

My task was to show how this might be done from scratch. This necessitated taking a step backwards in order to understand the influences on and characteristics of successful urban places. This is important because although there are many (quite often historical) examples of good places from which we can learn, there are also unfortunately a large and growing number of new developments which singularly fail to achieve a sense of place. Why should this be so, and what can be done about it?

The European Commission *Green Paper on the Urban Environment* (1990) was something of a landmark publication, representing a break with orthodox town planning in favour of a 'holistic' approach to urban planning, development and management. In addition to strategies for sustainable and economic development, the Green Paper stressed the importance of generating and protecting the sense of place. It goes on to argue for the diverse, multi-functional city in which the quality of life is not a luxury but an essential. The significance of this is that it presages a move away from zoning and land use separation, the old tenets of town and country planning as practised for most of the twentieth century. In England particularly, what we have seen is the spread of 'prairie' planning creating suburban non-places which tend to be neatly laid out, organized around a hierarchical pattern of roads (as opposed to streets), and interspersed with often quite unnecessary patches of grass (Relph, 1976). Such areas, of course, have their adherents and they are often successful in their own terms. The point, however, is that they can rarely be described as good urban places, because they have none or very few of the characteristics of urban quality, that is to say urbanity.

The task of building a sense of place or a 'piece of city' is a much more complex and sophisticated undertaking than planning a suburban housing estate or even a new town. For such an undertaking not only requires a happy combination of circumstance but also knowledge, understanding, skill and judgement: an understanding of how successful places work (and why so many new developments fail as places); the skills to design for urbanity; and the judgement to know when to design and when to leave space for organic growth and development. The issue revolves around the type of place one is striving for and how to get there.)

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How to Recognize a Successful Urban Place

It is a relatively simple task to think of a successful place, to go there and know that this is a good place. We all have our favourites. But it is much more difficult to know why a place is successful, and importantly, whether and how this success can be generated by setting the right conditions. As the former Secretary of State for the Environment has mused, what is it that "makes some places a pleasure to be in and others irredeemably dreary?" (Gummer, 1995).

This debate has been ongoing amongst urban designers for at least 30 years now and is one which we will revisit briefly (see next section). It is an important debate for it allows us to understand *why* places are successful rather than simply observing or appreciating that this is so.

Nevertheless, it is not unreasonable to draw up a checklist of 'urban success indicators', as Barry Sherman (1988) has done (see Table 1). What Sherman has provided is a list of qualities or characteristics of successful urban places. He tells us what to look for but not why it is there. For, in addition to the 'surface

Table 1. Indicators of successful urban places

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- (1) Planning will be invisible and the results will look natural, as though they happened of their own accord
 - (2) There will be interesting and stimulating shapes
 - (3) The 'familiarity' of streets and street life will be celebrated
 - (4) There will be secret places which once discovered grow on you, making you look deeper to find more
 - (5) There will be surprises, to keep citizens awake, provide topics of conversation, prevent ennui
 - (6) Experiment will be encouraged, and there will be exciting things to do
 - (7) There will be areas and opportunities for informal, casual meetings to take place, including warm and friendly bars and pubs
 - (8) Food and drink will be a treat, and people will be able to purchase and consume it at varying prices and degrees of leisure
 - (9) There will be a variety of comfortable places to sit and wait—a city worth living in has to be a city worth sitting in
 - (10) There will be a good balance between the needs to prevent loneliness and to preserve anonymity and privacy
 - (11) Changing seasons will not draw attention away from the sterner pursuits of daily life but rather will be an integral part of a continually changing city, and celebrated as such
 - (12) The senses will be heightened: affection/friendliness/hospitality; a sense of belonging; historical and cultural continuity; a sense of fun/humour; opportunities for gossip; open-mindedness; vitality; fantasy; flamboyance; colour; beauty/aesthetic stimulus
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Source: Adapted from Sherman (1988).

appearance' which such indicators represent, we must understand that good urban places have a structure and an underlying dynamic of activity. Unless this is properly understood, it is more likely that rather than a successful urban place, what will be produced is an artefact, the ersatz city which, "even though it may appear exotic and picturesque, is superficial and has an effect only on the first-time visitor" (Benjamin, 1990). This is why it is so important to conceptualize fully what is meant by 'place'.

Place

Over the years, there has been a split of sorts amongst urban designers over what constitutes urban quality or the sense of place. There are those such as Cullen (1961) who place greatest emphasis on physicality—design styles, ornamentation and featuring, the way buildings open out into spaces, gateways, vistas, landmarks and the like. This is the rational objective classical view of urban design.

Others such as Alexander (1979) or Lynch (1960) stress the psychology of place, bound up in the notion of 'mental maps' which people use as internal guides to urban places. In doing so, they rely on their senses to tell them whether a place *feels* safe, comfortable, vibrant, quiet or threatening. This is the romantic subjective view of urban design.

If we were to combine these approaches we would see that urban quality must be considered in much wider terms than the physical attributes of buildings, spaces and street patterns. To be sure, there are many physical elements which, if combined properly (with each other and with the psychology of place) produce urban quality: architectural form, scale, landmarks, vistas, meeting places, open space, greening and so on. Yet the notion of urban quality is clearly

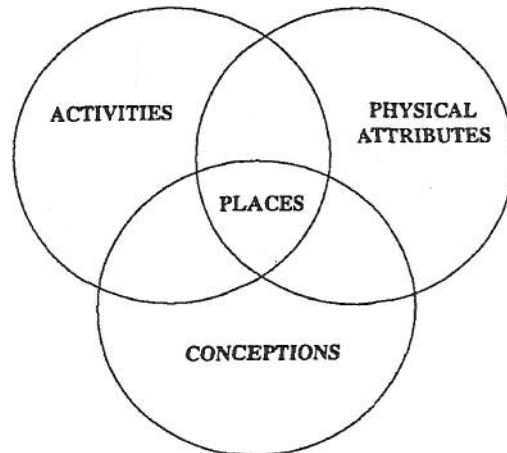


Figure 1. A visual metaphor for the nature of places. Source: Canter (1977).

more importantly bound up in the social, psychological and cultural dimensions of place.

Few theorists have managed to bridge this divide, and most remain either predominantly physical determinists or subjective mental mappers. Initially something of a voice from the wilderness, Jane Jacobs (1961) was the first to explore urban quality from the premise that *activity* both produces and mirrors quality in the built environment. She identifies four essential determinants which govern or set the conditions for activity: a mixture of primary use, intensity, permeability of the urban form and a mixture of building types, ages, sizes and conditions. Jacobs and others such as Gehl (1989) and Cook (1980) argue that successful urban places are based predominantly on street life, and the various ways in which activity occurs in and through buildings and spaces. This appreciation led Peter Buchanan (1988, p. 33) to comment that:

Urban design is essentially about place-making, where places are not just a specific space, but all the activities and events which made it possible.

