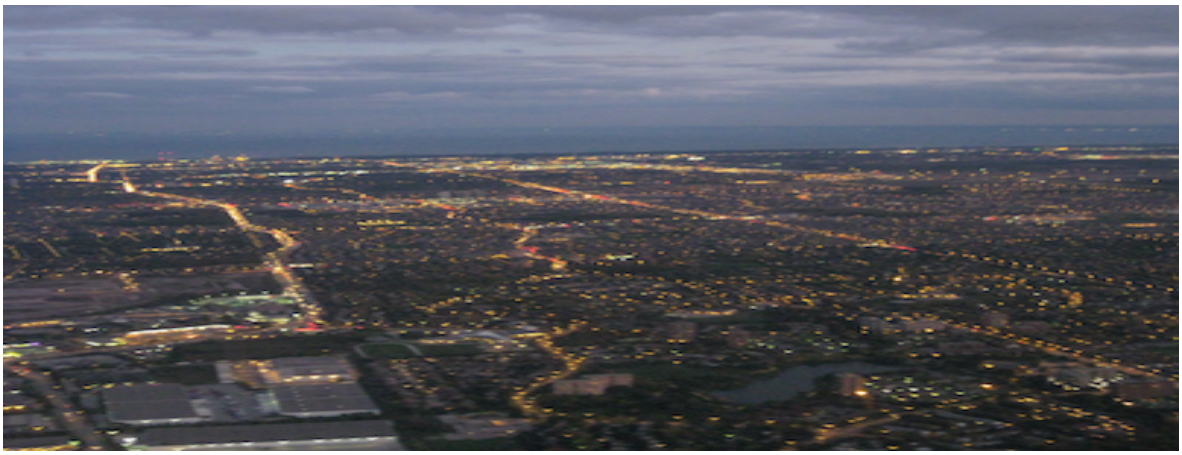

Community Vitality and the Built Environment

Yuill Herbert, Sustainability Solutions Group

Professor Ann Dale, Royal Roads University

Introduction

The relationship between the built environment and human society is complex and multi-dimensional. There is also a dynamic relationship between the built and the non-built environment within communities that determines its vitality. Designing, re-designing, building and maintaining the built environment represents one of the most effective and economical means of addressing climate change; and will also improve the health, prosperity and future options of all Canadians. With technologies available today, zero-net-energy buildings are possible (Flavin, 2008), however, many of these opportunities have yet to be realized by local communities.

As well, the built environment influences our day-to-day lifestyle choices, contributing or taking away from health, connectivity and culture. In some ways, the city and its people interact through a socio-spatial dialectic. People are constantly modifying and reshaping places and places are constantly coping with change and influencing their inhabitants (Soja, 2008). The built environment is, therefore, also:

> *the setting and backdrop by which we live our lives, and impacts on our senses, our emotions, participation in physical activity and community life, our sense of community, and general well-being. Meanings are generated by buildings and spaces, which we 'read' as we pass through them. Places are created and shaped by those in control of resources and with certain interests, which affects our degree of access to, and the way we use, those spaces (Butterworth, 2000: ii).*

There is a wide and deep body of literature exploring the impact of the built environment and society in spheres such as health and climate change; these and others are explored in detail in other papers in this series. This paper reviews the relationship between the built environment and community vitality as a function of public space (Taipale, 2006), irregularity,

amount of dead space (Minock & Russell, 2007), land-use patterns (Ewing & Cervero, 2010a) and diversity (Ewing & Cervero, 2010a), among others.

Public Space

The discussion on publc space is multi-dimensional implicating issues of power, control, access, expression, citizenship and design in the context of public space. As a result, the definition of public space depends on the context in which it is being discussed. A definition that resonates within the context of community vitality is as follows: “Public space is a publicly perceived, valued and controlled landscape” (Francis in Altman and Zube, 1989, p. 148). This public control enables a political role—a social space wherein private citizens gather as a public body with the rights of assembly, association, and expression in order to form public opinion (DeLuca and Peeples, 2002). In order for democracy to function, by necessity, it must include actual people, actual deliberations and an actual place. In order to be free of private influence, that place must be a public space, and open to all members of the community. This is evident by negation; one of the first actions by newly imposed dictators is to establish a curfew that eliminates public space for meeting and dialogue. Opportunity for dialogue is critical to community vitality, as Etzionni (2000) argues democracy is dependent upon deliberation, commonly exemplified by the image of a New England town meeting, or the ancient Greek polis. Dialogue is seen as critical when defined as “the ongoing civil project of building collective norms and values through the broad exchange, articulation and dissemination of knowledge through active sources of dialogue, information and discussion on the behalf of citizens” (Naylor & Dale, 2005, p.1).

