Thresholds of Fear: Embracing the Urban Shadow

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1. Introduction

My interest in the relationship between fear and city building was sparked while doing research on the French new town of Jouy-le-Moutier 15 years ago. This new town was an experiment in neotraditional urbanism (or the 'new urbanism'), an effort to build a new town which looks and functions something like an old town. I wanted to discover whether or not this was a good strategy for city building, so I lived there and visited many of its inhabitants, inquiring about their likes and dislikes regarding the town. Invariably, the subject of fear arose despite the miniscule crime rate in the area. I initially paid little heed and simply waited for the conversation to turn back to the subject of my research. I soon realised, however, that the concern about insecurity was central to the nostalgia for the past that incited neotraditional tendencies and to my evaluation of its success at Jouy-le-Moutier.

Returning from the immaculate French new town, I saw New York City with different eyes. Living in my East Harlem neighbourhood amongst abandoned buildings, crack houses, fortified housing projects and scores of homeless people, I began reflecting not only upon the motivations for defensive urbanism, but also on possibilities for diminishing the fear through design and other means. In this essay, I offer a brief history of fear and its relationship to city building in the West along with some new directions in urban design that respond to fear proactively rather than reactively.[1]

2. A Brief History of Fear and City Building Part I: Modern Fear and Modern Urbanism, Renaissance–1960s

Fear has never been absent from the human experience and town building has always contended with the need for protection from danger. Protection from invaders was in fact a principal incentive for building cities, many of whose borders were defined by vast walls or fences, from the ancient settlements of Mesopotamia to medieval cities to Native American villages. Eventually, however, the cannon and, more recently, atomic arms rendered city walls feeble protection.

From being a relatively safe space, the city has—especially over the past 100 years—become associated more with danger than with safety. The density of cities tends to intensify such dangers as civil unrest, crime and contaminated air and water. And cities are not exempt from those dangers that strike everywhere equally, such as natural disasters, illness, domestic violence and poverty.

We persevere in seeking shelter from these dangers lurking in our midst through a range of architectural and planning solutions. The insecurities incited by the transition from

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feudalism to capitalism also led to new proposals for building. In the same year that the French Revolution began, the English philosopher Jeremy Bentham conceived the panopticon (Greek for *everything* and *place of sight*, or *all-seeing*), a circular building for containing criminals with cells radially disposed around the perimeter and a circular guardhouse in the centre for the inspector. Bentham's proposal allowed the inspector to see the criminals but not vice versa through incorporating narrow black galleries and strategically placed blinds.

While this concept of the panoptican was applied to the building of prisons in England, a bevy of English and French utopians were envisioning complete habitats reflecting similar notions of social engineering. Examples include the Saltworks designed by Ledoux (Salines-de-Chaux 1774–1804), Charles Fourier's Phalanstery concept (1829) and James Silk Buckingham's Plan of Victoria (1849). A number of attempts at realising these plans were undertaken in the US such as Robert Owen's New Harmony in Illinois, Fourier's phalanstery at Brook Farm, Massachussets (1841) and dozens more. Whereas the 1700–50s Enlightenment plans applied the language of natural reason (classical geometry to express triumph over nature), these 1750s–1900 plans drew from technical reason which applied science and technology to bringing about social reform.

The predominant metaphors for cities at this time—the organism and the machine—guided these urban designs which were conceived in the spirit of performing surgical operations or repairing broken parts (Vidler, 1991, p. 29). Countering the rationalist tendency of post-Enlightenment city planning, these plans also began to incorporate elements of romanticism and the picturesque. These ideal plans influenced the redevelopment of European capital cities during the latter half of the 19th century, the most famous instance being the redesign of Paris from 1853 to 1872 (overseen by Baron Haussmann who was working for the Emperor Napoléon III).

Transformations in interior design occurred alongside those in building and city design. Because of new rules about privacy, new house forms emerged with separate rooms for adults and children (and separate rooms for each child), replete with closing doors and separate spaces for women's and men's activities, such as the sewing room and the library. Meanwhile, the decor of these interiors changed as rooms that had previously been austere and simple but multipurpose became opulently and theatrically appointed according to the single function they were to serve (Lofgren, 1979). These decors connoted "romance, sentimentality, and fantasy" (Lofgren, 1979, p. 126) and included generously scattered mirrors so that people could observe and appropriately modify their appearance and behaviour (Lofgren, 1979, p. 140). This elaborate decoration may have been an effort to compensate for the growing competition in the outside world, making the home a haven in a heartless world. Not incidentally, it was also a means of keeping housewives busy and thereby diverted from participating in public life.

The nature of fear continued to change during the early part of the 20th century. In order to accommodate factory work, the day took on new rhythms as did the week, month and year. The landscape evolved with the addition of railroads, factories, warehouses, skyscrapers, working-class districts, new suburbs for the upper middle class and the highways of the modern industrial city. At the same time, social and geographical mobililty accelerated. Fear derived from this rapid change as well as from the unreliable and often sub-standard working conditions of factory workers, consequent rioting by these workers, the cultural diversity of those who came to work in the factories and the constant change in consumer tastes upon which mass production depended.

