Planning Education and the Role of Theory in the New Millennium: A New Role for Habitat Theory?*

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Introduction

In the last two decades of the twentieth century, planning pedagogy in New Zealand responded to broader intellectual and social trends, and, arguably, indirect political pressures, with a turn or return, depending upon one's view of planning history, to matters of process. I would describe this as a retreat rather than return. For example, the widespread rhetoric around the introduction of the Resource Management Act (RMA) in 1991 was that management would now be effects-based. Rather than formulate prescriptive or proscriptive policies, planners were to concentrate instead on guaranteeing that the process of assessing, approving or rejecting applications, handling appeals and monitoring consents was conducted in an efficient, transparent and democratic manner. Consequently, in the planning practice literature of the 1980s and 1990s and the first several years of the new millennium, the main emphasis was on best practice guides or protocols. For example, in New Zealand the 2005 Urban Design Protocol, published by the Ministry for the Environment, argues that good urban design follows the "seven 'c's": context, character, choice, connections, creativity, custodianship, and collaboration.[1] While such principles have merit, they require what I would term the eighth 'c': content that operationalises the principles (i.e., what actually makes for durable urban design). Disappointingly, the Urban Design Protocol shies away from saying anything about what is good versus bad urban design.

This is not to say that no urban design theories or approaches have emerged during this period. A notable academic perspective has been provided by J. Douglas Porteous, particularly in *Environment and Behavior: planning and everyday human life and Environmental Aesthetics: ideas, politics and planning,* where it should be noted considerable attention is given to the theory I am going to discuss below. [2] Yet perhaps because of the titles he has given to his works or their disciplinary breadth they seem to have been overlooked as planning texts. Of course there have also been substantial practical developments in urban design under rubrics such as postmodernism, new urbanism, postmodern urbanism, green urbanism and urban ecology.[3]

However, these movements do not appear to have coalesced as a particular approach to planning and indeed they often appear to be contradictory if not exclusive of each other.

In this discussion I am going to take what may seem to some to be either a radical or retrograde turn, perhaps both, and argue that planning can and should talk about what works for people, whether in urban or non-urban settings, in the places that they

(New York: North Point Press, 2000), Nan Ellin, Postmodern Urbanism, Revised edition. ed. (New York: Princeton Architectural Press, 1999), Douglas Farr, Sustainable Urbanism: Urban Design with Nature (Hoboken, N.J.: Wiley, 2008), Tigran Haas, New Urbanism and Beyond: Designing Cities for the Future (New York: Rizzoli, 2008), Peter Katz, Vincent Joseph Scully, and Todd W. Bressi, The New Urbanism: Toward an Architecture of Community (New York: McGraw-Hill, 1994), John M. Marzluff, Urban Ecology: An International Perspective on the Interaction between Humans and Nature (New York: Springer, 2008), Rutherford H. Platt and Lincoln Institute of Land Policy., The Humane Metropolis: People and Nature in the 21st-Century City (Amherst: University of Massachusetts Press in association with Lincoln Institute of Land Policy, Cambridge, 2006), Robert Venturi and Museum of Modern Art (New York N.Y.), Complexity and Contradiction in Architecture, ed. York New and Art Museum of Modern, 2d . ed., Papers on Architecture (New York), Boston: Museum of Modern Art ; distributed by New York Graphic Society, 1977), Robert Venturi, Denise Scott Brown, and Steven Izenour, Learning from Las Vegas (Cambridge, Mass.: MIT Press, 1972).

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1 See New Zealand Ministry for the Environment and Urban Design Advisory Group (N.Z.). New Zealand Urban Design Protocol (Wellington, N.Z.: Ministry for the Environment, 2005).

2 J. Douglas Porteous, Environment and Behavior : Planning and Everyday Urban Life (Reading, Mass.: Addison Wesley, 1977), J. Douglas Porteous, Environmental Aesthetics : Ideas, Politics and Planning (London: Routledge, 1996).

