DE FACTO PRIVATE PLACES: ACCESS MORPHOLOGY AND GOVERNANCE

Key words: access; morphology; property; forum

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Abstract
Questions addressing private urban places and their governance focus on such places that are *de jure* private. Yet there is an increasing number of places that are *de facto* private created often unintentionally by government actions affecting spatial infrastructure. These could benefit from similar thinking. Private urban places, larger developed areas composed of a variety of individual parcels and buildings, are functionally private to the extent that access to their spatial infrastructure is controlled by the occupants of these places. Gated communities are the obvious but not the only example. The control of access is therefore a key factor in allowing or encouraging one or another place to function as a private place. This paper aims to clarify the distinction between private space and private property, examines the morphology of access interface in the context of Giddens's time-space distanciation using network techniques and discusses questions relating to governance of such places with respect to the role of the public forum.

1. Introduction

While there have long been developed places within urban settlements that were more private and less connected to the larger fabric of which they are a part, that there has been a noticeable increase in the number of these more private places over recent decades there is no doubt. Many of these private places are so-called gated communities, a type that originated in its present form largely in the United States characterized principally by material barriers that restrict entry by a general public. Gated communities of this sort have become a worldwide phenomenon, often in response to perceptions about security, and have received the most attention with comment on it giving voice sometimes to a mildly optimistic potential for renewing commitment to place but more often to fears of a new dystopic urbanism. However limited the real extent of such places might be, the appeal they have to segments of the housing market is undeniable and the potential that more will be developed is high. Thus, as Blandy et al (2003) have pointed out, because of potential impacts such developments could have on a combination of urban form and democratic participation, there is a real need to understand and perhaps direct this phenomenon.

Private places of this sort are the result partly of real estate decisions. The role decisions about real estate play in urban activity – on one hand with the development of buildings and places by what is a decreasing number of larger and more sophisticated firms with access to increasingly available capital and on the other with the concern of individual real property owners and investors about the value of specific parcels of real estate – is increasingly important in the way choices about how and where to live are made. Such decisions about real estate rarely consider broader societal issues in either practical or theoretical terms but are made with a view to trends that affect market conditions. The extent to which market conditions are constrained by governmental regulatory actions in a wide range of areas from monetary policy to transport policy affects the scope and rate of impact of these decisions. These are important reasons why in the United States, with affordances like fewer regulations directly affecting urban form and development and much more residential mobility, gated communities have developed earlier and to a greater extent than elsewhere.

Private places, not simply individual parcels and buildings but larger developed areas composed of many dwellings, offices, warehouses or other kinds of buildings, are functionally private only to the extent that the spatial infrastructure giving access to parcels and buildings is controlled by the occupants of these places or their agents. Indeed, while gated communities may be regarded as ways for the wealthier to segregate themselves from the general public, urban spatial segregation is much more widespread. The various public and social housing estates on both sides of the Atlantic have segregated lower income populations from the general public … sometimes with painful results. Without dismissing the reality of much intentional privatization, the discussion that follows looks at privatization as an unintended consequence of larger trends that affect access to places and spaces.

That processes of privatization are so diverse and widespread suggests latent conditions underlie the privatization of urban places. Thus places becoming *de jure* or intentionally private may be one instance of a process that is unintentionally encouraging the privatization of places. Two complementary trends, particularly in the United States, one toward larger real estate development projects and another toward more controlled street movement patterns, have together created conditions that are paradoxically diminishing the proportion of urban space that is private property while encouraging an increase in the privatization of spaces. These trends affect access to buildings and places in both existing city areas, especially in and around cores as they are redeveloped, and in new developments in suburban fringe areas. These spatial trends are discussed in this paper in geometric terms using simple schematics.

2. P P r u i b v b a l t i e c: sorting out public and private

Developed urban land can be divided into two simple categories on the basis of ownership: that which is public and that which is private. Streets or public rights-of-way, publicly owned property that accounts for the use of most public space, were estimated in the 1960s to constitute at least one-third of all urban land in the United States (Eisner, Gallion & Eisner 1993). Most of the rest is private real property. In addition to the differences in their ownership and use, a fundamental difference in the two

is morphological. Streets or public rights-of-way (represented by the white areas in Figure 1) are constituted in an almost uninterrupted arrangement of interconnected space. Private real property is constituted in discrete clumps adjacent to this arrangement. To move from one parcel of private real property to another requires, in most cases, the use of this interconnected space constituted by streets or public rights-of-way. To be able to move from the public right-of-way to a parcel of private property requires access from one to the other.

The traditional definition of a public place in Black's Law Dictionary (1968) is: "A place to which the general public has a right to resort … a place visited by many persons and usually accessible to the neighboring public. … Any place so situated that what passes there can be seen by any considerable number of person, if they happen to look." Yet, the distinction between what is public and what is private is not always an easy one to make. As Marx (2001) says, public and private should be "conceptualized as multi-dimensional (with dimensions sometimes overlapping or blurred and at other times cross cutting or oppositional), continuous and relative, fluid and situational or contextual, whose meaning lies in how they are interpreted and framed." For example, one problem in the discourse in which the privatization of public space is included is that clarity in the distinction between not only what is public and what is private but also between space and property is lacking. Property and space do not necessarily map onto each other; it is not necessary that they be geometrically, geographically, legally or logically coincident with each other. In addition, neither public property nor public space is necessarily a public good. Real property real space are different and combine in different ways. Figure 1 illustrates this.

