Normative theories of urban design deal with the question of how to create the best urban environment, or, as Lynch (1981) puts it, ‘how to know a good city when you see one’. However, what is best is a question of values, as well as how cities are conceptualized in terms of what they are for. For some, the most important aspect of a city may be its aesthetic qualities. Although aesthetics may be valued very differently by different people, this quality of a city has a high rank for most people. Others may look at a city primarily in terms of its capacity as a place to do a particular kind of business, and yet others may prioritize how a city meets their social, economic or cultural requirements to everyday life.

And like people in general, normative theories of urban design also have different foci of interest, as well as different normative bases. Some theories deal with the city as an expression of society and operate mainly on the large scale, while paying little attention to aspects such as environmental fit or aesthetics. Others may focus on aesthetic or sensory aspects of urban form, and pay no attention to functional or social aspects. And yet others may put special emphasis on one or more selected aspects, whether it be traffic, spatial identity, energy conservation, or something else.

Different writers have tried to organize normative theories of urban design along various lines of categorization. Broadbent (1990) classifies different normative theories of urban design by differences in their philosophic bases. This leads him to a distinction between three different approaches; empiricism, rationalism and pragmatism. Empiricism, as formulated by philosophers such as Bacon, Locke and Hume, asserts that we know the world through experience, as perceived through our senses. And by an empiricist outlook, ideas are generated either by resemblance – that one thing is like, or seems like, another, by contiguity – that things that appear together seem related, or by causality – that one thing seems to imply another (ibid.).

Rationalism, on the other hand, is based on the Cartesian view that we cannot trust the evidence of our senses, but must search for universal truths. And these can only be arrived at through logical thinking. Contrary to the empiricist view, rationalism holds that things don’t have to be perceived, but can be known without sensory experience, as long as they can be conceived.

And finally, pragmatism, which was formulated and developed by the American philosophers Peirce, James and Dewey, holds that things must be understood in terms of their practical consequences and application. And because ideas are tested against their concrete consequences, solutions may often seem ‘impure’ from a rationalist point of view. Or in the words of Dewey: “Action and opportunity justify themselves only to the degree in which they can render life more reasonable and increase its value” (quoted in ibid.).

Another way of categorizing normative theories of urban design is offered by Gosling & Maitland (1984). They distinguish between what they call natural models, utopian models and models from the arts and sciences. The natural models of urban design seek inspiration in history and the “… large number of traditional urban forms which have survived the passage of time and which work to a greater or lesser
degree” (ibid., p. 25). This category comprises theorists like Sitte and Unwin, whose theories express a nostalgic longing for the medieval town. That Gosling & Maitland put Le Corbusier in the same category may surprise, but is argued with reference to his fascination of traditional and vernacular settlements for their functional fit. His conclusions for contemporary cities were only different because the functional requirements of the modern age are different from those of the past, but the conceptual model – on a more abstract level – is the same. Gosling & Maitland’s models, in other words, must be understood as different sources of inspiration for urban design, rather than urban design models in themselves.

This kind categorization also allows them to group quite different urban design theories together in their category of utopian or hypothetical models. While distinguishing urban design theories based on utopian models as closely tied to visions of society itself, Gosling & Maitland identify three groups of utopian urban design theories. The first group is primarily concerned with visions of society, which form the basis for the formulation of formal theories, accommodating these visions. This group includes the utopian socialists of the 19th century, and the 20th century urban utopias of Howard, Wright and Le Corbusier, as well as the Neo-Rationalists.

The second group includes the more speculative technological utopias of the 1950s and 60s of Buckminster Fuller, Yona Friedmann, Archigram and the Japanese metabolists. This group of utopian theories is primarily focused on specific technical solutions to various perceived problems of modern society. And whereas the first group of theories seeks to accommodate built form to their visions of society, the theories in this second group require that society adapts to the technical solutions they devise.

Finally, the third group of utopian models constitute a reaction to the two former, as they are critical of the very idea of centralized social and technical utopias. Including theories such as Wright’s Broadacre City and Alexander’s Pattern Language, this group of models claims to favor the needs and wishes of the ordinary citizen over the utopian visions of experts, even when they – quite paternalistically – claim to know what these needs and wishes are.

Apart from the natural and utopian models, Gosling & Maitland also include what they call models from the arts and sciences. This category includes the work of Jane Jacobs, Gordon Cullen, and Kevin Lynch’s *The Image of the City*. The theories in this category draw from other disciplines, such as semiotics, environmental psychology, and the social sciences, in order to investigate the relationship between urban space and various aspects of human life. They are generally more scientific (in the soft, argumentative, social science-sense) than the more ideologically oriented theories of the other categories. The theories in this category are analytical (although value-laden) rather than prescriptive, theories about urban form. As such, they are background theories for urban design, rather than urban design theories in themselves.

Lynch (1981) offers a third system of categorization, based on different metaphors, or models, of what a city is, and how it works. He distinguishes between three groups of theories which are based on what he calls the cosmic model, the machine model, and the organic model. The first group is a historical category, including ancient concepts of urban design, where the layout of the city was related to interpretations
of the workings of the universe and the ceremonial celebration of the divine and the cosmic order. Also the ideal cities of the renaissance and the axial cities of the baroque belong to this category, in their celebration of mathematical order and the power of sovereigns – aspects which are beyond mere utility and comfort.

Contrary to the cosmic model, which sees the city as a unified and stable whole, the machine model is dynamic. Viewing the city as a machine has pragmatic and functional benefits which have made this model particularly useful by the establishment of colonial cities – whether it be ancient settlements, European medieval new towns, or the colonial cities of the Americas – where settlements had to be established from scratch and with scarce resources. But also today, the machine model, with its explicitly rational view of the city as the embodiment of different processes, uses, and flows, presents a powerful metaphor for the technical management of cities.

The organic model, which is much more recent than the other models, views the city as an organism, whose different elements perform different functions, while constituting parts of a unified whole. With theorists like Geddes, Mumford, Howard and Unwin, it is embodied in the thinking of both regional planning and the concept of the garden city. And as such, it has had an enormous influence on 20th century urban planning.

While the three systems of categorization described above cover many of the same theories, it is obvious that their differences reflect variations in emphasis on different aspects of the theories. And although many of the theories are in many ways similar, they are not easily distributed into clear-cut categories. Nonetheless, Broadbent's rational approach, Gosling & Maitland's first group of utopian models, and Lynch's machine models, seem to partially overlap. And Gosling & Maitland's natural models which rely on history and forms which have passed the test of time, are obviously empirical in their approach. But apart from that, none of the other categories bear any distinct resemblance with one another.

The different systems of categorization are also internally inconsistent in part. Although many of the theories might be said to be guided by a dominant philosophical approach, according to Broadbent's categorization, they are most often composite, drawing from both rational and empirical, empirical and pragmatic, or even more lines of thought at the same time. Hence, while Rossi (1982) is a rationalist in the sense that he argues that city building must be guided by the concept of the urban artifact, his derivation of the concept is historical and therefore empirical. And Wright's approach is explicitly composite, as he describes Broadacre City by saying that "whenever repetition (standardization) enters, it has been modified by inner rhythms either by art or by nature as it must, to be of any lasting human value" (1935, p. 244).

Gosling & Maitland's categories also suffer from a certain degree of inconsistency. That urban design theories are utopian in the sense that they require a radical social and institutional reorganization of society in order to be implemented, does not exclude that they draw on natural or historical sources for their inspiration. For example, while Alexander's (1977, 1987) theories are clearly utopian in their radical critique of capitalist society, they still draw heavily on historical examples in their prescriptions for the good city.

But more fundamentally, when dealing with normative theories of urban design,
these different systems of categorization do not give a clear picture of the normativity underlying the different theories in each category. This spells out on two levels. First, while most theories of urban design are partial theories; that is, they do not cover all aspects of urban design, these categorizations do not tell us anything about what aspects are the focus of each theory. Second, even when different theories are dealing with the same aspects of urban design, they may be based on quite different sets of values.

For example, Wright's Broadacre City and Le Corbusier's Ville Radieuse are both visions of society and both rational in their approach, yet they are like night and day, when it comes to their underlying values. Whereas Le Corbusier (1947) sees the historical city as an impediment to business as the driving force of society, which require modern cities of high densities, Wright (1935) is critical of the very values that Le Corbusier cherishes, and quite contrarily rejects the dense metropolis in favor of a dispersed and rural environment, and a decentralized social structure, based on use value rather than exchange value.

In order to highlight the differences in normative content among different theories, the following discussion is structured according to the different incentives that motivate them. First, this will allow an understanding of the different aspects of urban design which are covered by the different theories. Second, it will make it easier to evaluate different theories which deal with the same aspects of urban design, but on different normative bases.