3 Timothy Beatley and ebrary Inc., "Green Urbanism Learning from European Cities," (Washington, DC: Island Press, 2000), Andres Duany et al., Andres Duany and Elizabeth Plater-Zyberk: Towns and Town-Making Principles, 2nd . ed. (New York: Rizzoli, 1992), Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck, Suburban Nation: The Rise of Sprawl and the Decline of the American Dream, 1st ed.

live, work, play and die (i.e., their habitats); to do that I am going to reprise a theoretical area that emerged in the 1970s and 1980s under the rubrics of prospect-refuge-hazard (PRH) theory and habitat theory. By way of example I am going to refer to the Christchurch Arts Centre and the recently proposed School of Music design, and attempt to demonstrate how using these concepts assists one to make judgements regarding the design merits of proposed buildings when they are lodged as resource consent applications.

Prospect-refuge-hazard (PRH) or habitat theory

Although a number of landscape architects may be aware of these theories, most in the planning world are not. I think this is true for two reasons. Firstly, the theories have derived from the putatively trans-disciplinary realms of environmental psychology and environmental aesthetics and hence they may seem too abstract or remote from the everyday business of planning. Secondly, frequent associations have been made between habitat theory and ethology, socio-biology and human evolutionary theory, culminating in Edward Wilson's coining of the term 'biophilia' and much writing around a so-called 'Biophilia Hypothesis'. [4] This has worried academics, especially those geographers and sociologists mindful of the regressively deterministic tendencies of the human ecology discipline that appeared in the earlier decades of the twentieth century. Human ecology is still *déclassé* in many liberal institutions. Indeed, it seems fair to say that social (and to a lesser extent cultural) constructionism, while intellectually suspect for many on the grounds of its subjectivity, holds greater sway than 'environmental constructionism', as it were. My argument is that one can use the constructs of habitat theory without having to surrender to biological essentialism.

Prospect-refuge theory was first advanced by geographer Jay Appleton in the mid-1970s in *The Experience of Landscape.* His claim, illustrated principally by way of analysis of European landscape paintings of the past few centuries, is that certain landscapes appeal to human beings because of their representation of elements necessary for human survival at a biological level. That is, the scenes offer opportunities for seeing without being seen or a balance between prospect and refuge.[5] Water plays an important part in the prospect schema because of its centrality to biological survival. That, it has been argued, is why river-front, lake-front and coastal real estate commands such a premium in certain societies. Appleton also introduces the concept of hazard (hence the use of PRH as an abbreviation later in this discussion) to acknowledge the importance of risk in sharpening human survival capability which, he argues, is why we are attracted not only to scenes of safety but also to those indicating danger.[6] One could argue that the alarming statistics for drowning in New Zealand reflect the ambiguous status of water as both resource and hazard: we cannot stay away from it and it often kills us. Appleton sometimes uses the term 'habitat theory' to describe these ideas. [7]

At around the same time that Appleton was formulating this theory others were speculating about the transition of early hominids from densely forested environments to more open savannah.[8] As Appleton later acknowledges, other dimensions, particularly Gibson's notion of 'affordance' (i.e., what a particular scene affords its viewer in potential if not actual terms), enriched this theory.[9] Further reinforcement, according to Appleton, is to be found in the work of Rachel Kaplan and Steven Kaplan, Stephen Bourassa, and Grant Hildebrand.[10] Briefly, the Kaplans contribute the qualities of coherence, complexity, legibility and mystery to the framework of what humans need or prefer in their environments, and 'preference theory' has become closely linked to the Kaplans' work.[11] An environment is preferred when it has enough, but not too much, of these elements. Bourassa puts forward the schema of biological laws, cultural rules and personal strategies as shaping human perception of the environment.[12] Hildebrand, going against the conventional application of prospect-refuge theory to natural landscapes, turns the theory towards the architecture of Frank Lloyd Wright, arguing that what makes his buildings 'work' is their harmony of prospect, refuge and hazard. This is demonstrated best in one of Wright's most famous commissions, 'Falling Water'. [13]

4   Stephen R. Kellert and Edward O. Wilson, The Biophilia Hypothesis (Washington, D.C.: Island Press, 1993).

5   See Jay Appleton, The Experience of Landscape (London, New York,: Wiley, 1975).

6   Jay Appleton, The Experience of Landscape, Rev. ed. (Chichester; New York: Wiley, 1996).

7   Appleton, The Experience of Landscape, Jay Appleton, The Symbolism of Habitat: An Interpretation of Landscape in the Arts, The Jessie and John Danz Lectures (Seattle: University of Washington Press, 1990).