The means for coping with this new constellation of fear also evolved. The measurement and allocation of time and space grew ever more precise to allow for accurate prediction of labour output as well as worker and consumer behaviour. Within the factory, time was used as a mechanism for control over others. Some companies, for instance,

did not allow their workers to wear watches so that they would not know how long they were working (Thompson, 1967).

It was within this climate that Albert Einstein developed the theory of relativity (1911) and that abstract art flourished, both of which suggested the lack of fixed eternal truths, proposing instead multiple perspectives. The vast and rapid transformations occurring since the late 19th century led people to remark that the only secure thing about modernity is insecurity (Harvey, 1989, p. 11).

The science of time management was introduced into the factory by Frederick Winslow Taylor in 1911. Henry Ford's moving assembly line incorporated space into this process in 1913. Since the 19th-century factory was no longer sufficient, the architect Albert Kahn provided Ford with a functional shell of steel, concrete and glass for his plant—a formula for industrial plants which he and others reproduced all over the world.

Outside the factory, city building was profoundly influenced by new needs emerging from these changes and the infatuation with the machine. Modern architects and city planners modelled themselves after engineers and stipulated that 'form should follow function'. In an effort to make cities function like well-oiled machines, they called for the separation of functions (housing, work, recreation, circulation) through zoning regulations and regional plans.

Modern housing was to consist of

buildings sited in the middle of continuous open spaces, transparent glass façades, [and] gardens on rooftops (Holston, 1989, p. 52).

situated among avenues without intersection. Building was to be based upon measurements derived from the human body and once the perfect house and city were discovered, urban designers believed that they should be applied everywhere, regardless of topography or cultural diversity. The French architect/planner Tony Garnier (1904), for instance, proposed the Industrial City for any site.

Modern interior design introduced open plans with flowing space and fewer but more spacious rooms. The modernist opening up of interior space was made possible by steel frames that eliminated the need for structural walls. And it reflected a desire to be released from traditional social *mores*. Meanwhile, modern interior decoration simplified that of the 19th century in order to save on the costs of decorating and the housework it required and to reflect the new pared-down aesthetic, that of minimalism, or 'less is more'.

But rather than follow function, form largely followed finance. In the US, the real estate, building and automotive interests lobbied for the Housing Acts of 1949 and 1954 and the Highway Act of 1954 that allowed for massive suburbanisation along vehicular patterns. The suburbs to which Americans flocked after the Second World War proved less than satisfactory. Women, particularly, felt isolated and bored. One pharmaceutical company marketed its tranquilisers with an advertisement portraying an enervated housewife and the caption, "You can't change her environment, but you can change her mood". Workplaces also began moving to the suburbs as corporate headquarters moved from central cities to sylvan 'office parks' or 'corporate campuses'. This trend reached a peak between 1955 and 1980 when more than 50 corporations left their New York City headquarters for greener pastures.

In the central cities of the US, the national Urban Renewal programme was unsuccessfully trying to retain investment. Given the architectural and planning theory of the time, this effort levelled older urban fabric (areas regarded by planners as 'slums'), replacing them with slabs and towers. With an eye towards security, these downtown urban renewal schemes turned away from the cities around them. Amenities were usually limited to gigantic steel sculptures or fountains, often described as 'plop art' (Flusty, 1994). Seating was usually non-existent or improvised from ledges and steps. Not surprisingly, this kind of building proved largely inhospitable to the general public. It did not offer a sense

of comfort; it magnified winds; and it blocked sunlight.

Most of what was built after the war in both the US and western Europe, then, consisted of isolated towers and slabs as well as unending blocks of mass-produced individual houses. This modern urban development destroyed much of our urban heritage, disrupted established communities and displaced people from their homes and businesses, increased social segregation, diminished the public realm, harmed the environment and created eyesores. The great failure of modern architecture has come to be symbolised by the dramatic demolition of the Pruitt-Igoe housing projects in St Louis in 1972. Generally disliked, modern urban development was supplanted by other strategies.

3. A Brief History of Fear and City Building Part II: Post-modern Fear and Post-modern Urbanism, 1960s–90s

The late 1960s or early 1970s marked yet another calibre and level of uncertainty. The fear factor has certainly grown in recent decades if measured by locked car and house doors, security systems, the popularity of gated communities, the purchasing of handguns and the increasing surveillance of public spaces, not to mention the unending reports of danger emitted by the mass media. Some of the reasons for our increased sense of insecurity include another acceleration in the rate of change as well as the decline of public space, the growing gap between the rich and the poor, and the increased influence of intelligent machines. In addition, violent crime in the US increased by almost 100 per cent from 1960 to 1990.

Modern fear was tackled in a scientific manner. But the excesses of modernism generated a reaction to the scientific pretence to objectivity, leading to some different responses to post-modern fear. The ones I will focus on here are retribalisation, nostalgia and escapism, all of which are closely related and recall features of the pre-modern period.

3.1 Retribalisation

As the mass media have made it seem a much smaller world—a global village—they have also instilled a desire to retribalise or to assert cultural distinctions. This has been apparent in the search for 'roots', tracing family lineages, resurrecting old customs and even inventing 'new' traditions. In building, it is apparent in attempts to design in local traditional styles (regionalism).