The first group of theories views urban design as a means to embody a certain vision for society in space. Because their ambition is to change society through the changing of space, they may also be called urban utopias (Fishman, 1982). Their focus on society at large also makes them focus on cities at large, although they do include considerations on a smaller scale also. The second group of theories sees urban design as the application of particular 'paradigms of order' (Hubbard, 1996) to the built environment. They focus on the aesthetic, formal, or conceptual aspects of the urban environment, either within singular spatial settings or the city as a whole. Finally, the third group of theories focuses on environmental aspects of the urban environment. Here, the main interest is how the urban environment responds to different functional, as well as emotional needs of their inhabitants. The neighborhood is the primary scale of interest to this group of theories, although they also may include considerations at both smaller and larger scales.

**Societal Theories of Urban Design**

Societal theories of urban design focus on the city as an expression of society. Like most other normative theories, they are critical of the existing city, but because this critique is not only spatial but also social, they devise more than purely spatial solutions. On the contrary, they believe that a reorganization of space must go hand in hand with a reorganization of society. And because their critique of the existing city and society is radical, the reorganization of society and space which they devise, is equally radical.

Although different societal theories of urban design may be founded on highly
different normative bases and therefore quite different as to their analysis and critique, and thus also as to the solutions the devise, two main characteristics make them share a common nature. One is the linkage between society and space, and the idea that, like changes in society may lead to changes in space, so can changes in space also be a means to change society. And the other is their radical nature. Because of these characteristics, they may be called utopian theories of urban design (Fishman, 1982). Nonetheless, at least the two societal theories of urban design which are discussed in the following, constitute some of the major intellectual influences on urban development in recent time.

**Garden Cities**

In 1902 Ebenezer Howard (1850-1928), a stenographer by profession, published a book which became one of the most important contributions to the urban design theory of the twentieth century. *Garden Cities of To-morrow* triggered a whole movement, soliciting Garden Cities, it led to the formation of the profession of town and country planning in Britain, and the concept of the Garden Cities – although in a distorted form – became the basis of the British New Towns Program, which was in operation from 1946 until the mid 1970s. (Thomas, 1985).

What triggered Howard was the appalling living conditions which the rapidly growing city of London offered most of its inhabitants in the second half of the nineteenth century. His distaste for the metropolis and the miserable life of its inhabitants was expressed by a local politician of the time, whom he quotes:

*I am always haunted by the awfulness of London: by the great appalling fact of these millions cast down, as it would appear by hazard, on the banks of this noble stream, working each in their own groove and their own cell, without regard or knowledge of each other, without heeding each other, without having the slightest idea how the other lives – the heedless casualty of unnumbered thousands of men.*

– In Howard, 1985, p. 4

In Howard’s view, the metropolis was bad, not only because of its environmental deficiencies in the form of pollution, absence of nature, poor (albeit expensive) housing, and so on, but also because he, like many of his contemporary (as well as later) urban theorists, believed it to be mentally and morally deteriorating for its inhabitants. However, he recognized that the forces of society drive people to live in the city all the same, and that, in that sense, the city also has something positive to contribute, in terms of jobs and social opportunity, education and leisure.

He therefore contended that the city’s ‘attractions’ outbids its negative sides for most people, because they are stronger than the attractions of the countryside, from which the many new city dwellers of his time had moved. Conversely, the attractions of the countryside, among which Howard lists beauty of nature, ‘land lying idle’, fresh air, water, and bright sunshine, are not enough to retain the rural population, because of missing social and economic opportunity. It was therefore obvious for Howard, that any viable alternative to the metropolis would have to acknowledge the forces
The concept of the garden city is based on the idea, that through combining the attractions of the town with the attractions of the country, while at the same time avoiding the negative sides of both, it is possible to develop a completely new spatial structure – a ‘town-country’, or garden city – which would be competitive to both town and country, and thus ultimately replace both. As such, the garden city was meant to replace the existing cities, rather than to supplement them. Hence, the existing cities – although the garden cities should be developed around them – should themselves eventually become like the garden cities.

The key argument in the concept of the Garden City is economic. Howard, who is influenced by the theories of Henry George (Fishman, 1982), attributes the misery of the metropolis to the question of private land ownership. Private land ownership not only makes it possible to generate high rents for poor housing, but also makes it overly expensive to purchase land for public amenities such as schools, parks, and the like. Howard is therefore harshly critical of private land ownership, and he makes no secret of his despise of the private landlord, whom he sees as a parasite, benefitting from factors such as density and accessibility, without contributing to the generation of these factors merely by owning land in the city.

The economic concept of the garden cities is entirely different. In lieu of private landowners, the municipality owns the land. Because the garden city is supposed to be a green field-development, the costs of purchasing land are modest. And because the city’s growth will increase the value of its land, the municipality’s revenues will increase as well. And over time, the municipality will have sufficient means, not only to repay the loans for the acquisition of the land, but also for all necessary public amenities, and eventually even the pensions of its inhabitants. And all this at a much higher standard than is feasible in the existing city.

The central idea of the concept of the Garden Cities, in other words, is economic redistribution. The ‘unearned increment’, which covers the enormous difference of rental value between inner city and countryside land, ‘cannot be attributed to the action of any particular individuals’ (ibid., p. 22), but only to the difference in density. And thus, Howard states, ‘it is … obvious that such increment of land value may, with some foresight and prearrangement, become the property of the migrating people (ibid., p. 22). The ‘unearned increment’ is turned into the hands of the public.

Furthermore, as land is kept on the public hand, it is not subject to speculation. Hence, the high land acquisition costs of the existing city are avoided, allowing for ‘ample sites for town hall, public library, museum and picture gallery’, a ‘magnificent avenue’ and ‘spacious boulevards’, as well as ‘schools and churches, which, one may be sure, will not be the less beautiful, because so little money has been expended
However original the economic principles of the concept of the garden cities might be, in terms of aesthetics, Howard has little new to offer. His description of the garden city features a collection of 19th century urban typologies. Although he is conscious that his prototype city is ‘merely suggestive’, and therefore is likely to be ‘much departed from’ in its actual realization (ibid., p. 14), he still puts some effort into describing its features.

Disregarding that Howard was not a designer, and that he therefore might have grabbed whatever models he had at hand, his aesthetic preferences differ from those of Raymond Unwin who, together with Barry Parker, designed the first actual garden city (Letchworth, 1903) and who, more than anyone, formulated the aesthetic program which was to become associated with the garden cities. Unlike Unwin, who solicits the informal beauty of the self-grown, and the narrow perspective of the winding street (Unwin, 1909), Howard describes a grandiose city with ‘magnificent boulevards’ leading to a center with civic buildings on ‘ample grounds’, surrounded by a large ‘central park’ which, in turn, is circumscribed by a ‘glass arcade called the ‘crystal palace’ (Howard, 1985, pp. 15-17). Midway between center and periphery of the circularly laid-out city, a ‘Grand Avenue’ is fronted with houses formally ‘arranged in crescents’, in order visually to enlarge the ‘splendid width of Grand Avenue’ (ibid., p. 18).

Howard’s formal approach to the overall design of the city is similar. Based on
the conception, that ‘a town, like a flower, or a tree, … should, at each stage of its
growth, possess unity, symmetry, [and] completeness’, he concludes that ‘the town
should be planned as a whole, and not left to grow in a chaotic manner’ (ibid., p.
39), as, he contends, is the case for most existing cities. Howard therefore praises the
regular, although monotonous, layout of american cities, which ‘do not consist of
intricate mazes of streets, the lines of which would appear to have been sketched out
by cows’, although they have not been planned ‘in a scientific manner’, with regard
to public amenities (ibid. p. 40).

In contradiction to this picture of strict geometry, Howard envisages a ‘very
varied architecture and design’, in which ‘the fullest measure of individual taste and
preference is encouraged’. And for that reason, ‘observance of the street line or the
harmonious departure from it are the chief points as to house building, over which
the municipal authorities exercise control’ (ibid., p. 17). It may also seem difficult to
reconcile his ‘magnificent boulevards’ with his description of streets ‘in which trees,
shrubs, and grass give to the town a semirural appearance’ (ibid., p. 30). But after all, for
Howard who objected as much to centralized government as to the individual power
of landlords (Fishman, 1982), a varied architecture expressing the will and wishes of
the inhabitants, may after all be more at his heart, than magnificent boulevards, and
houses arranged in crescents.

These inner contradictions in the description of the garden city should not be
paid too much attention however, as Howard is far less occupied with aesthetics
than with other aspects of urban design. Thus, the spatial organization of the garden
city – although a certain amount of symbolism, is discernible, such as the central
location of the civic center and the park – is conceptualized primarily with regard to
functional considerations. Fundamental to the layout of the city is a view to minimum
development and maintenance costs, as well as to hygiene and health.