Thus, we can now see that successful urban places must combine quality in three essential elements: physical space, the sensory experience and activity. Theorists such as Relph (1976), Canter (1977) and others (and most recently reinterpreted by Punter (1991)) show the components of a sense of place and the relationship (in abstract terms) between them.

Canter's metaphor (Figure 1) combines the urban design perspectives of those concerned with mental maps and 'imageability' with those who consider the physical attributes of place, and with those who stress the essential importance of activity or what has also been referred to as 'natural animation' (Montgomery, 1995a) or the 'city transaction base' (Montgomery, 1995b). This has been most succinctly put by David Engericht (1992) who argues (perhaps over-stressing the point a little) that cities were 'invented':

... to facilitate exchange of information, friendship, material goods, culture, knowledge, insight, skills and also the exchange of emotional, psychological and spiritual support.

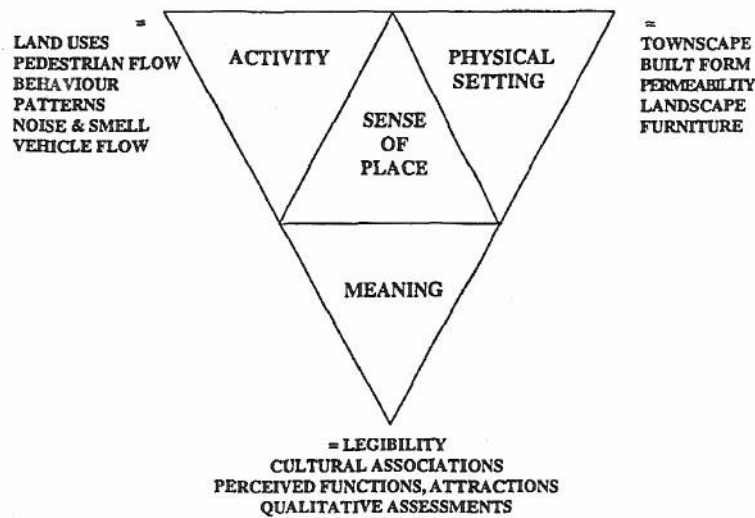


Figure 2. Components of a sense of place. *Source:* Punter (1991).

The important point is this: without a transaction base cities and urban places become progressively more lifeless, dull and inert—that is to say more suburban. Without activity, there can be no urbanity.

It has to be said that whilst useful as conceptual frameworks, such models have some way to go before they can be of more practical usefulness. Punter's (1991) work (Figure 2) is more helpful than Canter, as he provides more detail on both the components of the built form (townscape, landscape, structure, permeability) and for meaning or imageability (legibility, cultural associations, perceived functions and qualitative assessments); but even these need to be unpacked further to be of practical benefit.

Nevertheless, by pursuing the logic set out above, we can make use of the components of place to derive a set of preconditions and principles for the creation of successful urban places. It is to this task that we now turn.

Principles of Place Making

Figure 3 is a composite derived model, combining all the elements of good place that we have discussed so far. We can use this to identify more precisely the cocktail of elements (or qualities or characteristics) which produce good places. We can consider these in turn.

Activity

Activity is very much the product of two separate but related concepts: vitality and diversity. Vitality is what distinguishes successful urban areas from the others. It refers to the numbers of people in and around the street (pedestrian flows) across different times of the day and night, the uptake of facilities, the number of cultural events and celebrations over the year, the presence of an active street life, and generally the extent to which a place feels alive or lively. Indeed, successful places appear to have their own pulse or rhythm, a life force

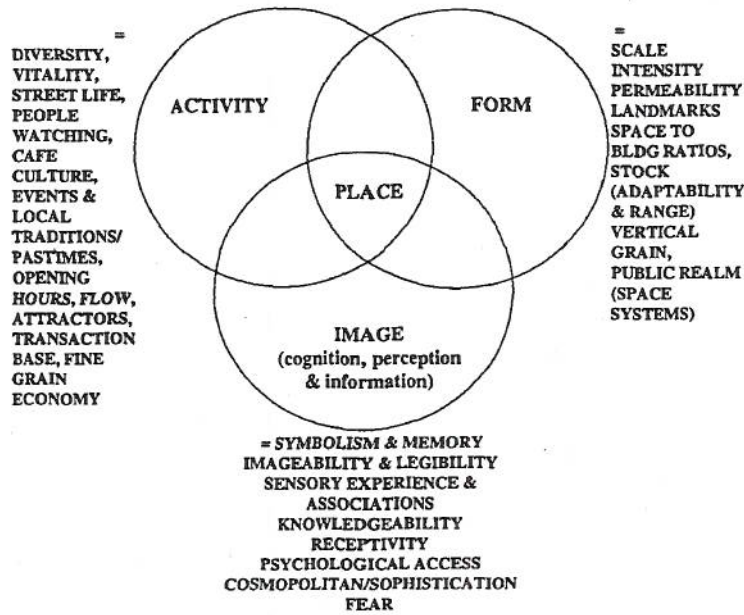


Figure 3. Policy directions to foster an urban sense of place (or place making).

or *élan vital*. But this can never be taken for granted, as there are now many examples of previously lively places which have become dull and inert.

Certainly, it is possible to generate more vitality, at least for particular slots of time, by programming events and activities to occur in the streets, buildings and spaces—what the French term '*animation culturelle*'. However, in the long term urban vitality can only be achieved where there is a complex diversity of primary land uses and (largely economic) activity.

The simple truth is that combinations of mixtures of activities, not separate uses, are the key to successful urban places (the most compelling and readable account of city diversity remains Jacobs's [1961] book). This mixture requires a wide diversity of ingredients, which in turn is dependent on there being sufficient levels of demand to sustain wide-ranging economic activity. City or urban populations, living in relatively close proximity, are large enough to support this economic activity, including such things as tea houses and cafés, foreign grocery stores, delicatessens, cake shops, cinemas and galleries, pubs and clubs. It is possible to find all of these things large and small, the ordinary and the strange. This means that the key to sustaining diversity lies in there being, within easy travelling distance, relatively large numbers of people with different tastes and proclivities. In other words, a relatively high population density. With rising car ownership and more fluid travel patterns, it is nowadays more likely than it once was that quite small places (towns and even suburbs) can attract enough people to support diversity. But, on balance, the tendency is for larger, more dense settlements to be the ones which can maintain diversity.

