FACTORS OF GOOD PUBLIC SPACE USE

Pedro S Gomes

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Pedro S. Gomes[1]
Lab'URBA, Université Paris-Est and DCSPT, GOVCOPP, University of Aveiro
e-mail: pedro.gomes@univ-paris-est.fr

ABSTRACT

This paper presents a literature review of some of the most relevant work in the field of urban planning on the relationship between the characteristics of public spaces and their use. The synthesis put forward focuses on the characteristics of public spaces which contribute to their intense use. The former relate to urban form and public space design and management.

Key words: public space, public space use, urban design, urban management.

Palabras clave: espacio público, usos del espacio público, diseño urbano, gestión urbana

RESUMO

Título : Factores de um bom uso dos espaços públicos

Este artigo apresenta uma revisao de alguma da bibliografia mais relevante no campo do urbanismo sobre a relação entre as características dos espaços públicos e o seu uso. A síntese realizada concentra-se nas características dos espaços públicos que contribuem para o seu uso intenso. Estas relacionam-se com a forma urbana, o projecto de espaço público e a sua gestão.

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1. INTRODUCTION: ON THE RELATIONSHIP BETWEEN URBAN PUBLIC SPACES AND USE

This paper presents a synthesis of some of the urban planning literature on the relationship between the characteristics of public spaces and their use, which often takes the shape of guidelines or operative recommendations. While deterministic views on the relationship between spaces and their use have long seen their heyday, the former are still seen as powerful influences on individual and collective behavior.

The issue of public space use is one of space *and* use, with individual behavior and spatial practices at its core. Understanding its dynamics and investigating the potential role of urbanism in its promotion requires that the spatial, social and experiential conditions of the phenomenon (SIMÕES AELBRECHT, 2010) are taken into account. It also means coming to terms with the fact that planning, design and management's impacts on public space use will always be limited.

The concept of affordances further emphasizes the limited influence of spaces in their use. In Gibson's simplest formulation, 'the affordances of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill' (1979,

quoted in CHEMERO, 2003: 182). They are, then, properties of the environment, but relationally defined with reference to an individual, 'they implicate a particular receiver' (HEFT, 1989, p. 4). Or, in other words, an affordance is 'the functional utility of an object for an animal with certain action capabilities. […] It is the combination of environmental properties that supports some activity for a particular animal' (WARREN, 1984: 683). Therefore, affordances exist whether or not they are being perceived (McGRENERE & HO, 2000) and one object may have multiple affordances (HEFT, 1989), as it may be used in several ways, for several purposes, by different agents.

The concept does not, consequently, propose explanations for action (and use): there are potential and actualized affordances, whose counterparts are potential and actualized intentional acts (HEFT, 1989). Further conditions are needed, related to the agent, namely perception and motivation (GREENO, 1994). The importance of perception as a precondition for action stresses the importance of sensorial experience in questions of public space use; aesthetics will then always be one of the possible areas of intervention. So, firstly, in order for a given object to be used, it needs to be perceivable. Furthermore, it needs to be perceived as usable, which raises issues of ergonomics. Additional work on affordances (WARREN, 1984; WARREN & WHANG, 1987) has shown that perception is body-scaled, meaning that objects will be perceived as affording a given action in relation to the individual's body metrics, there being somewhat stable critical and optimal points establishing functional perceptual categories and preferences. While the notions of critical and optimal points refer strictly to matters of ergonomics, they allow for an analogy on the importance of comfort in the use of objects. Being perceived as usable also raises matters of signification – (social) signifiers (NORMAN, 2008) which provide clues to the operation of objects and how they can be used (McGRENERE & HO, 2000). Thus, there is also a semiotic and symbolic dimension to the promotion of action.