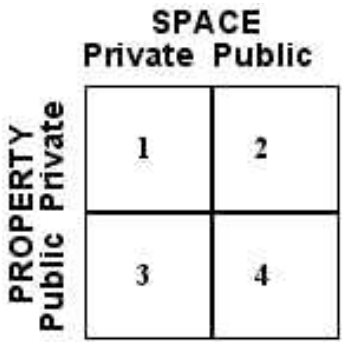


Figure 1. Space and property: public and private

This four cell box indicates not only that public and private property each can be distinct from both public and private space but also that the relationships or interfaces between what is public and what is private are not simply binary. These distinctions also appear in United States criminal law. For example:

> The area immediately surrounding the home, known as the curtilage, is protected under the Fourth Amendment from unreasonable government intrusions. If, however, there is an area within the curtilage that is implicitly open to the public, such as a walkway to the front door, then it would not be considered a search if the police exercised the same freedom to walk on the curtilage as is implicitly granted to the public. The courts will also protect the property surrounding a business. Unlike the area around a home, however, owners of commercial property must take affirmative steps to keep the public out of an area in order to protect their constitutional privacy interest in that area (Hendrie, 1998).

In criminal law, as in much of the everyday built world, privateness is a matter of simultaneous ownership and exclusion. Shopping malls, for example, are usually privately owned but the common public area in an enclosed shopping mall is considered, and is called, the public area. But this is not the same as a public area in a city center from which the public can not ordinarily be excluded. Similarly, a number of small parks open to the public in Manhattan are privately owned (Kayden 2000). At the same time, space in public property, such as a park, can be privatized, extra-legally, through the social actions of a group (Lofland 1973). In addition, in the context of First Amendment

public forum law, there are legal distinctions indicating which of those spaces that are public property (that is, owned by government) may be considered functionally public or private.

And while real property can be distinctly in either public or private ownership, real space obtains no similarly clear distinction. In a spatial context, forms of enclosure affect degrees of spatial access. This is similar to what some (Bowers and Manzi 2006) have called "gatedness". If, over the entrance to each of the spaces in figure 2, there were a sign saying "Private – do not enter", the impact of this information on movement into the one on the left would be considerably different than on the one on the right. Figure 2 illustrates degrees of access showing that the space on the right has the clearest protection from search under the Fourth Amendment.

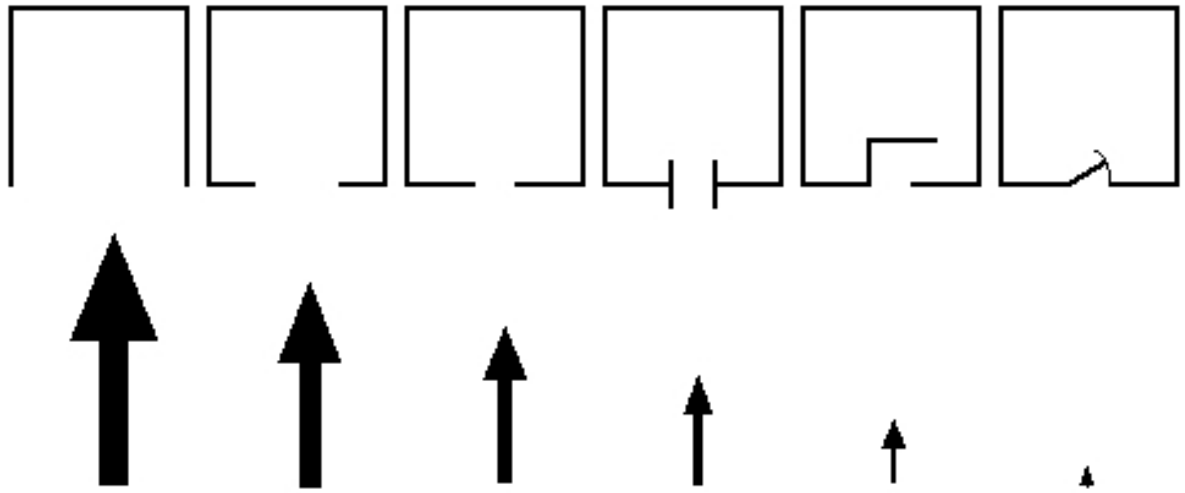


Figure 2. Six degrees of access

Faden (1977, p. 214) says spatial control involves the movement of things and underlies the notion of control in general. "We act upon the world exclusively through the motions of the body … These acts influence objects or other people. We cause things to interact, as a rule, by placing them in proximity." He continues (p. 216), "… in space we try not only to move things to better locations (transportation) but also to prevent or slow their moving to worse locations. This could be called *location maintenance*. … We continue to use the term barrier as a general name for any mechanism or institution that maintains location. …consider the very class of barriers we may call *walls*. These prevent various resource types from moving through the border of a certain region." Faden says walls may classified whether they keep things in or out or both, and whether they are involved with storage, packaging or privacy. The relative privateness of the space behind a transparent glass door is different from that behind an opaque, solid one. Spatial privateness or publicness can neither be experienced nor known without movement.

3. Morphologies of discontinuity

Most movement patterns in public space can be understood in the context of urban morphology. A broadly accepted delineation of the objects of study in urban morphology is provided by Moudon (1997, p. 11) who says 1) three fundamental physical elements define urban morphology: a) buildings and their related open spaces, b) plots or lots, and c) streets; and 2) urban morphology has different levels of resolution and that four are currently recognized: a) the building/lot, b) the street/block, c) the city and d) the region; 3) urban morphology undergoes continuous transformation which means it must be understood historically.