Whilst vitality can be gauged by measuring pedestrian flows and movements, the uptake of facilities and the existence or otherwise of 'things to do', the term

'diversity' ranges across a far wider set of indices (the following list is derived from Jacobs, 1961 and Comedia, 1991):

- the extent of variety in primary land uses, including residential;
- the proportions of locally owned or more generally independent businesses, particularly shops;
- patterns in opening hours, including the existence of evening and night-time activity;
- the presence and size of street markets, and types of specialism;
- the availability of cinemas, theatres, wine bars, cafés, pubs, restaurants and other cultural and meeting places offering service of different kinds at varying prices and degrees of quality;
- the availability of spaces, including gardens, squares and corners to enable people-watching and other activities such as cultural animation programmes;
- patterns of mixed land ownership so that self-improvement and small-scale investment in property is possible;
- the availability of differing unit sizes of property at varying degrees of cost, so that small businesses can gain a foothold and not be driven out of business by sudden rises in rent and/or property taxes;
- the degree of innovation and confidence in new architecture, so that where possible there should be a variety of building types, styles and design;
- the presence of an active street life and active street frontages.

As a rule, the most lively and interesting urban areas tend to be places of complex variety, with a large representation of small-scale business activity which trades not only with 'consumers' but with other businesses. Successful local economies are characterized by increasing volumes of trade, constant innovation and the building up of new products and services, networks of suppliers and purchasers. Often now referred to as 'post-Fordism' or the 'sub-contracting-out mode of production', this was always a feature of city economies before modern industrialization. The successful city economy will be as complex and intricate as possible with myriad networks of firms, and, crucially, a high proportion of small and medium enterprises (SMEs) inter-trading and sub-contracting. They will variously and continuously be involved in a dynamic of importing, exporting, import substitution, domestic consumption and adding new work. This is what is meant by 'growing a fine grain city economy' (Jacobs, 1969).

The key to successful urban places, therefore, is the transaction base, and this must be as complex as possible. Not all transactions take a monetary form, and not all are economic. Urban areas and cities must also provide space for social and cultural transaction, as we shall see. But without a transaction base of economic activity at many different levels and layers, it will not be possible to create a good urban place. Providing the space for transactions, across the day and night, is what cities have always done.

In this sense, the notion of urban vitality is in large part about opening up the possibilities for transactions to take place in longer and more extended segments of time, and over time to develop a pattern of increasing complexity. On this, it is important to help build the evening economy of urban places, for where this is lacking a place can only be said to work half of the time. The possibilities for more activity around the clock, with increasingly flexible work patterns and the new anthropology of consumption, are there to be exploited (Montgomery, 1994).

Having achieved all of this economic activity and diversity, it is important that at least a proportion of it should occur in the streets, squares and spaces in the city—the 'public realm' (Bianchini, 1990). For it is the public realm and associated semi-public spaces which provide the terrain for social interaction and a significant part of a city's transaction base (the market square, the street vendor, the shop frontage, the sidewalk café). It is activities such as these, and the all important activities of promenading and people watching, which provide the dynamic quality of successful urban places. For example, it is important to encourage pubs, cafés and restaurants to use, where appropriate, the pavement spaces outside their establishments. This simple device encourages activity, transactions, people-watching, eyes on the street and therefore natural surveillance.

It is important to recognize that successful urban places tend to have a more active (and certainly recognizable) public realm: a space system for the city in which meeting, movement and exchange are possible. But we must also recognize that, whilst the public realm is a pre-condition for public social life, it also provides the opportunity for people to perform private as well as public roles. This certainly means that public space is multi-functional, and also, by implication, that there are many different types of space and purposes to which it can be put. This includes, of course, meeting places and spaces which symbolize shared memories, customs and traditions, which leads us to consider the role of meaning or image in place making.

Image

Every place has both an identity and an image, but these are not the same. Whilst 'identity' is an objective thing (what a place is actually like), image is a combination of this identity with how a place is perceived. To individuals, the image of a place is therefore their set of feelings and impressions about that place (Spencer & Dixon, 1983). These feelings come from a filtering of information received and collected about the place. This filtering is partly based on individuals' values, beliefs and ideas, but also on wider cultural (whether received or otherwise) values, beliefs and ideas. This means that images of place are created from amalgamations of cognition (comprehension or understanding) and perceptions, as well as individual, group and cultural 'personality' constructs or meaning. Thus, the Royal Circus at Bath has an identity (its physical form and setting) which can be comprehended, an image (how it is perceived, which depends on the filtering of information received through the senses), and a meaning which, in this case, represents enlightenment, civilization and 'good manners' architecture. Other places have altogether different identities, images and meaning, and quite often hold out different images and meanings to different people—Soho is one such example. And, of course, in no small part, image and meaning derive from the activity one finds there, and the built form.

An individual's knowledge of a city is, according to Lynch (1960, 1981), a function of the *imageability* of the urban environment: that is, the extent to which the components of the environment make a strong impression on the individual. In turn, *imageability* is influenced by a city's *legibility*: the degree to which the different elements of the city (defined as paths, edges, districts, nodes and landmarks) are organized into a coherent and recognizable pattern. By gathering information about these elements, the individual creates both an image of the

city, and also a frame of reference. There is now a considerable body of literature dealing with the process of obtaining the spatial knowledge of these elements. One point of disagreement is whether it is paths and districts which serve as early learning frameworks (Appleyard, 1970) or whether primary nodes and reference points (landmarks) are the main building blocks in constructing an image of place (Golledge, 1977). It seems likely, however, that paths are more dominant for new residents (finding your way around on an everyday basis) while long-term residents produce more complex mental maps containing both paths and landmarks (environmental cues). Visitors to new places, by contrast, tend to use landmarks as anchor-points in constructing route knowledge.

It is also clear that most people acquire knowledge of a place by a piecemeal 'bottom-up' process which is itself dependent on direct experience. Bits and pieces of knowledge are absorbed and then integrated through the individual's perceptual filters. This results in both an understanding of the city (its form and legibility) and an image of the city. And, again, these perceptual filters are partly individual values and ideas, and partly derived from wider cultural processes and identities.

It is perfectly possible for a proportion of these wider cultural processes, values and identities to have emerged over time from associations of events and places. For example, 'this is where Guy Fawkes was captured', 'this pub is where Thomas Paine wrote "The Rights of Man"', 'this is where I first met your mother, under the town clock ...'. So places come to represent memory, meaning and association for individuals, groups and societies. Sometimes it is clear from the buildings themselves what sort of meaning is being conveyed, for example Whitehall could only be a seat of government; sometimes it is an event (the Peterloo massacre, for example, or the George Square riots); and other times not from buildings or events or even landmarks, statues or place names, but simply space. This means that in addition to its contribution to a city's transaction base and its legibility, space (as well as buildings) can take on symbolic meaning. This explains the strong feeling which is often aroused when a public space is threatened with development, why civic spaces until recently were always considered an essential element in a city's identity, and why when asked to draw a mental map of their city, so many people start with a public square or garden. It follows, then, that the spaces in the city, their sequences and proportions and the way they inter-connect are of cultural importance in the life of cities. The public realm, therefore, should properly be understood as a 'space system' with varying sizes, proportions, levels and meanings: a 'space syntax', ranging from formal to informal, from grand civic spaces to outdoor rooms.

