courses recognized by the Royal Institute of British Architects and 29 recognized by the Royal Town Planning Institute. To ascertain the presence of urban morphology material in those courses attempts were made to penetrate their websites beyond the self-laudatory material claiming how good the courses are. This has so far failed to give anything like the same amount of information as is easily available on the *design4planning* website or the remarkable amount of available Spanish course material (Ruiz-Apilánez *et al*., 2015). Only 10 per cent of the planning courses give any references. It may be that it is a question of commercial confidentiality as the academy becomes more dominated by a managerial ethos. Napoleon is reputed to have said that England was a nation of shopkeepers – perhaps it still is.

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A 'resilient' urban morphology: TRUST

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Over the last 25 years, urban form in South Africa has undergone significant change associated with rapid urban migration, urban poverty, informality and resource scarcity, as well as new social, economic and political systems. In this environment, inherited urban form has been significant in the resilience of South African cities, with new development often continuing established patterns.

The types of challenges that have emerged are, of course, not limited to Southern Africa. Cities more widely are experiencing unprecedented socio-economic pressures in an increasingly inflexible global system, and these are coupled with increasingly critical responses to environmental pressures such as climate change. Tackling the complexity of the challenges requires a socio-ecological-systems view in which the city is seen as a living system composed of interdependent morphological, ecological and socio-cultural processes and structures, the interactions of which affect urban resilience, allowing cities to persist over time. The Think Tank on Resilient Urban Systems in Transition (TRUST) is much concerned with this perspective (http://trustsa.weebly.com). It investigates how thinking about urban resilience can enable urban systems to endure and thrive beyond the challenges that the world is currently facing.

Those of us in TRUST see urban form as a major factor in urban resilience. We concur with Salat and Bourdic (2012, p. 65) that urban resilience can be understood as the robustness of urban structures and networks in the face of random failures. These failures can occur as small- or large-scale disruptions. Their occurrence is greatly influenced by the form of cities (Nel and Landman, 2015).

Achieving urban resilience, and the consequent evolution and survival of cities, requires understanding how urban form can accommodate adaptation through incremental changes that facilitate transformation and diversity. Urban form aids (and hinders) urban resilience in several ways. First, it facilitates the creation of those complex environments that tend to be more successful

(Alexander, 1966; Nel and Landman, 2015; Salat and Bourdic, 2012). Secondly, resilient cities are well connected, with a diversity of routes and transport networks, thereby offering options in the case of system failure (Bourdic *et al*., 2012). Not least, resilient cities have diverse functions and uses that are distributed across the city at varying densities and distances from each other within modular networks.

In this way a complex order is created through the evolution of small-scale elements that in turn influence higher scales (Salat, 2011, pp. 57-8). These adaptations cannot be satisfactorily implemented at a single scale. Rather, they form part of a hierarchical continuum of interacting systems (for example, metropolis, neighbourhood and street) that adapt at different rates and require a variety of approaches to facilitate improved resilience. Only in cross-scale hierarchical structures of flow networks can local perturbations be limited and optimal efficiency and resilience achieved (Salat and Bourdic, 2012, p. 65).

A shift in paradigm is required to change current urban form in accord with a more inclusive perspective that recognizes that social values may give rise to cities that are not spatially resilient and that urban form can reduce social resilience. Is it possible then to transform social values by changing urban form? Could a more resilient urban form result in more resilient societies? These are the kinds of questions that TRUST is exploring in order to engage with the increasingly complex realm of urban development in an increasingly uncertain world.

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Urban morphology and daylight

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Adaptations of urban form to daylight rarely receive much more than passing mention in the academic literature of urban morphology. Yet their importance in the design of urban form has long been acknowledged. It has tended to be most evident, and received most attention among urban morphologists, where the concern has been with the agents and agencies responsible for urban form. Daylight was significant, implicitly and explicitly, in two prominent fashions underpinning twentieth-century urban form – the garden-suburb movement and the modern movement – though the ways in which this was manifested in the landscape were very different. However, there is perhaps space in this journal to underline a more technical aspect of daylight in the context of applied urban morphology within planning.

Today most architects have software programs that within seconds give the desired information on sunshine and shadows during the year. But that is, unfortunately, not a guarantee of better results. There tends to be a large amount of such information relating to major projects, but the requirement for higher buildings that are grouped in a denser way hampers the outcomes. In the UK, the report on *Site layout planning for daylight and sunlight* (Littlefair, 2011) is of major significance for planning. And a recently published report by Rode *et al*. (2014) shows how important the energy aspect is today. In the Nordic countries, daylight is