8   Gordon H. Orians and Judith H. Heerwagen, "Evolved Responses to Landscapes," in The Adapted Mind, ed. Jerome H. Barkow, Leda Cosmides, and John Tooby (New York; Oxford: Oxford University Press, 1992).

9   Appleton, 1996, op. cit. p. 239. See James Jerome Gibson, The Ecological Approach to Visual Perception (Boston: Houghton Mifflin, 1979).

10 Appleton, 1996, op. cit. pp. 239-253.

11 Rachel Kaplan and Stephen Kaplan, The Experience of Nature: A Psychological Perspective (Cambridge ; New York: Cambridge University Press, 1989), Rachel Kaplan and Stephen Kaplan, Humanscape : Environments for People (Ann Arbor, Mich.: Ulrich's Books, 1982), Stephen Kaplan and Rachel Kaplan, Cognition and Environment : Functioning in an Uncertain World (Ann Arbor, Mich.: Ulrich's, 1982).

12 Steven C. Bourassa, The Aesthetics of Landscape (London; New York: Belhaven Press, 1991;

13 Grant Hildebrand, The Wright Space: Pattern and Meaning in Frank Lloyd Wright's Houses (Seattle: University of Washington Press, 1991.

Criticisms and missed connections

There has been heated debate about the socio-biological basis to prospect-refuge theory. The principal criticisms are as follows:

- There is no theory as such, merely some speculation about environmental aesthetics based on looking at old oil paintings and watercolours of the English, Dutch or German countryside, or showing students slides or photographs of scenes with varying degrees of wildness or urbanisation and asking them which they prefer.

- There is too much reliance on some of the generalisations that have been made about hominid evolution, particularly the idea that the shift from forests to savannah was a necessary adaptation. This then becomes grounds for explaining why present-day phenomena such as urban parklands are so popular, i.e., they fit with some ancestral niche. For example, Hagley Park is as it is and is so popular with visitors from different parts of the world because it appeals to our instincts.

- In line with controversial claims about human evolution providing evidence of 'inherent' male roles as hunters and women as gatherers, spurious connections are made about continuing male preferences for prospect views and locations and female preferences for refuge spaces and symbolism. Thus, for example, if a man were to visit an open city space in Christchurch such as Hagley Park, he would instinctively have his eyes on game opportunities in the open, in the canopy, or on the river; a visiting woman would look for hollowed out boughs of trees or groves of vegetation handy to a stream.

- Too much attention has been given to 'natural' landscapes, and urban environments are given attention only where they contain 'green' elements.

I think these criticisms are valid. The biology-as-destiny argument is simply too glib. More importantly for planners, the positive dimensions of the 'urban jungle' are not considered in any depth by many PRH proponents. This is regrettable, not least because, although the names and titles are sometimes referenced by PRH researchers, the more direct connections with some of the classic urban design literature of the post-World War II era are not made. For example, in the early 1960s Gordon Cullen's *Townscape* and Kevin Lynch's *The Image of the City* provided compelling and well-illustrated arguments for what works and what doesn't work in urban environments; they were less pre-occupied with notions of authentic nature in cities

or their environmental impoverishment, concentrating instead on what was there.[14] Later, Peter Smith, using psycho-physiological evidence about the structure of the human brain (i.e., hemispheric lateralisation) introduced the concept of a discrete urban grammar or rules of (optimal) communication for urban design in *The Syntax of Cities*.[15] For present purposes, let us consider Cullen's criteria for good design of 'place' and 'content' in his casebook on 'serial vision':

> Place: possession; occupied territory; possession in movement; advantage; viscosity; enclaves; enclosure; focal point; precincts; indoor landscape and outdoor room; outdoor room and enclosure; multiple enclosure; block house; insubstantial space; defining space; looking out of enclosure; thereness; here and there looking into enclosure; pinpointing; truncation; change of level; netting; silhouette; grandiose vista; division of space; handsome gesture; closed vista; deflection; projection and recession; incident; punctuation; narrows; fluctuation; undulation; closure; recession; anticipation; infinity; mystery; the maw; linking and joining; pedestrian ways; continuity; hazards.