Still, ability and consciousness of that ability are not enough to explain action. Perception of affordances is further influenced by culture, in that much of the functional meaning in perceptual experience is culturally-derived, through different learning processes; affordances should be understood in relation to what an individual knows how to do, and this situated knowledge is often acquired within specific sociocultural contexts (HEFT, 1989). The perception of affordances thus varies with individual factors, through time and space, it is situational. This opens the way to including norms as constraints of action in public spaces, both social norms determining acceptable behavior and institutionalized ones which regulate use. The normative stance of individual action, too, varies through different situations (THÉVENOT, 2001). In other words, besides being able to do something and recognizing one is able to do so, it is also a question of thinking one *should* or *might* do it. The production of public space may then directly or indirectly seek to influence the social norms governing the perception of admissible and 'good' uses of spaces.

Intentions or motivation also influence perception: 'motivation to engage in some action is related to what the agent is doing in a more general level […] [making] the person more attentive to aspects of the environment that could provide an affordance [for the action]' (GREENO, 1994: 340). The promotion of public space use may then consider people's intentions and motivation; location of 'functions' can accordingly be used as promoters of use and the production of public spaces may explicitly attempt to address individual and collective needs.

Aesthetics, ergonomics, symbols, social norms, regulation of uses, location of activities and users' public space needs – all these issues are relevant are important for the promotion of public space use, as the analogies with affordance theory allowed to show[2]. However, they do not address one fundamental dimension of public space use: the political one. The genesis of the concept of public space as an analytical and action category is closely linked to political philosophy (FLEURY, 2007) and the fact that public spaces are spaces of collective use and often of State property pose the question of their relationship with the common interest and democracy. Therefore, to the aforementioned issues, there is an additional one to take into account, that of rights.

2. DEFINING PUBLIC SPACE AND GOOD PUBLIC SPACE USE

'Public space is […] an 'essentially contested concept'. It is internally complex, enables a variety of interpretations in different domains, and has both normative as well descriptive connotations' (KOHN, 2008: 480). For the purposes of this paper, the definition of public space focuses on its descriptive connotations; its normative stance is approached through the exploration of what good public space use might be. Public space is thus defined as the ensemble of state-owned, free access open spaces (cf. GOMES, 2011: 7-17 for the discussion leading to the definition).

Put simply, good public space use is marked by conviviality, overall pleasantness accessibility and openness and it allows for essentially distinct situations, some of them marked by multiplicity and 'situated surplus' (AMIN, 2008), others by the presence of homogenous groups of users and strong place appropriation.

3. FACTORS FOR GOOD PUBLIC SPACE USE

This section aims to identify the characteristics of public spaces which promote good public space use. This is not to suggest any sort of mechanistic causal relationship. In a relational view of phenomena, 'there is a continuous "stream of behavior" or a stream of transactions between environment and individual. Breaking into this stream of transactions at any particular point to find an environmental cause for some specific behavior is not only typically arbitrary but also potentially misleading. It is arbitrary in the sense of determining when in time to look for an antecedent cause of a behavior, and it may be misleading in that it suggests that "cause and effect" can be limited to a *specific* environmental event and a *specific* behavioral act' (HEFT, 1989: 8, original emphasis). Moreover, 'causal influences are reciprocal, with the impetus of fluctuations in the on-going behavior stream having its source in the environment facet *or* in the individual facet of the transaction; and this reciprocal exchange is cumulative in its effects' (HEFT, 1989: 9, original emphasis). Some of these factors contribute to a space's success; others are necessary. But none of them is sufficient (JACOBS, 1995).

3.1. Possibility

Perhaps the first precondition for good public space use is the mere *presence* of people in public spaces. This raises the question of how possible that presence actually is; in other words, it poses the question of accessibility and access. And it does so at different scales: on a broader one, it is a matter of how pedestrian friendly the overall environment is; on a bigger one, it deals with accessibility to actual spaces, in its threefold understanding: physical, visual and symbolic (CARR ET AL., 1992).

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[2] N.B.: Affordance theory is a perception theory, not a pragmatic one.

The impacts of motorized mobility in the walkability of urban areas are pervasive and have been summarized in the metaphor of an 'invaded space' (CARMONA ET AL., 2008: 45), emphasizing the splintering of urban areas, the diminution of public spaces' social function due to motorized transport's ubiquity and the substitution of traditional public space and landscapes by car-dependant areas.

