Figures 7.5 and 7.6). The University of Liverpool in
contrast followed a modernist approach to planning,
destroying communities, the street pattern and also
the rich grain of small-scale urban street blocks. In
place of the rich nineteenth century urban structure
there is a large district of the city which dies when
students leave at night for the halls of residence and
atrophies completely during vacation when they
leave the campus for home (Figures 7.7 and 7.8).

The idea of the city as a 'growing whole' led
Alexander to postulate a number of rules to achieve
organic growth, the results of which he much
admires, in traditional cities such as Venice (Figures
7.9 and 7.10). One of these rules of organic growth
is that growth should be piecemeal: 'furthermore
that *the idea of piecemeal growth be specified
exactly enough so that we can guarantee a mixed
flow of small, medium, and large projects in
about equal quantities*' (Figure 7.11). In detail he
specifies that no single increment should be too
large and: '*There are equal numbers of large,
medium and small projects*' (Alexander, 1987). The
figure Alexander places on the upper limit for
projects, based presumably on the North American
experience, is 100 000 square feet. This figure repre-
sents a four-storey building block, without light

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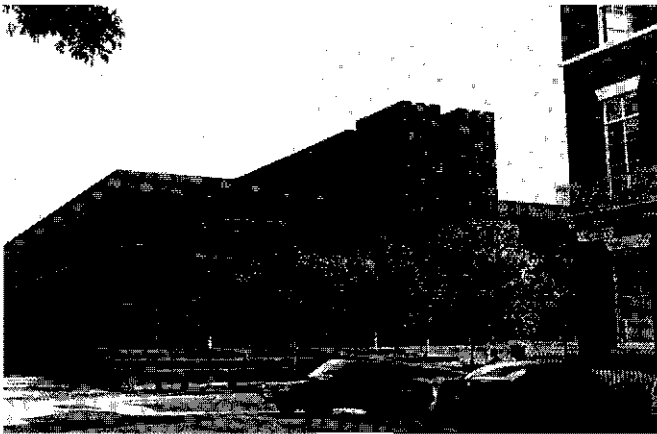
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Figure 7.7 University Buildings, Abercrombie Square, Liverpool
Figure 7.8 University of Liverpool, Bedford Street North
Figure 7.9 Rialto Bridge, Venice

wells, of just under an acre in extent. The upper limits set by Alexander may be too high for the British context where street blocks traditionally tend to be smaller than those in the USA. Sustainable development suggests an upper limit for development of three to four storeys, which also points to development units of smaller scale than those envisaged by Alexander. There seems to be a strong case for breaking down into discrete units of single street
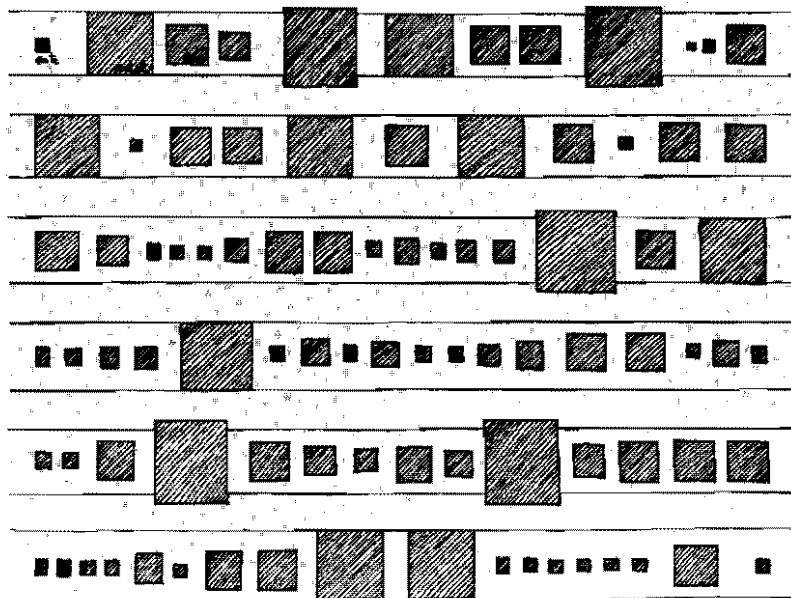
blocks those large-scale developments which have become increasingly more common in recent years. The street block developed to three and four storeys should be the determinant of project limitation. Using the notion of a correct distribution of project sizes, then for sustainable development, particularly in the British context, a majority of small and medium size developments should be the strategy for city planning and design and not the equal

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Figure 7.10 Rialto Bridge, Venice
Figure 7.11 Sequence and size of development projects (Alexander, 1987)

numbers of large, medium, and small projects suggested by Alexander.

There is of course a gain to the public purse in the building of megastructures which obliterate the finer grain of older city networks. With the megastructure the amount of public street is reduced, therefore there are savings to be made by the city in its maintenance. In addition, since circulation in the megastructure is along private streets the policing role can be privatized, so saving additional resources. One measure, however, of a civilized society is the degree to which its city streets and squares are public and open to all citizens to use freely and safely. This, civilized, society requires a city which meets Jacobs' criterion for self-policing rather than one depending for safety on the night-time closure

of whole sections of the city which are policed in daylight hours by security firms and made safe by the ubiquitous surveillance camera (Jacobs, 1965).