> Content: juxtaposition; immediacy; thisness; seeing in detail; secret town; urbanity; intricacy; propriety; bluntness and vigour; entanglement; nostalgia; the white peacock; exposure; intimacy; illusion; metaphor; the tell-tale; animism; noticeable absence; significant objects; building as sculpture; geometry; multiple use; foils; relationship; scale; scale on plan; distortion; trees incorporated; calligraphy; publicity; taming with tact. [16]

Similarly, Lynch has a five-part framework for the 'city image': paths; edges; districts; nodes; landmarks.[17] He argues that these elements are what people use to read their environments, and good urban design acknowledges and works with these basic elements. PRH theory advocates could and should have done more, in my view, to situate the types of elements described by Cullen and Lynch in any Appleton/Kaplan and Kaplan/Gibson-derived prospect-refuge-hazard-affordance-coherence-complexity-legibility-mystery schema or matrix. The only serious attempt to do something of this order that I have encountered in my current research, and it is an intriguing proposition worthy of more scrutiny, is Ke-Tseung Han's reading of the Chinese concept of Feng Shui in choosing sites against PRH theory.[18] It is also worth noting that the literature on designing spaces for people who have been designated as having a certain status (e.g., children, elders, criminals, the ill or infirm) is vast, and there is underlying consensus that sympathetic, adventurous, stimulating and restorative environments are beneficial to these 'classes' of people.

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14 Gordon Cullen, Townscape (London [England]: Architectural Press, 1961), Kevin Lynch, The Image of the City (Cambridge [Mass.]: Technology Press & Harvard University Press, 1960).

15 Peter F. Smith, The Syntax of Cities (London: Hutchinson, 1977).

16 Cullen, op. cit. pp. 17-86.

17 Lynch, op. cit. pp. 46-48.

18 Ke-Tseung Han, "Traditional Chinese Site Selection - Feng Shui: An Evolutionary/Ecological Perspective," Journal of Cultural Geography 19, no. 1 (2001).

Why, then, don't we design public and private spaces for 'ordinary adults' with more care? In my view, too much is left to the notion of private 'tastes,' the professional genius of architects, and the timidity of professional planners and planning educators reluctant to make calls on or help others discern what is good versus bad urban design. In the remainder of this paper I will attempt to illustrate that habitat theory can help us decide between good and bad.

The Christchurch Arts Centre and the resource consent application for the proposed new School of Music for the University of Canterbury

For the uninitiated, the Christchurch Arts Centre is the former site of Canterbury University College. The University began leaving this site for a new, larger location in the suburb of Ilam in the 1960s; the final departure occurred in the mid-1970s, when, ironically, some now say, the School of Music as the last remaining occupant moved out. There was some uncertainty about the future of the largely Gothic Revival complex of buildings, but to cut a long story short and consistent with trends in other Anglo-European cities, a trust was formed, the buildings were 'saved', and an assemblage of uses, including studios and performance spaces for artists, crafts workshops and outlets, residential apartments and other retail premises was built up over time. Suffice it to say that without the Arts Centre there would be no 'cultural precinct' as such in Christchurch, and many tourists would be rather bored during their stay in the inner city. It is a very successful destination and amenity area and the buildings have received the highest order of heritage protection available in New Zealand (i.e., Category I status under the New Zealand Historic Places Trust registration system); although, for better or worse, it has yet to be nominated or listed as a World Heritage site. No major new building work has taken place since the 1960s on the site, but over several years ideas have been mooted about new buildings and development.