Many public space design recommendations acknowledge the importance of countering these tendencies as an overarching challenge for urban public life, regardless of interventions in particular spaces; hence the myriad pleas for urban density, compactness and mixed-use developments and the restriction of car use. Thus residential density, by a simple question of numbers of ease of access, increases street use, particularly beyond working hours (JACOBS, 1995). Furthermore, residential density influences the type of sociability in public spaces. Mixed-use areas will provide multiple attractors (see following section), for different people, including their workers (MARCUS & FRANCIS, 1990), with different purposes at different times, thereby contributing to a constant use of spaces (JACOBS, 1995; STEVENS, 2007).

Density and diversity of the surroundings are a question of possibility due to public spaces' limited area of influence in attracting users, in terms of distance and time (MARCUS & FRANCIS, 1990; MOURA E SÁ, 2010; WHYTE, 1990). The urban fabric's compactness is consequently an additional requirement, in order to maintain short distances and sensory experiences (GEHL, 2006). Reversing the reasoning, it is the location of public spaces in relation to the constituency it aims to cater to which becomes a crucial factor for its use.

But possibility has also to do with physical, visual and symbolic accessibility to specific spaces. Physical limitations may stem from restrictive opening hours, from the presence of guards, fences or gates which might discourage people from entering the spaces; entrances should be well connected to paths and smoothly transition to the surrounding sidewalk. There are other barriers to access which primarily affect certain user groups, such as stairways or car predominance in residential areas. Visual and symbolic access to spaces is also important, in that the possibility of access should also be easily perceived, and symbolic cues, via design elements or people, communicate which users and uses are acceptable. Public art can also play a role in the correction of 'symbolic injustice' (FRASER, quoted in SHARP ET AL., 2005) communicating diverse and multiple images of the urban collectivity, besides a more prosaic role in improving space image (WHYTE, 1990). Symbolic access is also a question of convenient signage and entrance design.

Possibility is a formal matter as well, in that public space elements' size and shape determine the activities which may take place within. As these refer to an adequacy between specific design features and discrete activities in public spaces, they will be discussed in the following section, which proposes users' motivation as an entry for addressing the production of public space.

3.2. Motivation

In the previous section, it was mentioned how diversity of uses may function as attractors for diverse users. In the brief discussion of affordances, motivation was put forward as a condition of perception and use of a given affordance. This section will elaborate on these ideas by suggesting that users' motivation for using public spaces may be a fruitful entry for thinking their production. Echoing the concept of affordances

yet again, it is a matter of thinking public spaces and their constituent elements as supply for different users with equally differing motivations.

It is a matter of having 'things to see and do' (GOMES, 2011), which intersects GEHL's (2006) notion of necessary, optional and social activities in public spaces. Necessary activities are relatively compulsory for its participants, including shopping, going to work... Optional ones are, conversely, those one undertakes willingly or if the time and place allow. Social activities, often the consequence of necessary and optional ones, require the presence of other individuals.

The production of public space may then initially adopt a rather functional approach, focusing on two main public space functions: circulation and access to surrounding buildings, which are deeply connected. The spatiotemporal distribution of necessary activities is thus a mechanism for supporting optional activities, preventing single-function areas and class-specific buildings which may monopolize the social life of public spaces (STEVENS, 2007). Density, diversity and concentration of activities will all play a role. On a micro-scale, this integration of activities, functions and their users in and around public spaces may spark collective actions that mutually stimulate and inspire each other, which is why GEHL (2006) suggests that more than the formal integration of building and functions, it is the real integration of several happenings and people on a larger scale that should stem from contact surfaces.

This approach through motivation can also focus on some of people's public spaces needs, namely relaxation, passive and active engagement (CARR ET AL., 1992). The need for relaxation counterbalances the previous apology of concentration of activities and flow generators, by stating the need for different densities of activities and intensities of public life. Passive engagement broadly refers to an encounter with the environment, other people included, but without being actively involved (active engagement). While relaxation addresses a certain need of retreat from the liveliness of cities, the remaining needs seek it.