Retribalisation is also apparent in the building of segregated communities, most blatantly in the growth of retirement communities beginning with Sun City near Phoenix. Although not officially exclusive, there are also neighbourhoods comprised almost entirely of young families, racially/ ethnically segregated communities and income-specific communities. While providing a certain sense of security, such separatism also leads to more ignorance of others and less tolerance of difference. It feeds an 'us against them' mentality and a tendency to defend one's borders, family and self with gates as well as with guns. There are more than 200 million guns in private hands in the US and, over the past decade, the number of women with guns has doubled.

3.2 Nostalgia

Closely related to retribalisation, the nostalgic response features a desire to return to the past in reaction to modernism's clean break from the past. The nostalgic response is apparent in the call to return to 'traditional' values and institutions as well as the return to nature (environmentalism).

Contemporary nostalgia is apparent in the popularity of 1960s and 1970s television programmes, in feature films based on these programmes (for example, *The Flintstones*, *The Adams Family*) as well as movie remakes, in new renditions (or 'covers') of old songs, in advertising that attempts to make products seem old or established, in 'classic rock' radio stations, in the comeback of country and 'lounge' music, in retro-clothing and furniture, the diner and much more. This

fascination for the old has inspired producers of goods to 'wear them out' in a mass-produced fashion. We can now purchase jeans that are pre-washed, pre-worn out and ripped in the appropriate places. We can acquire furniture that is pre-distressed through the application of special finishes. This massive return may suggest a depletion of creative energies or a fear of being original.

The infatuation with the past has made renovation of old houses a popular pastime and it has had an impact on interior decoration. Despite the new technologies integral to contemporary homes, post-modern house forms and decor draw from the past, both an urban leisured past and a rural past of 'abundant simplicity'. The nostalgia is for city and country life, not suburban life. In contrast to the starkness of modern home design, certain post-modern homes are opulent and sumptuous—featuring, for instance, grand entryways, double staircases, chandeliers, scattered mirrors with gilded frames, overstuffed furniture and the layering of fabrics, rugs and window coverings, all in colours and patterns popular prior to modernism. Other post-modern homes are inspired by 'country living', and seek to incorporate wood furnishings that are old or at least look old, great rooms with large hearths, small floral-print fabrics and other features considered characteristic of the rural house. Others still combine these aesthetics and more to produce a grandmother's house–flea market–popular culture–anything goes aesthetic.

The creation of housing from old city factories and warehouses—or loft-living—offers another instance of nostalgia, but this time it is for our industrial past. Loft-living not only represents nostalgia for an old building but also an old way of life, that of combining home and work in the same space since the artists who were the original loft inhabitants melded their living and working spaces. This nostalgia for our industrial past is apparent in a third style of interior decoration, the industrial aesthetic.

The retail sector has also retrofitted vacated structures of the industrial era for the creation of a new kind of urban shopping mall with shops, restaurants, pushcarts and street performers. James Rouse, who was most influential in this development, called these 'festival marketplaces'. This developer of the 1960s new towns of Cross Keys (Baltimore) and the much larger Columbia (between Baltimore and Washington, DC) first oversaw the conversion of Boston's Faneuil Hall Market Place (originally built in 1742) and its adjacent Quincy Market (built in 1823). These were followed by other versions of the same formula such as the conversion of a former chocolate factory into Ghirardelli Square in San Francisco designed by Lawrence Halprin (1964). Shopping districts have also been created anew but made to look old, such as Harborplace in Baltimore and South Street Seaport in New York City, both developed by Rouse, and Two Rodeo Drive (Via Rodeo) in Beverly Hills designed by Kaplan McLaughlin Diaz Architects/Planners.

On the scale of the city, the nostalgic impulse is revealed by the neo-traditionalist efforts since the 1970s, like the one I was evaluating in the French new town. These efforts seek to combine the familiarity and human scale of traditional townscapes with the benefits of contemporary technologies. The central motivation behind these efforts is to avoid the excessive separation of functions of modern urbanism along with the social and environmental harm that accompanies them. Usually described as the 'new urbanism', the most well-known example in the US is Seaside in the state of Florida master-planned by Andres Duany and Elisabeth Plater-Zyberk.

3.3 Escapism

The third response to contemporary fear is escapism. Both retribalisation and nostalgia could be regarded as subsets of escapism, but what I place into this category are more extreme forms of retreat from the larger community or flights into fantasy worlds. Although perhaps most pronounced in the expanded use of personal computers and networking on-line, I focus here on responses in urban design.

The impulse to retreat is epitomised by the

growth of gated communities. The lack of sidewalks and *cul-de-sacs* of the earliest suburban developments were protective devices, but we have now taken this further by actually gating our neighbourhoods and installing guards or video monitors at the entryways. A residential development of high-rise condominiums called Desert Island, located east of Palm Desert, California, is surrounded by a 25-acre moat. There are currently more than 20 000 gated communities in the US housing over 8 million inhabitants. Although the trend to build and live in gated communities is still going strong, recent research has revealed that gating communities has little effect on crime either within the gates or outside them.