In addition to democracy, places have other functions. A report from the UK Government describes these as the following.

> *“to achieve urban integration means thinking of urban open space not as an isolated unit—be it a street, park or square—but as a vital part of urban landscape with its own specific set of functions. Public space should be conceived of as an outdoor room within a neighbourhood, somewhere to relax, and enjoy the urban experience, a venue for a range of different activities, from outdoor eating to street entertainment; from sport and play areas to a venue for civic or political functions; and most importantly of all a place for walking or sitting-out. Public spaces work best when they establish a direct relationship between the space and the people who live and work around it” (Rogers, 1999: 57)*

Habermas (1989) worried that the activity of the public sphere (Habermas discusses the public sphere, but this paper focuses on public space) had been replaced with consumerism, “the world fashioned by the mass media is a public sphere in appearance only”. One could argue as a participant in consumerism, the individual becomes a passive recipient of information as opposed to an active participant in a citizen democracy. Television is another example of private interests prevailing over public ones. The failure of televisions’ communication potential to foster a healthy public dialogue and literacy is necessarily linked to the increasing commercial features of television broadcasting, introduced through the complex and historical policy developments undertaken since its introduction, compared to the continued success of modern public radio, as an interactive and engaging medium (Naylor & Dale, 2005).

The privitization of the public sphere has many expressions. They can be subtle yet invasive- the extensive use of various forms of survellience may be designed to “inculcate “acceptable” patterns of behaviour commensurate with the free flow of commerce ...” (Macleod, 2002). More blatantly, public spaces are increasingly used as venues to both advertise and sell goods, perhaps the ultimate example is Times Square in New York with its hundreds of giant screens flashing the lastest products. Saitta (2009: 6) describes the process in which commercial interests can dominate public space:

> *As the social center of a city, public spaces are desirable frontage for retailers, especially in areas frequented by the upper classes. This immediately creates a second axis of distortion, where the mechanisms of social control act to preserve the economic function of high value space. Unsurprisingly, this has led to the creation of areas taking the form of public space but not the function, and attempting to divorce the economically useful congregation of people from the socially divisive and potentially economically harmful aspects of a true public space.*

Theorists such as Crilley (1993) have called these spaces a “theatre in which a pacified public basks in the grandeur of a carefully orchestrated corporate spectacle”. In this vein, Robert Venturi (1972) has famously described the main street of Las Vegas:

> *the billboards which became the facades, the images of the “decorated shed”, and the movement through the Strip by private car changed the contemporary city forever. The speed of the automobile was how fast the city could and should be read, and the message of the buildings and of the city was “buy!”* (Taipale, 2006: 11).

In other cases, public space may be an illusion. The New York Times reported that Zuccotti Square, the park occupied by the recent Occupy movement, was in fact owned by a real estate investment company. The article reported that there are 500 privately-owned public spaces in New York City (Kayden, 2011), collapse of the public and private speres.

Barcelona, famous for its vibrant pedestrian environment, has actively resisted this commercialization trend, focusing instead on the community. Oriol Bohigas, a key player in the rejuvenation of the city described “the city as a political phenomenon” and “as domain of the commonalty” (Taipale, 2006: 17). In Barcelona “these political and urban ideas are based on a radical statement: the city is the indispensable physical domain for the modern development of a coherent commonalty. It is not the place of the individual, but the place of the individuals who together make up a community” (Ibid:17).

Just as the spaces we create through the built environment affect our patterns of interaction, in particular, social capital formation and, hence community vitality, so too do our patterns of transportation dramatically impact upon our connectivity to one another, to other species and to the non-built environment. The automobile is the most ubiquitous example of this impact, but planes, and trains all have varying effects. First, the automobile disconnects people from public space, as vehicle occupants are in a space which is physically separated from the urban environment, a subtle process of atomization (Wernick, 2008). Second, this detachment is enhanced by speed which limits the individual's perception of the environment to that which is momentary. Third, priorities for public space in this context focus on servicing the automobile with parking and roads. Fourth, the public resources required to maintain road

systems leave few resources for the creation of truly public spaces. Fifth, automobiles demand a certain socio-economic status, and some analysts argue its infrastructure maintenance diverts scarce resources from lower-income access to enhanced to public transit.

