Building specifications, contracts and technical literature

The constitutive role of documents in architecture

Further Reading Required

Tilo Amhoff, Nicholas Beech and Katie Lloyd Thomas

This issue of arq contains a selection of papers first presented at an event titled *Further Reading Required* held at the Bartlett School of Architecture, UCL, in 2011. Here, the conference organisers reflect on the distinctive strand of architectural research – comprising historical and theoretical readings of technical construction literature – which it sought to consolidate.

'… "a head of steam" building around different disciplinary readings of building specifications, contracts and technical literature'

The energetic debates throughout the *Further Reading Required* symposium, suggest that there is, as Sarah Wigglesworth put it, 'a head of steam' building around different disciplinary readings of building specifications, contracts and technical literature. In the closing roundtable, Adrian Forty reminded us that there was nothing new about reading these documents in terms of architectural history and theory, and that they had long been resources for historians. What differed, he suggested, was what we were reading these documents *for*, and our interest in what lay *beyond* them. If historians have usually read these documents for what they can reveal about the processes of construction or as further evidence about a building, our contributors were interested in a wider range of questions. What kind of object is constituted by a contract, for example? What social relations do these documents prescribe or replace? How is technical literature used in the novel as 'the prose of the world'? How might architects and others work with this range of documents as part of their creative practice?

From disciplinary readings to reading the specificities of contract

In our introduction to the symposium, we suggested that it might demonstrate how architectural knowledge can be considered as already emergent from disciplinary encounters that occur in the process of architecture's production. What became clear through the event was the diversity of what can comprise 'the contractual document'. Although our initial invitation to the participants referred to 'building contracts', the contracts discussed on the day included employment contracts (for labour, trades and professions), building contracts of various kinds – including forms such as contracting in gross, prime-cost plus, fixed price, and others – building covenants and contracts of sale. These different contracts engage different parties and concern different relationships. Further, participants at the symposium did not restrict the term 'contract' to entirely legal or formal documents or terms – for example, Jane Rendell raised the question of the psychoanalytic



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contract between analyst and analysand, and a number of affective contracts were touched upon.

Wigglesworth demonstrated the extent to which precisely the same contractual form (as developed for 'design and build') can result in entirely different relationships: that underwriting the formal design and build contract is a set of relationships that are practised, and rest on affective principles of trust, past experience and shared motivations. Along with the refining and differentiating of contract form, and the relationships those forms attempt to bind, the symposium challenged that other side to our starting supposition. As lawyer Anne Bottomley put it: 'I think you [architects, architectural historians and theorists] are using the term "contracts" in a way that we [lawyers] use it very, very differently'. Throughout the day, participants were challenged as to how they understood 'the contract', but were not asked to simply surrender to an alternative conceptualisation – as if a particular discipline (of architecture, of history, of law, of planning) might have some privileged understanding of what is at stake. There remains an epistemological question, and there is a certain genealogical request in Bottomley's statement, but by asking to what extent positions were already 'implicated in each other', we were returned to the political.

The constitutive nature of these documents

A further premise for the event was that these documents have a *constitutive* role in the production of architecture. Practitioners already recognise the constitutive nature of these documents, and one question this raises is how to find ways to better design or use them – a more conventional concern of architectural theory. How might planning and building regulations provoke inventive responses (Liam Ross or David Knight and Finn Williams)? How might contracts be used to enhance specific design intentions (Pinai Sirikiatikul)? Another approach might be to ask if a specification can be characterised by what it fails to describe about the building, by what escapes its 'technical' language, its lacunae – whether the minutiae of the surface effects of cast concrete (Adrian Forty) or the 'architectural intent' of a mastic joint (Mhairi McVicar)?



But we also acknowledged that these documents are the products of industrial, economic and social forces, and the forms they take result from their changing role in building. We can ask, as Tilo Amhoff did, what practices these material documents replace, and *how* they do so; also a concern for Katie Lloyd Thomas in her exploration of the changing 'forms of clause' in the specification. But we can look too at what effects their changing formats and structures, and the details of language and phrases they use, have on the processes and outcomes of building.