In September 2009, and without significant advance consultative discussion in the public domain, a resource consent application to Christchurch City Council (CCC) was lodged jointly by the Arts Centre Trust Board and the University of Canterbury to construct a School of Music Building using loan monies raised by CCC. The proposal was optimistically labelled the National Conservatorium of Music proposal by the applicants and much publicity ensued, both positive and negative, about the funding and design of the building.[19] A decision was released on the 7th of May 2010 by the independent commissioners appointed to hear the application. In their decision it was stated by the commissioners that their primary reason for declining the application was:

> that in considering the collective guidance provided by all of the relevant provisions of the District Plan, informed as it is by the New Zealand Historic Places Trust Guidelines and other assessment criteria, our view is that the proposed building is of too great a scale and too bulky for it to be compatible with the principal policy [regarding] 'the protection of heritage items having regard to their significance.' (CCC Decision RMA 90014850 para.185 pp. 41-42)

The commissioners also said that 'we consider that the consistent overall height of 16m and the continuous building length and width make it visually dominant and detract from the heritage setting of the existing buildings of the Arts Centre' (ibid. Para.186 p. 42).

To many, myself included, this outcome was cause for relief, but it raised concerns about how things had been allowed to progress this far in the first place. A principal criticism was that the project had been introduced as a *fait accompli* by a handful of influential actors, without any competitive design process or non-prejudicial eliciting of public feedback on what they would like to see on *their* site, since the Arts Centre is owned by the citizens of Christchurch. It was true that peer review of the design had been sought by the applicants, including reports from overseas consultants, an urban design panel and assessments by heritage experts associated with the New Zealand Historic Places Trust. However, the design review was not conducted as early and as openly as was warranted given the public interest. To complicate matters, the Mayor of Christchurch had been openly and fully supportive of the application, voicing his dismay in the media at the opposing positions put forward. There was a high degree of confidence amongst the project's supporters that the consent would be approved subject to some cosmetic alterations to the exterior design, and it came as something of a shock to the proponents when the decision was announced.

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19 For the positive view see: http://www.music.canterbury.ac.nz/conservatorium/building.shtml.
   For images of the proposed building see: http://www.music.canterbury.ac.nz/conservatorium/building/.
   For the main opposition group see http://www.soac.org.nz/.

Leaving aside matters of public process, the central issue was, as the commissioners pointed out, whether the design suited the site; ultimately the commissioners thought it did not. The commissioners did not explicitly state that they found the design ugly, ill-conceived, or "inappropriate", which in the present day is often a euphemism for bad. They focused instead on bulk, scale and shape. One could argue that by simply down-scaling the size of the structure and resubmitting the design the applicants would have gained approval. However, the decision was not appealed, nor has a revised plan been lodged for this site. [20]

In my view it was tacitly accepted that the design was, after all, inappropriate. But I think it would have saved much time and effort all round if a more critical evaluation of the design had been built into the process at an earlier stage, whether in the public domain or by way of some general criteria that planning officers, consultants and advisers could have applied. This would have allowed us to ask how the new building's putatively 'late modernist' style, as architect Sir Miles Warren described it his design statement, succeeded or not, both on its own terms and in the context of what is already present on the site. I think such an exercise would have revealed that in the case of the former question (i.e., was the new design a good example of late modernism?) the judgement would have been that it was fundamentally rather mediocre, and that its form would be unattractive in any location. However, for the present exercise the virtues of the new design are less important than the setting in which it was meant to fit, and this is where PRH theory can assist planning practice by illustrating why the old Arts Centre works at an experiential level in a way that has little to do with arguments about high architectural style. I believe that it is also worth the effort to pass the Arts Centre site through these cognitive 'filters' to see whether it is useful in an ostensibly artificial environment. To put it another way, if the theory is to work at all it should still be applicable to the relative micro-level of a complex of built structures or even an individual structure, not just landscapes.

How, then, does the Arts Centre fare?

Using a combination of Appleton's categories and those derived by Kaplan and Kaplan, the following filters can be used: prospect, refuge, hazard, mystery, coherence, complexity, and legibility.[21] Addressing each filter in turn:

Prospect: tall outlook points are contained in many of the buildings. For example: the clock tower, several spires and other towers, the aptly named observatory, balconies, dormers; the metaphysical religious higher view is embodied in the stained glass window of the Great Hall. The construction of many of the walls is such that nimble individuals can scale the vertical surfaces unassisted (i.e., use them as climbing walls).