3.1 Mid-level discontinuities

The morphology of the street/block is the focus in the following discussion on spatio-lineal condtions of access, first at the mid-level of resolution, then at the macro-level and then at the micro-level of the

building/lot. The spatio-lineal discontinuity of streets is an obvious condition found adjacent to many rivers, railroad lines and urban throughways: where the continuity of one or more local streets is interrupted by these physical features. While bridges and tunnels sometimes establish street continuity, these barriers delineate one urban area from another. The post-war construction of urban throughways, especially those built at grade, has in many urban areas resulted in abrupt truncations of many local streets and virtually privatized small areas near these throughways. Less obvious forms of spatio-lineal discontinuity are longer cul-de-sacs, T and double T intersections and shifts in street width. Since all of these street conditions are coincident with the perimeters of blocks, these inconsistencies in channel configuration alter the movement patterns from blocks adjacent to these streets. While many mid-level morphological discontinuities are the result more of lack of attention in historic contexts, macro-level street/block morphology factors result from more explicit decisions about street form.

3.2 Macro-level discontinuities

3.2.1 Urban contexts

In post WWII developments the proportion of urban land in private ownership has decreased while the that in public right-of-way has increased (United States Environmental Protection Agency 2001) and is estimated to be well over 40 per cent in many new developments. By presenting a series of historical settlement patterns from the middle ages to the 20th century - shown in plan with building footprints distinguished from their spatial context - Jacobs (1993) has graphically shown how land area in street use has dramatically changed in relation to privately-owned land area. Figure 3 shows changes to a segment of the central area of Boston over a fifty-year period. What a more detailed inspection would show is 1) that there are fewer but taller buildings with larger footprints containing a greater variety of uses and 2) that street movement is more restricted and controlled through fewer divided two-way streets with more regulated turning patterns. The result is a fundamental change in morphology from larger fine-grained clumps of private property to smaller coarse-grained clumps resulting not only fewer interfaces between private and public space

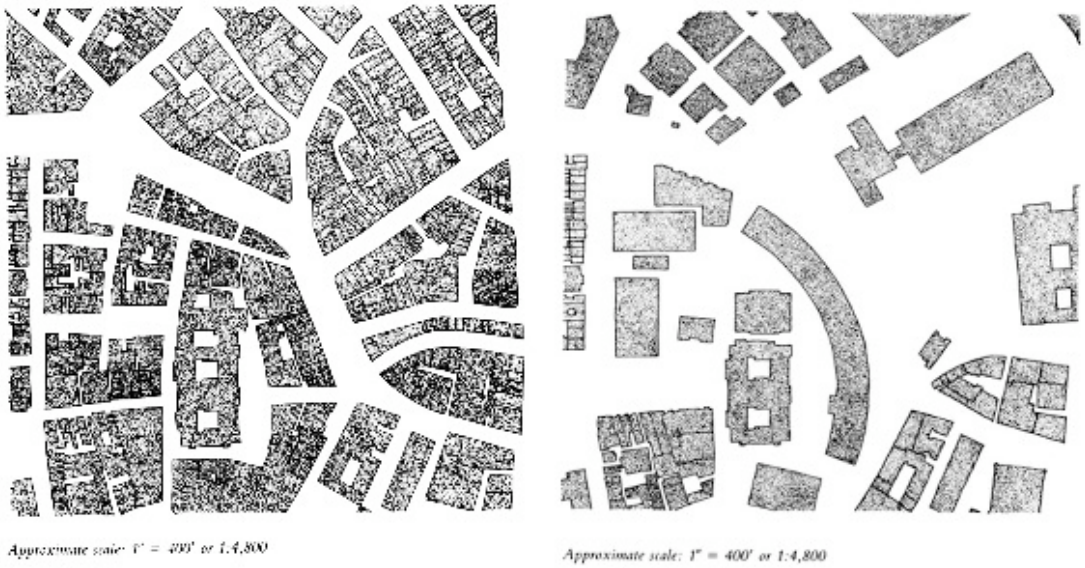
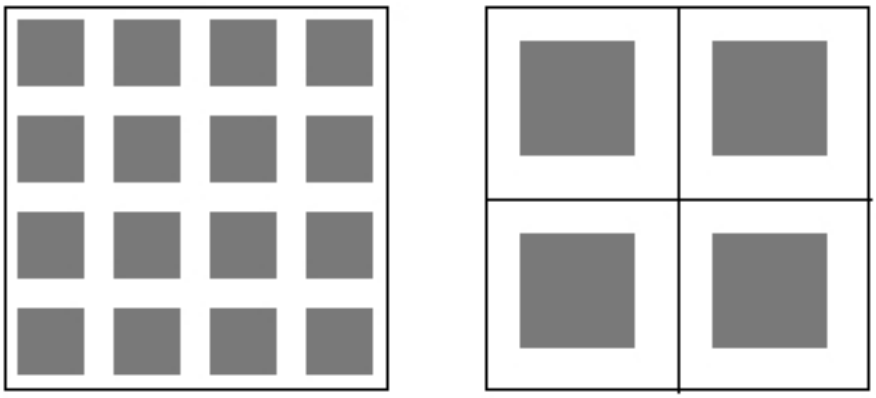


Figure 3 Central Boston: left, 1929; right, 1980. (Source: *Great Streets*)