One could argue that with some important exceptions (Birmingham deserves much praise), the British have lost the knack of designing, looking after, furnishing and managing public space. This has happened for many reasons: the privatization of the public realm by shopping malls and office blocks; the neglect of public space because it costs too much to maintain; the driving out of all activity because of a few tramps who have been allowed to colonize the space; municipal over-design of street furniture and the resultant clutter; and simply the failure to understand how spaces work, what they represent and how they connect with other spaces and buildings. This is important, for unless we understand space we cannot design good places. And as I have already argued, this is not a case of equating public space with public social life and/or democracy, but simply of allowing space for people to perform both public and

private roles (including eye contact and meeting potential sexual partners!) in city life. There are two regrets one feels about Trafalgar Square: one is that it is cut off from surrounding buildings (especially the National Gallery) and activity; the other is that when it is used, this is only for political rallies.

Before finishing this section there are three more concepts to which we need briefly to allude: psychological access, receptivity and knowledgeability. Over time, successful places come to represent a sense of identity for their users (in the sense of identifying *with* a place). And this often results in a sense of belonging to a place, of feeling involved and taking an interest or perhaps even an active part in its affairs. This we term *psychological access*, and places which achieve this are much more likely to be respected and looked after. This sense of local ownership, however, must also allow for tolerance of strangers, so that successful places engender respect for the place and its people, but also for those who visit. This we term *receptivity*.

Finally, places which work well usually have all manner of invisible and informal networks and associations which, in themselves, are indicators of involvement: flower arranging, jam-making, judo, sports clubs, keep fit, life drawing and painting. Information on these activities, local events and traditions are passed on by word of mouth, posters in shop windows, on notice boards and by leaflets. All of this can be supported and projected to wider audiences by more formalized marketing drives. The key point, however, is to encourage associational activity and to generate greater *knowledgeability* about what goes on in a place.

Form

In his later work Lynch (1981) wrote of the *qualities* which urban design should seek to achieve, and so create a sense of place, while Alexander (1979) writes of the 'quality without a name', which he defines in terms of the recurring and interlocking patterns of events (and, no doubt, meaning) in buildings, spaces and places. Lynch offers five basic dimensions of city performance: vitality, sense, fit, access and control. For Lynch, a vital city is one which successfully fulfils the needs of its inhabitants within a safe environment—in other words, a good city allows maximum scope for activity. A sensible city is organized so that its residents can perceive and understand the city's form and functions—in other words, its legibility. An accessible city allows people of all ages and backgrounds to gain the activities, resources, services and information that they need. And a city with good control is arranged so that citizens have a say in the management of the spaces in which they work and reside. To varying degrees, we have covered most of this ground in our preceding discussions of activity and image. The question, now, is how activity and image interrelate with form to generate a sense of place. Or to put it more precisely: can city form be so designed as to stimulate activity, a positive image and therefore a strong sense of place?

Lynch's fifth criterion 'fit' seeks to demonstrate how this might be achieved. A city with good fit provides the buildings, spaces and networks required for its residents to pursue their projects successfully. In a very real sense, this 'fit' will be governed by the type of place and the range and intensity of activity desired. That said, we can build up a picture of the fit necessary to achieve a successful

urban as opposed to suburban place. Such a good urban place would be characterized by:

- complexity;
- myriad patterns of movement (especially pedestrians);
- diversity of primary uses;
- a fine-grained economy;
- an active street life;
- variety in opening hours;
- the presence of people attractors;
- legibility;
- imageability;
- knowledgeability.

By seeing these as informing principles, it is possible to derive a 'fit' for a good urban place. But, paradoxically, this fit cannot be too precise, for it must allow flexibility for the city to grow organically. (If a city does not grow organically it is merely a planned as opposed to a living thing.) This also means that cities must never be wholly predictable, too 'safe' or sanitized. Rather than visual order and certainty, places which work well also allow for a degree of uncertainty, disorder and chaos. Order and disorder, then, rather than being opposites are part of one equation: a non-linear equation which might well be manageable (as appropriate and provided the manager knows what he/she is doing) but never predictable. The point about 'growing a piece of city' is that it should be expected to develop a life of its own. In order for this to happen, the physical form needs to be built up along the lines presented in the following section.

The Physical Conditions for Making a City

Condition 1: Development Intensity

The essential condition for achieving urbanity is to generate enough diversity—the mixture of uses and activities—to be self-sustaining. This diversity must be sufficiently complex to stimulate public contact, transactions and street life. In order for this to occur, a city district must have a sufficiently dense concentration of people using it for a range of reasons, including residence. It is being concentrated that produces urbanity and convenience. Therefore, relatively high densities are essential. These should not be confused with overcrowding. See Jacobs, 1961, chapter 7.

This implies high levels of ground coverage. There is no simple arithmetic answer to optimum city density, as this varies depending on the characteristics of place and the mix of activities. Densities can be too low where they fail to generate vitality, and too high where they produce standardized buildings, regimented layouts and large development footprints. Thus, density in itself will not necessarily produce urbanity: density is a necessary rather than a sufficient condition for urbanity. City districts which achieve diversity tend also to achieve high pedestrian footfalls, and are more likely to be successful where residential densities are over 50 dwellings per acre. Importantly, this can be achieved without over-standardization of buildings, and should always be accompanied by high representations of small-scale businesses and enterprises (see Condition 3).

This necessitates a building form of relatively high density and plot coverage. It is important that the built form is counter-balanced by the correct amount of open space (see Condition 8). This should not be too cramped or mean in its level of provision—people need parks and city squares. But neither should high density be accompanied by large tracts of empty space (the Le Corbusier model), or streets and roads that are too wide. All of this implies a built form which averages around five to six storeys, but which includes some higher buildings and some lower ones too.

For residential neighbourhoods, the presumption should be in favour of 'mixed use urban districts': shops, restaurants and cafés, offices and studios and dwellings. These are likely to range over areas of both high and medium development intensity. An example might be the newly planned urban district at Egebjerggard, in Denmark. Here the aim has been to assemble various urban functions, and to provide a framework for urban ecology and architectural diversity and the public realm. Egebjerggard consists of a series of 'complexes' of 20–50 units which integrate business and dwelling space. Each of these neighbourhoods has a community hall which is used for parties, meetings, club activities, laundry rooms and offices. The architecture varies considerably in style, with a large proportion of it being modern.

Within any new city, therefore, there would need to be areas of high development intensity, yielding building heights around an average of five to six storeys. There would also be a wide range in style and density of residential neighbourhoods, ranging from low-rise low density to medium-rise higher density and high-intensity mixed urban districts closer to the core areas. There would also be a mix of architectural styles. Each neighbourhood would have a clearly delineated edge and separate identities.