Refuge: these are numerous: alcoves, recesses, doorways, archways, towers, fire escapes, visible stairways, alcoves, basements, escape routes through to Hagley Park and the trees therein; even the occasional trees on the Arts Centre site itself.

Hazards: there are many potential dangers on the site: one can get bruises and cuts from accidental close contact with rough stonework; pieces of masonry and stone or roof slates may fall from the aging structure; many features do not comply with recent Health and Safety codes and people could fall from a parapet, balcony or tower; people with malign intent might jump out of dark corners and recesses in the building fabric at night; the car park and the surrounding car-parking attracts thieves who may break into cars and threaten visitors and residents (N.B., the proximity of the Central Police Station has not stopped the area from being a prime car break-in and theft 'precinct').

Mystery: There are many intriguing features in most buildings: internal ascents and descents are suggested by windows on the exterior; archways, stairways and doorways are plentiful; there are aerial bridges or walks that do not seem to go anywhere; there are single turrets in odd locations; there is an evocation of gothic romanticism.

Coherence: The overall style is Gothic Revival and the complex appears to be made largely of stone. With few exceptions the buildings appear to belong together and evoke a clear sense of the past.

Complexity: There are innumerable geometric shapes: rectangles, squares, triangles, cones, domes; and architectural shapes such as elliptical arches and pointed arch windows.

Legibility: Although one can get lost in a particular corner or cell of the complex, one can always return to an orientation point and the site is not so large as to be able to stay lost for long. I call this the (M. C.) 'Escher effect' in connection with that artist's subtle shift of detail in his drawings to move one into a different location almost imperceptibly whilst retaining a defined border. The buildings do not overshadow pedestrians. Able-bodied people can reach the upper floors of buildings with ease and entranceways are clearly demarcated.

Conclusion

It is abundantly clear that people enjoy inhabiting the Christchurch Arts Centre and I hope that the readers will have the opportunity to test the theoretical tenets I have described against their own experience either at this site or one similar. Most visitors to the Arts Centre spend a great amount of time simply wandering about taking in the environment around them, which, on the face of it, doesn't seem to have much to do

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20 Christchurch Mayor Bob Parker has indicated in the media (Christchurch Press 21/7/2010) that talks are taking place with landowners and interested parties to find a new inner city location for the project but he has refused to give details. Source http://www.stuff.co.nz/the-press/news/christchurch/3938491/Possible-site-for-music-school-found. Retrieved 22 July 2010.

21 One could also assemble an evaluative list based on the headings used by Cullen and Lynch or synthesise further using other authors and sources, particularly those that could provide aspects of gender, ethnicity, demography, lifestyle, health and other considerations.

with nature. However, it is a preferred environment because the physical elements enable a person to connect with the more unconscious needs outlined above. I do not believe that the proposed School of Music's design offered a comparable experience. The design was not sufficiently complex, coherent or mysterious and whatever its virtues may have been internally as an environment, from the outside it was simply a bulky and uninviting container with which one struggled to engage.

My main intent, however, has been to suggest that we need a return to, if not habitat or prospect-refuge-hazard theory, then to urban design theory and planning approaches that are not focused purely on process and polite statements about good practice. As mentioned in the introduction, there have been significant urban design movements and practices over the past thirty years, but they have yet to be better integrated, in other words 'theorised'. We need to be more forthright in evaluating designs on aesthetic rather than on crude structural safety, personal health and safety, or negatively-framed disamenity (e.g., nuisance) grounds. Prospect-refuge-hazard theory is imperfect, not least because it privileges the visual sense, and, as I hope the reader will be able to confirm, good designs are irresistibly tactile and stimulating in other sensory modes. However, it can assist us in identifying what works for humans at experiential and phenomenological levels and in my view should apply equally to the home, street, neighbourhood, district, workplace, playplace, region and other spatial units. We should be educating planners to maximise the yields across the private/public and urban/rural domains and we should always be reminding our citizens that what they inhabit is a habitat and not just a backdrop or shell for their lives.

This article is based on a conference paper presented the annual meeting of the Australian and New Zealand Association of Planning Schools in Christchurch, 17-19 April, 2010.

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