Production units are located on the perimeter of the city along a circumscribing
railway for rational distribution, and in order to reduce traffic on the roads of the
town, thereby ‘lessening to a very marked extent the costs of their maintenance’
(Howard, 1985, p. 18). Green space is distributed in order to give the inhabitants
maximum accessibility, regardless of where in the city they might live, and schools
are so distributed that ‘[t]he children will have to expense less than an average
amount of energy in going to school’ (ibid., p. 37). Finally, the agricultural land and
scenic landscapes which surround the garden city, are considered as integral parts
of the entire spatial structure, as the combination of country and town, ultimately,
is what makes the garden city preferable to both the existing cities as well as the
countryside.

Howard also hints some ideas about the social organization of space, as he suggests
that some houses may have ‘common gardens and co-operative kitchens’. While this
is not central to his concept, it illustrates his inclination towards communitarianism.
And although he was not at all keen on central government, he acknowledged that,
in order to get the garden city up and running, central initiative and planning is
necessary. But he was convinced that power should gradually be handed over to
local government.

Although he is not in favor of a socialist system with ‘complete municipalization
of industry and the elimination of private enterprise’, he is convinced, that as the
inhabitants of the garden city experience the high quality of service at low costs, which
he foresees, ‘the field of municipal activity may grow so as to embrace a very large
area’ (ibid., p. 54). Nonetheless, Howard sees this issue as undetermined and subject
to experimentation, and ultimately to be determined upon by democratic decision.

The Contemporary City

To the swiss born architect and urban planner Le Corbusier (1887-1965), urban design
was by no means a matter of democratic decision. And even though the existing city,
for Le Corbusier like for Horward, formed the basis of critique, Le Corbusier’s concerns
were quite different from those of Howard. Whereas Howard saw the metropolis as an
impediment to a good life for the urban dweller, Le Corbusier saw it as an impediment
to business and the wealth of the nation.

For Le Corbusier who published his theory of The Contemporary City in 1924,
a quarter of a century after Howard’s Garden Cities of To-Morrow, the biggest
deficiency of the old metropoles was its inability to accommodate car traffic. In the
years succeeding the World War I, Paris, where Le Corbusier lived, experienced an
immense increase of car traffic. This radically changed the experience of the urban
environment, whose pulse had previously been paced by horse carriages. And Le
Corbusier felt an immense discrepancy between the narrow urban structure of the
city and the energy of this new means of transportation:

*Its power is like a torrent swollen by storms; a destructive fury. The city is crumbling,
it cannot last much longer; its time is past. It is too old, The torrent can no longer
keep to its bed. It is a kind of cataclysm. It is something utterly abnormal, and the
disequilibrium grows day by day.*

– Le Corbusier, 1947, p. 15-16

For Le Corbusier, the mess of unorderly congestion which was the result of this
development, was not just unpleasing, but detrimental to the proper functioning of
the city, as he saw it. In his formulation therefore, urban design is a remedy to alleviate
the problems associated with car traffic and a means to organize the city in the most
rational and efficient manner, both in terms of its function and its construction. Le
Corbusier’s definition of function is utilitarian: ‘A town is a tool’ (ibid., p. 13), whose
function is to make its inhabitants accomplish their work, and use its amenities, with
the least effort. And as much of this effort is associated with circulation, much of his
attention is paid to the rational organization of traffic.

The car is cherished as the means of transportation *par excellence* of the twentieth
century, and therefore the best possible conditions must be offered for its use. Thus,
streets must be wide, straight, and possibly unintersected. In contrast to the congested
and narrow streets of the existing city, parking spaces must be abundant, and close
to travel destinations. The provision of uninhibited access for cars is so much of Le
Corbusier’s concern, that he proclaims the congestion of the existing city to be ‘the
very first problem of town planning’ (ibid., p. 108).
As business is the vehicle for all progress and development, and thus for the growth and prosperity of the metropolis and the entire nation, urban design must facilitate business. As businesses are dependant on adjacency to other businesses, offices must be located in the center of the city, at high density, and accommodated in spacious, well lit spaces with a view. And under the recognition of the need for free flow for car traffic, these requirements are accommodated perfectly well in Le Corbusier’s well known cruciform tower blocks.¹

Le Corbusier claims that his approach to urban design is scientific, and that his proposals ‘rely on the sure paths of reason’ (Le Corbusier, 1947, p. 17). Only through the application of the principles of science is it possible to reach an urban design which is free from the nostalgia and romanticism of the Städtebau of Sitte, or the Garden City designs of Unwin and Parker, both of which he criticizes. Nostalgia and romanticism, in his view, are the very virtues which have led to the crisis of the existing city, and essentially, he argues, “it is in this way that cities sink to nothing and that ruling classes are overthrown” (ibid., p. 30).

Underlying his seemingly rational and scientific approach, however, he has a strong predilection for geometry per se, which he associates with civilization, sanity and nobility. He praises Louis XIV, and the ancient romans, as ‘the only great town planners of the west’ (ibid., p. 26), the latter of whom set their colonial cities ‘amongst their barbarian subjects’, based on ‘preconceived and predetermined plan[s]’ (ibid., p. 106). The existing city of Paris, which is the concrete object of his critique, on the contrary, is described as a ‘dangerous magma of human beings’, and an ‘eternal gipsy encampment’ (ibid., p. 43).

The most well-known example of this praise of geometry over randomness and irregularity, is probably the quote about the pack-donkey:

*The winding road is the pack-donkey’s way, the straight line is man’s way.*
*The winding road is the result of happy-go-lucky heedlessness, of looseness, lack of concentration and animality.*

¹ Later it becomes clear to Le Corbusier that the business community does not share his ideas of what is best for business and therefore fails to support him. Out of disillusion, he reformulates his urban design theory. In his proposal for The Radiant City (1935), a residential district is substituted for the central business district, and the office towers have been displaced to a less prominent place, at the fringe of the city (Fishman, 1982).

Figure 3.3
Plan of the Contemporary City. The plan is clearly divided into functional zones with the cruciform office towers in the center, surrounded by different types of housing. Industry is located outside the urban envelope (left) which has a very clear boundary.
The straight road is a reaction, an action, a positive deed, the result of self-mastery. It is sane and noble.

– ibid., p. 30

Le Corbusier’s affection for order and clarity also makes him critical of the way cities grow. He sees the blurring of the city boundary through the development of adjoining suburbs as a serious loss of clarity. This issue (which is widely shared by the urban design profession up to the present day), is so much of Le Corbusier’s concern, that he sees the creation of ‘a zone free for development’ as ‘the second problem of town planning’ (ibid., p. 110).

Only on one point does Le Corbusier acknowledge certain shortcomings of geometry. While the straight road is ‘eminently architectural’, the winding road, he admits, is more picturesque. And as he also acknowledges that scenery is a relevant feature for strolling paths, these should be laid out in winding patterns. Otherwise, however, he reduces non-geometric forms to a matter of ‘pure aesthetics’ (Sitte) or to ‘a symbol in themselves of the Garden City’ (town planners in general).

Le Corbusier’s conception of the city and the life of the urban dweller, expresses a mechanistic attitude. The city is viewed as a system, whose primary function is to serve business. Work, as well as leisure, are seen as mere functions, which must be accommodated by the urban structure in the most rational manner. The city, thus, is likened to a machine, whose parts serve different functions. Urban life is programmed and choreographed to fulfill the overall purpose of the machine. The urban dweller must act in accordance with the function of the machine, and hence becomes a part of it.

Framing urban life in this way, it seems natural to allocate different areas of the city for specific purposes and people: Business in office towers in the center, and factories for production on the fringes of the city. And in between, a residential district in the form of a garden city of apartment blocks, set in a park. And according to their class and the functions they perform, the inhabitants commute between their garden city homes and the business district, and the factories respectively.

In Le Corbusier’s view also leisure activities is a matter of utility. Sports activities are carried out in order to preserve health, and spaces for these activities must be abundant and close to the dwellings (in contrast to work places which are remote).

\[2\] At the annual assembly of The Federation of Danish Architects, December 1999, a discussion on urban planning was concluded with the statement that this was ‘one of the most important issues to be dealt with’ (Personal notes from the meeting).
As every part of a machine serves a specific function, so must every part of the city. The concept of the private garden, which may serve a number of purposes, must be replaced by rationally structured, communal vegetable gardens and sports grounds. To exercise by tending a private garden does not fit with the idea of the machine age:

_Some people may call all this a healthy form of exercise. On the contrary it is a stupid, ineffective and sometimes dangerous thing. The children cannot play there, for they have no room to run about in, nor can the parents indulge in games or sports there. And the result of this is a few pears and apples, a few carrots, a little parsley and so on. The whole thing is ridiculous._

– ibid., p. 215

Le Corbusier is fascinated by the rationality and rigor of science. But it seems that his artistic soul does not quite get to terms with his rationalistic mind, as when he claims that ‘statistics are the Pegasus of the town planner’ (ibid., p. 119). And even though he motivates his geometric forms as scientifically deduced, he also maintains the importance of (his) intuition. For Le Corbusier, intuition is ‘a categorical imperative which nothing can resist’. But as it is based on ‘rational elements’, intuition can be described as ‘the sum of acquired knowledge’ which ‘every man has earned for himself’ Hence (Le Corbusier’s) intuition is rational in itself and therefore unquestionable (ibid., p. 51-52).

