Open syntaxes forum


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Space syntax, as a field of research in architecture and urbanism, started with the basic principle of understanding the built environment as a configurational spatio-social, or socio-spatial constitution. Bill Hillier and Adrian Leman called this constitution the “man-environment” paradigm (Hillier and Leaman, 1973). Albeit built on an extremely commonsensical concept, the resulting field of research did not initially establish itself as a mainstream field. This approach evolved to become an analytical morpho-spatial approach, involving methods and techniques of investigating the relationship between the spatial structures and human behaviour or social interactions. The term ‘space syntax’ in the mid-1980s was used as an umbrella name rather than a precisely defined field, to distinguish this approach from the other approaches, creating a somewhat ‘niche’ research field.

In the mid-1990s, the field, which was experimenting with its potentials, realised that it could expand beyond what it had been originally envisaged to be. In my view, the 1st Space Syntax Symposium in 1997 was perhaps the earliest and most extended exhibition for this emerging expansion. Apart from a wide range of morpho-analytical studies of buildings and cities, there was a clear indication that researchers from fields such as archaeology had started using space syntax seriously in their work. The variety of conference themes and papers presented was an indicator of a shifting paradigm: moving from a spatial theory of society to a widely used, comprehensive methodology for understanding and resolving the complexities of the built environment. In the following symposia, this paradigm shift continued vigorously. Each symposium pushed the boundaries further and new themes or new approaches were introduced.

Space syntax research evolved to span studies of very small to very large spatial systems, and from the most theoretically oriented discussions to the most applied use of analytical methodologies.

In my view, the 10th Space Syntax Symposium in London, 2015, was a highpoint for the recurrent paradigm shift of the research field. Eighteen years after the first conference, the symposium was a mature and confident gathering of various generations of researchers from more than 50 countries across the world. The high volume of over 150 papers and the diversity of topics were eye-catching, with themes that included Housing and Homes, Architecture and Complex Buildings, Urban Morphology and History, Urban Studies, Transport and Mobility, Land Use Studies, Urban Economies, Spatial and Social Justice, Environmental and Spatial Cognition, Space and Society, and Methodological Developments. Even within each of these themes, sub-themes and various orientations were recognisable, confirming the point that the field is expanding and is trying to reach other disciplines, whilst consolidating its traditional territories.

Some of the new directions, such as strategic and large-scale planning, urban economies and transport studies are more recent attempts to use configurational analysis of spatial networks to bridge between disciplines that previously have not been closely associated with space syntax research. Papers dealing with topics such as environmental hazards (Cutini and Di Pinto, 2015), flood risks (Esposito and Di Pinto, 2015), urban shrinkages (Krenz, 2015), cycling (Conroy Dalton and Dalton, 2015), BIM (Al_Sayed et al., 2015), housing submarkets (Law et al., 2015), and big data (Yang, 2015) were among a myriad of recent
and new topics to which space syntax researchers turned their attention. What was most impressive about these papers was not just that they had tried to deal with new and current issues. More importantly, the quality and depth of research, as well as the ability of the papers to communicate with other disciplines demonstrated that this is no longer a niche area of research: the field is shifting to become the mainstream.

Also evident in the more traditional types of space syntax research was the maturity and consolidation demonstrated in the work presented by researchers. For instance, more than 10 papers under the theme of Spatial Cognition, 26 papers under Architecture and Complex Buildings, and 15 papers under Social and Spatial Justice investigated many facets of the topics, pushing the boundaries of research further and building bridges with wider spatial, cognitive and social issues. The researchers were aware of the capabilities and potentials of the space syntax approach, but equally were informed about developments in the world outside the community. This collective achievement, in my view, is part of the paradigm shift to which I refer in this piece.

Methodological developments have always been a strength of the space syntax community. This reached another peak in the 10th Symposium. Issues, such as 3D isovists (Conroy Dalton and Dalton, 2015) and asymmetrical graph analysis (Naganuma and Kishimoto, 2015), which had been considered (wrongly in my view) as weaknesses of space syntax methodology were particularly addressed. New mathematical concepts, such as random walk measures (Fidler and Hana, 2015), unified graph analysis and spectral graph matching (Schaffranek, 2015) for network and spatial analysis were explored. Integrating analytical software with GIS platforms, such as the Space Syntax Toolkit (Gil et al., 2015), was another trend that has been strongly pursued in recent years and was clearly present in the Symposium. This trend seems to be the future direction for software development in the field.

Traditionally, various space syntax software has been free and open to use by academic researchers, but this has recently undergone a further major step towards becoming a full ‘open source’ approach. Following the late Alastair Turner’s wish in 2011 to make Depthmap an open source software, the community has become vastly more confident about exploiting the potentials of open source software development to create better, more accessible software through the collective efforts of programmers worldwide. This trend has coincided with a recent surge in the development of proprietary space syntax software lookalikes. In my talk at the Symposium I joked about this development as ‘attack of the clones’! However, open source strategy seems to have clearly reduced the distraction caused by methodological approaches that mimic space syntax but are called something else for commercial reasons. The space syntax community is moving towards treating software as an evolving means of thinking and research to be shared with other researchers within or outside the community.

Another major development in my view is that space syntax researchers are increasingly interested in using the strengths of the research field in real urban and architectural projects around the world. I was very impressed by the theoretical propositions and models, techniques and methods that were developed to tackle real world issues, presented in the Symposium. Ethnic groups, gated communities, gender and urban space, spatial politics, informal settlements, unjust urbanities, land values, house prices, urban regeneration, regional and super-regional planning, suburbia, accessibility improvement, and many other issues were among the complex problems that researchers sought to address in their work. This
tendency is perhaps the most important part of the paradigm shift: creating ‘impact’. The space syntax community is no longer about establishing a field; the field is already established. The community is now pushing its boundaries to make contributions to the real world. The research is not intended to stay on the shelves or get buried in intellectual debates surrounding architectural and urban issues. It has become more about changing the world for the better. By producing fact-based, human-focused, space orientated, analytical and unbiased evidence about how the spatial systems work, the researchers intend to impact positively on the way we think, plan, shape and design our built environment.

In the last dialogue of the Stockholm Symposium in 2009, there was a discussion on whether space syntax is a discipline or not. Chris Webster, an urban economist and planner, considered as hailing from outside the field/community at that time, declared this was the case. In 2015 in London, this was not even an issue. The fact is, that a discipline or not, this field of research is opening up to other fields and increasingly becoming a mainstream approach rather than an exclusive way of looking at the built environment. The growing number of researchers working on or with spatial networks, spatial planning, spatial systems, big data, integrated models and GIS, or similar concepts, shows that this field/discipline cannot stay isolated from the wider body of work that is happening outside the community. The shift is happening from both sides.

It is always hard to say exactly where space syntax research is going or what will become of it in the future, but the 10th Space Syntax Symposium was a clear showcase for demonstrating that the paradigm shift which started in the early 1990s is continuing more intensively with the same trajectory that has been adopted over the past 20 years. In my view, greater maturity, confidence and integration with other fields is inevitable, but most importantly we will be witnessing more real world ‘impact’ generated by this field of research.

References