Condition 2: Mixed Use

Vital urban areas—and indeed as many of their constituent parts as possible—must serve more than one primary purpose, preferably more than two. These primary purposes, and the 'secondary' activities they attract, must ensure the presence of people on the streets and in the spaces and buildings across different times of the day. People will use the place for a variety of different reasons, and also be able to use many facilities in common. See Jacobs, 1961, chapter 8.

Places which fail in urban vitality, such as the City of London, do so not because of a lack of people but because of insufficient mixture of primary uses concentrated into particular hours of the day. Unlike Soho or Covent Garden, people go there for one reason only—to work in offices.

According to Jacobs (1961, pp. 161–164. There are two types of mixed use diversity:

- primary uses which bring people to specific places and therefore act as 'people attractors': offices, residences, some shops and many (but not all) places of education, recreation and entertainment. Sometimes the primary use which attracts people is somewhat modest—a small family café, a shoe shop, a popular restaurant. However, no matter how successful the primary use, city diversity is only achieved where primary uses are combined;
- secondary diversity refers to the enterprises and services which grow in response to primary uses, to serve the people which the primary uses attract. If these secondary activities spread to provide a variety of consumer needs or

tastes throughout the day, all sorts of specialized shops and services can survive. This is a process which builds on itself, becoming increasingly intricate and mixed.

For mixed use to operate successfully, three further conditions must be met: people must use the same streets and spaces (see Condition 7), people must use at least some of the same facilities, and activity must not be concentrated into a particular time of the day.

It has recently become fashionable to speak of and plan for mixed use. But often what are described as mixed-use developments fail because in reality they are not really mixed at all. A development site which has offices in one part, a drive-in restaurant in another and a retail warehouse on yet another might well be described as mixed use, but in the absence of self-generating secondary diversity, shared facilities and streets, the mixture is one of oil and water.

Thus it is important for mixture to occur not only within a city block or on a development site but also within building blocks both horizontally (see Condition 6) and vertically. This is fundamentally important for commercial areas but also in mixed residential neighbourhoods. That said, it will be important not to allow bad neighbours (such as night clubs) to mix with residential apartments.

Areas of high development density can be planned to accommodate and stimulate mixed use and self-generating secondary diversity. Vertical zoning could be applied to ensure the presence of active uses on ground floors (Montgomery, 1995b). Where possible, residential units, shops and even offices would be accommodated within city blocks and within building blocks. Space would be provided not only for primary uses, but also for secondary activities such as pavement cafés, galleries, specialist grocery stores and places of entertainment. A number of key 'people attractors' would need to be strategically placed, not only in core areas, but also in those residential neighbourhoods which are of medium density.

Condition 3: Fine Grain

The larger an urban place, the greater will tend to be both the number and proportion of small businesses. Large businesses have greater self-sufficiency, are able to provide most of the skills and equipment they need in-house, can warehouse or deliver for themselves and sell to a broad (not locationally specific) market. They need not be in cities, and often it is better or deemed advantageous for them to relocate to green-field sites or business parks. By contrast, small firms tend to draw on many and varied supplies and skills and they often (but not always) serve narrow or place-specific markets. For such enterprises (and for many larger ones) employees and executives need to be in close, face-to-face contact with clients, customers and suppliers, or feel able to pop out for a sandwich or a swim at lunchtime, or meet for drinks in the evening. This is not to say that all city enterprises are small, for cities accommodate both the supermarket and the corner shop. It is to say that wherever lively and popular urban areas are found, the range of small businesses will outnumber the large. A lively city scene is lively largely by virtue of the collection of small elements and in particular its commercial diversity. The difference between urban areas which are dull and those which are vital

can be traced to the presence or lack of small enterprises. (See Jacobs, 1961, chapter 7). Thus, any successful urban place must not only accommodate large enterprises (which employ large numbers of people and impact on the wider local economy), but must also allow space for small enterprises to grow.

Any new city would ideally provide a range of unit sizes to cater for the needs of both large and small enterprises. The development (and the economic) grain would become more close and fine within areas of higher development intensity. Within mixed city blocks, smaller units of varying sizes would be provided, often on first and second floors (offices) but also on top floors (design studios) and ground-floor frontages where the enterprise (a private gallery for example) attracts customers or browsers from the street. Units can be fitted out to a range of cost-specifications and sizes to allow for a mixture of occupancy. It will be important too for there to be building forms in the mixed use residential areas which can be adapted as dwellings, shops, studios and offices. This will ensure maximum flexibility of use or adaptability (see Condition 4).

Condition 4: Adaptability

As we have seen, successful urban areas accommodate complex patterns of diversity, mixture and economic grain. Places which continue to succeed despite changes in economic conditions, technology and culture do so because their built form is itself mixed and/or highly adaptable. City streets tend, for example, to succeed over larger timescales than single-purpose office buildings which are susceptible to changes in demand (down-sizing of labour forces), technology (computer and cable ducting) and expectation (air conditioning, intimacy as opposed to open plan). This is because, as a general rule, the life of streets and urban areas is longer than the life of individual buildings, while the life of buildings is longer than the life of their original function. By extension, the successful urban area is one which offers in-built adaptability rather than in-built obsolescence. Again, this is especially true of places which contain a high proportion of small businesses of varying kinds.

There are a variety of building forms which offer such adaptability, and most of them tend to be buildings on several floors with a mixture of room sizes on each floor. Interestingly, whilst loft-living represents the adapting of old warehouse and light industrial accommodation for residential use, there are now many examples of residential accommodation being adapted as offices or studios, even galleries and cafés. Such forms, for example mansion blocks and town houses, are not only adaptable in the types of activity they can accommodate, but also the levels of intensity of activity.

Condition 5: Human Scale

Scale is a combination of the ratio of building height to street width, relative distance, permeability and the sense of grandeur or intimacy of space. As such it is closely related to intensity, for more intense places have higher buildings. Most of Soho and Mayfair, almost all of Amsterdam and much of ancient Rome fits into one square mile, while only part of San Francisco's downtown fits into such an area. Paris, on the other hand, has not one central area but a variety of connected *quartiers* and *arrondissements*, most of which adopt a similar scale and development intensity (See Jacobs, 1994).

There are no hard and fast rules concerning the relationship between building heights and street widths, other than to say that higher buildings tend to require wider streets, and more generous allowances for natural light and ventilation. But even here, more intricate and complex places very often have high buildings but only very narrow streets and alleyways (Bairro Alto in Lisbon for example). The important consideration is whether one wishes to generate street life, and therefore whether the overall 'shape' (Nairn, 1988) of the street allows for this to happen. A related point is that most successful urban places operate at several scales, but importantly are more rather than less intricate, are capable of being walked in under 10 minutes, and have a large number of intersections. By and large, successful urban districts covering an area of one square mile will tend to have well over 250 intersections, sometimes more (Amsterdam has nearly 600, Toulouse has 330, Mayfair 420) (Jacobs, 1994). Deliberately planned or spaced-out places, by contrast, have fewer intersections—Washington DC has 155 within a square mile, and Brasilia only 92.