The arrogance of this argument pervades Le Corbusier’s entire theory of urban design, as well as his view of the role of the urban designer. His theory of urban design must be accepted as a _fait accompli_, simply because he knows best. And therefore the urban designer, or master planner, must hold the power to execute his plans independently of government and democratic decision. Le Corbusier’s personal efforts to implement his urban design theories in practice was a long and unremitting attempt to obtain such autocratic power. Something which, however, he was never granted (Fishman, 1982).

**FORMAL THEORIES OF URBAN DESIGN**

Contrary to the societal theories of urban design, formal theories of urban design do not deal with society at large. Their focus of interest is the formal quality of urban space, and their ambition therefore, is to establish specific aesthetic or conceptual paradigms of urban design. Although equally critical of the existing city, the critique of formal theories of urban design is typically directed towards a perceived deterioration of urban space, as caused by non-architectural intervention or what is considered wrong paradigms of architectural intervention.

Because many of the formal theories of urban design see the present state of urban space as deteriorated from a better, historical state, their approach is typically conservative or nostalgic. Urban design, in other words, is seen as a means to repair the urban fabric; to restore the quality of urban space to some undeteriorated, previous state. This, of course, is largely a critique of modernism, and formal theories of urban design are mostly a postmodern phenomenon. An undercurrent of rejection
of functional or social aspects of urban design is therefore detectable within many of the theories in this category.

**City Planning According to Artistic Principles**

Although his closest contemporary among urban design theorists, the Austrian architect and arts and crafts teacher Camillo Sitte’s (1843-1903) approach is, in almost any respect, opposite to Howard’s. Whereas Howard’s entire motivation is rooted in a strong wish to improve the social conditions of urban life, Sitte hardly reflects on social issues at all. On the contrary, Sitte is almost entirely concerned with the aesthetics of the urban image, which, in turn, Howard pays only marginal attention.

Sitte, like Howard, was motivated by the coming about of the big cities of the industrial society. But whereas Howard was appalled by the living conditions of the city, Sitte was opposed to the spatial layout of the new city, as conducted by the planners of the day. This early city planning was dominated by engineers, often with a military background, who saw the task as one of accommodating the rapid growth, by allocating rational development units in the shape of urban blocks, and safeguarding circulation by means of spacious layouts of streets and boulevards. In this manner, Hausmann conducted the restructuring of the existing city of Paris, and Cerda developed his well known grid plan for the enlargement of Barcelona.

Sitte’s home town, Vienna, was subject to similar transformations in the second half of the nineteenth century. Most notably, the development of the famous Ringstrasse around the historic city, was decreed by the austrian emperor Franz Joseph in 1857. The layout of the Ringstrasse was to reflect the glory of the empire, and to incorporate the modern civic institutions associated with the capital of a nation state, such as theater, university, city hall, parliament building, churches, and museums.

In Sitte’s view, the way these new urban structures were laid out was totally wrong. He did not approve of the new aesthetics, which, in fact, he interpreted as a lack of aesthetics. He saw this modern city building as an entirely technical enterprise, rather
than as an artistic enterprise, which it ‘in its finest and most elevated sense’ should rightly be (Sitte, 1965, p. 3-4). For Sitte, the most important task of urban design was to establish visual setting which could provide pleasing aesthetic experiences. What occupied him the most was therefore the pictorial (malerische) qualities of the townscape.

The strive for such pictorial qualities, he argued, was the foundation of the design of the ancient greek agoras and roman fora, in which the irregular composition of buildings constituted an ‘artistic synthesis’, which, for Sitte, was the ideal of city building, and something which could not be reached beyond. However, the same qualities could also be found in historic cities, which have not been designed on the basis of geometry, and which therefore possess a certain ‘naturalness’, which, in Sitte’s view, is required, in order to establish beauty.

Through an extensive examination of hundreds of historic squares and streets, Sitte argues how their pictorial effects are established through the irregularity of their layout, which he finds is the result of deliberate reflection, as much as it is the outcome of haphazard development over time. Apart from irregularity, enclosure is also an important element for Sitte. First, space must be contained, in order to be appreciable. Second, the eye should be restricted, and views be limited, in order to achieve a full aesthetic experience. Streets, therefore, should not enter squares perpendicularly, but at an angle, in order to reduce the number of ‘offensive gaps’ (ibid., p. 34).

The word ‘offensive’ might well be taken rather literally in Sitte’s phrasing, as he clearly linked his aesthetic argument to psychological well-being. For him, the beauty of the environment was a prerequisite for mental relief:

*If we could linger again in those places whose beauties never wane, surely we could then be able to endure many difficult hours with a lighter heart, and carry on, thus strengthened, in the eternal struggle of this existence.*

– ibid., p. 3

This link between ‘the strong influence of physical setting on the human soul’ (ibid., p. 3), he believed, was also true on the negative scale. Not only do beautiful surroundings delight the spirit of man, but bad spaces could also be psychologically harmful. Thus he argued against the scale of modern urban spaces, which he found far to big, as he contended that “[o]n our modern gigantic plazas, with their yawning emptiness and oppressive ennui, the inhabitants of snug old towns suffer attacks of … agoraphobia” (ibid., p. 45).

One of Sitte’s biggest concerns, however, is the relationship between the square, or plaza, and its dominating monumental building – church or palace – as it can be found in historic cities. He acknowledges though, that both the functional and symbolic significance of the public square has diminished significantly in the modern society, where newspapers have taken over from public readers and town criers (ibid.) and the “gay activities of vending have … been shut up in the glass-and-iron-cage of a market hall” (ibid., p. 16), and that, as such, “… all we have stressed so far as a characteristic of the enhancement of old plazas is today absent” (ibid., p. 16). But even so, he still finds it important to maintain this formal relationship for aesthetic reasons, and to
study the planning of old cities, ‘even the merely picturesque’, in order to establish parallels to modern conditions.

Sitte saw the extensive use of ‘clumsy geometry’ in the layout of the new city as ‘arbitrary drawing board decisions’ (ibid., p. 43), and what he saw as a false belief in symmetry as the remedy for ‘such difficult artistic problems as those of town planning’ (ibid., p. 51). Whereas ‘the old masters’ of city building were able to ‘attain naturalness easily by judging and arranging everything on the spot’, he taunted the city planners of his day for mechanically producing ‘projects, conceived to fit any situation’ (ibid., p. 75).

Although his own argument is purely aesthetic, Sitte fails to recognize any aesthetic reasoning behind what he sees as the unfortunate city planning ideals of his time – “Today nobody is concerned with city planning as an art – only as a technical problem” (ibid., p. 85). He reduces all features of modern city planning to questions of technical rationality, whether it be considerations about traffic, health or hygiene. He thus attempts to battle modern city planning on what he believes to be its home ground, as he questions the traffic efficiency of cross-streets (he prefers T-shape intersections in order to constrain the view), the hygienic efficiency of parks (which ostensibly is what they are there for), and he ridicules the ‘rage to widen the streets’ which is taking place ‘even when completely unnecessary’, “for the sole reason that this is the fashion nowadays” (ibid., p. 42-43).

However, Sitte acknowledges the progress which modern engineering has brought about, in terms of improved health and living conditions in the city, and as such, he admits that the artistic approach to city building must make concessions to modern planning objectives, as “… no artistic planning could be a thorough or lasting success unless it complies with modern living conditions” (ibid., p. 105). This does not seem to conflict with his ambitions though, as he is not concerned with the city as a unity. As his approach is purely visual, he is not concerned with the large scale structures of the city, such as the street network, which cannot be appreciated artistically, and thus “only that which a spectator can hold in view, what can be seen, is of artistic importance: for instance, the single street or the individual plaza” (ibid., p. 91-92).

