Diagramming architecture

Writing in 2000, Anthony Vidler noted a resurgence in the role of the diagram in the work of architects he saw as defining a contemporary *avant garde*, from Herzog and de Meuron and SANAA to Frank Gehry and Greg Lynn.[1] For such practices, he argued, the diagram was more than a tool to analyse pre-existing conditions, to understand the constraints of a project or to communicate it to others; it was *the* generative driver of the design. In its abstraction, the diagram, he felt, was seen as a way to transcend existing architectural languages and cultural norms, to find unexpected relationships between diverse elements in the design process and to re-imagine what architecture could be. In this sense, suggested Vidler, the diagram was a common thread linking this *avant garde* to that of the early twentieth century. In both cases, it was a way to resist a dominant focus on surface representation, be it that of the Beaux Arts tradition or of so-called postmodernity.

However, the diagram can also be seen as a means of codification, systematisation and control, as a limit on design thinking. During the 1950s and 60s, the diagram was key to the analysis of building types and rational models of architectural production, whereby the discipline was imagined as a science. Diagrams, like mathematical equations, seemingly produced dependable, objective solutions to the challenges of reconstruction and modernisation and, for some, promised to overcome the idiosyncrasies of individual architects' curious *mores*. Thus imagined, diagrams could produce seemingly universal solutions, a transcendent grammar of architecture that might be easily reapplied and recombined across projects. But such methods took little account of, and sometimes actively excluded, the specificities of context, the complexities of human psychology and much that could not be quantified or precisely related to the problem at hand – as became all too apparent when certain projects turned out not to function as effectively as the diagrams promised. The diagram, these experiments suggested, might as readily close down possibilities as open them up.

Papers in this issue of **arq** explore different functions of the diagram. Fehmi Dogan and Nancy J. Nersessian argue, in their study of Daniel Libeskind's design process, that diagrams were key to reconciling the different themes of his Jewish Museum competition entry (pp. 14–27). On one hand, the numerous exploratory sketches were, the authors suggest, a means to establish a conceptual justification for an existing formal preference; on the other, far from mere post-rationalisation, the diagrams appear to have constituted the developing narrative of the project. Kostas Tsiambaos, by contrast, explores a very different kind of correspondence between diagrams and design approach (pp. 49–57). Tracing the influence

of Viennese statistician Otto Neurath on the Greek architect Konstantinos Doxiadis – whose rational, typological approach to interpreting traditional architecture also features prominently in Simon Richards' investigation of the ambiguous meanings of 'vernacular' (pp. 37–48) – Tsiambaos charts an apparently more systematic relationship between demographic data and design, and its promise of an architecture closely matched to society's needs.

Other contributors use diagrams to analyse the processes of architectural production and to show how they might be otherwise conceived. Albena Yaneva and Liam Heaphy visualise the complex networks of 'human and non-human actors' at play in the design of the London Olympic Stadium (pp. 29–36). Observing the role of diagrams in design meetings, Robert Schmidt III, Daniel Sage, Toru Eguchi and Andy Dainty consider the evolving interplay of 'Big Politics' and micropolitics in proposals to develop land bordering a London Underground station (pp. 75–84). Rethinking the issue of suburbs, Susannah Hagan illustrates how low-density developments might be made more sustainable through a series of interventions (pp. 9–13). Less prescriptively than for Doxiadis, the diagram is here a way to show how architecture takes place within a wider socio-economic context. In different ways, these diagrams show up aspects of architecture that are usually overlooked.

As Vidler observed, the resurgence of the diagram in contemporary practice reflects its capacity to deal with the sheer quantity of data and number of issues to which the architect is expected to attend. These papers together show how the diagram is not only a form of representation, but how it is bound up with processes of design and ways to conceive of architecture. In this sense, it is also a powerful rhetorical device, a way of establishing a logical basis for a project, of justifying design intentions and of drawing attention to particular aspects of context while excluding others. At a time when parametric design is becoming increasingly prevalent, these papers suggest the need for vigilance over the terms of reference in design, however automated the diagram of the project might seem to become.

THE EDITORS

1. Anthony Vidler, 'Diagrams of Diagrams: Architectural Abstraction and Modern Representation', *Representations*, 72 (Autumn, 2000), 1–20.