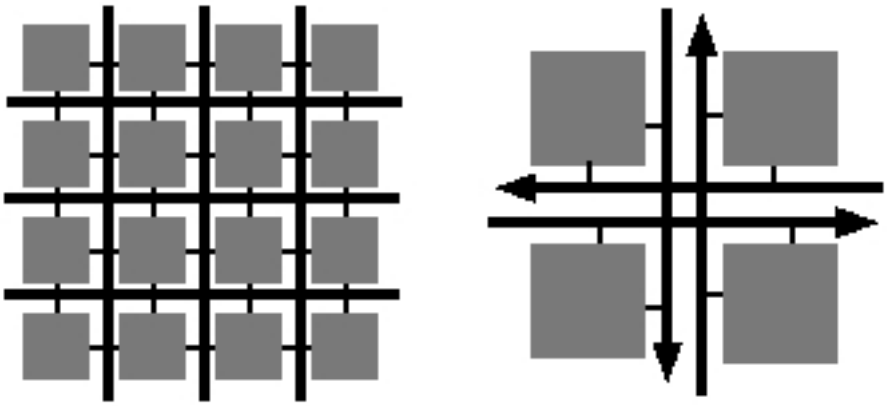
These changes in urban morphology, as exemplified in the Boston example, involve actions that, while coordinated between public and private agents, must be given longer-term planning thought by public agencies. What happens typically is that the impetus for or initiation of the longer-term redevelopment of spatial infrastructure involves a major public-private project that is seen as necessary to revitalize an area. The larger change in infrastructure patterns usually has benefits for the large core parcel of real estate involved in the project (often with a large footprint building) and costs for those small parcels of real estate not in the project. These smaller parcels are eventually acquired in assemblages to create larger footprint buildings that can benefit from the changed infrastructure.

Larger projects increase boundary conditions arithmetically but increase area geometrically resulting in more content in the spatial form. Larger projects resulting in larger parcels with larger buildings not only alter the proportion of area to perimeter and thus alter the interface between private and public space, they also enable increases in public space which, in turn, alter changes in public space configuration that alter the connectivity of one private space to another. The following geometric schematics illustrate this. Figure 3 shows parcel areas divided into private property/space (the dark squares) and public property/space (the white areas between the squares). In both **a** and **b**, these areas are identical while the perimeters of private space in **b** are half that of **a**. The increase in the public space area enables it to be decomposed (ostensibly for traffic control) thus changing connectivity between one private property/space and another. Figure 5 illustrates this showing connections as straight line segments. In **a**, the perimeter edges of opposite private property/spaces are connected by one segment; in **b**, they are connected by five segments. The result of decomposing public property/space is in an increase in the functional distance between private properties/spaces.



a **b**

Figure 4. Change in parcel size



a **b**

Figure 5. Change in public property/space connections

3.2.2 Suburban contexts

The transformations of core city areas are mirrored by new developments in suburban areas often through an explicit agenda called access management (Williams & Forester 1996). Access management is about controlling traffic congestion and involves specifying 1) subdivision patterns: the shape and position of parcels *vis a vis* roadways; 2) the locus and characteristics of elements of access between property and the roadway: allowable access based on roadway hierarchies as well as driveway shape, spacing and location, parcel to parcel connections, control over private roads; 3) zoning

controls that, for example, require housing in certain areas to be clustered on cul-de-sacs off a roadway rather than with direct access to that roadway.

One access management handbook says

> The Federal Highway Administration's official definition of access management is "the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding system in terms of safety, capacity, and speed." In practical terms, it means managing the number of driveways that a vehicle may encounter without hampering reasonable access to a property and removing slower, turning vehicles from the arterial as efficiently as possible (CTRE nd).

The handbook goes on to say access management deals with the traffic problems caused by unmanaged developments before they occur; addresses how land is accessed along arterials; focuses on mitigating traffic problems arising from development and increased traffic volume attempting to utilize these developments; calls upon local planning and zoning to address overall patterns of growth and the aesthetic issues arising from development.

This is accomplished, as one development guide (Humstone & Campoli 1998) explains, by looking "at the entire parcel rather than simply the particular project. If the parcel has frontage on a secondary road, access points should occur there and not on a major arterial or heavily-traveled collector". It illustrates this idea with the drawing in Figure 6. These measures have resulted in the development of larger residential and commercial projects on larger parcels separated more from each other by thicker and more segmented channels of public space.

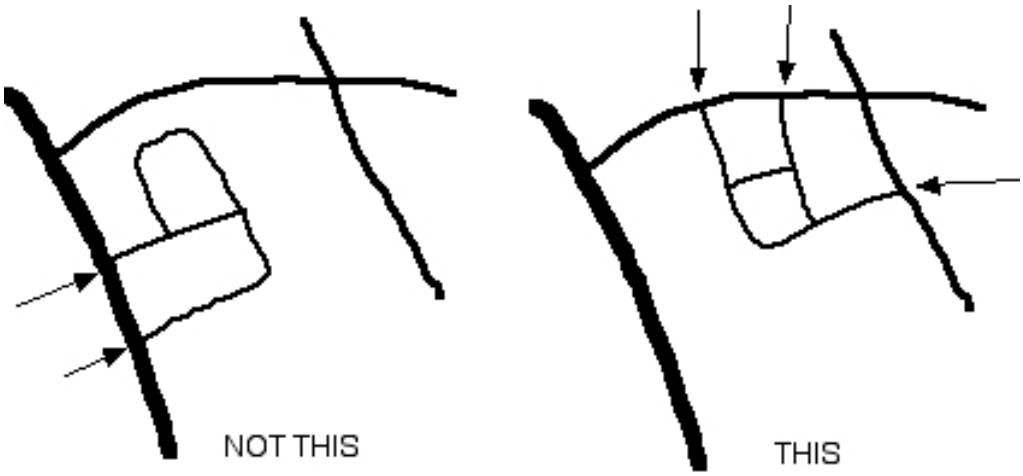


Figure 6. Access based on street hierarchy

3.3 Micro-level discontinuities

3.3.1 Residential parcels

A similar pattern of spatio-lineal discontinuity adjacent to larger parcels at the micro-level is manifest in American post World War II suburban development. Figure 7 illustrates two different street-threshold interface relationships. What is not shown is that the pre-World War II house would have a detached garage facing the back of the back yard with access from an alleyway. An item in *The Economist* (1990) pointed out that

> The American house is a domestic fortress, protected by garage doors that snap shut like a clamshell when the occupants come home each evening. No house built in the past four decades has a front porch (veranda, for Britons): Americans prefer the private world of their expansive back yards.