The different effects of residential density on the modalities of public life have already been pointed out, as well as the role of visual and symbolic access in suggesting different ambiances. The latter should also be highlighted by an urban fabric clearly differentiating hierarchically distinct spaces (GEHL, 2006). Visual access allows an assessment of whether the space is appropriate to the individual's wants and needs at that particular moment, but ought to be balanced with the need for privacy in public spaces. Clear yet subtle subdivision of public spaces, especially in larger ones, is one way of promoting different atmospheres in one space (BRANDÃO ALVES, 2003; CARR ET AL., 1992). Because relaxation is a search for a break from city life, it is intimately connected with the role of 'nature' in urban settings due to its sensory qualities. These elements ought to be combined with sittable ones in order to reinforce their 'urban oasis' character (MARCUS & FRANCIS, 1990). Finally, relaxation also requires a sense of safety.

The promotion of passive engagement is a question of providing 'things to see', including people, and conditions for seeing. Other people is one of the most effective attractors of public space users (WHYTE, 1990), because people watching is a favorite activity. Every element which attracts users to public spaces has, therefore, the potential to promote passive engagement.

Moreover, the environment may be an attractor for contemplation by itself. The creation of 'spatial sequences' (GEHL, 2006) can make the environment more appealing, thus promoting use. Spaces and buildings can be attractors, too, be it for their

aesthetics, historical significance or symbolism. In some cases, these may generate considerable flows of people. However, the aesthetic appeal of spaces is often more mundane, as the visual complexity of spaces, namely the density and variety of elements, offers possibilities for passive engagement (MARCUS & FRANCIS, 1990).

Passive engagement also requires conditions for seeing, and these correspond to two main issues: vantage points/sightlines and seating areas. Whenever there are activity foci or focal points in the space's form, people tend to seek appropriate points from where to watch the scene. These are usually the spaces' edges (DE JONGE, quoted in GEHL, 2006), elevated areas or even surrounding buildings. While height differences provide opportunities for passive engagement with public spaces, they hamper direct forms of interaction. The fruition of these views requires elements where one can conveniently sit on or lean against. Sittable elements, more than formalized seats, are one of the most relevant elements in the promotion of long stays in public spaces, especially for those entailing optional and social activities (GEHL, 2006; WHYTE, 1990). They should be conveniently oriented and located, as most people who sit down in public spaces do so to enjoy one of the advantages the space provides, the site, the space, the weather, ongoing activity, or everything all at once. A variety in orientations creates a variety of exposure to weather and of sightlines, which are two of the most relevant criteria when choosing where to sit in a public space (GEHL, 2006).

Active engagement presupposes all of the conditions for passive engagement and most elements in public space afford some sort of interaction. They can, however, clearly promote it. Or, conversely, certain uses may be actively discouraged or even impeded. So, before addressing design features, it should be stressed the role that use regulation practices play in dis- and encouraging active engagement.

One important notion in active engagement with the environment, particularly in what concerns the promotion of sociability, is that of triangulation (WHYTE, 1990), the ability of a given public space element to motivate conversation or other sort of interaction between two or more individuals who are not necessarily acquainted. The precise conditions for socializing will vary, but noise is always an important factor in conversation. Seating may be arranged in ways which promote or at least allow socialization – 'conversational landscapes' (GEHL, 2006). Water and public art are often introduced in public spaces to promote relaxation and passive engagement, but their benefits will be increased if access to them is actually given (WHYTE, 1990) and interaction actively promoted. Active engagement also benefits from the activities proposed in public spaces themselves. Three types seem to be particularly relevant: food and beverages, commerce and street art, entertainment and events. The latter can be encouraged by spaces' physical elements, including design features and management strategies and infrastructural provision which anticipate the specific requirements of such activities (MARCUS & FRANCIS, 1990; WHYTE, 1990).

3.3. Opportunity

Scholarly work emphasizes how much of (good) public space use depends on chance encounters, unplanned activities and an openness, both of public spaces and of their users. This section presents a few remarks on how the production of public space may seek to enhance the opportunities for such activities beyond strict possibility and answering to individual motivations.