Hence, as Sitte’s view of the city is partial, different areas in the city may have different artistic intensity, and some may even be left to modern city planning and its merely technical rationality:

*The broad mass of living quarters should be businesslike, and there the city may appear in its work-clothes. However, major plazas and thoroughfares should wear their ‘Sunday best’ in order to be a pride and joy to the inhabitants, to awake civic spirit, and forever to nurture great and noble sentiment …*

– ibid., p. 92

Evidently, Sitte makes no effort to include functional or social concerns into his argument. Although he acknowledges the need for functional concerns in city planning at large, he does not seriously attempt to incorporate them into his concept of city planning according to artistic principles. He merely regrets that the economic forces, which, in his view, lead to much destruction, are stronger than aesthetic arguments. On
the other hand, his call for aesthetic concern does not apply to aesthetics in general, but but only to aesthetics as defined by himself; that is, the beauty as it can be experienced in the irregularly composed pictorial setting of historic urban environments.

**Urban Artifacts**

In the 1960s the architectural movement Tendenza emerged in northern Italy. Tendenza was critical of the modern movement and its maxim of 'form follows function'. Instead, it wanted to redefine architecture 'on its own terms'; to set up architecture itself as the measure of architecture. The key postulate of the movement, in other words, was that architecture could be defined as an autonomous phenomenon (Turan, 1998).

One of the most prominent theoretical works in this tradition is Aldo Rossi's *The Architecture of the City* (1982). Despite a rather abstruse style of writing, the book became a bestseller, and was translated into several languages. But although it is often referred to as such, it is not a theory of urban design in any conventional sense of the notion.

Rossi sees the city as 'total architecture' – as 'a gigantic man-made object' – and to deal with the city, for Rossi, is therefore to deal with the architecture of the city. The architecture of the city is constituted by two categories of 'urban artifacts'. One is the 'study areas' – a term borrowed from the Chicago school of sociology – which signifies urban districts, or the neighborhoods of the city which, in their totality, constitute the bulk of the architecture of the city. The other is the more distinct manifestations of architecture, in the form of monumental buildings, or monuments, and so-called 'primary elements'.

Because the architecture of the city constitutes the city as a physical reality, to Rossi, the essence of the city – *l’âme de la cité* – or its quality, is embodied in its architecture. And as the architecture of the city, is the carrier of transient values, which constitute the city as a collective fact, the monuments play a special role "... because [as] the city is preeminently a collective fact it is defined by and exists in those works that are
of an essentially collective nature” (ibid. p. 126).

Rossi’s seeming enterprise is to define what constitutes the urban artifacts. Most of his attention is paid to the monuments, and, in his opposition to modernism, he argues that what constitutes a building as a monument is not its function – as over time, monumental buildings may serve different functions than those originally intended – but solely its form. To view the various parts of the city merely as embodiments of functions is therefore dismissed as ‘ideological’, and an expression of ‘naïve functionalism’ which is “… suppressing the most important values implicit in the structure of urban artifacts” (ibid. p. 66) and “… prevents an analysis of what is real” (ibid., p. 46).

In order to develop a ‘scientific’ theory of architectural form, he turns to the French architectural treatise writers of the enlightenment. They, like Rossi, wanted to develop the principles of architecture from ‘logical’ bases, and from them he draws the concept of the architectural type. Typology is a formal way of categorizing architecture, which “… presents itself as the study of types of elements that cannot be further reduced, elements of a city as well as of an architecture” (ibid., p. 41). Typology, in other words, is seen as a ‘constant’ which constitutes form; “… the very idea of architecture, that which is closest to its essence” (ibid., p. 41).

In terms of the ‘study area’, or urban district, Rossi makes two a priori statements. Due to the way the city is created, it cannot be reduced to a single idea – a masterplan. On the contrary, the city is made up of numerous different ‘moments of formation’, and it is the unity of these moments which constitutes the city as a whole. Furthermore, urban intervention should operate only on a limited part of the city, because it is the most ‘realistic approach’ in terms of the city’s program and the knowledge which we have of it.

Hence his focus on the districts, which – although he uses a variety of sociological categories – study area, dwelling area, or residential area – are not socially defined. Rossi sees an important relation between the monument, or primary element, and the district in relation to the dynamic of urban development. By reference to a selection of historical examples, he argues that some primary elements function as nuclei, as a sort of grains of condensation, which spark the urban development around them, just as the relationship between them “… is responsible for configurating [the] city in a specific way” (ibid., p. 95).

Despite conceptual references to the Chicago School of sociology, his rejection of any functional criteria is also a rejection of social criteria. Although he acknowledges the role of power and economics in the formation of the city, his social considerations remain oddly detached from his theorizations. Not even his recognition that technological development, first through industrialization and later through individual transportation, which increasingly questions the traditional notion of a city as a distinct, spatially defined entity, is capable of shaking his strictly formal view:

“We want to contest … that this ‘new scale’ can change the substance of an urban artifact. It is conceivable that a change in scale modifies an urban artifact in some way; but it does not change its quality.”

– ibid., p. 160, emphasis in original
Although Rossi bases his theorization on different concepts such as monuments, primary elements, study areas and others, he never explicitly defines these concepts. And while establishing the framework of typology as the ‘true’ measure of architecture, he does not attempt to isolate any concrete types. As such, his theory only suggests that there is ‘something’ there, which, allegedly, is the essence of architecture. The various concepts therefore appear rather fuzzy. And as Mo (1995) points out, this fuzziness is reinforced by recurrent contradictions, ambiguities and circular references between the various concepts, which indicate unclear or unfinished thinking.

This leaves the theory vastly open to individual interpretation, and it is therefore little wonder when Rossi states that his concept of the architecture of the city, in his mind ‘… has been … cited both appropriately and inappropriately’ (Rossi, 1982, p. 165). But the fuzziness of the theory may also be a strategy which, as Mo (1995) suggests, through ‘a certain vagueness or deliberate mystification’ serves the purpose of inspiration, rather than constituting a coherent theory in any academic, let alone scientific sense.

Notwithstanding the aim of the theory, the question remains whether Rossi’s approach to architecture and the city is at all feasible in the poly-cultural society of contemporary western democracies. To demand adherence to certain typologies is not only to claim supremacy for a specific architectural style, but also to demand a view of architecture as technê (Turan, 1998). Like in ancient Greece, the architect’s role becomes that of a craftsman, interpreting – more or less skillfully – a given set of rules. Such games may be played by a number of architects, and their individual achievements may well be enjoyed by many people. But to claim that a given set of rules could exist as a mystical ‘collective’ (Mo, 1995) which could function as a general principle for the development of cities would require a degree of historical and cultural unity, which is hard to discern in present day urban society.

Collage

In the 1980s the term collage became a widely used term within architecture and urban design, as an analogy to the heterogeneous structure of the postmodern city with its plurality of different and often contradictory forms and programs, as well as architectural languages. It also became a sort of conceptual argument for the abandonment of those grand schemes and total designs which had been guiding much of modernist urban design thinking (Oechslin, 1985).

The concept of collage in urban design was developed by Rowe & Koetter (1978) who, with reference to Lévi-Strauss, argue in favor of a bricolage approach to urban design. They build their argument on a critique of both modernism and what they term ‘ad hocism’. The ambition of modernist urban design, they contend, is illusory, not only because it is organized around a single central vision, but also because modernism makes false claims to science. On the other hand ‘ad hocism’, which is their term for user oriented urban design approaches such as advocacy planning and community architecture (see chapter 4 and 7), is equally undesirable, because it tends to be as ‘monolithic’ as modernism – just with different sets of value – as well
as conservative.

As the elitist utopia of modernism and the populist traditionalism of ‘ad hocism’ are equally unbearable to Rowe & Koetter, the logical conclusion for them is to argue in favor of a ‘theory of contending powers’ in which “… the focus of illusion is in constant fluctuation with the axis of reality” (ibid., p. 137). In order to illustrate their argument, they refer to Versailles and Hadrian’s villa at Tivoli as examples of the different kinds of thinking which underlie the modernist central vision, and their proposed bricolage approach, respectively. And it is argued further, that Hadrian’s villa – as a model – is preferable in a contemporary political context:

… whatever may be the contemporary and conscientious concern for ‘the single central vision’, it should be apparent that the manifold disjunctions of Hadrian’s villa, the sustained inference that it was built by several people at different times … might recommend it to the attention of political societies in which political power frequently – and mercifully – changes hands.

– ibid., p. 95

While Rowe & Koetter are very clear in their condemnation of both modernist utopianism and populist traditionalism, it remains fuzzy what they are actually offering in their place. As the quotation above suggests, they seem to argue along political lines, for a pragmatic approach to urban design, a state of mind, which acknowledges the complex distribution of power in contemporary society. If this is the case, they seem to be led astray by their own examples, whose status lies ambiguously between the metaphorical and the literal:

The proposition [that the outcome of urban design must be sought in a collision of interests] leads us … automatically to the condition of seventeenth century Rome, to that collision of palaces, piazzes and villas, to that inextricable fusion of imposition and accommodation, that highly successful and resilient traffic jam of intentions, an anthology of closed compositions and ad hoc stuff in between, which is simultaneously a dialectic of ideal types plus a dialectic of ideal types with empirical context …

– ibid., p. 106

Rowe & Koetter’s contention that ‘… it is almost certain that the uninhibited aesthetic preference of the present … is for the structural discontinuities and the multiplicity of syncopated excitements which Tivoli represents’ (ibid., p. 94), suggests that their models are quite literally meant. This, however, does not lead them to suggest any concrete strategies to pursue their spatial vision, something which seems ironical for a theory which is presented as a pragmatic alternative to the utopian visions of modernism.