A corollary of the number of intersections is the number of building blocks (see Condition 6) within a given area, for the more intersections there are, the more building blocks there will tend to be. Many urban planners in the past advocated fewer and larger blocks and fewer streets and intersections in order to rid the city of overcrowding and achieve greater spatial efficiency. The problem is that by doing so, urbanity is destroyed. Alan Jacobs (1994) points out that Boston's downtown area in 1895 had over 600 intersections and 400 blocks, but today has less than 400 intersections and fewer than 250 blocks. So Boston has become a less intricate and complex place. City blocks and land parcels have become larger, as have the 'footprints' of individual buildings. And as this scale gets larger, not only intersections but also whole streets are either lost or become self-isolating.

Of course, it is possible to have too much intimacy, too many intersections and therefore confusion. But this tends to occur only when both the number of intersections and blocks exceeds 700 per square mile. It is also possible to have many intersections and blocks but few public spaces, as in Bologna for example, and this does not help in generating street life.

Thus, in order to achieve a pedestrian or walkable scale, more rather than fewer intersections are necessary as indeed is greater intensity and building height. The most beneficial combination of building heights, street widths (range of), intersections and blocks is likely to fall in the range of 250 intersections and 250 blocks per square mile. This scale would be lower in residential neighbourhoods, although those which are mixed and of medium density would be of a more intricate scale than more traditional suburban layouts.

Condition 6: City Blocks and Permeability

Closely related to considerations of scale are those to do with city blocks. Two points can be made. The first is that most (not necessarily all) city blocks must be short, thus providing more streets to walk down and more opportunities to turn corners. This can also be achieved where the street pattern includes alleys, ginnells and courtyards. All of these serve to increase the permeability of an area, and therefore its potential 'footfall', and in turn increases the number of economically viable points for trading (providing there are units to trade from). Psychologically, people are less inclined to walk

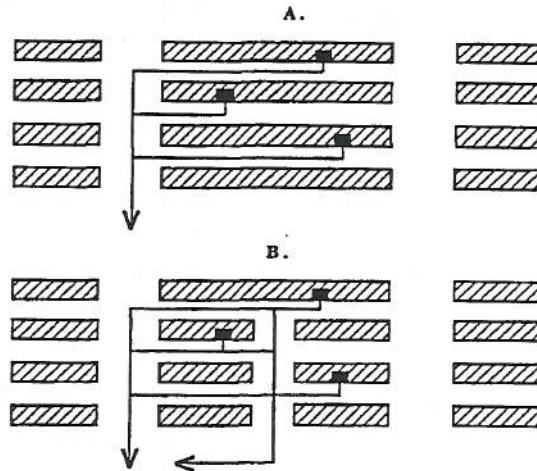


Figure 4. City blocks: (a) long blocks hinder permeability; (b) shorter blocks generate more street life. Source: Jacobs (1961).

down long unbroken streets with little activity or a monofunctional identity, so that such streets become self-isolating and stagnant. Long city blocks (see Figure 4a) not only hinder permeability, therefore, they also thwart the possibilities of small enterprise development. And as more streets become inactive, the reasons for keeping them in existence become fewer ... 'we might as well assemble a bigger plot because nothing happens around here'.

By contrast, city districts which have more shorter blocks (see Figure 4b) tend also to generate more street life, and even more streets where, for example, back alleyways and courtyards are opened up to active use. To be successful, then, city districts would comprise as many blocks as possible, and these should only rarely exceed 300×300 feet (90 metres).

Second, the blocks themselves must be just that: blocks rather than building plots. That is to say the building line must, leaving a sufficient pavement width, be set up right against the street and ideally built around a central courtyard. One of the failures of modern urban planning has been the insistence of situating simple building blocks in the middle of a plot (Figure 5b) as opposed to being arranged to create a street line (Figure 5a) (I was first shown this by my friend Michael Synnott). By doing so, more land is used up and less activity is made possible. This is the reverse of what should happen: the building should help define the space rather than simply being set in it.

All of this means that, for a new city, city blocks should ideally not exceed 300×300 feet. Buildings would not tend to be set back from the street or positioned centrally within a plot but rather around central courtyards. This is especially true of the core areas, but again would apply to the more intricate mixed residential neighbourhoods. In these places more variety of layout can be accommodated, but the accent would still be on achieving a permeable grain.

Condition 7: Streets: Contact, Visibility and Horizontal Grain

Good urban places are judged by their street life. For it is in streets—as multipurpose spaces—that all the ingredients of city life are combined: public

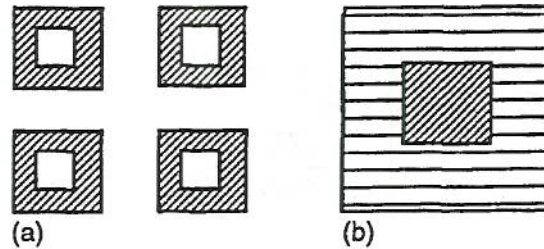


Figure 5. The siting of building blocks: (a) to create a street pattern; (b) in the middle of a plot.

contact, public social life, people-watching, promenading, transacting, natural surveillance and culture. Streets bring together people who do not know each other in an intimate, private social sense, including strangers. The point about good streets is that they allow people to be in contact with each other, but simultaneously for individuals to remain private if they wish and to respect other people's privacy. The street is a subtle balance of essential privacy and varying degrees of public and private contact. Streets also provide a high degree of natural surveillance where the presence of other people generates more 'eyes on the street' (Jacobs, 1961, Chs 2 and 3) and therefore more self-policing.

However, for this to happen, streets need to be active, to accommodate and generate diversity, and they must be permeable. They must also engender a sense of belonging, a familiarity and the respect of users. There will also be those who watch out for the street, whether from favourite resting places or the local shops and pavement cafés. The successful street will have users on it fairly continuously, watching and being watched. There will also be a clear demarcation of public and private spaces, places to promenade and shelter from the wind. Good streets have well-defined edges and a quality of transparency or visibility at their edges (where the private and public realms meet) (see Jacobs, 1961, p. 35). Thus, the design of a good street is perfectly possible provided that it is first and foremost considered as a street and not a road. Along any successful street frontage, there might be two food stores, a video store, an off-licence, a patisserie, a café-bar, a gallery and restaurant, a pharmacy and a betting shop (see Figure 6).