People live both public and private lives. Institutions, too, have a private face and public connections. These two personae, the public and private aspects of life, meet and are resolved in the façade of the building block. The friendly and responsive environment is one which maximizes choice of access through it from place to place, while privacy requires enclosure and controlled access. Maximizing choice of access has to be balanced against the privacy for individuals, groups and corporate bodies. The delicate balance between public and private space is maintained by the system of access adopted. In some cultures where

family privacy is of profound importance there may be a whole system of semi-public and semi-private spaces linking the inner private world of the family and the public world of the street and market place (Moughtin, 1985). The richness of the environment, in part, is a reflection of the way in which these mutually conflicting requirements of privacy and access are resolved.

'Both physical and visual permeability depend on how the network of public spaces divides the environment into *blocks*: areas of land entirely surrounded by public routes' (Bentley *et al.*, 1985). A city with small street blocks gives to the pedestrian a great choice and variety of routes between any two points. The medieval European city is an extreme example of such a form: to the stranger the city may appear almost like a maze (Figure 7.12). Large street blocks on the other hand give less choice of routes and also produce an increased distance between paths. Smaller street blocks in cities increase the visibility of corners which announce the junction of paths and in consequence both the physical and visual permeability is increased. As a general principle the city street block should be as small as practicable. Where

Figure 7.12 Bruges, Drawing from Sitte
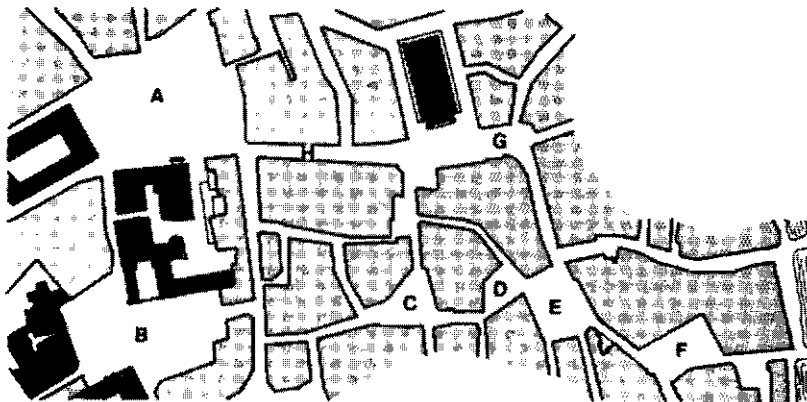
street blocks since the 1950s have been enlarged for development, consideration should be given to the restoration of the traditional street pattern and block size if the opportunity presents itself.

The need for both contact and privacy in daily life leads inevitably to a built form which acts as a filter between these two opposing requirements. Until the advent of modernist thinking in city planning the traditional and sensible solution to this problem was a building form having a public face and a private rear. In Bath, designed by John Wood and his son (also John Wood), this principle of design is given eloquent testimony by the local people who describe the great civic spaces as having: '*a Queen Anne Front and a Mary Ann Backside*'. The design principle is quite simple: the front of the building should face onto the public street or square where all public activities including entrances occur, while the back of the building faces onto private space of an inner court screened from public view. When this principle is applied systematically to city development the result is a system of insulae or street blocks surrounded by buildings along their perimeters enclosing inner private courtyards. This type of development was anathema to Le Corbusier, Gropius and the avant-garde of the modern movements in architecture and planning. The case presented by designers like Le Corbusier is made difficult to refute when, as in Ireland in particular, with the notable exception of Westport, developments literally turned their backside onto the river, which was used as an open drain. All rivers, canals and waterways in the sustainable city should be lined by building frontages and be, in their own right, important landscape features of the city (Figures 7.13 and 7.14).

We have seen that the size of the street block should be as small as the form and the function of the buildings on its perimeter permit. In Britain the acre has a long tradition as a measure of land surface for costing purposes and as a recognized means of land sub-division. In the more rational systems of measurement adopted in continental

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Europe the hectare serves the same purpose as the acre in this country. It seems reasonable to suggest that most street block functions could be accommodated in insulae varying from 70 by 70 to 100 by 100 metres. There is a relationship between the size of the perimeter block surrounding the insulae and the private activities carried on in the private courtyard. Bentley *et al.*, illustrate this relationship graphically for three main types of building use: non-residential use, flats and houses with gardens (Bentley *et al.*, 1985) (Figures 7.15 to 7.17). Applying the results of Martin and March's analysis of the Fresnel square it would appear that for any given size of street block a form where perimeter buildings abut the back of the pavement give the most effective relationship between building volume and usable open space (Martin and March, 1972). Applying the graphs in Bentley *et al.* (1985) to a street block of 70 by 70 metres a four-storey perimeter block of 50 square metre flats would surround a courtyard large enough to provide one car parking space per dwelling. Similarly a 70 by 70 metre street block with periphery development comprising two-storey, five-person terrace houses with 50 square metres of private garden would cater for one car
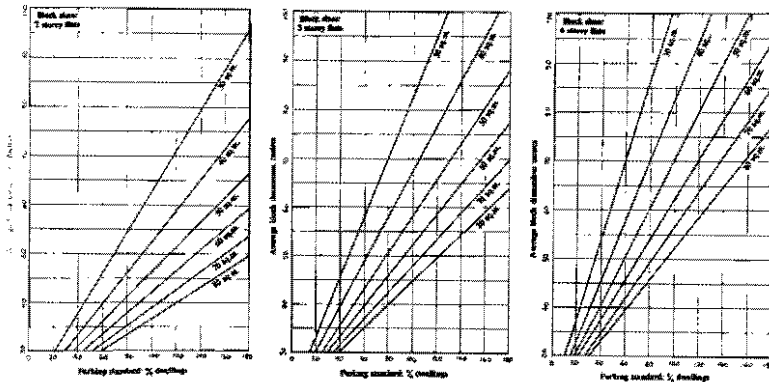
Figure 7.13 Westport, County Mayo, Ireland
Figure 7.14 Westport, County Mayo, Ireland
Figure 7.15 Relationship of parking standards and street block (Bentley *et al.*, 1985)