Public space is critical to community vitality, simultaneously enabling and symbolizing a commitment to community, open dialogue and ultimately democracy. Public space is compromised by collapsing public-private sector interests which potentially can transform the 'engaged citizen' into a 'receptive consumer'. Two pre-conditions of public space is that it is firstly public and, therefore, open to all and secondly, it has to enable free communication which, according to Habermas, must be "comprehensible, true, sincere and legitimate" (as quoted in Taipale, 2009).

Irregularity

Our understanding of the city and its sub-dimension, the built environment, as a system has evolved from a modern linear concept to an understanding of a city as a complex nonlinear system. Multiple systems of interaction that are both ordered and chaotic generate random disturbances, creating novel patterns of change. In spite of the unpredictability, coherent order always emerges out of the randomness (Milley & Parsons, 2009). In Jane Jacobs' famous declaration: "if density and diversity give life, the life they breed is disorderly" (cited in Sennett, 2006: 2).

Disorderly or not, the built environment is a vast library of stories that can both inspire and oppress. The history that can be discerned from the built environment in an old city by observing, for example, the different facades and materials in buildings and infrastructure is rich with irregularity and unpredictability. This contrasts with a modern city of glass, cement and steel in which buildings are designed to be replaced within 50 years[1] and are often replaced before 50 years (Connor, 2004).

Because modern and post-modern architecture employs ubiquitous materials, one modern city becomes nearly indistinguishable from another. This continuity undermines the ability of regions or cities to develop and manifest their own identity (Velazco, 2010). As an interpretation of self, place is also critical to an individual's identity, drawing on the physical environment to symbolize or situate that identity. Place can ground individuals by countering the question of who am I? with where am I? or where do I belong? (Cuba and Hummon, 1993).

A city that evolves incrementally through chance variation allows people to absorb, participate and adapt to change as it happens, step by lived step and places become saturated with personal, social and cultural meanings. This is evolutionary urban time, the time needed for an urban culture to take root, then to foster, then to absorb and change as layer upon layer of memories accumulate. Time and experience breed attachment to place (Sennett, 2006), and similarly, attachment to place is connected to community vitality (Dale et al., 2008).

This combination of incremental development and materials of the place influence the vitality of the community. From Saitta (2009: 2):

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1 50 years is the average reported for the City of Vancouver in a report titled

> *Take, as an example, two open squares between buildings. They are each about 25m across and surrounded on all sides by three or four story buildings. One of them is a perfect square, a flat expanse of asphalt with openings exactly at each corner. The other is irregular, the front of some buildings pushed in a bit and others stepped back. Its surface is cobbled, except for a band defining a path around the edge 2m back from the buildings and 3m wide. In the center, a small stone plinth 3m across is slightly raised. Neither square is otherwise distinguished and yet, if there are half a dozen tables with chairs and umbrellas sitting out in each square on a nice summer day, the second square will be much more populated. Some people may see the second square as more beautiful, but the difference is more subtle than that. The irregularity and the differentiation of the space directly makes it feel more alive, and this liveness makes the space more habitable*.

The observation then is that the more irregular the built environment and the more localised the regulatory regime, the more vibrant and vital the community is likely to be. There is, of course, a balancing act with both of these criteria so that one person's freedom does not result in another's servitude, but places with space for facilitating creativity and innovation will lead to increased vitality (Ling & Dale, 2011).

Dead Space

Dead space has emerged as an important concept relating to the built environment with an inverse relationship to community vitality. Dead space is defined as space with only one function, or as Taipale (2006: 12) writes, "dead space is space without any reading or memories, a place of total alienation."

For example, the single purpose of a highway is to facilitate the movement of vehicles at the exclusion of any other use – children playing, wildlife habitat or connectivity. Essentially, dead space is space that favours one goal or aspect while suppressing all others. The highway is a physical example, but they may also be economic or political. In each case, space is occupied for a sole reason and tends to exclusionary to certain members of the communty. In some cases it may be subtle, in others, blatant. But in all cases, the expansion of dead space comes at the expense of community vitality.