Thus, in contrast with many recent examples of new city building (for example EuraLille or La Defense) active city districts should be designed around a network of streets as opposed to roads or even over-wide squares and piazzas. To stimulate more activity and natural surveillance, an element of horizontal zoning of street frontages would be applied so that there will be a procession of active frontages every 20–30 feet. Pavements should be wide enough to accommodate sidewalk cafés but not too wide so as to make the street itself over-spaced, i.e. about 10–12 feet.

Condition 8: Public Realm

Streets are undoubtedly the most important elements in a city's public realm, the network of spaces and corners where the public are free to go, to meet and gather, and simply to watch one another. In fact, the public realm in a city performs many functions, not only by providing meeting places but also in

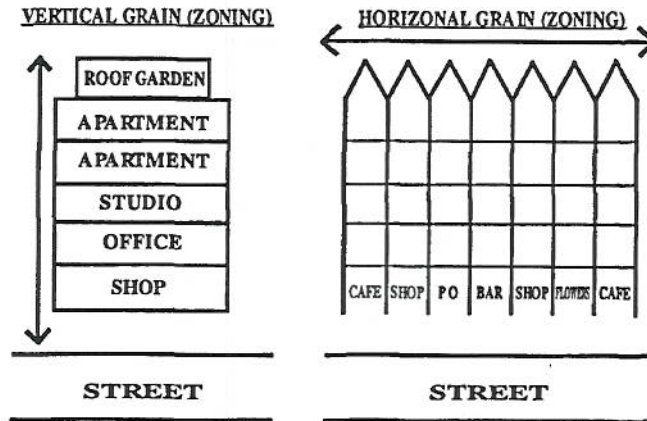


Figure 6. Designing a good street: vertical and horizontal grain (zoning).

helping to define the built environment, offering spaces for local traditions and customs such as festivals and carnivals, and representing meaning and identity (Gehl, 1995). It is therefore as important to think through the design of the public realm—its sequences, proportions and dimensions—as it is for city blocks and individual buildings. Successful cities are in part shaped by the relationship of built form to space, and the range, variety and characteristics of the spaces made available: outdoor rooms, civic spaces, promenading routes, night-strips, quiet gardens, little corners to rest awhile, favourite meeting places. This is not simply a question of quantity or setting space standards (so many acres to population bands), but a rather more complex understanding of the attributes of spaces, their delineations, psychology and symbolism. In many cities in the UK, until quite recently, not much thought has gone into the public realm, nor much of an appreciation of it or the fact that it is being lost to development schemes and private shopping malls. Consideration of the valuable role played by the public realm ought to be a key development principle in city making.

Thus, in designing a city's built form around city blocks and streets, other elements of a public realm or space system would be built into the city form, including squares, meeting places and promenading routes. Attention would also need to be paid to the safety of such places by promoting natural as well as organized surveillance, by managing their upkeep properly and by installing lighting systems of a high standard.

Condition 9: Movement

One of the major urban issues of the 1990s has undoubtedly been transport. There has been an, at times, charged debate over the pros and cons of traffic calming, public transport and road building. There is certainly a danger of congested roads and traffic choking the cities. But there is also perhaps a danger of policy swinging too heavily against cars. For no matter how good your public transport system is, there will always be a need to make some journeys by car—for business purposes, for going out at night, doing the weekly food shop or making a cross-town or otherwise lateral trip (Comedia, 1991).

That said, for peak rush hours in particular, much can be done to reduce trips to and from work by car: by traffic management, by investing in reliable and frequent public transport alternatives, and by establishing networks of bicycle lanes. Experience from elsewhere, notably Copenhagen, suggests that systems of integrated transport 'nodes' bring many benefits in car trip reduction—particularly along rail and rapid transit routes. Thus, in many ways it is commuting traffic which is the most important to tackle. Simply by locating major employment areas next to such transport nodes, it is possible to achieve a reduction in trips made by car.

Even so, there will remain a requirement for people to travel by car. All of this means that car travel must be accommodated within cities but not allowed to dominate or impose. In this way, the more intensive 'core' areas would tend to place more restrictions on car access and parking, while cars will always be an important feature of life in residential areas. Routes whose primary purpose is to connect the city with other places sub-regionally and regionally will be of an altogether different type than those which permeate the built form.

In addition, it is likely that some creative measures would need to be employed to provide off-street parking for residents and other users, particularly in core areas. This might include underground car parks, car parks contained within city blocks but wrapped around by more active uses, automated car silos, and town houses with integrated garages.

Condition 10: Green Space and Water Space

Public green space and water areas are important to city life for many reasons, for example:

- *recreation*, providing a range of informal and formal playgrounds, fields and gardens for varying degrees of passive and active pursuits;
- *health*, filtering the noise, light and air of the city;
- *setting and understanding*, by framing development sites, providing views and landscape image.

To these we can add parks and open areas which are people attractors in their own right, whether as botanic or Italian gardens or as amusement or pleasure parks such as Tivoli Gardens where one can stroll about, have lunch or dinner and watch concerts and other performances. Parks, historically, for example Vauxhall Gardens, were places to meet, promenade and to learn and practise forms of behaviour such as the tipping of hats to ladies. Parks can also be used for fairs, fireworks displays, concerts and other cultural events. Moreover, such open space areas should also connect as often as possible to the more urban public realm discussed in Condition 8.

Condition 11: Landmarks, Visual Stimulation and Attention to Detail

At every instant, there is more than the eye can see, more than the ear can hear, a setting or a view waiting to be explored. Nothing is experienced by itself, but always in relation to its surroundings and sequences of events leading up to it, the memory of past experiences. (Lynch, 1960)

Landmarks, meeting places and smaller scale signatures have always played an important role in the life and design of cities. In laying out modern Rome, Pope Sixtus was careful to situate a number of obelisks which were designed to help pilgrims orientate themselves, to make the city more legible and to foreshorten distances by placing objects on the vanishing point (Sennet, 1990).

More recently, public art has become important for the way it contributes to a greater sense of place by upgrading the quality of the built environment, creating meeting places and talking points, coming to represent important points of reference and for its capacity to animate public space. There are also now many examples of public art being used to reflect the aspirations and experiences of the local citizenry, a form of community expression, and there are even examples of such work discouraging vandalism.

As well as the more obvious elements such as sculpture and murals, it is important to consider decorative features such as reliefs, street furniture (everything from benches to streetlamps to signposts), even the design of public space itself. This can even be extended to provide orientation and direction to the people using an entire city or city district. In Phoenix, Arizona, for example, the public art programme has been designed to operate within 'five spatial urban design systems': water, parks and open spaces, vehicular systems, pedestrian systems and landmark systems. One of the chief aims is to create for the people of Phoenix a spatial structure of places, landmarks and experiences, evoking a strong sense of history and orientation. Such approaches have also been adopted in Temple Bar (Dublin) and La Defense in Paris where along the Grand Axis alone there are some 30 works of art, 70 fountains, manicured gardens, paved courts, cafés and street markets.