The connectivity and permeability of urban fabrics allow for a multiplicity of alternative paths and interconnections between different spaces. A given public space

may then serve as the final destination for some users, a place to pass through and a secondary or an incidental destination for others (ALEXANDER, 1965, quoted in STEVENS, 2007). Together with the compactness of the tissue, these spaces, comprising different, interconnected and overlapping circulation routes, increase individual choice and hamper strict control, contribute to a higher probability of chance, the unexpected and of contact with a larger diversity of people and actions (FRANCK & STEVENS, 2006). Spaces' location in relation to the block or open space network, particularly of small squares, provides opportunities for different kinds of use (MARCUS & FRANCIS, 1990). Questions of visibility and symbolic access also play a role in the perception of these opportunities. The amount of sittable areas influences the opportunities for unplanned activities, by inciting longer stays and engagement with the scene.

Besides the role of buildings and their functions in attracting visitors, a smooth transition between private and public realms can promote opportunities for public space use. The relationship is bidirectional. Transparency (JACOBS, 1995) allows for public space users to easily perceive what lies beyond building façades, providing possible points of interest and comfort by communicating that the space is inhabited and that there are possibilities of retreat (GEHL, 2006; JACOBS, 1995). Furthermore, the density of public-private interaction areas provides opportunities for use as well (GEHL, 2006), through multiple entrances, buildings and narrow façades. Particular care should be taken in defining the activities on buildings first two floors, privileging the ones with the most beneficial effects on public space use (WHYTE, 1990).

3.4. Comfort

Physical and psychological comfort is a very strong condition for optional and social activities in public space, including long stays.

One fundamental dimension of physical comfort relates to the weather, in that public spaces should afford protection from unpleasant conditions and fruition of pleasant situations. Public spaces should be designed so that as much of their area falls under people's 'comfort zones', the ensemble of physically comfortable weather conditions for a person to be casually dressed under the shade as a desirable public space scenario (MARCUS & FRANCIS, 1990).

Exposure to sunlight should then be maximized (MARCUS & FRANCIS, 1990), but shelter should be provided for too warm situations. When direct exposure is not possible, reflecting surfaces and unobstructed skylines should be explored, so long as glare is cautioned for (MARCUS & FRANCIS, 1990; WHYTE, 1990). Accordingly, the material of sittable surfaces should not be overly responsive to temperature. As temperature is often more crucial than sunlight (WHYTE, 1990), shelter from wind should be catered for. Besides avoiding high-rise buildings, the design can provide secluded nooks. More generally, short buildings and sinuous street networks have a positive effect in wind protection (GEHL, 2006).

Noise is another environmental feature with significant impacts on the overall comfort of spaces, especially for conversation and relaxation. White noise, such as water, may filter it down (WHYTE, 1990). Space maintenance is also an important factor for comfort. Material choice ought to anticipate future maintenance in relation to available resources (JACOBS, 1995).

Physical comfort also implies questions of ergonomics. While level changes can have positive effects, they are always an obstacle to be generally avoided. If not

possible, design should hint and promote an ease of use through gradual and short slopes and ramps (GEHL, 2006), in spite of steps' sitting affordance (WHYTE, 1990).

Sidewalk width is a relevant issue in securing comfort in public spaces, but there are no optimal sidewalk widths, as they depend on motorized traffic flows, density and type of surrounding functions, frequency of access to buildings and parcels, on the need for greenery, street furniture and parking spaces (MOURA e SÁ, 2010). But absolute metrics also matter, as they allow for different degrees of liberty in circulation. Sittable elements' height should be defined according to a person's average height, even though certain groups of users may choose less comfortable seats according to their needs. Deep, backless benches allow for people to sit on both sides, but at least some seats with backs should be provided for less physically fit users (GEHL, 2006; WHYTE, 1990). Although they have become rarer in public spaces, due to vandalism, insecurity and high maintenance requirements (WHYTE, 1990), public toilets are relevant for increased comfort and longer stays in public spaces (CARR ET AL., 1992).