Outside gated communities, security signage is ubiquitous. When designing new homes or renovating, safety features are of paramount importance. Sometimes, a client asks for an appearance that conveys a 'don't-mess-with-me' attitude or which appears inconspicuous to conceal the residents' wealth. These have been described as stealth houses (Davis' term). In the house he designed for actor Dennis Hopper in Venice, Brian Murphy set a bunker-like structure with a windowless corrugated metal façade behind a white picket fence mimicking those in the neighbourhood. In a house around the corner (the Dixon house), Murphy simply left the shell of the existing dilapidated house, built a new house inside it, and pre-graffitied the façade to fit into the surroundings.

Other houses take the opposite tack and elaborately appoint their entryway, perhaps in a show of intimidation. These houses ensure protection through a variety of means such as sophisticated security systems, the posting of signs which warn trespassers not to enter or indicate 'armed response', and so-called 'security gardens', which group shrubs beneath windows and around yards specifically for the purpose of obstructing intruders. Increasingly, clients are requesting that their architects provide 'safe rooms', terrorist-proof security rooms concealed in the houseplan and accessed by sliding panels and secret doors, reminiscent of a James Bond movie.

The mentality of fear among home-owners of all kinds has led to a pronounced anti-growth movement. People who do not want development to occur near them have been referred to as NIMBYs (not in my back yard) or as BANANAs (build absolutely nothing anywhere near anything).

Like homes, cars also aspire to conceal and display. The popularity of the 4-wheel-drive sports utility vehicle, especially in cities, expresses both the desire to conceal and to display strength and power. Although equipped for off-road driving, very few actually ever leave the roads. The popularity of this sort of vehicle is epitomised by the current vogue for the Humvee (human military vehicle or high-mobility vehicle) which was released (early 1990s) in a civilian edition called the Hummer and is available for $45 000–75 000. Arnold Swhwarzenegger purchased the very first one (Rugoff, 1995). While the Hummer may be "the ultimate in body armor" (Rugoff, 1995), the safety of all cars today is a major selling-point, including a wide range of options from alarms to car phones, built-in car seats for children, air bags, shatterproof glass and more. There are now microwave-activated security systems which, sensing that a body is near the car, emit a rough man's voice saying "Get away from this car or an alarm will go off in 5 seconds".

The retreat reflex is also manifest in the suburban shopping mall which has abandoned the central city and which turns its back entirely on its surroundings with its fortress-like exterior surrounded by a moat-like parking lot. Malls have their own on-site sub-stations replete with holding cells (Flusty, 1994). A shopping mall built in 1988 in south-central Los Angeles, for instance, includes fenced parking lots, total video coverage, contained loading docks and a storefront police station that serves as base for 200 police officers (Flusty, 1994).

The rising tide of fear has transformed most public spaces into controlled and guarded places. To discourage people from sleeping on park benches, Los Angeles introduced the 'bum-proof' bench that is barrel-shaped (Davis, 1990). To discourage people

from sleeping in parks, the city has installed sprinkler systems which catch the innocent sleeper unaware only to wake up and find he or she is drenched head to toe (Davis, 1990). Meanwhile, public restrooms and drinking fountains have virtually disappeared from these public spaces.

Sprinkler systems along with blaring musak have been applied widely by convenience stores and other businesses that do not want people 'hanging out' around them. Roll-down steel shutters are also popular for businesses after hours. Some of these businesses never raise them. Security monitors have become omnipresent thanks to their new affordability.

The corporate headquarters and department stores which began abandoning downtowns in the 1950s form an essential part of the new 'edge cities' which emerged in the 1970s. This new kind of city—or what many regard as an anti-city—combines office parks with shopping malls and perhaps some housing. Edge cities are the apotheosis of escapist urbanism. They abandon the central city and the unique quality of life it promised. In an effort not to lose the vitality of the city, the office parks in these edge cities try to incorporate aspects of urbanity. The General Foods headquarters, for instance, was designed by Kevin Roche (White Plains, NY, 1977–82) to include 'office neighborhoods' and a 'Main Street' with newstands and a restaurant.

Not incidentally, since the 1980s, commissions for corporate buildings have been declining (because of an office glut in most parts of the country), while commissions for prisons, police stations and homeless shelters have been on the rise. 'Prisonisation'—or the increased building of prisons to deal with crime—is another example of retreating. This trend has been taken even further as many states have been moving their prisons to other states and privatising them. There are currently 124 private jails in the US and the state of Texas has 38 of these. Florida ranks second. Illinois bans private jails. These states pay private companies to care for the inmates, an 'industry' growing at an annual rate of 35 per cent.

The other kind of escapism, into fantasy worlds, is apparent in the growth of theme parks (such as City Walk at Universal Studios in Universal City, California) and of megastructures devoted to leisure and recreational activities, particularly sports stadiums, convention centres, and mega-stores.