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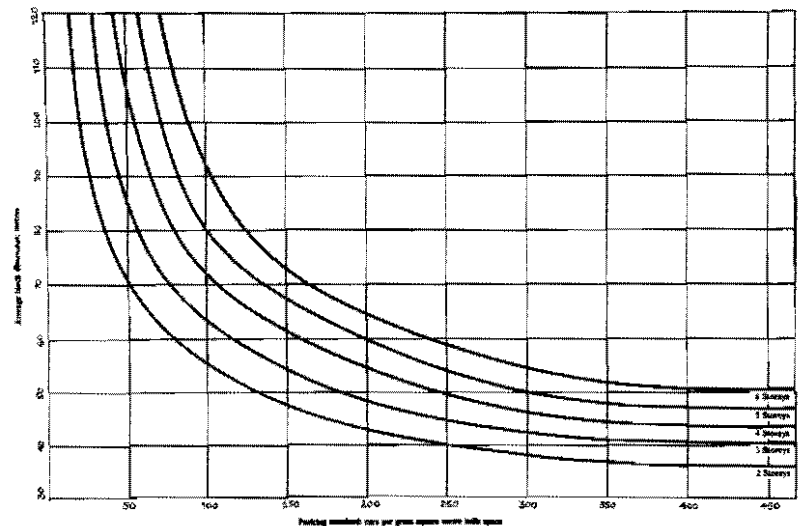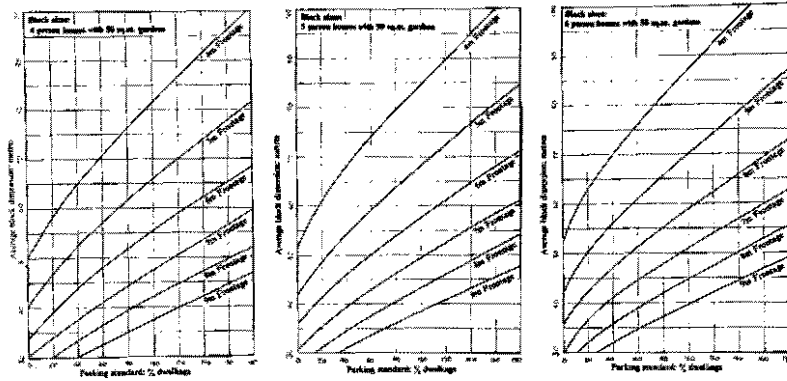
Figure 7.16 Parking
standards and houses
(Bentley *et al.*, 1985)
Figure 7.17 Parking
standards and flats (Bentley
et al., 1985)
Figure 7.18 Use of space
within the street block,
Amsterdam
Figure 7.19 Use of space
within the street block,
Amsterdam

per dwelling provided the frontage of the house
was less than five metres (Figures 7.18 and 7.19).
The graphs illustrated in Bentley *et al.* were
prepared before the current interest in sustainable
development - spaces within the courts need not
necessarily be allocated for car parking but could
be given over to extra garden space or other use
compatible with sustainable development.
Perimeter development in street blocks, however,
is clearly the most effective method of allocating
space in a sustainable city.

THE URBAN STREET BLOCK IN PRACTICE

HEMBRUGSTRAAT, SPAARNDAMMERBUURT, AMSTERDAM

This project was designed and built by de Klerk in
1921. It consists mainly of five-storey flats built for
the *Eigen Haard* 'Own Hearth' housing association.
Two terraces, the ends of street blocks, form a
public square in this part of Amsterdam. The third
part of the project is a triangular street block
comprising flats, communal room, post office and

school. The main part of the project is this small
enclosed street block with perimeter development,
and it is of exceptional architectural interest
(Figures 7.20 to 7.24).

De Klerk died at the age of 39, two years after
the project at Hembrugstraat was complete. He was
the unofficial leader of the Amsterdam School,
greatly revered by his associates. Piet Kramer, a
member of the school and a close colleague, wrote
of de Klerk: 'The power of conviction that radiates
from his drawings gives us that curious, happy
feeling of being closer to the Almighty' (Pehnt,
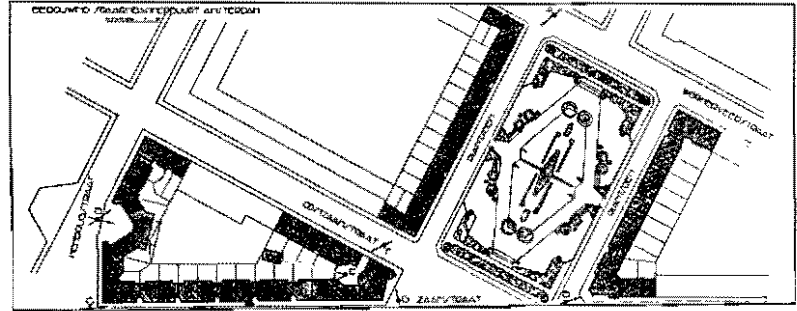

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Figures 7.20 to 7.22
Hembrugstraat by de Klerk
Figure 7.23 Hembrugstraat
by de Klerk, use of space
within the street block