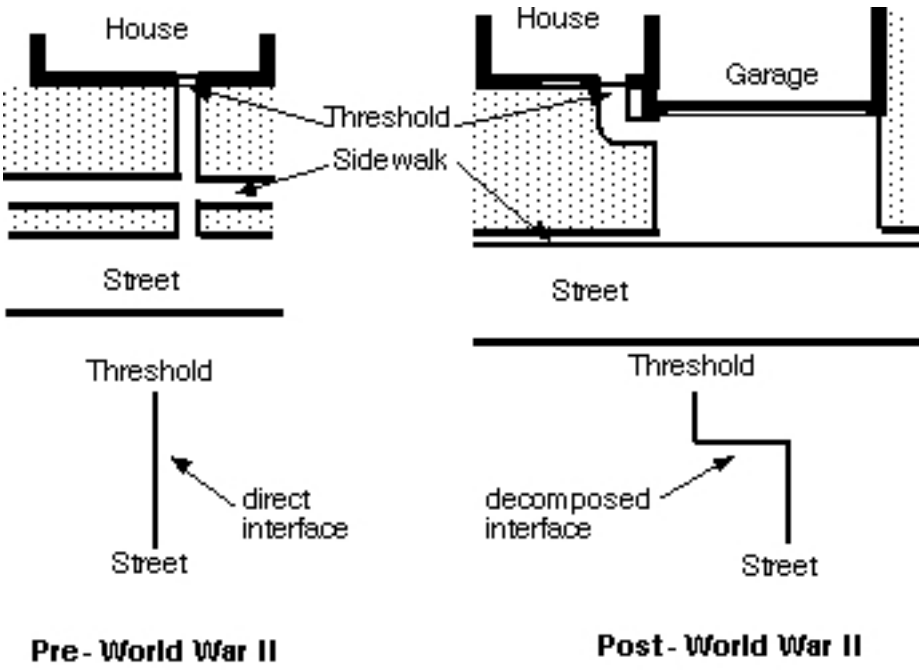
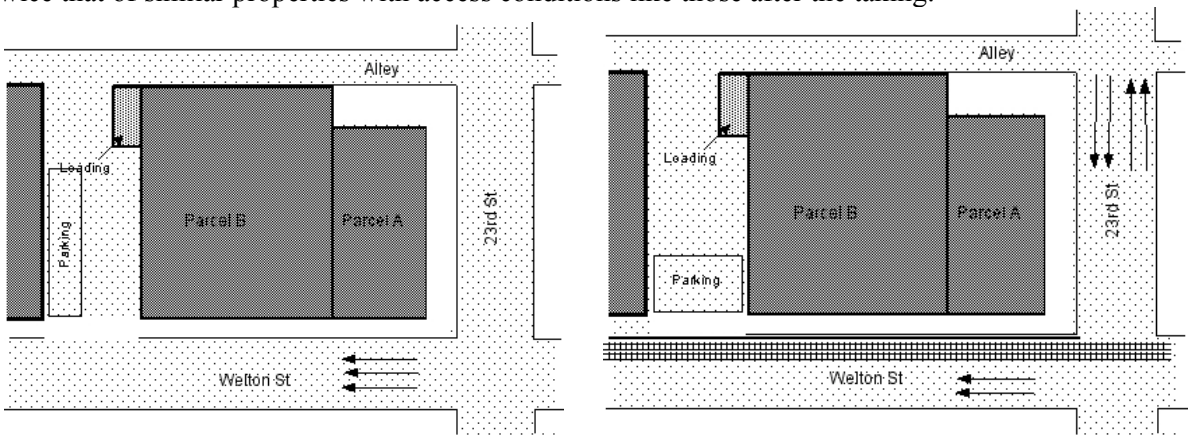


Figure 7. Street-threshold interface differences

It was, at the time of the *Economist* article, the extensiveness of this pattern of decomposed interfaces that both stimulated neo-traditionalist development approaches and enable a market for the New Urbanism to emerge quickly.

3.3.2 Commercial parcels

Commercial and industrial properties rely on simple access connections for functionality and utility. In an analysis of government takings of access to industrial property as the result of construction of a light rail line in Denver, Brown (2006) compared the access interface between a street and the loading dock of a warehouse parcel before and after the taking with properties having comparable access conditions. Similar properties with access conditions like those before the taking were valued almost twice that of similar properties with access conditions like those after the taking.



a) Estimated value before taking: $25.00/SF **b) Estimated value after taking: $13.00/SF**

Figure 8. Street-loading interface changes

Changes that increase the complexity of access conditions favor the development of larger, functionally specialized parcels or the assemblage of smaller parcels for redevelopment. Until recently private assemblage problems were often resolved by government intervention in the form of acquisition through eminent domain.

4. Stretched morphologies and presence

Access changes, whether explicit through access management or tacit, are subtly linked to other social changes. Over a quarter-century ago, Giddens (1981, pp. 152-3) identified three transformations in capitalist industrial economies which, especially since the end of World War II, have fundamentally altered the ways real estate links to the infrastructures involved with everyday life. One is that work has become disconnected from day-to-day community or social practices. A second is that time-space paths have changed so that certain times for distinct activities have become encapsulated. Third is that urban land for most people in the capitalist societies has been commodified according to a kind of architectural functionalism.

