architecturenz

Interior Awards 2020

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NEW ZEALAND'S BEST INTERIORS REVEALED

The disappearing plan and section

Lynda Simmons

Favourite reading spot: Lynda Simmons at home, with friends John Pule and Lucy Macdonald. Photo Madalena Refiti.

WE HAVE REACHED A TIME where student projects are sometimes submitted without plans or sections: something probably inconceivable only a decade ago. Unless such drawing types are specifically required (as they usually are by New Zealand architecture schools), plans and sections seem unnecessary to many students, who prioritise the ease of communication that 3D modelling and imaging provide.

Plans and sections as a drawing type are becoming redundant, belonging to a static architectural language that is gradually having less relevance to students, whose thinking through the medium of digital models allows for a constantly moving, unfixed positioning around and through the architectural object.

I need to close my eyes often when looking at projects on screens, in a feeble attempt to control the visual information as the architectural object rotates, zooms in or out, or changes viewing format (from perspective to axonometric, for example). As a traditional thinker, I find myself constantly asking for the plan or section to be produced from the model so that I can fully 'see' the building.

Puzzled expressions reveal surprise that I cannot see the building from the super-real, moving imagery and that the static code of plans and sections might convey more, rather than less.

This shift away from the language of architecture used and developed over centuries is not the result of any overt political statement, aesthetic preference, technological expression or radical subversion of traditional architecture – it is simply because the media we use affects our spatial thinking. The delivery of a constantly moving, singular viewpoint provides a seductive series of perspectival images, a drawing type that is easily understood and generally the most desired (ask any client). The result is a filmic continuity of (hundreds of) perspectives, to build our knowledge of the proposed built form.

But, just as musical notation is a highly developed code to communicate poetic as well as technical complexities, so too is the language of plans and sections. To be able to read such a code is a gift, and, therefore, there is a sadness as I watch a discipline that I love slowly disappear.

Generations before us have lamented the loss of many things affected by developing technologies (remember television?) and this is usually just a resistance to change. The joys of new modes of thinking that accompany BIM offer creative opportunities beyond the promised efficiencies for which it is most known so, as I write this as a kind of 'love letter to the section', I am fully aware of the exciting potential of new and changing technologies and that I am holding on to something that one day will need to be let go.

The beauty of the section as a drawing type lies in its ability to describe spatial relationships that are not directly perceivable by the human eye – all viewpoints are equidistant from the building object at all points across the plane of the page (as if a scanning machine), "… exposing the invisible interrelationship between optically discontinuous conditions."[1] We are everywhere and nowhere in all moments, experiencing the interior and exterior simultaneously, and possibly inhabiting the expanded space of the wall itself.

A section can provide technical, social and environmental information while simultaneously describing materials, form and technology as well as atmosphere, social arrangements, and both political and physical structures. A section provides a full embodied experience, always denying the singular condition. In other words, the opposite of a perspective (or a series of them).

And it can be a design development tool as well as a representation technique, again simultaneously and in the same drawing. There are many reasons to draw and, in architecture, these are dominated by communication, representation and process.

Communication is vital to our discipline and takes the heavy load

of architectural drawings – from client presentations through all of the variations of document sets prepared for consultants, council and contractors.

Representation refers to the constant human endeavour to replicate reality in visual format, questioned via art through millennia but operating in architecture mainly through our attempts to describe unbuilt projects.

Here, computer-generated imagery (CGI) dominates, offering promises of highly finished buildings very early in the concept design phases. However, there are several representational dilemmas that arise the more 'real' an image becomes – one being that the gap between hyper-realism and the material world is heightened rather than reduced, as can be experienced through the brain tricks in Virtual Reality (VR) drawings.

Another is that the bigger the representational promise, the more fixed the image becomes in the mind, and this can interfere

with design potential. (Recently, Mexican architect Tatiana Bilbao has banned her studio from producing CGI renderings, arguing that this can often hinder the creative process.)[2]

But it is drawing-as-thinking that most interests me, where the drawing function is neither communication (except perhaps to the self) nor representation but as a design generator. With drawings as process, ambiguities within accurate, measured drawings offer the most potential – and the section is perfectly suited to this, as a drawing type that embodies both.

Holding on to the section as a drawing type might be futile, as the need for production of traditional architectural drawings prepared for construction is removed through manufacturing directly from BIM models. For example, SHoP Architects (New York) skip the step of preparing architectural drawings, rather going straight from the (BIM) design model to the shop drawing or fabrication drawing.[3]

Most councils in New Zealand still require document sets in pdf format as well as any shared BIM models for consent applications but it will not be long before only the full BIM model is submitted, without the plans and sections generated from slicing it.

I would happily give up the current document set that relies on orthographic plans and sections but will never surrender using the section as a design process drawing. In the teaching of all my studio design courses, students will need to be patient because the section will continue to be kept front and centre. This is because the section is not only a drawing type but also a way of thinking. In this I am determinedly traditional and strongly believe that the section can be reconceptualised as a primary generative drawing in the design process. And in this I am not alone:

"Our work has been motivated by the belief that the architectural section is key to architectural innovation."[4] ①

REFERENCES

1 Marc Tsurumaki, 'Seven speculations on the future of section', *The Plan Magazine*, March 2018, pp. 11–16.

2 Andreea Cutieru, 'Architects' diverse positions on visualization: From hyper-realistic renderings to digital collages', *ArchDaily*, 22 June 2020. archdaily.com/941870/architects-diverse-positions-on-visualization-from-hyper-realistic-renderings-to-digital-collages

3 Scott Overall, John Paul Rysavy, Clinton Miller, William Sharples, Christopher Sharples, Sameer Kumar, Andrea Vittadini and Victoire Saby, 'Made-to-measure: Automated drawing and material craft', *Technology Architecture + Design*, 2018, 2:2, pp. 172–185.

4 Paul Lewis, Marc Tsurumaki and David J Lewis, *Manual of Section*, Princeton Architectural Press, 2016.

BELOW
Robert (Haejun) Park, 'Section E-E' from *Post Civic: Revisiting the Auckland Railway Station*', 2015, MArch (Prof) thesis. Also Robert (Heachoon) Pak.

Digital image, Revit and Photoshop (original 841x297mm)

Park's thesis employed an overproduction of experimental sections in combination with modelling to develop his major urban proposal centred on Auckland's Railway Station, designed by Gummer and Ford in 1927. In his post-civic reworking, the

station building offers shelter to the many migrant groups of our contemporary city and is surrounded by a complex collection of overlapping urban public spaces.

Park's thesis project was a finalist in the 2015 NZIA Student Design Awards.