Not only does Rowe & Koetter’s critique of modernism appear rather bombastic – even though they do not attempt to qualify their critique – but, as Oechslin (1985) points out, they also have little new to contribute, both in terms of their critique, and
in terms of alternatives. Their concept of collage ‘… remains vague and indeterminate and curiously non-architectonic’ (ibid., p. 19), and seems to limit itself to an aesthetic and (or) philosophical formulation of the problem of, and subsequently principle for, urban design.

This double nature of the concept of collage, as both an analysis of the problem and a remedy for its alleviation (at least conceptually), also seems to mask the complete absence of any palpable vision. Therefore, the concept of collage too easily reads as a way of raising existing coincidences to a principle, as a means to avoid commitment to any original ideas; something which – as the legacy of modernism has shown – may lead to most impugnable results.

Needless to say, as Rowe & Koetter’s theory is first and foremost a conceptual justification for a certain view of the city – a ‘state of mind’, it is devoid of considerations of a more practical nature. How the concept of collage could be formulated into concrete methods or strategies for the implementation of urban design, therefore remains an open question.

**Wholeness**

Contrary to Rowe & Koetter, Alexander (1987) pays much attention to the process of urban design. He also differs from Rowe & Koetter in his concern for the ‘wholeness’ of the city. His aim is to identify a process which produces a ‘whole’ city over time. As the city is the outcome of a network of processes, constituted by the activities of an array of different public, commercial and individual actors, each guided by their own motives, the task in defining a theory of urban design, for Alexander, is to understand what makes these processes produce a whole.

Whatever the individual aims of the different actors in the urban development process might be, they must therefore be subsumed to an ‘overriding rule’, whose aim is to make sure that the outcome is ‘whole’. This overriding rule therefore prescribes that “every increment of construction must be made in such a way as to heal the city” and that “every new act of construction … must create a continuous structure of wholes around it” (ibid., p. 22).

Although ‘wholeness’ is the central concept of Alexander’s theory, he states that it is ‘hard to define’, although he claims that most people have an intuitive sense of what it is. Nonetheless, he asserts that wholeness is an objective condition which can be measured, and that the process which creates wholeness is well-defined. Yet, while the theoretical concept of wholeness is rather vague and undefined, Alexander’s explicit ideal is the organic and ‘self grown’ traditional town with its feeling of naturalness and coherence.

The fundamental features of the organically grown town; its piecemeal growth, its unpredictable structure, and its sense of coherence, to Alexander, evokes ‘feeling’. In opposition, conventionally planned cities can only aspire to gain ‘admiration for design’, but never to evoke ‘deep feeling’. Because the quality of the traditional town, its wholeness, is a product of its genesis as being unplanned, the quest must be to develop an urban design strategy which is capable of reproducing – or simulating – its development process.
In order to make the concept of wholeness more tangible, and thus to make the theory practicable – something which is stressed as important to the viability of the theory, the overriding rule is broken down into several ‘detailed rules of growth’, which have been arrived at through ‘preliminary studies’, which, however, are not presented as part of the theory. The criteria for the development of the rules, as is the case for the development of his earlier ‘patterns’ which constitute his ‘Pattern Language’ theory (Alexander, 1977), thus remain obscure. Hence, the deeper nature of wholeness, in Alexander’s definition, is never made explicit.

Like the Pattern Language, the seven detailed rules of growth are a system of prescriptions, which are generated on the basis of considerations about urban space at all levels ‘… from the largest level of public space, to the intermediate wholes at the scale of the individual building, to the smallest wholes that occur in the building details’ (Alexander, 1987, p. 29).

In brief, the seven detailed rules of growth prescribe incremental growth, small scale development, and a distinct focus on the quality and coherence of public urban space. As wholeness is too complicated to be built in large lumps, development should ideally be broken down into equal amounts of big, medium and small projects, so that no building increment gets too large. Furthermore, a ‘reasonable’ distribution of functions must be maintained, so that an ideal distribution of functions is achieved at all stages of development.

The overall urban structure should be arrived at incrementally, without a general plan. Instead, development should be guided by the concept of ‘centers’, distinct and recognizable entities of public space, such as squares, streets and gardens, which should emerge successively, as one project is added to the next. For individual projects, the dominant rationale should be the optimization of the quality of the larger context, on the basis of visions based on human impulse, rather than narrow and detached performance criteria or economic calculation. And as for so many postmodern urban design concepts, buildings, rather than being surrounded by space, must themselves surround space, in order to create ‘well-shaped’ and coherent public space.
On the scale of the individual building, elaborate rules based on arbitrary aesthetic
predilections and considerations about construction and building materials, conjures
up a rather traditionalist image of iconic design. And an obscure definition of 'centers'
and the role of symmetry, are deployed to distinguish designs, of buildings as well
as open spaces, which are ‘true’ from those which are not.

That Alexander is unrightful in his claim when he, in the tradition of both Le
Corbusier and Rossi, states that his theory is both objective and scientific, is not hard
to see. Yet, this indirect claim to universality would be unnecessary if everyone else
shared his normative standpoint. And this is evidently a much more serious weakness
of the theory.

Alexander and his students put the theory to test in an experiment, carried out
as a sort of role play, a simulated development process, for an area on the San
Francisco Waterfront. Whilst the students played the role of individual designers
and developers, Alexander, who had conceptualized the theory, took on the role
of ‘the committee responsible for checking and administering the growth process’.
As it must be assumed that this committee governed in accordance with the theory
which it had itself formulated, and that the students tried to accommodate it through
their proposals, it is little wonder that the experiment, and hence the theory, was
subsequentially declared (partially) successful.

However, what is completely overlooked is, that in the real world, planning
commissions and planning authorities, which are part of the political system, are
guided by other concerns than that of producing wholeness (although it may be one
of them). Similarly, there is no reason to believe that individual developers would
change their rationales in favor of the larger whole rather than individual interest,
just out of the blue.

What may have been the natural way for cities to develop in pre-industrial society
therefore seems to require either a fundamental change of society or the use of
coercion. Although Alexander stresses the tentative and preliminary status of the
theory, and even hints some negative consequences (internally to the theory) of some
of the rules, this may seem less important to the viability of the theory than the more
fundamental approach; that it is either utopian, as it requires a fundamental change of
society, or that it is authoritarian, as it requires the use of power to overrule unwanted
rationales. Or perhaps even both.

ENVIRONMENTAL THEORIES OF URBAN DESIGN

Parallel with the postmodern trend towards formal approaches to urban design,
another line of development has taken a more environmental point of departure.
Rather than dealing solely with formal issues of urban space, environmental theories
of urban design see urban space as a living environment, which must meet a range of
requirements in order to be a pleasurable place to live. Although formal and aesthetic
issues are also a concern of these theories – but often with different preferences than
the formal theories – this is seen as only one of a range of aspects of urban space
pertaining to the quality of urban life.

Particularly the concepts of community and public space are central to this group
of normative theories of urban design. Space, hence, is regarded with regard to its
(ostensible) capacity to foster community and support public life. But also more
physical and quantitative aspects of urban space, such as traffic and the functional
distribution of space play important roles. As such, the ambition of environmental
theories of urban design may be categorized as mid-way between the societal and
the formal theories of urban design: While urban design is regarded as more than a
matter of formal aspects of space, the social, cultural and economic aspects of urban
design can still be improved without major changes of society.

Livable streets

In the mid-1980s, Allan Jacobs and Donald Appleyard summed up what may be
categorized as the mainstream of environmental urban design thinking in a tentative
urban design manifesto (2000). Their manifesto identifies what, in their mind, are the
problems of modernist urban design, and establishes their goals for urban life as well
as a set of means for achieving these goals.

The primary object of critique for Jacobs & Appleyard is the modernist view of the
city as epitomized in the CIAM Charter of Athens, because of its focus on buildings
and their internal functions, rather than urban space and its role for public life. The
Garden City Movement, however, is also problematic, as its focus on ‘garden’ rather
than ‘city’ has produced low density suburban environments which are equally devoid
of the urban qualities they seek.

Moreover, they find little consolation in the postmodern developments within
the design professions and their “… withdrawal from social engagement back to
formalism” (ibid., p. 494). Architecture, on the one hand, has become “a dilettantish
and narcissistic pursuit … finding its ultimate manifestation in the art gallery and the
art book”, while city planning, on the other, is too immersed in administration “… to
have any clear sense of direction with regard to city form” (ibid., p. 494).