Of course, if the city itself is badly designed or lacking in activity, no amount of public art will make all that much of a difference. And indeed, many landmarks, reference points and meeting places need not be overly arty at all. The place to meet in Lisbon is the San Salvatore Escalator (a functional piece of nineteenth-century engineering), whereas the reference points in Liverpool are the two cathedrals and the Liver Building.

That said, the possibilities for introducing exciting and innovative pieces and installations are many. And where this extends to the fine detail of reliefs and street furniture the opportunity is one of moving beyond the municipal over-design of the public realm which, sadly, has been a characteristic of city design in recent times.

New city developments ought to incorporate a wide-ranging programme of public art and landmarking, in its water, open space, vehicular and pedestrian systems, so designed as to underpin the legibility of the city overall and to provide individual features and points of interest. This could extend to the design of street furniture and other detailing, to the creation of public spaces themselves, and even to lighting features and holograms.

Condition 12: Architectural Style as Image

In the course of this paper I have been careful to stress that city building and city design are not questions of architectural style, that is to say the design and appearance of individual buildings. Rather, the essential task is to design the form of the city in such a way as to achieve city diversity, activity and urbanity.

That said, the question of architectural style is not unimportant for this also conveys meaning, shapes identity and creates image.

This prompts a further question: if a place is to be a city in form, what message should its style convey? This is not an idle point. The options lie along a spectrum of neo-Georgian, fake Victorian, high modernism, postmodernism and replica vernacular. Certainly, good cities have always been places which personify or at least display strong elements of culture, technology, engineering innovation, civilization and cosmopolitanism. Cities should not be allowed to become non-places of transatlantic monocultural 'international' architecture. And here it is important to distinguish between modernism (an ideological project as well as an architectural movement) and modernity. For, in truth, the two are quite separate. The latter is simply about using design skills and materials to fashion objects which function well and are in themselves beautiful: a George Jensen watch, a Philip Starke chair, the lines on a Pininfarina car. Not all cars look like 1930s Bentleys, beautiful though these are, so why need all buildings look like the Acropolis?

Perhaps we are labouring the point. Put simply, cities should be places which are diverse, cosmopolitan and cultured, and this should include modern architecture.

Conclusion

This paper was originally designed to provide a reasoned rationale and exposition of good practice in the design of cities. It is not intended to be a master plan (nor could it be) but rather an illustrated discussion of the qualities of successful urban places. I have gone so far as to provide a list of 12 essential conditions for achieving the necessary 'fit' of built form to activity and image. But it is important to stress, finally, that in designing a new piece of city, it is essential to consider form, activity and image in tandem and progressively. Each should reinforce the other. That is the way cities grow.

A wider question arises in relation to my earlier aims in writing this piece. Namely, is it possible to adopt these principles in the production of built forms whatever the cultural context of a place? In particular, would it be possible to build from scratch a new urban place in the UK from antecedents which are widely believed to derive from the compact European city? For, is it not the case—so the argument goes—that the British are uncomfortable with the notion of city living, and anyway the weather rules out a more active public realm, street life and café culture? Certainly, from the late 1920s onwards, there has been a pronounced pattern of outward migration from the cities, initially to new suburbs and new settlements, and latterly to market towns. People, it seems, have been voting with their feet, and many of the English cities (usually those which were the more industrialized) have lost population and economic activity. Several have become relatively lifeless, dull and inert. The Scots, by comparison, appear to be more urban in their outlook, there being substantially larger residential populations in the centre of Glasgow and Edinburgh than (say) Leeds or Manchester.

So perhaps it is true that the English, at heart, aspire to rural and suburban living rather than the urban. Yet such a sweeping conclusion would ignore the fact that the English were celebrated town and city dwellers for many centuries, as evidenced in Thomas Burke's (1941, 1946) accounts. It would also fly in the

Table 2. Summary principles for achieving urbanity

(A) Activity	Principle 1:	Generating pedestrian flows and vitality
	Principle 2:	Seeding people attractors
	Principle 3:	Achieving a diversity of primary and secondary uses
	Principle 4:	Developing a density of population
	Principle 5:	Varying opening hours and stimulating the evening economy
	Principle 6:	Promoting street life and people-watching
	Principle 7:	Growing a fine-grained economy
(B) Image	Principle 8:	Legibility
	Principle 9:	Imageability
	Principle 10:	Symbolism and memory
	Principle 11:	Psychological access
	Principle 12:	Receptivity
	Principle 13:	Knowledgeability
(C) Form	Principle 14:	Achieving development intensity
	Principle 15:	Zoning for mixed use
	Principle 16:	Building for a fine grain
	Principle 17:	Adaptability of the built stock
	Principle 18:	Scale
	Principle 19:	City blocks and permeability
	Principle 20:	Streets: contact, visibility and horizontal grain
	Principle 21:	The public realm
	Principle 22:	Movement
	Principle 23:	Green space and water space
	Principle 24:	Landmarks, visual stimulation and attention to detail
	Principle 25:	Architectural style as image

face of much contemporary (though as yet not properly documented) evidence that people are now choosing to live in the centre of cities once more. Initially seen as the preserve of so-called 'urban élites' (artists, media types, professionals) this phenomenon is apparently spreading. London, by all accounts, is enjoying a renaissance both as a creative economy and a place to be, and cities such as Manchester and Newcastle are witnessing a growth in city centre apartments, bars, cafés and restaurants. It seems too, that interest in city living is not confined to young singles and childless couples, but also to older people (some of whom are moving back to the city now that the children have left home) and even people with young children (provided the schools are acceptable). What all of this suggests is that, for at least some social groups, cities are the place to be once more.

At the very least, such an analysis would help us to explain the almost daily emergence of mixed-use development schemes and proposals, and the current round of investment in good quality restaurants, cafés and clubs. More importantly, it suggests that we can no longer simply dismiss urban living as un-English, or something that would not work here. Perhaps the key point is that now that cities are no longer as overcrowded or squalid as they were in the 1860s (which after all is rather a long time ago), and as people become more sophisticated in understanding their environment and in appreciating city quality, then more rather than less of them will opt to live in urban places for at least part of the time. This will not suit everyone, but surely that is the point about diversity and choice.

Cities and urban projects should always be seen, considered and devised within the appropriate context, culturally, economically and environmentally.

But we must be careful not simply to accept the apparently dominant or received view of any society's values and ways of life, and instead seek to cater for diversity and choice. My own view is that there are many English people who, given the choice, would like to live in places with the urban qualities described in this paper. If this is the case, then at least a proportion of any new settlements built in the next few years should be urban rather than suburban in scale and character. To do this, we must understand what makes a city a city, and not a town or a suburb (see Table 2). This paper, however modest, is my own version, derived from the literature and direct experience, of how this might be done.

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