Multi-functionality, that is, an integration of different functions within the same or overlapping land unit, at the same or overlapping time (Ling et al, 2007), is a key contributor to enhanced community vitality. The relationship between dead space and the absence of multi-functionality can be seen in the movement to the suburbs which began with the expansion of the railways but dramatically expanded post WWII. Suburbs themselves were at first a response by the middle and upper classes to rising crime rates, demoralization of the public school system, pollution and waste in the urban centres (Arnold, 1971).

With the increasing affordability of the car by the growing middle class, suburbs were democratized after WWII and the resulting population drain in urban spaces led to city centres that filled with the people in the day and emptied in the evening. The resulting influx of vehicles coming and going increased the value of and demand for parking. Parking space is characterized by expanses of featureless pavement, and most serious crime occurs in

desolate settings with no activity (Loukaitou-Sideris, 1999). Property owners respond with increased surveillance such as CCTVs and security guards (Cozens et al, 2005) entrenching the uni-functionality of the space. Most of this spaces are also impermeable surfaces, further decreasing community vitality by impacting storm water management infrastructure.

A parallel but slightly divergent concept to dead space is the idea of urban voids, a phenomenon experienced in post-industrial cities with deflating populations.

> *Voids contrast with mass. They contrast with the idea of "good spaces" where people gather and enjoy one another. Urban voids differ from vacant land in that vacancy is merely a temporary state prior to new construction or rehabilitation. Voids on the other hand are not for sale, lack any foreseeable future and remain undefined and possibly un-owned (Minock & Russell, 2007).*

Society's experience with urban voids may be helpful in enlivening dead space. Urban voids are empty of structure but they may be full of life, as was the agora of Athens with important space for assembly, food markets, festivals, religious ceremonies and political affairs. The city of Philidelphia has endeavoured to transform its urban voids by incorporating multi-functionality, much like the agora of Athens and similarly, the rehabilitation of Granville Island is a showcase for the City of Vancouver. Both of these spaces are examples of high multi-functionality with a great diversity of amenities and activities.

Between 1950 and 1990, the city of Philadelphia lost over 400,000 residents resulting in empty or near-empty neighbourhoods, essentially urban voids. In a major visioning session, the City asked participants to relate their guiding values and desires about their neighbourhoods, as well as imagine unique opportunities to reinvigorate the urban voids. The top four recommendations included (Steele, 2005) the following features.

- Neighbourhood Parks: a place where it's safe for kids to play. Greenery where people can rest. Urban oases. Convert urban vacant lots into parks.
- Trees: for beautification purposes.
- Community Gardens: small scale; scenic haven, and also as possible meeting space for community.
- Neighbourhood Farm Co-op: some areas of Philadelphia are still zoned for agriculture. Perhaps some vacant lots could be used to grow food.

Notably the top four options listed above described different types of green spaces and public use, and all four provide opportunities for enhanced connectivity in a community and for social capital. These choices reflected the desire of residents for public green spaces that would encourage interaction and support vitality, symbolically a desire to transform an abandoned space with life.

Social Interaction or Connectivity

Perhaps the most important contribution that the built environment can make to community vitality is to encourage and empower people to walk. The higher the percentage of people who walk, the more vital a community will be in terms of the capacity for its members to make different connections and simply to engage with one another. As Leyden writes "Spontaneous

"bumping into" neighbours, brief (seemingly trivial) conversations, or just waving hello can help to encourage a sense of trust and a sense of connection between people and the places they live. These casual contacts can occur at neighborhood corner shops, at local parks, or on the sidewalk. To many residents, such contacts breed a sense of familiarity and predictability that most people find comforting" (2003, p. 1546). Further, walking is a form of movement that enables these types of interactions for both the children and elderly, has substantial health benefits as discussed in the fourth discussion paper on health and the fifth one on the elderly in terms of decreasing isolation.

While walking, people notice their surrounding environment and participate by crossing roads, listening to birds or becoming wet when it rains. The design of the built environment can be enhanced to support this experience. Naderi (2004) writes about environmental design variables that contribute positively to the experience of walking for spiritual health. Her field studies resulted in the following design guidelines.

1. Align the path to receive benefit from sun, moon, stars and wind.
2. Provide access to the sacred structures within the community open space.
3. Incorporate places for pause and meditation adjacent to the path that are micro-climatically controlled through green plantings, water and lighting.
4. Always incorporate a green buffer between travel-way of cars and pedestrian path.
5. Make spaces along the path with well-defined edges and legible thresholds.
6. Design for all senses.