The escapist nature of all these undertakings—behind gates or prison bars, away from our downtowns, into the past, other places or fantasy worlds—may emit signals that the present is indeed unsavoury. This rising tide of fear has led people to stay at home more. Activities that once occurred outside the home are increasingly satisfied now inside the home with the television or computer—or, if we go out, in the strictly controlled settings of the shopping mall, theme park or sports arena. We no longer go out to mingle with the anonymous urban crowd in the hope of some new unexpected experience or encounter, a characteristic feature of earlier urban life. Unexpected experiences and encounters are precisely what we do not want. We go out for specific purposes, with specific destinations in mind and with a knowledge of where we will park and whom we will encounter.

4. New Directions: An Integral Urbanism

Integral: essential to completeness, lacking nothing essential, formed as a unit with another part.

Integrate: to form, co-ordinate, or blend into a functioning or unified whole; to unite with something else; to end the segregation of and bring into equal membership in society or an organisation; desegregate; to become integrated.

Integrity: adherence to artistic or moral values; incorruptibility; soundness; the quality or state of being complete and undivided; completeness.

A frustration with reactive escapist tendencies has been inspiring some proactive approaches toward urban design that I subsume under the rubric of 'integral urbanism' (see Ellin, forthcoming). These approaches share an empha-

sis on reintegration (functional, social, disciplinary and professional), on porous membranes or permeable boundaries (rather than the modernist attempt to dismantle them or post-modernist fortification) and on design with movement in mind, both movement through space (circulation) and through time (dynamism, flexibility).

The earnest but ultimately misguided modernist dictum that form follows function was largely supplanted by the deeply cynical late 20th-century tendency for form to follow fiction, finesse, finance and, foremost, fear (see Ellin, 1997b, 1999b). In an integral urbanism, form is once again following function, but function is redefined. Rather than primarily mechanistic and instrumental, function is understood more holistically to include emotional, symbolic and spiritual 'functions'. From 'less is more' (modernism) to 'more is more' (post-modernism), the byword has become 'more from less'.[2]

At the same time, the attitude among designers towards rapid change has been shifting. From attempting to deny or control change, an attitude characterising most of the 20th century, we are now witnessing an acceptance or even an embracing of change. This reorientation carries deep implications for the way in which urban design projects are conceived and implemented. The result is a departure in architecture and planning theory and practice ranging from small-scale interventions to regional plans.

Essentially, an integral urbanism seeks to integrate:

—functions (from functional zoning to mixed use): living, working, circulating, playing, creating *[programme, typology]*;
—conventional notions of urban, suburban and rural as well as the private and public realms to produce a new model for the contemporary city *[morphology]*;
—centre and periphery (locally and globally: local character and global forces) *[scale]*;
—horizontally and vertically *[plan and section]*;
—the built and the unbuilt; architecture and landscape architecture, structural and environmental systems, figure and ground, indoor and outdoor *[people as part of nature]*;
—people of different ethnicities, incomes, ages, abilities ('universal design'), locals and tourists *[people]*;
—design professionals (architecture, planning, landscape architecture, engineering, interior/industrial/graphic designers) as well as designers with clients/users and theory with practice *[interdisciplinarity and collaboration among design subcultures]*;
—process and product (time and space, verb and noun, emphasis on flows, networks, connectors, circulation) *[time]*; and
—system and serendipity, the planned and spontaneous, principle and passion *[approach, attitude]*.

4.1 Five Qualities of an Integral Urbanism

An integral urbanism features five qualities: hybridity, connectivity, porosity, authenticity and vulnerability. Together, these qualities describe a shift from emphasising objects and the separation of functions to considering the larger context and multifunctional places. They indicate a departure from the presumed opposition between people and nature, buildings and landscape, and architecture and landscape architecture to more symbiotic relationships. These qualities of an 'integral urbanism' also bespeak an attitude which prizes borders and which regards process as paramount (rather than a finished product). This attitude veers away from master planning which, in its focus on mastery (control) and efficiency, tends to generate fragmented cities without soul or character. Instead, an 'integral urbanism' proposes more punctual interventions that contribute to activating places by making connections and/or caring for neglected and abandoned 'border' or 'in-between' spaces. In the best-case scenarios, these interventions have a tentacular (Wiscombe, 1998) or domino effect by catalysing other interventions in an ongoing never-ending process. This approach might be regarded as a form of 'urban acu-

puncture' that liberates *chi*, or the life-force.[3] It can be applied to existing built environments as well as to new development.

Because 'integral urbanism' does not aim to produce master plans, and master everything including nature, it is not obsessed with control. Instead, it aims to allow things to happen, things that may be unforeseen, through the creation of thresholds or places of intensity. Gilles Deleuze and Felix Guattari (1980) might describe this process as liberating the natural flows of desire (which perpetually seek connections and syntheses) from the repressive and hierarchical modern city. Produced by people for people, these interventions are arrived at intuitively as well as rationally. They are inspired by the physical context (site) as well as the social context (applying the ethnographic method). In contrast to conventional planning, these interventions are not developed or represented primarily in plan and section, but through experience and imagery suggesting the latent experiential quality that the intervention would activate. This imagery may be representational or abstract.