Time-space paths – a better word would be routes – can take people into and through a variety of locales within a generalized social milieu. Obviously, most time-space paths for any one person, to the extent they are routine, will rarely deviate from a few actual spatio-material paths such as walkways and streets. Giddens uses the term *locales* to refer to physical settings - which can exist in interior or exterior built space - rather than the term, places, because place is more associated with a geographic position or location, whereas locale is a more generalized term referring to small as well as large territorial aggregations. Nor are locales simply fixed territorial aggregations. They constitute the use of space to provide settings for interaction and can be of varying size - a room, a street corner, a territory of a nation-state. (Giddens 1984, 118) The locale can be at any scale, from a dwelling to a metropolitan area. For example, the locale of a nuclear family is thus likely to be less extensive than that of a city government. Locales can be subdivided into what Giddens calls regions, which are parts of locales set aside for special purposes. A locale provides what Giddens calls a fixity' for institutions but doesn't necessarily determine it.

A key concept in understanding the relationship of time-space paths and locales is *presence-availability*. Giddens says that some positions on time-space paths - locales - will maximize the presence-availability of resources. As Giddens says, "All social life occurs in, and is constituted by, intersections of presence and absence in the 'fading away' of time and the 'shading off' of space. The physical properties of the body and the milieux in which it moves inevitably limit modes of access to 'absent' others across space (1984, p. 132). Economic and social interaction commingle presence and absence and a locale is a condition wherein presence-availability is maximized. The extent of a locale is determined by the presence availability of what is of interest (1984, p. 39). When a society has high presence availability, it can be called a community. Figures 7 and 8, which shows multiple adjacent locales and a minimum number of time-space paths connecting them, would represent a community.

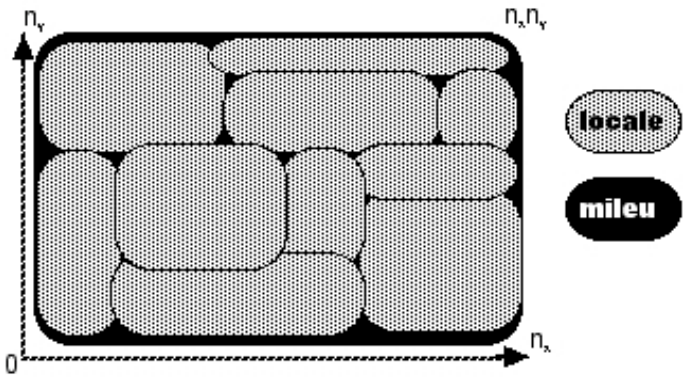


Figure 8 Locales in a milieu

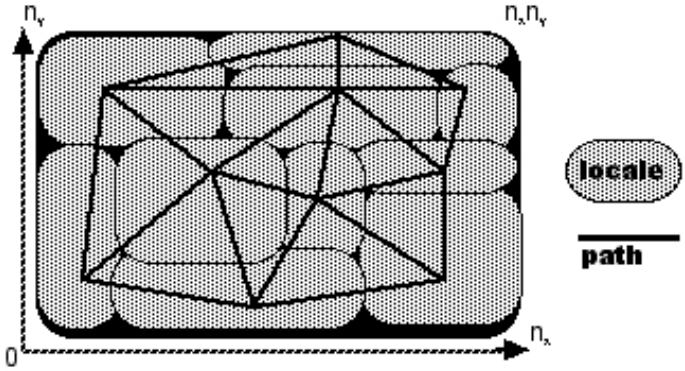


Figure 9 Locales and time-space paths linking them

A time-space path is thus characterized by variations in presence-availability within the spatio-material framework of everyday social existence. Variations in presence-availability are increasingly affected by time-space distanciation, the process by which societies are 'stretched' over shorter or longer spans of time and space (Giddens 1981, p. 90). Time-space distanciation can decompose or disconnect locales. Figures 8 and 9 illustrate variations in presence-availability with a stretched social mileux, larger locales with fewer external connections and fewer and longer time-space paths.