Figure 7.24 Hembrugstraat
by de Klerk, details

7.24a

7.24b

1973). De Klerk's vision was not infused with any notions of satisfying functional need; he was more interested in forms: forms with which to delight the user. In his search for personal expression he broke most rules of composition and most norms of structural propriety. De Klerk set bricks vertically in undulating courses and he clad upper floors in roof tiles, though this part of the building is structurally and visually part of the vertical wall plane. In places windows follow their own capricious external pattern with little regard for internal requirements. At the base of the triangular block is the most extravagant gesture, a tall tower, celebrating nothing more than two flats which sit beneath it and a small path within the block which leads to a small
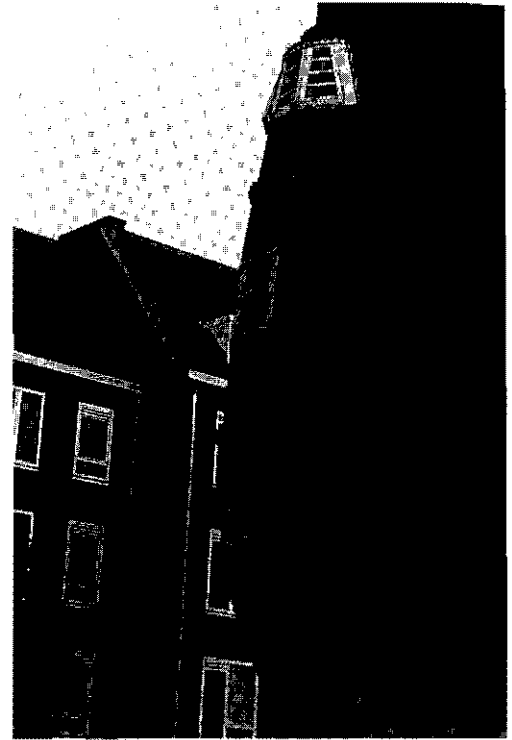
community room. The street block nevertheless is intensely human in scale and delightfully individual in expression. The project at Hembrugstraat remains a fine model for the treatment of a street block in the sustainable city of the twenty-first century.

THE SUPERBLOCK: UNWIN
In an essay 'Nothing to be Gained by Overcrowding', Unwin demonstrated the mathematical truth that perimeter development is more cost-effective than the typical nineteenth century byelaw housing laid out in long parallel rows of streets (Unwin, 1967). In his article Unwin presents two diagrams for a 10 acre plot. One shows typical rows of terraced housing with streets between; the other
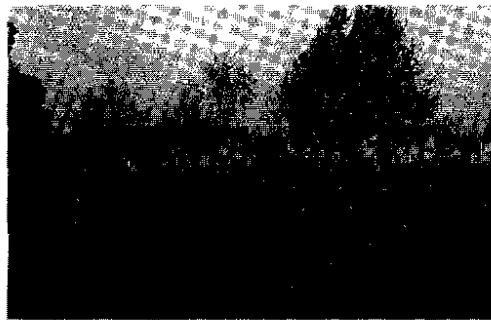
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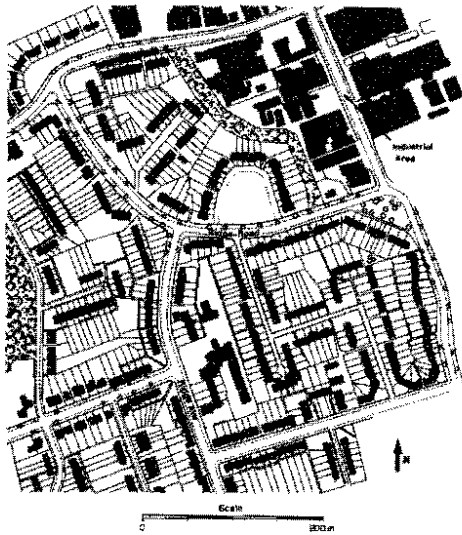
places dwellings around the perimeter. The demonstration shows clearly that when all the items making up the cost of the development are considered, including savings on roads and service runs, the cost for the more open and less crowded perimeter scheme is less. Unwin used this idea of the perimeter block in some of his work in Letchworth, incorporating within the courtyard allotments for tenants while the house fronts faced onto public greens (Figures 7.25 to 7.27). In the USA, experiments in superblock design were conducted by architects such as Perry, Stein and Wright (see Figure 6.3). The result is Radburn housing which takes the ideal of perimeter planning and distorts it out of all recognition in order to service the motor car. In its purer forms the Radburn system offers little privacy and an unclear definition of front and back. The superblock, as visualized by Unwin and when small in extent or when broken by busy pathways, is still a useful concept for urban housing, particularly when perimeter development surrounds private gardens and/or allotments.

RICHMOND RIVERSIDE DEVELOPMENT, SURREY: ERITH AND TERRY

Quinlan Terry's redevelopment of Richmond Riverside, completed in 1988, is a major contribution to urban design and town planning. Opinion is divided about the architectural integrity of this attempt at Classical revival. The particular concern for those advocating an honest architecture and a unity between interior and exterior is the discrepancy between the highly mannered Classical façade and the functional interior. The comfortable office spaces are fitted with suspended ceilings which drop below the window head, air conditioning and strip lighting: they are little different from any similar office in a 'traditional 1960s' office block. The waterfront seen from the South

bank of the river or from the bridge is a mixture of new, restored and remodelled Georgian houses, which are used for commercial purposes or as civic buildings. It is difficult for the lay person to see where the new begins and the old ends. It is also obvious that this is a popular part of Richmond. From this populist viewpoint alone the development is highly successful. Terry has completed the street block and riverside frontage with buildings of mixed use and which have a clear front and back. The perimeter development encloses a pleasant court of classical proportions which provides semi-private space for circulation, light and air. This development, in terms of urban design, is an elegant solution to the problem of a city block in an historically sensitive area. It is also a magnificent setting for a popular parade (Figures 7.28 to 7.30).