In contrast to the modern attempt to eliminate boundaries and the post-modern tendency to ignore or alternatively fortify them, we are now witnessing efforts to generate porous membranes which bring together diversity (of people, programmes, etc.) without obliterating difference—in fact, enhancing it. This attitude recalls Heidegger's contention that

> A boundary is not that at which something stops but, as the Greeks recognised, the boundary is that from which something *begins its essential unfolding*. That is why the concept is that of *horismos*, that is, the horizon, the boundary (Heidegger, 1954, p. 356).

Boundaries are regarded as thresholds that not only link destinations to one another but also connect what is on either side of them. As James Corner explains, boundaries/borders

> are dynamic membranes through which

interactions and diverse transformations occur. In ecological terms, the edge is always the most lively and rich place because it is where the occupants and forces of one system meet and interact with those from another. Here, there is contest and competition to be sure, but also hybridity, multiplicity and productive exchange (Corner, 1999a, p. 54).

Corner's method of 'field operations', his alternative to the master plan, provides

> ways in which borders (and differences) may be respected and sustained, while potentially productive forces on either side may be brought together into newly created relationships. Thus, we shift from a world of stable geometric boundaries and distinctions to one of multidimensional transference and network effects (Corner, 1999a, p. 54).

The boundary, Linda Pollak maintains, should be understood "as a space of communication rather than a line of sharp division" (Pollak, 1999, p. 54). As conduits of information, connectors or boundaries might be understood as information networks or as porous membranes. This understanding of the boundary conceives identity as relational whether it is individual identity or that of a neighbourhood or district or ecological zone. It suggests a shift away from the 'ego boundaries' postulated by early 20th-century psychology. As Angelil and Klingmann maintain, this

> hybrid morphology … unfolds from a system of relations between different, sometimes contradictory forces, no longer as an absolute but in reference to other structures [in a process that is] … unceasingly renegotiated (Angelil and Klingmann, 1999, p. 24).

From discrete self-sufficient neighbourhoods or towns, we have moved to a condition of polycentrality. Observing this natural evolution, Roberts *et al.* advocate urban design and city management that support the

> networks of movement and communi-

cation … paying particular attention to the nodal connections (Roberts *et al.*, 1999, p. 51).

They advocate reorienting

urban design away from its traditional focus on sites and centres towards an inclusion of networks, transport interchanges and suburban sub-centres … [with a particular emphasis on] connectivity, between centres and sub-centres and between public and private (Roberts *et al.*, 1999, p. 52).

The most significant paths and nodes constitute an "armature" or "core of movement, activity and meaning" that consists of "key routes and places" (p. 63) in the public and semi-public realm of the "most significant stretches of the key channels of movement" (p. 52). The urban form around this core is the "urban tissue". Without "recourse to an overly detailed masterplan" (p. 64), the authors suggest that we enhance this armature by assuring that each element reinforces and supports the others.[4] They also recommend densification by integrating transport networks with each other and with pedestrian networks forming "natural nodes for the development of a new style of urban sub-centres" (Roberts *et al.*, 1999, p. 62).

Similarly, Linda Pollak (1999) insists upon bridging the layers of 'infrastructural relationships'—layers that include natural features, transport infrastructures and virtual networks (as demonstrated in her proposal for Petrosino Park in New York City). She also points out that projects can operate "at a theoretically unlimited number of scales" (p. 51) if the designer can construct such interdependencies. Pollak maintains that

Conceiving of landscape as layers rather than an unbroken surface supports the construction of an urban landscape as an overlay of scales, that is understood in section as well as plan and in time as well as space. Cutting through multiple layers of urban information supports a project whose formal result is not a stylistic signature, but an intersection of concerns, inten-

sities and modes of inhabitiation (Pollak, 1999, p. 51).

Alex Wall suggests that the designer's role become that of providing 'flexible, multi-functional surfaces', creating connective tissue between city fragments and programmes to support the diversity of uses and users over time (Wall, 1999).

Although profoundly interconnected, we may discern four types of network: natural networks (wildlife corridors, weather patterns, waterways, mountain ranges, etc.); networks for people-moving (roads, paths and trails, railroads, airways, elevators, escalators and stairs); communication and virtual networks; and social and cognitive networks. An integral urbanism aims to enhance these flows and allow them to flourish, taking cues from ecological thresholds. Investigations into existing networks thus become a focal point and source of inspiration in contrast to modern planning which disregarded these or regarded them as irritants to be disguised. Urbanistically, these become connectors as well as separators; they become porous membranes.

4.2 The Larger Paradigm Shift

This movement towards re-envisioning the practice as well as product of urban design suggests a paradigm shift (or return) away from binary logic and towards the principle of complementarity. Complementarity presumes that light requires darkness and shadows. That there would be no sound without silence. Complementarity departs from modernist binary logic because it does not regard the pair as oppositional nor does it seek a synthesis or resolution. Rather, it understands each as not only allowing the other, but embracing or embodying the other.

The shift from the machine and utopia as models to ecological models (webs, networks, thresholds, ecotones, tentacles and rhizomes) is indicative of this paradigm shift. In contrast to the earlier models that bespoke aspirations for control and perfection, these models suggest connectedness and dy-

namism as well as the principle of comple-
mentarity. On the ecological threshold, for
instance, there is competition, conflict and
contest (Corner, 199b) but also synergy and
harmony. There is fear but also adventure
and excitement. It is not about good *or* bad,
safety *or* danger, pleasure *or* pain, winners *or*
losers. All of these occur on the ecological
threshold if it is thriving.

