The Journal of Space Syntax

Editorial
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Welcome to the Spring/Summer Issue of The Journal of Space Syntax. This issue marks a change in the editorial leadership of the journal, which was established by Julienne Hanson (UCL), the co-originator with Bill Hillier of space syntax, an influential theory and computer-based programme for the analysis of building layouts and urban places. Following her retirement in September 2010, Julienne stepped down from the position of editor in April 2011. Subsequently, the editorial leadership of the journal is taken over by a team of academics at UCL and members of the international space syntax community: Dr Kayvan Karimi, Dr Kerstin Sailer, Professor Laura Vaughan, and myself. It is a pleasure to take this role continuing the work started by Julienne, and building on the momentum the journal achieved under her direction.

Julienne significantly shaped the conception and development of space syntax through her book 'Decoding Homes and Houses' (1999), the 'Social Logic of Space' (1984), which she co-authored with Bill Hillier, and numerous papers and articles. She taught for over thirty-five years on the MSc course in Advanced Architectural Studies, a stimulating programme associated with this pioneering approach to architectural and urban morphology, educating hundreds of undergraduate, graduate and doctoral students. Her research has focused on a wide range of subjects: from the domestic interior as a manifestation of culture, to innovative houses designed by architects; from diverse lifestyles to housing for the needs of the elderly people; from urban sustainability to the morphological history of cities and places; from architectural pedagogy to the contribution of architectural knowledge to ethical frameworks in design practice; and from the cultural affordances of space as we encounter it in everyday life to the symbolic meaning of space in art and myth as expressed in 19th century novels. Julienne's scope for the journal was to be 'inclusive and multi-scalar, ranging in its subject matter from the spatial structure of regions, landscapes and settlement patterns, to cities and towns, the planning and organisation of building complexes, complex buildings and housing, including the design of individual dwellings, as well as articles on the perception, cognition and experience of space and self-organising and emergent processes in cities, buildings and societies' (JOSS, 2010, editorial: volume 1, issue 1, p. v). Her vision for JOSS was to reach every member of the community, and beyond that allied fields and cognate disciplines. The purpose of the journal is to nourish this vision,
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bringing to its readers front-end research on diverse issues, and welcoming wide contributions from inside and outside the area. The latter is crucial in order to embrace inter-disciplinary knowledge required for architecture and space syntax to sustain a timely relevance to the contemporary world’s challenges, such as sustainable urbanism, social inclusion and exclusion, informal settlements, environmental responsiveness, the fragmentation of our urban fabric, the isolated icon building, and a user-centred approach to design innovation - none of which can be resolved within a single discipline and from a single perspective.

With this intention, this issue builds on the capacity of configurational studies to contribute to the analysis of buildings and urban systems on the one hand, and sustain concerns ranging from theoretical ideas to methodological developments on the other. The five papers published here cover subjects on three building types (multi-storey garages, museums, trading spaces in financial exchanges and financial firms), on an urban system (a university campus), and on a theoretical exploration of the dimension of temporality in the theory of spatial configuration. Starting with the research section of this issue, we are honoured to publish Phil Steadman's paper 'Evolution of a Building Type: the case of the multi-storey garage'. Addressing a type that is not often discussed in architectural theory, history and architectural morphology, Steadman explores how this type evolved from the 1920s to the 1960s, as performance factors imposed constraints supporting the survival of certain typologies or the 'extinction' of others. He next focuses on the generation and evaluation of theoretical alternatives for fourteen self-parking ramp garage arrangements. His paper is strongly relevant to space syntax using justified gamma maps that take into account metric distances, branching routes and graph distance patterns. Working on morphological possibility to capture constraints in a large range of built forms imposed by geometrical necessity and some generic elements of function, Steadman's work comes close to Bill Hillier's ideas on the generic characteristics shared across building types. Buildings may vary in shape, size and appearance, but they all share requirements for functionality such as channeling movement through their spaces, and providing for intelligibility and occupation. By focusing on two interrelated issues, first, how generic function related to lighting, ventilation and circulation impact on building shape by the laws of geometry and topology, and second, the history of building types, Steadman's account alerts us to the importance of expanding the study of building typology from space to geometrical form, and from the synchronic analysis of configurations to what he calls the 'cultural evolution' of artifacts (acknowledging the role of designers in this process). At a time of increasing demands for adaptable and environmentally responsive buildings, the combined study of building morphology with the history of constraints that have limited the field of possible forms can identify how 'new designs may be evolved from old ones; or quite unprecedented novelty may be introduced overnight', or 'extinct types of building can come back from the dead' (see Steadman in this issue: p.22). In some cases constraints imposed at certain times are removed later, but the restrictions they enforced survive and become norms limiting architectural inventiveness. In other cases, new constraints can revive old types and forms requiring knowledge of past typologies. The evolutionary understanding of 'ebb and flows' of necessity can open design options available to
architects that synchronic descriptions have difficulty to uncover. We would like to warmly thank Phil for submitting this paper, stimulating thought that can lead to new pathways of research for the field and the journal.