Figures 7.28 to 7.30 Richmond, Riverside Development

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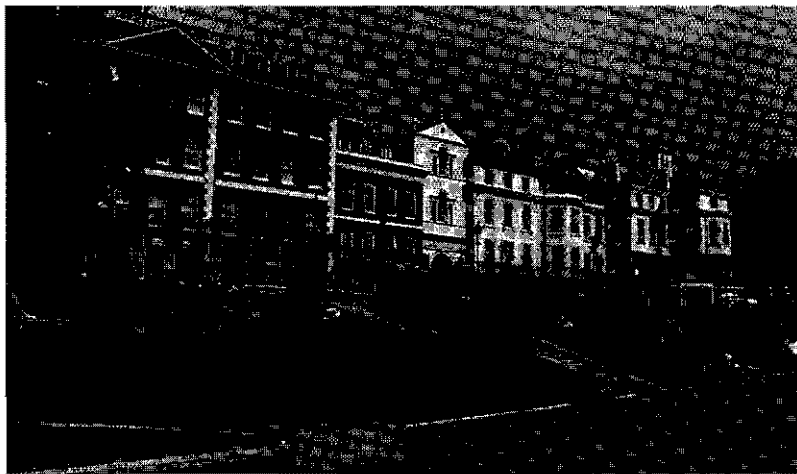
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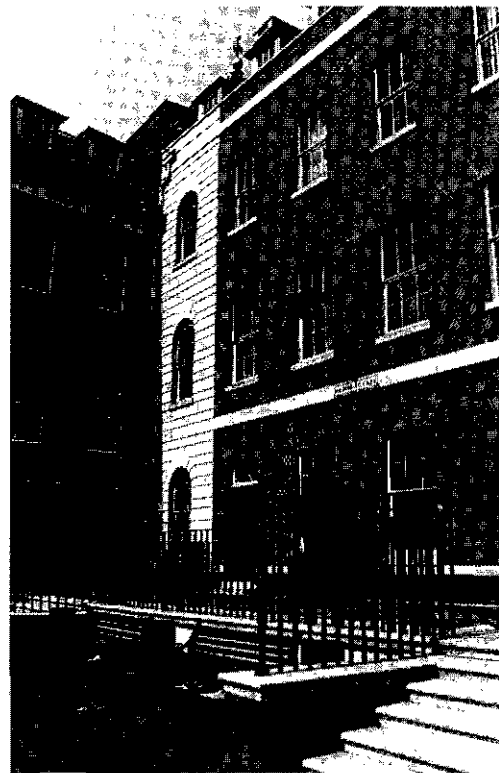
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ALBAN GATE, LONDON WALL, TERRY FARRELL
## PARTNERSHIP

Alban Gate is a giant, twin-towered office block straddling London Wall. It replaces one of the slab-like curtain-walled office towers dating from the 1950s that sit along the London Wall. This lump of a building in an extravagant American Post Modernism style compares unfavourably with the nearby Barbican, a currently underrated example of Modernism (Figures 7.31 and 7.32). The Barbican, despite its faults, has a variety of uses, lavishly landscaped public spaces, water gardens and good quality residential accommodation. It is a good attempt to create an urban environment with enclosed and sheltered public spaces (Figures 7.33 and 7.34). In contrast Alban Gate is a large building standing alone and depending for effect on its three-dimensional qualities: it creates no public space of consequence. In simple terms, the Barbican is a work of urban design, Alban Gate is not. This project illustrates very clearly the dilemma facing the architect working at the scale of urban design. The commercial pressures of the market place and an architectural profession which at times appears to be in collusion with those forces determines an urban architecture of single-use free-standing buildings which maximize floorspace at the expense of public space. The architect's role, if he or she accepts it, is to clothe the building mass in the latest fashionable style. The comprehensive planning of the 1950s and 1960s did often result in dreary city redevelopments but it also offered the opportunity of urban design incorporating the street block: admittedly this opportunity was rarely taken.
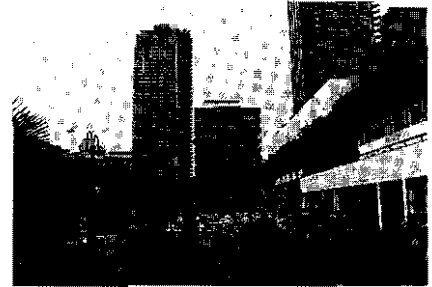
Figures 7.31 and **7.32** Alban Gate, London
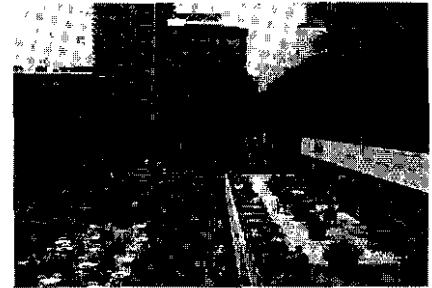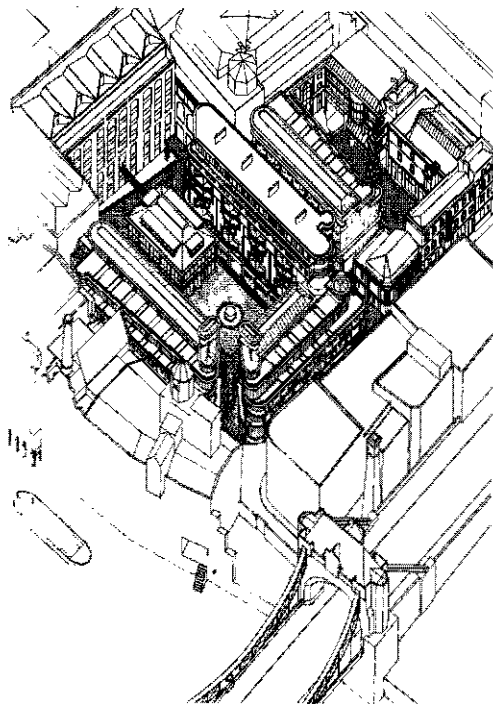**Figures 7.33** and **7.34** The Barbican, London