Ecological designers Sim van der Ryn and
Sterling Bunnell (1979/97) advocate 'integral
design' or 'integral systems' which emulate
natural systems. A form of 'biomimicry', the
integral systems approach emphasises the
permeability of boundaries and the need for
systems to be diverse, self-adjusting and al-
ways evolving. In the words of van der Ryn
and Stuart Cowan,

> It is time to stop designing in the image of
> the machine and start designing in a way
> that honors the complexity of life it-
> self … we must mirror nature's deep inter-
> connections in our own epistemology of
> design (van der Ryn and Cowan, 1996,
> p. 29).[5]

Likewise, anthropologists and cultural theo-
rists are increasingly regarding culture as a
part of nature rather than in opposition to it.[6]
And scientists, in their search for a 'theory of
everything' are describing our cosmos ac-
cording to natural principles. Physicist Lee
Smolin, for instance, has proposed that our
universe is part of an endless chain of self-
reproducing universes that make their own
laws, evolving as natural species evolve, ac-
cording to processes of natural selection
(Overbye, 1997).

From cells to cities, culture and cosmol-
ogy, theories are converging on the same
universal principles of development and co-
development, characterised by dynamic webs
of interdependencies (Jacobs, 2000). While
these understandings of connectedness have
precedents in science, philosophy and re-
ligion, there is something qualitatively differ-
ent this time around in the emphasis on
change as a constant and on the re-
configuration of space and time due to digi-
talisation.

The shift away from binary logic is appar-
ent in the displacement of linear, hierarchi-
cal, static models (the tree metaphor) by
holistic, multicentric, non-hierarchical, dy-
namic models (the web/network metaphor).
This shift is occurring widely in fields that
aim towards or study the processes of inno-
vation and development. In business and
management, Tom Peters and Dean LeBaron
describe their approach toward prospering in
our contemporary "permanent state of flux"
in their bestselling *The Circle of Innovation*
(1999). Describing our evolving sense of
self, sociologist Robert Jay Lifton contends:

> We are becoming fluid and many-sided.
> Without quite realising it, we have been
> evolving a sense of self appropriate to the
> restlessness and flux of our time. This
> mode of being differs radically from that
> of the past, and enables us to engage in
> continuous exploration and personal ex-
> periment (Lifton, 1995).

Evolutionists are now describing human
evolution as a 'web of life' rather than a
'tree of life' (Wade, 2000, p. D1). For urban
development, the collateral shift is from
the central-city model to the polycentric or
integrated model. Christopher Alexander's
article "A city is not a tree" (1965), which
demonstrated the flaw of understanding
the city in terms of mathematical models,
marked the beginnings of the parallel
conceptual shift, now significantly wide-
spread (see, for example, Roberts *et al.*,
1999).

In theory, there has been a shift from
structuralist thinking in binary oppositions to
post-structuralism. Post-structuralism has
plied a non-dialectical approach that ac-
knowledges differences without trying to
unify or synthesise them. While seeking to
correct limitations of modern thinking, how-
ever, post-structuralism has fallen into many
of the same traps. By regarding any kind of
communion and things that we share (like
language, ritual and customs) as 'prison
houses' or 'repressive codes' from which we
must release ourselves, post-structuralism
casts all relationships in terms of a power

struggle and encourages a sense of superiority or indifference towards others and the environment. It valorises separateness, autonomy and control, the individual who is nomadic, undomesticated, and unattached to a family, a community, or the Earth. It lazily assumes

> that 'Mom' (Mother Nature) will always clean up any ecological mess we make and, besides, she would never really kill off her children no matter how badly we treat her (Spretnak, 1997, p. 144).

In contrast, the ecological approach encourages us to see the *gestalt* obscured by the modern project's attempt to control situations scientifically, which ends up valorising certain fragments while ignoring others such as nature and native peoples (Spretnak, 1997, p. 19). In doing so, this perspective seeks to open a

> passage beyond the failed assumptions of modernity … that preserves the positive advances of the liberal tradition and technological capabilities but is rooted in ecological sanity and meaningful human participation (Spretnak, 1997, p. 4).

The ecological critique seeks to inject a sense of values which counter the traditional Eurocentric patriarchal values of rational objectivity, separateness, autonomy and control with those of transactive subjectivity, togetherness and the nurturance and protection of ourselves, others and the environment.

In architectural theory, computer-based technologies are allowing us to conceptualise and design cities as dynamic rather than static entities. Computers can also represent 'anexact' (imperfect, self-similar as opposed to self-same) shapes found in nature, 'fluid/topological geometries' or 'fractals' (for example, Greg Lynn, Jeffrey Kipnis, Zaha Hadid, the Ocean Group, Dagmar Richter) in addition to the ideal shapes of classical (Euclidean) geometry.