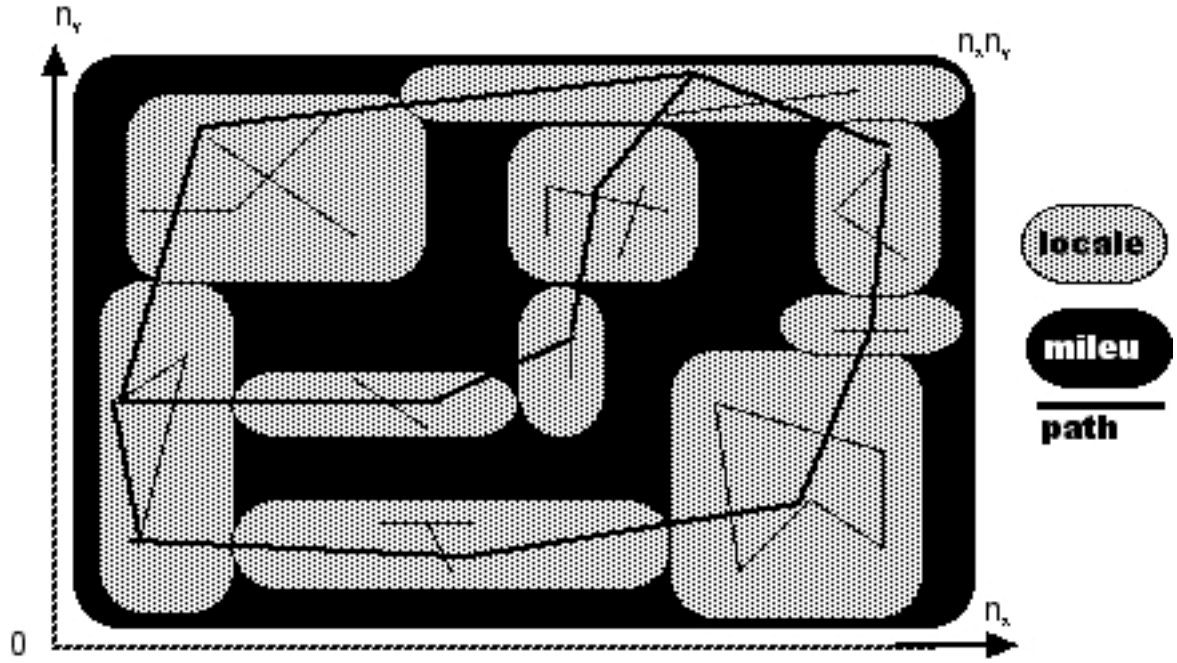


Figure 10. Stretched mileu, distanciated locales and fewer time-space paths

The notion of time-space distanciation has usually been applied to effects derived from the virtual space of information and communication technologies (ICT). What has been overlooked is how time-space distanciation is derived from changes to everyday urban space. It is not simply that there is what Castells (1996) calls the space of flows, those parts of the world that, compared with other parts, are strongly interconnected by ICT. Nor are there simply what Castells (1996) calls the space of places, those corners of the world less connected through ICT. There are also spaces that are less connected through real space. Time-space distanciation results no less from the decomposition of public property/space than from ICT.

Time-space distanciation means that possible or potential individual time-space paths are reshaped to accommodate new requirements of presence-availability. Giddens (1984, p. 171) proposes that "… the greater the time-space distanciation of social systems – the more resistant they are to manipulation or

change by any individual agent". An example of the effects of time-space distanciation is shown in Figure 3, central Boston.

5. Unbundling presence

The changes in the spatial network structures of public space are an instance of what Graham and Marvin (2001) have called the unbundling of infrastructure networks, "… the largest and most sophisticated technological artefacts ever created by humans." The larger context of spatial privatization – that it is but one of many privatization trends or processes occurring in a variety of realms – in public infrastructure development, in education (of which sectarian education already constitutes a large portion), in the delivery of government services, in housing ownership – has received only cursory attention in the discourse on spatial privatization. Yet, are clear today and are manifestations of unbundling.

Recent research on large-scale network structures has identified two fundamental types of networks: exponential networks and scale-free networks. As Barabási (2001) explains it, an example of an exponential network is a road map with cities as nodes and roads as the links between them. Scale-free networks look more like airline route maps that show small nodes at the smaller airports served by a few carriers, and gigantic nodes, which are the hubs for dozens of carriers, like Chicago O'Hare or London Heathrow. Scale-free networks tend to be unbundled. In exponential networks, most nodes are connected to a relatively small number of links, and only a very few nodes have substantially more or less than this number. A classic city grid, whether regular or deformed, is an exponential network. Changes in street infrastructure involving access management and related interventions are transforming spatial infrastructure into scale-free networks with time-space distanciation effects.

When nodes in an exponential network are randomly broken or removed, there is a proportional degrading effect on overall network performance. The random breaking of nodes in a scale-free network that characterizes the internet, the web and a number of natural phenomena has a virtually negligible effect on performance of the overall network. However, scale-free networks can be vulnerable in a different way. If one of the most connecting nodes is removed or broken, the other nodes will be overwhelmed and the remainder of the network will fragment (Albert, Jeong, & Barabási 2000).

A scale-free network composed of a multitude of nodes with very few connections or links and a few nodes with a multitude of links constitutes a system of dichotomous attractor basins which, in terms of urban morphology, is a system of many larger local spaces less connected sequentially to each other but more connected to a few globally connected spaces whose function is more about movement. These fundamental changes in large scale spatial patterns are a process redirecting the availability of presence.

6. Conclusion

The process transforming the network of public space from an exponential to a scale-free network can be understood as spatial differentiation allied with what Luhmann (1982) sees as social differentiation based more on functional differences and less on hierarchical differences. While not fully irreversible, the direction of these changes, while ultimately unknowable, is difficult to alter. With thicker, more connected public spaces becoming functionally specialized for movement, the role of proximity exits from public space, and enters, and needs to enter, what have traditionally been less connected, more private spaces.

The emergence of more and increasingly private places is coincident with the decrease in access from private places to public space. With a more segmented public realm, the structure of private realms is shifting to develop more proximity within them. This is a proximity in certain cases, with gated and similarly bounded communities for example, that is etched into streets that under other conditions would have been public. The risk of such privatization is not so much that it excludes but that it leads to the isolation of those within the gates from the stuff of governance. Were such conditions to be widespread, the fear that power would be drained from the governed, of a government having the

power to ignore the governed, would be legitimate. As Arendt (1998, p. 202) said, tyranny rests on isolation of the governed not just from the government but from each other. Isolation results in a loss of power.

> Power is what keeps the public realm, the potential space of appearance between acting and speaking men, in existence. … The only indispensable material factor in the generation of power is the living together of people. Only where men live so close together that the potentialities of action are always present can power remain with them, and the foundation of cities, which as city-states have remained paradigmatic for all Western political organization, is therefore indeed the most important material prerequisite for power (Arendt 1998, pp. 200-1).

Yet, the public realm is limited. Arendt makes the assertion that a life spent in public, life in the presence of others, is a shallow life, that private property is essential for the development of depth in that life. Where does this leave a public realm that on one hand loses the capacity to afford proximity and on the other segregates private properties from each other?