In their critique of contemporary urban design, Jacobs & Appleyard point out
some major problems. ‘Giantism’ and the large scale of intervention is negligent of
the human scale, and tends towards a sense of lack of control. Consumerism and
its focus on the individual, along with the spread of cars, has led to privatization,
internalization, and segregation of urban space, while public space – particularly in
american cities – has become fragmented and an ‘empty desert’, leading to a loss of
public life and leaving little room for different social groups to meet each other. As a
result, alienation has led to a widespread social segregation, and the division of the city
into homogeneous enclaves of housing, production and consumption. Furthermore,
what is left of historic urban environments is destroyed by tourism and economic
exploitation, while the placelessness of the rest of the urban environment is alienating
and incapable of inducing any meaning to us. Finally, the infrastructure of most cities
is unjust, leaving the rich disproportionally better off than the poor.

Apart from these problems pertaining to the physical structure of the city and
the organizational structure of society, Jacobs & Appleyard also identify the design
professionals as part of the problem. Embedded in their professional culture and
unconscious of their own value systems, they make too little inquiry and too much
proposing, and often devise solutions which are out of touch with the individual contexts in which they operate. Additionally, planners have no visions and no arguments to counter the pressures of capitalism.

Although Jacobs & Appleyard are in favor of participatory planning, they argue that urban designers must still have a vision, and a sense of what is right, which, although it may be vetoed, can serve as a basis for urban design. In their vision, they formulate some goals, whose fulfillment is essential to the creation of a good urban environment.

A fundamental goal is livability. Cities must provide for people to be able to live and bring up children in health and comfort. The urban environment must therefore be relatively free from nuisance, danger, and pollution. The urban environment should also invoke a sense of attachment and responsibility to the people living there. It should therefore be designed with regard to use value rather than exchange value, and encourage participation, in order to reduce alienation and anonymity, and strengthen the sense of identity and ‘rootedness’. Cities should be more than just functional entities, providing merely for utilitarian needs. Apart from offering a variety of housing and job choices, cities should therefore also be a stage for culture and pleasure, including cultural experiences, excitement, theater and magic. And cities should be authentic and meaningful, “… express the moral issues of society and educate its citizens to an awareness of them” (ibid., p. 496).

Cities, as the physical embodiment of society, should “… encourage participation of their citizens in community and public life” (ibid., p. 497). And rather than being a battleground for different interest groups, it should “… breed a commitment to a larger whole…” (ibid., p. 497). Hence, public life should be encouraged, not only through the city’s institutions, but also through its public spaces. Finally, cities should be more self-sustaining with regard to energy and resource consumption, as well as socially just.

Jacobs & Appleyard identify five ‘physical characteristics’, or means, which they deem essential to the fulfillment of their goals. These physical characteristics can be

Figure 3.13
Housing development, Amsterdam. The central issue for Jacobs Appleyard is liveability. Urban space should be designed with regard to use value, and meet people’s needs for health and comfort, reduce alienation and foster the sense of identity and ‘rootedness’
summarized as livable streets and neighborhoods, minimum densities, functional integration and proximity, positive urban space, and human scale and variation.

Jacobs & Appleyard contend that although livability, in terms of high standards for sunlight, clean air and open space, as well as strict limits for noise and pollution, is a primary goal in modernist urban planning, too strict norms can also reduce livability because of the unintended implications of these norms. Hence, strict norms for the layout of streets and buildings, as well as for the compatibility of different uses, often result in dull and fragmented urban spaces. They therefore plea for ‘reasonable’ rather than ‘excessive’ livability standards.

For streets not merely to be ‘stage sets’ but a framework for “human exchange, public life …, diversity and community”, a certain density of people is required. For this reason, and in order to increase the viability of mass transit, Jacobs & Appleyard therefore suggest minimum densities (as a supplement to maximum densities) for the most parts of the city, which are radically higher than for traditional detached housing. In addition to a certain density, urban areas must have a certain mixture of uses in order to generate life. Jacobs & Appleyard therefore call for a high integration of both housing, workplaces, shopping and leisure – if not always within the same area, then at least within walking distance.

As the potential for interaction in urban space is related to its physical quality, buildings should be designed with this regard. Buildings that define and enclose public space are therefore preferable to buildings that ‘sit in space’. Furthermore, urban space should form a connected system of public ways and public spaces, designed for pedestrian use. Finally, buildings and open spaces should generally be small, in order to increase variation and complexity, as well as to avoid big inward oriented developments which turn their back on public space.

Urban Quarters

The Luxemburg autodidact architect and theorist Leon Krier is one of the protagonists of the Neo-Rationalist movement within architecture. With his great drafting talents and publication skills he, more than anyone, has contributed to the general apprehension of the movement’s formal program. His many drawings of toy block-like buildings composed from primitive shapes, constitute an imagery which has become iconic for the Neo-Rationalist architectural style. Yet, his urban design theory goes beyond mere form, as it encompasses explicit notions about the good society and the good city. And as such, his normative theory differs significantly from (and in part also contradicts) those of other representatives of the movement, such as Aldo Rossi.

Krier is fundamentally critical of the industrial society, whose founding principle, the accumulation of money through consumption, and destruction of human culture, he sees as antithetical to architecture, the essence of which is to embody ‘a common world’ (Krier, 1981). Hence, architecture cannot collaborate with industrial civilization, because the concessions to non-architectural capitalist considerations which it implies, would compromise its essence. And in extention of this view, Krier holds that architects should refuse to build under capitalist society.

With the works of Ferdinand Tönnies, Heinrich Tessenow and Camillo Sitte as
part of his intellectual legacy (Ellin, 1996), Krier’s critique of the industrial city takes him to the pre-industrial city, in his search for the basic elements of his theory. The pre-industrial city, to Krier, has an ‘absolute value’ which must be recognized, and in his ‘Outline for a Charta’ he therefore advocates for what he calls the reconstruction of the European city (Krier, 1981).

In contrast to the pre-industrial city, the industrial city is characterized by the spatial separation of functions through zoning. Functional zoning, however, “is not an innocent instrument”, as it has destroyed “the infinitely complex social and physical fabric of pre-industrial communities” (ibid.). Apart from its social consequences, zoning, in Krier’s view, is responsible for the excessive consumption of both land, energy, and time, expressed through massive sprawl and the consequential increase in transportation and commuting time.

The central tenet in Krier’s remedy for the alleviation of these problems is the reorganization of urban space into ‘urban quarters’. Each quarter must be defined spatially, by a clear center, periphery and limit, and functionally it must integrate all the daily functions of urban life, such as dwelling, working and leisure. The size of each quarter must be defined by reasonable walking distances between these functions, in order to make urban life independent of mechanical means of transportation. In its totality, the city should be organized as a system of urban quarters, each self-contained, and in an unhierarchical relationship with one another.

Because the essence of architecture is to install a common world, “the form of the city and of its public spaces cannot be a matter of personal experiment” (ibid., p. xxvii). On the contrary, Krier finds empirical evidence in the ‘millenary culture of
streets and squares’ for the justification of a traditional formal repertoire. And with
a Vitruvian echo, Krier states that classical architecture “… has solved all technical
and artistic problems in solidarity, in beauty, in permanence and commodity” (ibid., p.
xxix). He therefore dismisses all other architectural approaches as false architecture or
kitsch, and cultural pluralism as “… the moment in history where despair and private
obsessions replace collective culture” (ibid., p. xxviii).

Krier’s attitude to architecture, as well as his general cultural and social outlook (as
they all go together for Krier), are founded in artisan, values and cherish the virtues of
craftsmanship. This leads him to an understanding of the pre-industrial city and society
as inherently good. Regardless of whether this is a feasible outlook for contemporary
urban design (after all, Krier dismisses contemporary society), it is both static and
culturally narrow. It is therefore unlikely to gain support, other than from a narrow
segment of the population, which shares his social and cultural aspirations.

The identification of the negative aspects of contemporary urban life, such as
spatial fragmentation, functional segregation, excessive energy consumption, and
the loss of community, however, are likely to gain considerable resonance. Yet, it
is questionable whether his identification of the causes, as well as the remedies, for
these problems is correct. Hence, that functional zoning in itself is the primary cause
of urban sprawl is questionable. And the belief that the restructuring of the city into
urban quarters in itself will reduce the time and energy spent on commuting and foster
a sense of community, has a certain air of environmental determinism to it.