The other two papers in the research section of this issue address subjects that are at the core of complex buildings research and morphological analysis. Kali Tzortzi’s paper analyses the National Museum of Modern Art in the Pompidou Centre, Paris, Tate Modern, London, the National Archeological Museum and the new Acropolis Museum in Athens looking at the relation of spatial design to the displays, how this relation structures visitors’ experience in these buildings and their spatial, social and intellectual culture. Tzortzi revisits Basil Bernstein’s ideas of ‘classification’ concerning the strength of knowledge boundaries, and ‘framing’ referring to the control of the educator over the transmission of knowledge (1975). A number of syntactic studies in museums and galleries have translated classification to the strength of physical boundaries in the interaction among contents, and framing to the strength of the structure of movement connecting the spaces created by boundaries. Applying these concepts to both spatial relations and museological discourse, Tzortzi’s paper highlights the power of space in strengthening or weakening the classification and framing of educational narratives, communicating ritualistic messages to visitors, or involving them obliquely in the co-authorship of cultural meaning. The parallels between museological ideas and space syntax concepts she explores in this work enrich understanding of the contribution of our field to museology.

Pe-Ru Tsen's paper explores the trading spaces of traditional exchange buildings, where communication takes place face-to-face, and the trading rooms in modern financial firms where people interact through electronically mediated communication. As she suggests, most research on these building types is conducted in the social, economic and anthropological fields, while the studies that refer to the spatial dimensions of trading spaces do not generally provide an exploration of their architectural design in detail. Examining a variety of typologies of trading rooms, through their spatial configuration, technological set-up, user surveys and interviews, she shows that the rise of information technology has strengthened the need to address both spatially and digitally generated communication in these places. Tsen does not use syntactic tools in her study, but this very fact refreshingly foregrounds the social dimensions embodied in the shape of rooms, the ways in which the subdivisions made by partitions, columns and screens afford different patterns of co-visibility, co-presence and interaction, and the fact that architectural thinking is deeply and intuitively configurational. For those interested in the intersection of configurational analysis with social networks, and organisational studies her paper opens up possibilities for future research in this typology of work place.

The theory section in this issue comprises Sam Griffiths' paper 'Temporality in Hillier and Hanson's Theory of Spatial Description: some implications for historical research for space syntax'. Griffiths focuses on the interdisciplinary translation of historical research in the space syntax mode, arguing for the importance of time-space descriptions as a necessary extension of Hillier and Hanson's theory. He suggests that whilst the notion of time is present in Hillier and Hanson's ideas of ‘inverted
genotype' and 'description retrieval', temporality in the configurational approach has been suppressed by the synchronic mode of analysis. We may find parallels between Steadman’s research on the ‘evolution’ of built forms and Griffith’s ideas on time-space descriptions that capture ‘processes of mutation, adaptation and disappearance’ (see Griffiths in this issue: p.77). There are, of course, strong differences between the two authors. Steadman explores how constraints in the transformations of buildings over time restrict possibility, while Griffiths looks at how syntactic morphological descriptions should ‘be translated into a discourse that is meaningful in terms of the historical narrative’ (see Griffiths in this issue: p.93). For Steadman, the combination of a-temporal and time-based descriptions implies an idea of knowledge that whilst diachronically shifting, is rooted in the laws that limit architectural possibility. Griffiths, on the other hand, is interested in those laws that give rise to individual differences in urban systems at different periods. These two viewpoints, one by an architectural morphologist and the other by a historian, point to the limitations of descriptions that are purely synchronic. Instead, they propose a balance between a-temporal invariant structures and those that shift with time. Interestingly, Stephen Read’s contribution to JOSS Forum also highlights the importance of ‘recognising historical formations, their changes and re-articulations in subsequent transformations’ (see Read in this issue: p.123). We hope and expect these contributions to provoke wide debate.

The section on methodological approaches consists of Paul Osmond’s paper ‘The Convex Space as the “Atom” of Urban Analysis’. Using ‘convex decomposition’ in the Kensington Campus in University of New South Wales (USU) as an additional analytical framework to convex analysis, Osmond explores aspects of urban ambience, also applying point isovists and measuring the fractal dimension of skylines and surrounding surfaces based on hemispherical photographs. His study tests the idea that the convex space can serve as a viable ‘urban structural unit’ for comparative evaluation of a variety of significant properties, such as diversity, permeability, legibility, etc. Configurational analysis prioritises the relationship between global and local properties of space in terms of how people move in a layout, find their way, and become aware of each other’s presence. Osmond shows that local-scale patterns may also play a role in the ways in which users that know a site exploit its affordances in their patterns of use and socialization. Measuring diversity of point isovists, skylines and fields of vision, this paper is relevant to those interested in the development of methods to account for those characteristics of environments that are directly available to perception.

Stephen Read, an eminent member of the space syntax community in the area of urban form, urban transformation and design has contributed to the JOSS Forum. His piece addresses Mike Batty’s challenge to space syntax (published in JOSS, 2010, volume 1, number 1) in relation to networks, flows and geometry of cities arguing that space syntax is a project that is ‘empirically-driven’. It deals with artifacts, and takes its lead not from ‘Euclidean geometry or the principle of the decay of some effect with distance, but from practical and man-made systems’ (see Read in this issue: p.122).
Finally, the Book Reviews section of the journal includes Sean Hanna's review of 'Mathematical Analysis of Urban Spatial Networks' by Philippe Blanchard and Dimitri Volchenkov (2008), and Ashley Dhanani's review of 'Cities Design and Evolution' by Stephen Marshall (2009).

We would like to take this opportunity to thank Julienne for establishing JOSS with the intention to inform the community of the most current research in our field and open it to wide audiences; our editorial board and our readers for their continuing support during the first year of the journal's life; and Reem Zako, the editorial manager of JOSS, for ensuring that the production was delivered to a consistently high standard. Reem is now stepping down from this role to be succeeded by Rosie Haslem, a recent graduate of the AAS course, who will be based in Space Syntax Limited from October 2011.

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