

Urban morphology and urban design

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There has recently been a flurry of discussion in this journal about the relationship between urban morphological research and practice (Hall, 2008; Samuels, 2008; Whitehand, 2007). As a practising architect and planner, I have frequently applied the concepts of typology and morphology in my design work. I have used neighbourhood morphology to develop a successful architectural *parti* that married a new type to an older pattern: I have used the morphological narrative of a dying small downtown to develop its urban plans and guidelines for its recovery (Scheer and Scheer, 1998). I have re-scaled old patterns for new uses, to draw a cultural line from the past into a new, progressive future. I have identified critical urban design issues, and thus solutions, that could only be revealed through a close reading of a region's morphology. So why does the translation of morphological ideas to practice seem so treacherous?

Until the whole movement degenerated into a thematic cut and paste routine, many architectural theorists explored notions of typology and urban form as a pointed response to the universality of modernism (Krier, 1982; Moneo, 1978). Anthony

Vidler (1977) went so far as to propose that the city (its building types, its customary form and meaning) is the *third typology*, by which he meant that designers could use the city as an autonomous reference (instead of *nature* or *machine*, which were Vidler's first two references). Ultimately discredited by association with post modernism's historical pastiche, remnants of these ideas surface everywhere in architecture, frequently as a rich form of contextualism that is more whispered than proclaimed (Goode, 1992).

Urban morphology, as a source for urban design, suffers from the same unpopularity and misreading among architectural critics. Its association with small-scale, traditional urban environments (townscape and New Urbanism) has made it suspect for applications in respected, high image architecture. World architecture glorifies large, multi-user, complex urban projects: it is an urbanism of slickness, sculptural shape and show-off design, symbolic of large corporations and overriding control, totally conflicting with the old-fashioned regulating plans, lots, blocks, and small typologies now associated with morphology. As Ivor Samuels

(2008) points out, this architecture and urban design is more likely to be judged and driven by sustainability paradigms, although of the 'green gadgetry' type. Morphology's legitimate green strategies of conservation, adaptability and 'loose fit' are less in vogue.

Only in small-scale contexts has urban morphology made inroads in urban design. In the US, this has surfaced primarily in the revolution in planning known as form-based codes (FBC). These codes are intended to supplant or supplement traditional land-use restrictive zoning (Walters (2007) provides a lucid and intelligent background). The methodology, promoted by New Urbanists, bases the development of codes on formulaic analyses of existing or desired urban form, public space and some architectural elements (see Parolek *et al.* (2008) for the official handbook). While some of the language of typomorphology is used in the analytical formulae (types, lots, blocks), the rigid FBC methodologists seem unaware of the key theories and ideas that could deepen their understanding of this enterprise. Two examples will suffice: the idea of *resolution* has eluded FBC analysis, with all the coding focused on the neighbourhood scale or on the particulars of street design and house front (what we might call the tissue level) and none on the region or city scale.

The other aspect that the FBC method misses, which is key to urban design, is the historical evolution of places over time. The understanding of urban change and evolution, and the conceptual framework for designing for change, are without doubt the most powerful legacies of urban morphology. The cultural and social context that can be read in the evolution of the historical fabric eludes these designers. Their static analysis leads to a static vision. To be fair, most urban designers are stuck in this 'master planner' mode. In FBC methods, this problem is slightly eased because the code assumes further building over time, and offers a regulating plan that might control change. How much more elegant such plans would be if they went a few steps further to demonstrate the continuity of change from deep past to unpredictable future.

The literature of New Urbanists rarely recognizes recent precedent outside the writings of the acolytes of the movement itself; a bad habit to be sure. So the basic and foundational urban morphological concepts are not drawn upon as such: form-based code prescriptive methods seemingly have been almost independently derived rather than benefiting from urban morphology's depth and theory.

As in most applications of morphology for urban design, form-based codes are directed at residential scales and small supporting commercial and institutional uses. These are satisfying scales for the application to lots, blocks and types, but problematic in their very limited applicability to most of the American urban landscape. The New Urbanists' realistic goal is to apply these codes to about 5 per cent of the developed city, leaving the vast areas driven by larger-scale forces – shopping malls, municipal centres, theme parks, airports, large open spaces, highways, large-lot housing subdivisions, industrial parks – untouched by coding, and thus by urban design based on morphology.

Urban morphologists themselves have been much preoccupied with the scale of townscape and traditional or historic urban form, with very few researchers and practitioners exploring the much more problematic scale of the contemporary, expanded metropolitan landscape. This is a huge opportunity, as research in these large-scale areas by American morphologists suggests that seemingly formless spaces can also yield to a useful morphological reading (see, for example, Moudon and Hess, 2000; Scheer and Petkov, 1998; Stanilov and Scheer, 2004; Tatom, 2006). The work of the landscape urbanists (Waldheim, 2006) suggests a tantalizing connection to be made for designers concerned with the process of urbanization and change at scales larger than the residential neighbourhood. There is much work to be done to bring the methods of typomorphology to bear on metropolitan-scale problems.

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