

America and Europe, to put the project into a broad contemporary perspective. Several other regions have been identified, in Japan, China and Brazil, taking advantage of existing collaborations with local researchers.

The project and discussions emanating from it among researchers and practitioners will provide the basis for both enriching and shaping the public debate on the impact of towers and tall buildings on the urban landscape.

References

- Attoe, W. (1981) *Skylines: understanding and molding urban silhouettes* (Wiley, Chichester).
- Appert, M. (2008) 'Ville globale versus ville patrimoniale? Des tensions entre libéralisation de la skyline de Londres et préservation des monuments et vues historiques', *Revue de Géographie de l'Est* 48 (1-2) (<http://rge.revues.org/index1154.htm>) accessed 10 January 2014.
- Appert, M. (2011) 'Skyline policy: the Shard and London's high-rise debate', *Metropolitiques* (<http://www.metropolitiques.eu/Skyline-policy-the-Shard-and.html>) accessed 10 January 2014.
- Ayoub, L. (2009) 'Public air space: planning and accessing tall buildings in London', in Naik, D. and Oldfield, T. (eds) *Critical cities: ideas, knowledge and agitation from emerging urbanists* vol 1 (Myrdle Press, London) 88-97.
- Charney, I. (2007) 'The politics of design: architecture, tall buildings and the skyline of central London', *Area* 39, 195-205.
- Conzen, M. P. (2013) 'Substance, method and meaning in urban morphology', *Urban Morphology* 17, 132-4.
- Debarbieux, B. (2007) 'Actualité politique du paysage', *Revue de Géographie Alpine* 4, 101-13
- Dixon, M. (2010) 'Gazprom versus the skyline: spatial displacement and social contention in St Petersburg', *International Journal of Urban and Regional Research* 34, 35-54.
- Kaika, M. (2010) 'Architecture and crisis: re-inventing the icon, re-imag(in)ing London and re-branding the city', *Transactions of the Institute of British Geographers* 35, 453-74.
- Kostof, S. (1991) *The city shaped: urban patterns and meanings through history* (Thames and Hudson, London).
- Lefebvre, H. (1968) *Le droit à la ville* (Anthropos, Paris).
- Le Lay, Y.-F., Piégay, H., Gregory, K., Chin, A., Dolédec, S., Elosegí, A., Mutz, B. W. and Zawiejska, J. (2008) 'Variations in cross-cultural perception of riverscapes in relation to in-channel wood', *Transactions of the Institute of British Geographers* 33, 268-87.
- McNeill, D. (2002) 'The mayor and the world city skyline: London's tall building debate', *International Planning Studies* 7, 325-34.
- McNeill, D. (2005) 'Skyscraper geography', *Progress in Human Geography* 29, 41-55.
- Short, M. (2004) 'Regulating the impact of proposals for new tall buildings on the built heritage', *Planning History* 26 (3), 3-10.
- Sklair, L. (2005) 'The transnational capitalist class and contemporary architecture in globalizing cities', *International Journal of Urban and Regional Research* 29, 485-500.
- Stamps, A., Nasar J.L. and Hanyu, K. (2005) 'Using pre-construction validation to regulate urban skylines', *Journal of the American Planning Association* 71, 73-91.
- Swingedouw, E. and Kaika, M. (2005) 'La production de modernités urbaines 'locales': explorant les failles dans le miroir', *Géographie, Economie, Sociétés* 2 (7), 155-76.
- Whitehand, J. W. R. (2013) 'Urban morphological research and practice', *Urban Morphology* 17, 3-4.
- Zacharias, J. (1999) 'Preferences for view corridors through the urban environment', *Landscape and Urban Planning* 43, 217-25.

Manuals for urban morphological education

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The debate on urban morphological education is regaining interest. Within ISUF this has been evident in a recent viewpoint in this journal (Oliveira, 2012), a number of papers presented at the conference in Delft (Larkham, 2012; Marat-

Mendes *et al.*, 2012; Slater, 2012) and the report of the Task Force on the relation between urban morphological research and planning practice (Samuels, 2012). In addition, the organizing committee of ISUF 2014 has already announced

that the Porto conference will include a number of sessions on 'Teaching urban form'.

Surprisingly, there are not many books on urban morphology offering students an introduction to the different morphological approaches, theories, concepts, methods and techniques (for an exception, see Allain, 2004). A manual is needed to support the study of urban form in higher education. Seven fundamental contents are suggested.

First, it is necessary to include an introduction to the main components of urban form: urban tissue, streets and street blocks, plots and plot series, buildings, rooms or spaces, structures (such as walls and roofs), and materials. This need arises in part because the education of students tends to promote disciplinary perspectives (architectural, geographical and planning), emphasizing particular elements of the urban landscape rather than integrated approaches. For example, the education of architects focuses almost exclusively on buildings. Furthermore, it is usually centred, not on the production of the ordinary buildings in which most people live, but on the design and construction of exceptional objects of architecture.

Secondly, a manual should offer insight into the main agents and processes responsible for the transformation of urban landscapes. Students must be able to understand not only the physical form of the city but also how politicians, planners, property owners, architects and developers act on and transform it. Both 'public' and 'private' activities must be covered.

Thirdly, an outline should be provided of the long-term evolution of the physical form of cities. This should include consideration of the various elements of urban form in different historical periods, and how each of these has changed over time.

Fourthly, there should be descriptions and explanations of both inherited and emerging types of urban forms, including not only Euro-America but also Asia, South America and Africa. Considerations of different parts of the world should be linked to wider frameworks of thinking.

Fifthly, attention should be given to how urban morphologists describe, explain and prescribe urban form. This would include a review of the main approaches to the study of urban form. Here there would be introductions to the classics in urban morphology; the main morphological approaches that exist – from the Conzenian school to the Muratorian school, from space syntax to spatial

analysis (including cellular automata, agent-based models and fractals) and shape grammars; and, not least, examples of comparative studies.

Sixthly, the link should be explored between, on the one hand, morphological description and explanation, and on the other the prescription of urban forms. Evidence should be provided on the incorporation of morphological concepts and methods in planning proposals and on the effective results on the ground of morphologically-based professional practice. There should be an explanation of what is a successful application of urban morphological research in practice, and what criteria and what measurements can be used to judge success. Especially in this regard, education is crucial in raising the level of understanding and application of urban morphology in a range of professions (Samuels, 2012).

Finally, the manual should identify and characterize the most relevant contributions of urban morphology to a wider knowledge of contemporary cities and societies. This process of building bridges towards an effective multi-disciplinarity should embrace the social, economic and environmental dimensions of the city.

References

- Allain, R. (2004) *Morphologie urbaine: géographie, aménagement et architecture de la ville* (Armand Colin, Paris).
- Larkham, P. J. (2012) 'Urban form: teaching, learning and resources', unpublished paper presented to the Nineteenth International Seminar on Urban Form, Delft, October.
- Oliveira, V. (2012) 'Urban morphology in higher education', *Urban Morphology* 16, 169-71.
- Marat-Mendes, T., Cabrita, A. and Oliveira, V. (2012) 'Teaching urban form in Portugal', unpublished paper presented to the Nineteenth International Seminar on Urban Form, Delft, October.
- Samuels, I. (2012) 'Towards an operational urban morphology: moving urban morphology from the academy to the studio', unpublished report of the ISUF task force on strengthening the connections between urban morphological research and planning practice.
- Slater, T. R. (2012) 'Introducing urban morphology to large undergraduate classes through project-based teaching', unpublished paper presented to the Nineteenth International Seminar on Urban Form, Delft, October.