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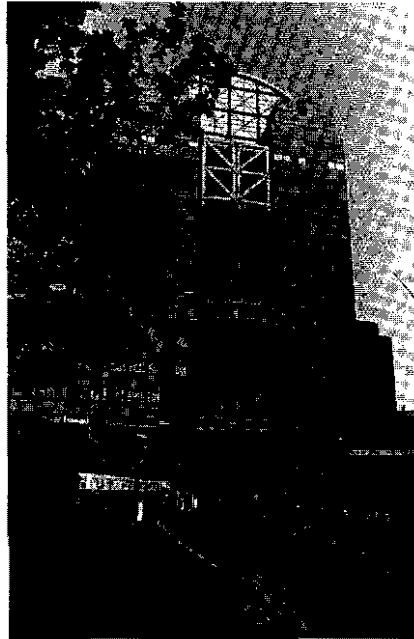
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7.36b

7.36c

HORSELYDOWN SQUARE: JULYAN WICKHAM

Horselydown Square by Julyan Wickham, begun in
1987, occupies a site close to Tower Bridge (Figures
7.35 and 7.36). The project is of mixed develop-
ment comprising housing, commercial and retail
space. The architecture, according to Glancey, is
cheerful but 'owes precious little to mainstream
architectural fads' (Glancey, 1989). The develop-
ment completes an urban street block and in doing
so creates pleasant, enclosed and protected courts:
it is an area of calm amidst the bustle and noise of
the surrounding streets. The street block, which is
five and six storeys, has a lively and decorative
roofline in keeping with its riverside location.
Possibly because it owes nothing to current archi-
tectural fashion, Horselydown Square is the type of
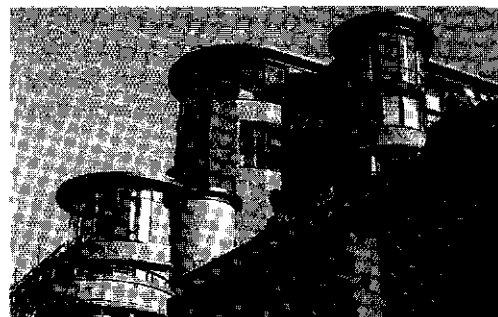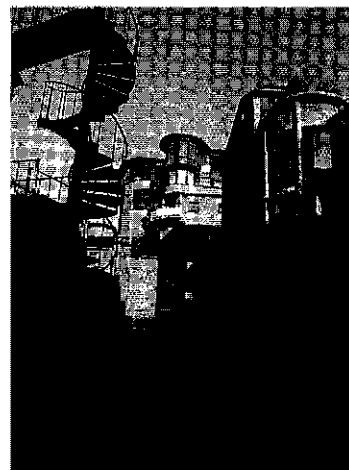
development which in both form and function encapsulates many of the principles expected of sustainable development in a busy city urban street block.

INLAND REVENUE BUILDING, NOTTINGHAM: RICHARD ROGERS

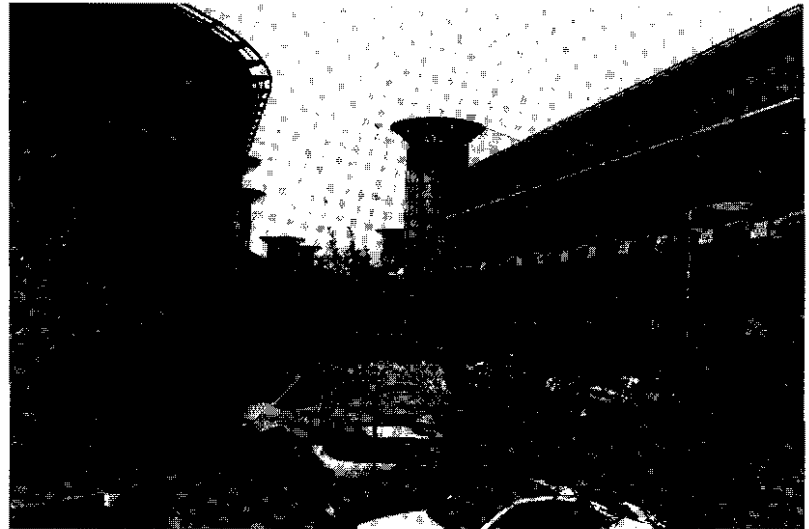This is not simply a single building on one plot – Rogers has developed the site as a group of island street blocks surrounded by streets (Figures 7.37 to 7.39). The building is the result of a competition won by Rogers. It occupies once derelict and under-used land. This is how Rogers describes the scheme:

7.38

7.39

Figures 7.37 to **7.39** Inland Revenue Building, Nottingham

7.37

'We set out to investigate all the practical means in nature to produce a tempered environment. As so often in city developments, two sides of the site were polluted and noisy. However, one side bordered a quiet canal. We pushed the buildings to the edge of the roads and opened up a public garden beside the canal. Since opening windows on all façades was not possible, we divided the building in two – basic administration at the back, and social functions and communal facilities nestling around the new garden. Between the two buildings, we created a central landscaped courtyard – a type of small ravine. Around this gently curving landscape, the two lines of buildings were linked by glazed bridges' (Rogers, 1995b).