The profound changes that have occurred and are occurring in the spatial configuration of urban areas leave room to consider the role of the spatial in self governance. It is a role that has been traditionally filled, at least in part, by the public forum. Reflecting on the impact of virtual space on real space, Kang and Cuff (2005) discuss the public sphere: "First, it must be accessible to diverse members of society. Second, it affords those individuals the opportunity of multiple uses; … Third, the public sphere engenders some form of exchange among participants. …Fourth, and tightly connected to the prior features, such opportunities and interactions within the public sphere must be recognizable as such." Few locations in public space qualify as public under these definitions. Those that do are usually recognized as public forums. Nor was every public place in Rome a forum. Platner (1929) lists 29 other forums in addition to the Forum Romanum: not a lot in a mostly pedestrian city of a million, but, depending on their visibility, size and accessibility, perhaps enough for Romans.

The logic of the public forum is that it is a place of exchange. Interestingly, the Athenian Agora and the Forum Romanum, quintessential fora, were places for both political as well as commercial exchange. They were places that minimized transaction costs and encouraged openness and what are now called knowledge spillovers. One of the key questions, it seems, in connection with the emergence of larger but less connected locales is how those in these locales govern themselves. To some extent, this is a question about the existence and location of public forums. That public forums may be better facilitated through media like the internet is questionable. The challenge in understanding and making 'privatization' work is that of effectively linking private space not simply to public space but to space that can constitute a public forum. Framing the problem this way can open up research into how these new morphological patterns can be directed.

7. References

Albert, R., Jeong, H. and Barabási, A-L., 2000, Error and attack tolerance of complex networks. *Nature* 406, pp. 378-382.

Arendt, Hannah, 1998, *The Human Condition*, 2nd edition, Chicago: University of Chicago Press.

Barabási, A-L, 2001, The physics of the Web, *Physics World*, July. <http://physicsweb.org/article/world/14/7/9#pw1407095>

Black's Law Dictionary, Revised fourth edition, Minneapolis: West Publishing Co., 1968.

Blandy, Sarah, Diane Lister, Rowland Atkinson and John Flint, 2003, Gated Communities: A Systematic Review of the Research Evidence, CNR Paper 12: April 2003 <http://www.bris.ac.uk/sps/cnrpaperspdf/cnr12pap.pdf>

Bowers, Bill Smith and Tony Manzi, 2006, Private Security and Public Space: New Approaches to the Theory and Practice of Gated Communities, *European Journal of Spatial Development* <http://www.nordregio.se/EJSD/refereed22.pdf>

Brown, M. Gordon, 2006, Access takings: contexts, transformations and measures**.** *The Institute for Local Government Studies, The Center for American and International Law*, Plano, Texas.

Castells, M., 1996, *The Rise of the Network Society*, Oxford: Blackwell.

CTRE (Center for Transportation Research and Education), 2000, *Access Management Handbook*, Ames, IA: Center for Transportation Research and Education, Iowa State University. <http://www.ctre.iastate.edu/Research/access/amhandbook/>

Eisner, S., Gallion, A. and Eisner, S., 1993, *The Urban Pattern*, 6th Edition, New York: John Wiley & Sons.

Faden, A. M., 1977, *Economics of Space and Time: The Measure-theoretic Foundations of Social Science*, Ames, IA: The Iowa State University Press.

Giddens, A., 1981, *A Contemporary Critique of Historical Materialism*, Berkeley and Los Angeles: University of California Press.

Giddens, A., 1984, *The Constitution of Society: Outline of the Theory of Structuration*, Cambridge: The Polity Press.

Graham, S. and Marvin, S., 2001, *Splintering Urbanism: Networked Infrastructures, Technological Mobilites and the Urban Condition,* Blackwell, Oxford.

Hendrie, E. M., 1998, Curtilage: the expectation of privacy in the yard, *The FBI Law Enforcement Bulletin*, (67)4, pp. 25-33.

Humstone, E. and Campoli, J., 1998, Access Management, A Guide for Roadway Corridors, Part III: Site Development Strategies, (From Issue 29 of the *Planning Commissioners Journal*, Winter. <http://www.plannersweb.com/access/accsite.html>

Jacobs, A. B. 1993, *Great Streets*, Cambridge, MA: The MIT Press.

Kang, Jerry and Cuff, Dana, 2005, "Pervasive Computing: Embedding the Public Sphere" . *Washington and Lee Law Review*, Vol. 62, pp 93-146.

Lofland, L., 1973, *A World of Strangers: Order and Action in Urban Public Space*, New York: Basic Books.

Luhmann, Niklas. 1982. *The differentiation of society* . New York: Columbia University Press.

Marx, Gary T. 2001, Murky Conceptual Waters: the Public and the Private, *Ethics and Information Technology*, Vol. 3, no. 3, pp. 157-169. <http://web.mit.edu/gtmarx/www/murkypublicandprivate.html>

MacLeod, Gordon, 2004, Privatizing the City? The tentative push towards edge urban developments and gated communities in the United Kingdom, Final Report for the Office of the Deputy Prime Minister, ICRRDS, University of Durham, England. <http://www.communities.gov.uk/pub/990/UD02PrivatizingtheCityTheTentativePushtowardsedgeUrbanDevelopmentsandGatedCommub_id1141990.pdf>

Moudon, A. V., 1997, Urban Morphology as an emerging interdisciplinary field, *Urban Morphology*, (1997), pp. 3-10.

Peterson, Marina 2006, Patrolling the Plaza: Privatized Public Space and the Neoliberal State in Downtown Los Angeles, Workshop on Structures and Processes in Urban Space, University of Chicago. <http://cas.uchicago.edu/workshops/urban/peterson.pdf>

Platner, Samuel Ball, 1929, *A Topographical Dictionary of Ancient Rome*, London: Oxford University Press.

Williams, K. M. and Forester, J. R., 1996, *Land Development Regulations that Promote Access Management*, Synthesis of Highway Practice 233, Transportation Research Board, National Research.