'... these documents have a constitutive *role in the production of architecture'*

For Antoine Picon, for example, the uptake in use of the 'devis' by engineers in the late eighteenth century was driven by an economic imperative to separate out each of a structure's elements for costing, but at the same time chemists, political economists such as Adam Smith, and philosophers such as John Locke and Étienne Bonnot de Condillac were all concerned with 'decomposition', the breaking down of processes and objects into parts. Rather than understand Picon's observations in terms of a history of ideas that are seen as shaping documents, we instead begin to consider these equivalences in terms of relationships and intertwinings between economic and conceptual developments. Adam Sharr's paper – which looked at possible connections between the classification system CI/SfB used in UK architectural offices in the 1960s and typology-driven design processes of architects in the same period – asked too how architectural design is implicated in these same matrices. We might not be so ready to isolate 'architectural' developments from the conditions of a building's production and the documents that organise it.

It also emerged that the kind of object that is described in contracts, specifications and technical literature challenges the conventional notion of the building. Wigglesworth discussed a kind of 'ideal' building that is described within negotiations between contractors, architects and other parties. Bottomley and Nathan Moore proposed that, in a legal sense, the building constituted through contracts is virtual. The virtual building they describe is not one that is 'actualised' in building, but exists as reference points within legal dispute. We realised that it is important not only to ask how these documents make it *better* to build, but also to ask *what is it* they build and *how* do they do so?

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On the cusp of a 'revolution' in building documentation

We had wondered if it would be possible to identify some shared preoccupations underlying our contributors' interest in these documents, but what emerged instead was a certain timeliness in making this subject central now. It was the most recent transformation in the way we document building – building information modelling (BIM) – that generated the most heated debate during the day and made most evident the very different perspectives of our contributors.

Both Picon and John Gelder saw in the advent of BIM a radical transformation towards integration – literally in regard to the panoply of documents, but also conceptually in terms of the building and its many layers through which it is informed. For Picon, in narrating a 'material history of abstraction', the reintegration brought about by BIM marked what might be termed an 'epistemic break'. Meanwhile, for Gelder, it is an IT revolution on a par with the Italian Renaissance when the set of orthographic drawings as we know them became the means for building. In Gelder's words: 'Actually architects arose from this, so in other words, one profession, who was the master-builder disappeared completely, and the architect came out of it. So an IT revolution changed the professional landscape. And that's what BIM's going to do.'

As with the introduction of contracting in gross in the early nineteenth century, which was discussed by Amhoff and others during the day, BIM introduces changes to building and architectural practice. In turn, this transforms professional roles, the codification of knowledge, and the control of building and design. For architects this was, perhaps unsurprisingly, where most was at stake. Wigglesworth expressed her concern about technology and how it frames the way we think, communicate and operate. McVicar reminded us of the importance of the quality of the built environment and asked how BIM could be balanced with the question of good architectural design. Ross expressed his anger and anxiety about the change in professional roles, questioning who controls the new system, and how information is made visible or made to 'disappear' within the model. Nick Beech followed Ross's line: if BIM constituted the creation of a new field of knowledge or discipline, and therefore power, to what extent did it at the same time suppress political contention and debate? Is the incorporation of difference through a specifying model a turn from political contest (between class, ethnic, gender and other interests) to negotiable contract (between abstract individuals)?

'… the kind of object that is described in contracts, specifications and technical literature challenges the conventional notion of the building'

The debate about BIM demonstrated not only the timeliness of our discussions, but also the degree to which the kinds of documents and contractual arrangements employed in making buildings – and the precise form they take – can shape architectural practice and what is, and what can be, built. These documents can no more be understood simply as neutral aids to building but as straitjackets and limitations to design. It was here perhaps that the necessity to engage with these documents from a variety of perspectives and disciplinary positions, and to extend these enquiries further – to involve questions of pedagogy, finance and beyond – became most apparent.

Tilo Amhoff is Senior Lecturer in Architecture History and Theory at the University of Brighton and Ph.D. candidate and teaching fellow at the Bartlett, UCL. His research investigates the notion of the plan in late nineteenth and early twentieth century Germany. He is a founder member of Netzwerk Architekturwissenschaft.

Nicholas Beech is Lecturer in Architecture at Oxford Brookes University. Since his doctoral thesis, 'Constructing Everyday Life: An Architectural History of the South Bank in Production, 1948-1951' (Bartlett, 2010), Nick has begun researching the co-transformation of the architectural profession and construction industry in Britain during the Second World War.

Katie Lloyd Thomas is a Lecturer in Architecture at Newcastle University. She completed her Ph.D. on concepts of materials and the architectural specification at the CRMEP at Middlesex University and researches and publishes in the areas of materiality, technology, the production of building and feminist theory and practice.

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