The streets within the development are tree-lined to give protection and shade from the summer heat and to help purify the air in this part of Nottingham. The building pattern adopted for the development by breaking up the mass into strips of slimmer accommodation permits more of the occupants to be near a window, so reducing the need for artificial lighting while giving them a pleasant view of the landscaped courts. The Inland Revenue building in Nottingham has a number of innovative features for reducing the energy used in running the buildings, and is also sited on 'brown land' rather than a green field site. As urban design the complex enlivens the canal while the organization of the programme into a number of semi-autonomous units has enabled a breakdown of the accommodation into blocks of small scale. This is, however, a large development of single use which is dead in 'out of office' hours, and the development does little to revive the architecture of the city centre. The developers, perhaps, should have considered the conversion of some of the unused office space in the city before embarking on a prestige building on the canal site. Despite these criticisms, the Inland Revenue building in Nottingham is a great work of architecture which will give delight to visitors and particularly those viewing the development from the canal. Being a major employer, the Inland Revenue building will bring extra business to the city and possibly stimulate the redevelopment of worn-out properties in the city centre.

APARTMENT BLOCKS, KREUZBERG, BERLIN

The area of Kreuzberg close to the site of the Berlin Wall consists of city blocks of high-density housing. The blocks are four- and five-storey apartment blocks built over shops and arranged around the perimeter of the block. In addition there is a mix of apartments, workshops and small-scale industries grouped around courtyards. The area, run down and ripe for redevelopment, is typical of inner city areas in large European cities. The intention for many years was to demolish the properties and rebuild *de novo* on the cleared site: this was the typical reaction to run-down areas by most European city authorities in the 1950s and 1960s. After a reversal of policy and with the residents' support it was decided to rehabilitate the area but without causing disruption to the existing community. Buildings were made structurally sound, weatherproofed, well insulated and the accommodation was upgraded by adding new bathrooms and kitchens. The refurbishment had energy savings: '... since the apartments have relatively few external surfaces from which to lose heat' (Vale and Vale, 1991).

One block is of particular interest, having been designed as an ecological showpiece. Solar energy systems have been installed, waste water filtered through the roots of reed beds and methods of water economies introduced. Where flats and other buildings have been demolished the spaces have been intensively planted. The rehabilitation of Kreuzberg with the active participation of the residents has set a pattern and model for the sustainable rehabilitation of inner city areas. The treatment of street blocks is of particular interest: this development has proved to be an effective method of urban regeneration (Figure 7.40).

7.40a

7.40b
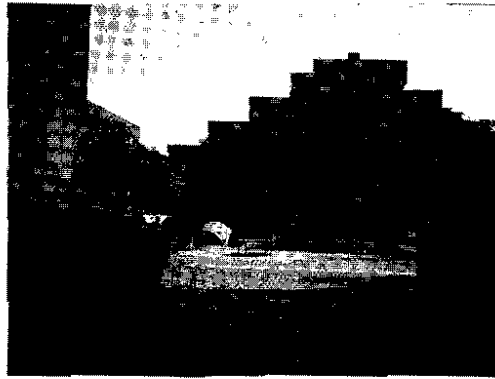
7.40c

Figure 7.40 Block 103, Kreuzberg, Berlin. (Photographs by June Greenaway)

BERLIN GOVERNMENT CENTRE: LEON AND ROB KRIER

Leon and Rob Krier see a project like this for the Berlin Government Centre not only as a unique opportunity to create a governmental quarter but also as a possibility to integrate these functions with an urban fabric of mixed use: 'Over 100 000 square metres of three/four storey high residential blocks with commercial ground floors are thus spread in a checkerboard fashion throughout the new government district. The central symbolic buildings, the Parliament (the old Reichstag building), Bundesstat and Chancellery, are grouped around a vast artificial lake which will become the largest public space in

Berlin' (Krier and Krier, 1993). This is a project which illustrates clearly the thinking of both Leon and Rob Krier: it is also in the mainstream of current urban design theory. Like their project for the new quarter for Venta-Berri in San Sebastian, the arrangement of medium-rise street blocks with mixed uses arranged as perimeter development is a model many urbanists would advocate for city development (Figures 7.41 and 7.42).