A built environment that facilitates walking enhances not only spiritual connection to the non-build environment, but also physical health, which is described in detail in the discussion paper on community health and vitality.

Environmental racism and spatial justice

Throughout modern history, polluting industries and toxic waste disposal sites have been located in areas where poor people live (Szasz & Meuser, 1997). A controversial term, environmental racism gained a foothold in the literature in 1987 when a study highlighted the importance of race in predicting the location of hazardous waste facilities (Bolin, Grineski, & Collins, 2005). Environmental racism includes acts of omission, such as failing to provide urban infrastructure, and acts of commission, such as the imposition of unwanted land uses. It is difficult to rectify the situation after major investments in infrastructure, resulting in prolonged discrimination (Colten, 2002). While environmental racism is traditionally associated with skin colour, the concept can also be broadened to include a class dimension. Through this lens, environmental racism can be pervasive in every aspect of a person's life:

> *the poorest people in the UK tend to live in the least healthy environments, with the greatest likelihood of environmental hazards such as flooding and pollution....People living in disadvantaged areas are more likely to suffer the impacts from high traffic volume, with its associated noise, disturbance and poor air quality, and a greater likelihood of being killed or injured on the road*. (CABE, 2008: 8)

Pulido (2000) argues that the emphasis on intentionality and scale have contributed to conceptualizing racism and space as discrete objects, rather than social relations. What are the structures of society that result in the decision to locate the factory in the poor

neighbourhood? How are those structures perpetuated? Environmental justice refers to just outcomes but Soja's concept of spatial justice broadens this to include just outcomes that are justly arrived at (in Warf and Arias: 32). Kingwell (2008: 64) notes that “Modern distributive models of justice rightly place emphasis on the fate of the least well off: in a non-distributive idea of justice, we can update and expand this idea: a city [community], like a people, shall be judged by how it treats its most vulnerable members”.

The current emphasis on security in the modern city illustrates a different manifestation of social relations derived specifically from the way in which the built environment is constructed. “We do indeed live in ‘fortress cities’ brutally divided into ‘fortified cells’ of affluence and ‘places of terror’ where police battle the criminalized poor” (Davis, 1992). Gated communities are another manifestation of a loss of community vitality through the loss of any multi-functionality at any scale. In this sense, the built environment is a social construct, subject to social forces. If then there are universal human rights that apply to all social contexts, Lefebreve argues that there must be a right to the city, *le driot á la ville* (Opp. Cit.). Such a right underpins a vital community.

Diversity

Diversity in the built environment influences a number of the other considerations discussed above. For example if there is diverse land use in a close proximity, including housing and commercial space, people will be more likely to walk.

> *In dense, diversified city areas, people still walk, an activity that is impractical in the suburbs and in most grey areas. The more intensely various and close-grained the diversity in an area, the more walking. Even people who come into a lively, diverse area from outside, whether by car or by public transportation, walk when they get there (Jabareen, 2006: 42).*

Diversity is seen to be a key contributor to resilience. It can provide insight into future events and enable a community to identify and mitigate vulnerabilities, because it draws on a broader range of ideas and, therefore, possible courses of action (Jiwani & Milley, 2009). Diversity is expressed not only through the built environment, but also in economics. Jane Jacobs argued that heterogeneous economic activity stimulates ideas and fosters specialization in inputs and outputs, yielding higher returns, a theory which has been validated in comparisons of economic performance of different cities (Quigley, 1998).

Conclusion

What is the role of public space in our times? Is it primarily a marketplace and a space for the logistics of travel or does it continue to be a vital necessary and sufficient base for civil society and democracy? In the context of community vitality, clearly the protection of public spaces by, for and of the public is critical. These are places for reflection, debate and dialogue, free from both the impositions and seductions of the market. Theorists of spatial justice support this analysis, albeit from a different perspective. They propose that the built environment is a social construct and, therefore, subject to social forces. Social forces which oppress or constrict will strangle the vitality of the community as opposed to empowering and enlivening. A built environment with diversity of all forms--social, economic and physical—will be more resilient in the face of change and, therefore, more vital.

The built environment deeply influences social behaviour, culture and connectivity. Vitality is strengthened by diversity, and openness, and human relationships through connectivity. Those forces which limit or inhibit these characteristics will restrict the vital nature of the built environment, its ability to provide and cultivate social, economic and physical niches.

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