One aspect of psychological comfort relates to the spatial definition of the environment, as it may increase comfort and the overall pleasantness of the experience, especially regarding the parameters of visual perception. Spaces are defined vertically by building, wall and tree heights and horizontally by the extension and spacing of the defining elements (JACOBS, 1995). Vertical definition is as much a question of proportion as of absolute size: the wider a street is, the bigger building height or mass will have to be in order to appropriately define the space. In spite of several metric guidelines, spaces' absolute size does not seem to be a critical factor for use (WHYTE, 1990). Spacing between buildings is crucial in streets' horizontal definition; as for their vertical definition, it is unclear which absolute dimensions or ratios determine it. Jacobs (1995) states that smaller spacing between buildings provides better definition when compared to bigger ones. Street length is also relevant for definition, even though it is not crucial. Still, too long a street will struggle to keep visual interest and diversity (JACOBS, 1995). Changes or variations in street profile and focal points might mitigate such effects of excessive street length. (JACOBS, 1995). In too wide streets, regularly spaced trees and other vertical elements can be used to scale them down, sometimes by subdividing them (JACOBS, 1995). Comfort and pleasantness are also promoted when buildings are complementary, thus transmitting a sense of regularity and order, implying similarity in both look and height (JACOBS, 1995), but not necessarily synchronous development nor stylistic resemblance.

Motorized traffic is the second aspect with a deep impact on public space use, also at a micro-scale. Intense or fast traffic in the spaces' surroundings especially impacts non necessary activities, as it decreases comfort and restricts pedestrian movement (Gehl, 2006). These negative impacts of motorized traffic are connected to perceived and actual levels of safety. Too scarce a pedestrian area for existing flows will be uncomfortable and dangerous by leading pedestrians to use the carriageway (Whyte, 1990). While the physical separation of pedestrian and motorized flows has been the most common measure to secure pedestrians, it does not necessarily provide them with a sense of safety and tranquility. These can be intensified by trees and longitudinal parking (A. B. Jacobs, 1995). In narrow and very busy streets, and in residential ones, shared spaces may be the safest option (Gehl, 2006; A. B. Jacobs, 1995).

Furthermore, safety concerns regarding criminality are one of the strongest drivers of present public space policy and are a fundamental part of psychological comfort in public spaces. The legitimate concern for promoting people's safety has led to efforts in

controlling public space use, through management and design measures. Management has growingly focused on security, namely by increasing surveillance, through policing or CCTV, whose dissuasive effect is debatable (Carmona et al., 2008). More important is the tense relationship between the promotion of security and broader issues of accessibility to public spaces, as administrations have actively sought to eliminate certain behaviors and user categories from public spaces.

'Eyes on the street' is another strategy for promoting public space safety with a rather different rationale. Following Jane Jacobs (2010), it emphasizes how public space users and those of surrounding buildings can play a fundamental role in deterring crime and vandalism. Indeed, it is because there are usually less people outside and there is less visibility that the perception of danger is more acute at night. Good lighting should be warm, welcoming, abundant and oriented towards socially relevant aspects, people and their faces, and horizontal surfaces, and not too intense, as it may cause glare (Gehl, 2006; A. B. Jacobs, 1995).

4. CONCLUDING REMARKS

This body of research has put forward a solid understanding of the factors of good public space use, and how they relate mostly to urban design and public space design and management. Overall, it stresses the relevance of pedestrian friendly environments and their recommendations coincide with the canons of traditional, compact and continuous, and diverse and fine-grained urban fabrics. The issue they fail to address, however, is that much of contemporary metropolitan territories are the quasi-negative of the situations they describe and/or propose: splintered, fragmented, monofunctional areas dominated by motorized transport. The answer to how to promote public life in such territories remains to be given. By focusing on spaces as units of analysis and less on how their use makes part of people's everyday lives, it becomes harder to imagine spatial configurations beyond the 'classical city' which can foster good public space use.

Furthermore, while there are guidelines on how to promote spaces with different ambiances and dynamics of use, little is said on what rationale could or should be adopted in deciding what is to be promoted in a given space (program definition). This becomes clearer when, even though all work acknowledges the importance of the overall urban fabric and public space network, little is said on how public space planning can undertake a holistic/systemic/network approach at an urban scale.

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