POTSDAMER PLATZ – LEIPZIGER PLATZ: HILMER AND SATTLER

The planning of the area around Potsdamer Platz was the subject of a competition. The district was

7.42

Figure 7.41 The Berlin Government Centre (Architectural Design, 1993)
**Figure 7.42** The Berlin Government Centre (Architectural Design, 1993)

badly damaged during the Second World War and by the time of the competition in 1991 the area was an empty tract of land. The aim of the development is to rejuvenate the district so that it becomes a busy part of the city once again. The area was designed to contain a mix of uses, offices, hotels, shopping, restaurants and also residential accommodation. The plan by Hilmer and Sattler defines public spaces, squares, streets and boulevards, together with the density of development and the general building height of 35 metres. The scheme deals with general massing only: 'Our concept ... is not based on the globally-accepted American model of an agglomeration of high-rise buildings at the core of the city, but rather on the idea of the compact, spatially complex European town. It is our view that urban life should not develop within the interiors of large-scale building complexes like glass-covered atriums and megastructures, but in squares, boulevards, parks and streets' (Sattler, 1993). Despite this reference to the compact and complex European town the drawings of street blocks have the appearance of buildings standing as solid volumes in rows along a wide street. Richard Reid, in his discussion with Sattler, articulated this view: 'When I look at the plans of your urban blocks, and in particular the diagrams, they are all a series of enclosed private spaces off the main urban grid. And in a sense that seems to be more like the American rather than the European model' (Architectural Design, 1993). The formality of this project for the Potsdamer Platz district of Berlin and its overwhelming scale has none of the subtlety found in the work of Leon and Rob Krier for the same city (Figures 7.44 and 7. 45).

CONCLUSION

The main ornaments of the city are its streets and squares (Sitte, 1901). It is, however, the street block or insulae which forms the boundaries of public space. The street block is also at the interface
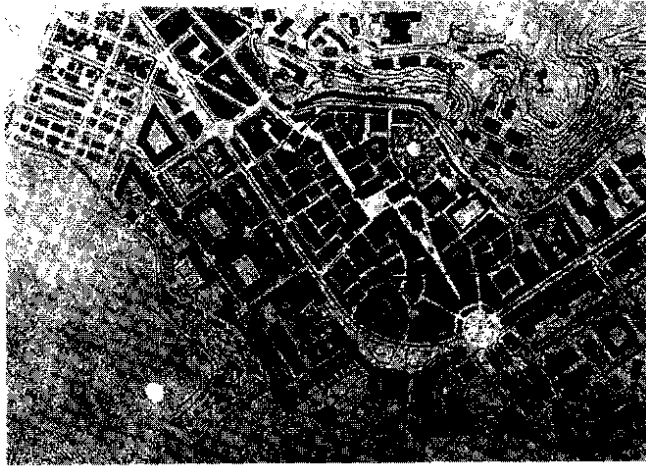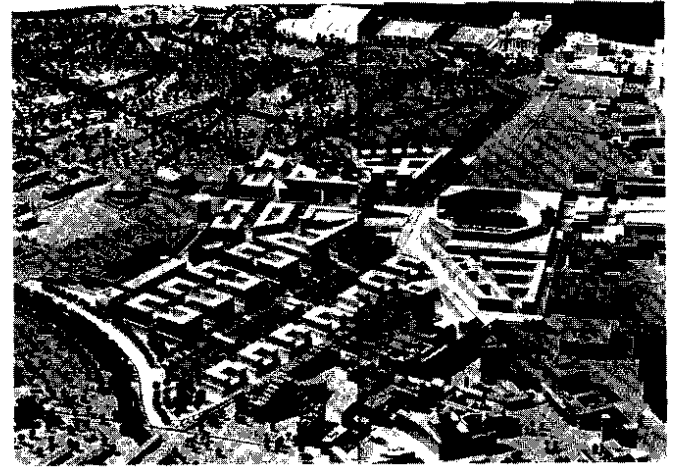
7.43a
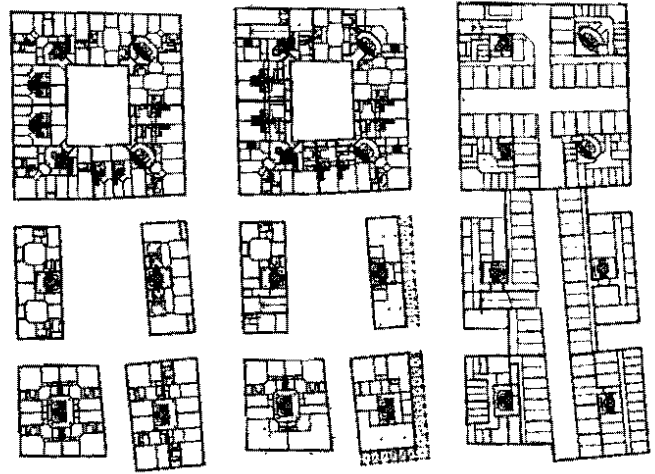
7.43b

7.44

7.45

between the public world of the street and the inner life of the courtyard and its surrounding buildings. Perimeter development is clearly the most effective way of arranging buildings to act as a filter between the public façade and the private activities which are pursued within the block. There is general agreement that street blocks of mixed uses result in a more vital and interesting city. There also appears to be wide agreement that street blocks should be as small as is reasonably possible in order to maximize the 'permeability' of city districts. An alternative view sees the need for street blocks to be large enough to accommodate single large schemes (Bruges, 1992). It would seem, however, that large single users, such as the

Figure 7.43 The new quarter of Venta-Berri in San Sebastian
Figures 7.44 and 7.45 Potsdamer Platz by Hilmer and Sattler (Architectural Design, 1993)

Inland Revenue in Nottingham, can be accommodated within a number of small street blocks. In this case the result is a fine piece of urban architecture and a canal scene of great quality.

The conclusions derived from the debate on sustainable development support the idea of small-scale city street blocks composed of compatible mixed activities or mixed land uses, surrounded by a perimeter block of two, three or four storeys. Sustainable forms of this type also provide a framework for the development of a city with vitality but with a friendly human scale: that is, with a scale normally associated with the morphology of a traditional European city (Krier, L., 1984).