Krier’s denunciation of capitalist society, and his utopian call for a retreat to pre-
industrial models for the city, lend his theory a place among the societal theories
of urban design, along with those of Howard and Le Corbusier. Nonetheless, these
aspects of his theory have (not surprisingly) gained much less attention than his ideas
about the urban quarter. And almost paradoxically, these ideas have formed a major
source of inspiration for the highly pragmatic urban design movement, which has
become known as New Urbanism.

**New Urbanism**

In the early 1980s, the architect couple Duany and Plater-Zyberg developed a
masterplan for a development called Seaside at the Mexican Gulf in Florida, USA.
Leon Krier was a consultant for the project, which was the earliest example of so-called
Traditional Neighborhood Development (Ellin, 1996). The inspiration for Traditional
Neighborhood Developments, a concept developed by Duany and Plater-Zyberg, is
the small American towns of the the prewar period. Traditional patterns are used, both
in the layout of the plan and in the building code, which are the two basic elements
of the concept. Apart from being an aesthetic program, it is a stated aim of the concept,
through conscious design and small scale, to reintroduce some of the civic qualities
of prewar small town life, as an alternative to the alienating lifestyle offered by edge
cities and suburban sprawl.

While Seaside was being developed and increasingly gained the world’s attention,
the architect Peter Calthorpe and other planners and theorists on the American
west coast fostered the concepts of the Pedestrian Pocket and Transport Oriented
Developments (ibid.). While sharing many of the same values and goals of Duany and Plater-Zyberg’s concept of Traditional Neighborhood Development, these concepts do not encompass specific aesthetic preferences, but focus on urban development, in the regional context, and in relation to the issues of mass transit and sustainability. These strategies also include the retro-fitting of existing suburbs, an issue which is highlighted by their more quantitative focus.

Both of these trends favor small scale development, mixed land use, and higher densities than by conventional suburban development. They also share a focus on public space, and a priority of pedestrianization over car traffic. This mutual scope, in combination with their different foci of interest, has made them the two major trends towards the concept of New Urbanism.

In 1993, The Congress for the New Urbanism (CNU) was founded on the initiative of real estate marketing consultant Peter Katz. Strongly promoted by this organization and its annual congresses, a movement – like the Garden City Movement – has since developed, advocating the tenets of New Urbanism. These tenets have been formulated into a document, Charter of the New Urbanism, by the CNU (2000).

While regretting the spread of suburban sprawl on the expense of central cities, increasing social and economic segregation of urban space, and the deterioration of the natural and cultural qualities of the environment, the authors of the charter see these problems as interrelated. The charter asserts that these urban problems cannot be solved by urban design alone, but requires an interdisciplinary approach. Urban design, however, plays an important role, and must address the built environment at both the regional level, the district level, as well as the block and building level (CNU, 2000).

On the regional level, CNU asserts that metropolitan areas should ideally consist of multiple individual urban developments, each functionally self-contained and with distinct centers and edges. Urban development should be clearly separated from rural areas, and infill and redevelopment within the existing urban envelope should have preference over greenfield development. A mass transit transportation system should
be developed, in order to maximize mobility between different urban areas, and to support pedestrian and bicycle modes of local transportation, in order to reduce car dependency.

The physical organization on the district level is envisaged much like Leon Krier’s urban quarters. Districts should be compact developments within clearly defined boundaries, and with centers containing civic functions like churches, schools, libraries and parks, as well as commercial functions, all accessible by foot from within the district. Furthermore, each district should offer a diverse array of housing, in order to promote diverse populations with regard to age, race and economic capacity.

On the block level, architecture’s primary task is seen as that of defining streets and public spaces as ‘spaces of shared use’ (ibid.), which are safe, comfortable and interesting. Architecture should be regional and relate to local climate, topography, history, and ‘building practice’, and buildings should be ‘seamlessly linked to their surroundings’. Civic buildings and spaces should have a distinctive form due to their special role of ‘reinforcing community identity and the culture of democracy’ (ibid., p. 3).

Despite the downplaying within New Urbanism of the importance traditional architectural styles like in Seaside, it still features many traditional concepts, which make Neo-traditionalism – another label for this line of thought – a more appropriate name for it. Although the movement’s analysis of urban problems is in line with much current thinking, its remedy is narrow. The nostalgic aspiration to an alleged past of harmonious small town living – similar, in fact to Howard’s ideals for the Garden City – appeal to middle class values (as did Howard’s ideas), although the stated aim is to strive for an inclusive and diverse urban society, comprising all social classes.

Furthermore, many of the features of the concept, such as social integration, small scale commercial activity, and mass transit systems, are unlikely to be achieved through planning and the market alone, without legislative, financial and other governmental action. This, however, is beyond the immediate scope of urban design, and in its practice achievements, the CNU, being an urban design movement, has therefore been limping along on one leg, forced to leave many of its stated goals unaccomplished.

**CONCLUSION**

Normative theories of urban design, as this chapter shows, constitute a motley body of ideas. They are not immediately commensurable, as they define the object of their inquiry quite differently. As such, this rather blurry theoretical field encompasses large epistemological differences as to what aspects of the physical environment are the focus of inquiry, and for what reason. Furthermore, there is a vast span of normative positions within each group of theories. Different normative theories of urban design, in other words, express different views of the task of urban design as well as different world views.

A feature common to most of the theories, however, is the linkage between a specific normative position and specific urban form. These linkages are often speculative or postulatory, as it mostly remains unexamined whether given forms will actually accomplish their accredited effects. Ever so often it may even seem
that formal preferences come first, and that accredited effects are used as a reverse argument for their validity. Speaking with Lynch, normative theories of urban design are characterized by dogma and opinion as they represent “… no systematic effort to state general relationships between the form of a place and its value” (1981, p. 99).

The postulatory character of the argument of many of these theories makes them vulnerable in relation to more quantitative or well-established value sets, based on economic, technological and environmental argument, or cultural practices. When it is fuzzy what such theories are actually good for, or hazy whether they will invoke their alleged effects, the power of their argument is weakened. And not unimportantly, to the extent that their normative bases are not broadly accepted, they are likely to be deemed unimportant or irrelevant.

Another feature, common to these theories – even the societal theories of urban design – is that they each deal with only a subset of the problems pertaining to urban design. They are partial theories, and therefore they cannot stand alone as single bases for urban design in practice. As Hubbard (1996) points out, the proper potential of (normative) design theory is “… to propose conceptions critical of, or alternative to, those the larger world gives us” (p. 163). But this, as Hubbard continues, is only possible because those discourses – or rationales – which are not central to the theories can be suspended in theory. However compelling such theories may seem, it is therefore problematic if they are applied in the understanding that the issues that they deal with are more important than the ones they leave out.

The application of a normative theory of urban design which critical of the existing city (or society), may be termed a ‘resistant practice’ (ibid.). But like the theories themselves, resistant practices are only possible under special conditions: ‘Having no power to actually countermand [contending values], a resistant practice can operate only where those values are willingly held in suspension’ (ibid., p. 163). When contending values are not willingly suspended – as it is mostly the case – any normative theory of urban design therefore has to acknowledge this.

The aim of any critical normative theory is to invoke a change from status quo. This, in essence, requires a change of existing paradigms. Critical normative theories of urban design therefore must challenge such paradigms. And so they do. In fact, radicality in normative theories of urban design has mostly been cherished as a noble feature among the architecture and planning profession, just as have resistant practices. And putting radicality to test, in theory as in practice, has unquestionable value for the development of the field. Under more profane circumstances, however, unless such theories seek a balance between idealism and pragmatism, between radicality and practicality, they will have to rely on autocratic rule for their implementation.

However valuable normative theories may be for the development of urban design, the viability of any normative theory of urban design in practice therefore depends on its ability to relate to other rationales. But because normative theories of urban design do not only have a particular view of the city but also adopt particular normative stances – whether it be aesthetic, social or political – they are likely to be exclusive rather than inclusive; that is, they require the adoption of their particular views in order to be operational. In that sense, ironically, the very normativity of these theories – what constitute their theoretical content – is what most likely stands in the

\[ \text{3 Hubbard’s focus is architectural design, but the argument is equally valid for urban design.} \]
way of their application in practice.

To demand the adoption of particular views in a democratic setting is obviously problematic. Unless normative theories of urban design accept coercive means for their realization, they therefore have to be responsive to contesting views and values. And to claim autonomy, or even superiority, in relation to other values will ultimately lead to either irrelevance or oppression (Harvey, 2000). Normative theories of urban design therefore cannot meaningfully consider themselves autonomous, but must incorporate a larger context of theorization about society and the city.

The field of theorization which is most related to urban design theory is planning theory. Like urban design, planning deals with organization of urban space. But while urban design focuses on aspects of urban form, planning is more oriented towards the distribution of uses and services in space. What constitutes the best distribution of uses and services, however, is equally determined by norms and values, as the question of what constitutes the best urban form. Therefore, the following chapter will investigate the question of normativity in urban planning.