All of this has implications for the boundaries among the environmental design professions, boundaries that are becoming (and need to become even more like) porous membranes. Calls for 'integrating' the prac-

tice of architecture are ubiquitous. One of these statements maintains:

> The integrated design process is one in which all technical aspects of a design situation are brought to bear during all stages of the design process from conceptualisation of form and systems to realisation of the physical, constructed architecture. By definition then, the design process is one in which there is no conceptual separation between notions and propositions of the form of architecture and the performance aspects of its systems—structure, enclosure, mechanical services, and other traditionally 'technical' aspects of a building (*ACSA Newsletter*, 1999).

Richard Hobbs, Vice President of Professional Practice for the AIA, asserts that "There is an unlimited need for the integrated design approach" involving "the integration of skill sets to achieve an overall goal of integrated design, construction, and operation of a facility". Examples of this 'new integrated profession of architecture' are documented in AIArchitect as well as on AIAOnline.

4.3 An Integral Urbanism Summarised

An integral urbanism runs counter to our prevailing urbanism characterised by freestanding single-use buildings connected by freeways along with rampant sub(urban) sprawl and their attendant environmental, social and aesthetic costs. In contrast to the master-planned functionally zoned city which separates, isolates, alienates and retreats, an integral urbanism emphasises connection, communication and celebration. While integrating the functions that the modern city separated, this approach also seeks to integrate conventional notions of urban, suburban and rural to produce a new model for the contemporary city. In doing so, it considers means of integrating design with nature, the centre with the periphery, the process with the product, local character with global forces, and people of different ethnicities, incomes, ages and physical abilities.

This approach activates places by creating thresholds, or places of intensity, where diversity thrives. These transformations would both respond to current needs/desires and allow for new ways of being/thinking as people and activities converge. An integral urbanism allows greater self-determination and empowerment because it brings people together (increases citizen participation) with more time/energy to develop visions and implement them. Instead of running just to stay still, it allows us to move ahead. By conserving resources (natural resources, products, time and energy) and improving the quality of life generally, an integral urbanism not only diminishes waste but also the sources of distrust and paranoia.

In sum, convergences (ecological, people, activities, commercial) in space and time generate new hybrids. These hybrids, in turn, allow for new convergences and the process continues. This is, in fact, the definition of development (Jacobs, 2000). While the modern paradigm discouraged convergences through its emphasis on separation and control, this new paradigm encourages them.

To achieve these goals, an integral urbanism focuses on:

—networks, not boundaries;
—relationships and connections, not objects;
—interdependence, not independence or dependence;
—natural and social communities as well as individuals;
—transparency or translucency, not opacity;
—flux, not stasis;
—permeability, not permanence;
—movement from place to place, not permanence;
—connections with nature and relinquishing control, not controlling nature;
—catalysts, armatures, frameworks, punctuation marks, not final products or utopias.

5. Conclusion

In conclusion, fear has played a great role in building from the beginning of human history. From the first caves and rustic dwellings to the tallest skyscrapers, we have sought shelter from storms, from the cold, from the heat. We eventually grouped these dwellings together to offer protection from enemies and it was this grouping that allowed for the flourishing of civilisation. But, our need for protection evolved. First with the invention of the cannon and more recently atomic warfare, concentration of people was no longer strategically sound. At the same time, sources of insecurity had started to bubble up within cities as we grew increasingly afraid of each other.

Whereas cities were once the cradles of civilisation, they came to be known as places of unrest, stagnation and decay. The inventions of the telephone, television and computer allowed for communication without concentration and the car and plane have made geography (where one lives) less important. So we have been dispersing. But as we abandoned our central cities, we have also known that we were abandoning a certain quality of life.

Now we face the task of protecting ourselves, others and the environment in a manner that is sustaining. It is not an easy one. In psychology, the notion of the 'integrated personality' was applied by Carl Jung to suggest the blending of both light and dark or 'shadow' components of a personality. If we suppress our shadows, rather than acknowledge and accept them, they may emerge deviously in other guises such as projection and self-sabotage. An integral urbanism suggests that the same may apply to the city and our collective shadow. Rather than neglect or abandon 'in-between' and peripheral spaces ('no-man's lands'), then, we turn our attention towards them and treat them generously with care and nurturance. Rather than resist change, we surrender to it and consider the fourth dimension in our planning and design. And rather than ignore or eradicate our urban fears, we respect them as part of what makes life exciting and joyful. In order to prevent the darkness from overtaking the light, we integrate the urban shadow.

Notes

1. Portions of this article have appeared in Ellin (1997 and 1999a).
2. Applied much earlier by Buckminister Fuller, this phrase is now finding a much broader constituency—for example, see Ritchie (1994).
3. Ignasi de Sola Morales: 'urban acupuncture' as catalytic small-scale interventions that are realisable within a relatively short period of time and capable of achieving maximum impact on immediate surroundings (Frampton, 1999).
4. These views are similar to the Dutch authorities' urban hierarchy proposal and to the Friends of the Earth (1994) document *Planning for the Planet*.
5. For a fuller discussion of this subject, see Ellin (1999).
6. Cultural theorist Catherine Roach, for example, argues "against the idea that nature and culture are dualistic and opposing concepts", suggesting that this idea is "environmentally unsound and [needs] to be biodegraded, or rendered less harmful to the environment" (Roach, 1996, p. 53).

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