The Drawing as a Practice

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In 1993, *OASE* published its 36th issue, titled ‘Over de architectuurtekening’ (On the architectural drawing). The issue opens with the Dutch translation of a speech by Italian architecture historian Francesco Dal Co, given in 1992 at the opening of the exhibition ‘De Ruimte Verruimd’ (Space extended) in the Kröller-Müller Museum, showcasing drawings by Ben van Berkel, Coop Himmelb(l)au, Zaha Hadid, Herzog & de Meuron, Aldo Rossi and Peter Wilson, among others.[1] In his speech, Dal Co makes a distinction between the modern and the contemporary architectural drawing. Using the example of Brunelleschi, Dal Co proposes a definition of the modern architectural drawing resulting from the drawing practices that had largely developed in the Renaissance. These practices of drawing, he argues, were a means to discover universal truth, by taking the measure of things, tracing their proportions and formulating the numbers they are ruled by, in order to understand the underlying order of the classical universe. In contrast, Dal Co traces a second and different conception of the architectural drawing, which he describes as contemporary, from the beginning of the nineteenth century through the École des Beaux-Arts over twentieth-century modernist architecture all the way to the postmodernist drawings presented in the 1992 exhibition. The contemporary architectural drawing, he argues, is related to the idea of the new, of being new, of producing something new, in which the notion of beauty is equated with an idea of the new that endlessly changes and varies: ‘On the one hand, architecture is something that is able to find truth; on the other, it is something that produces objects meant for consumption, simply because they are new.’[2]

The aesthetic difference between both types of architectural drawing is significant in this regard. While the contemporary architectural drawing seems to confuse drawing with painting, aimed at producing aesthetically new images to be appreciated on their own, the modern architectural drawing exhibits a ‘horrible’ quality, since it is merely a carrier of classical truths. As such, Dal Co criticises our contemporary habit of exhibiting and publishing drawings, which he sees as the

> . . . complete idiotic attitude of our era towards drawings, an attitude we invariably find in the magazines, where, since it is in fashion to reproduce and print images, numerous pages are dedicated to drawings by architects, with the intellectual justification that they are autonomous.[3]

Paradoxically, he notes, the claim for autonomy pushes architecture into the domain of painting, precisely undermining the specificity of architectural drawings as an instrument within the design process. In his closing statement, Dal Co describes the drawings shown in the exhibition as an expression of a certain kind of doubt, even fear, for the moment that the drawings might become built architecture. The claim for autonomy is an attempt to postpone this moment, he states, to introduce a gap that is as wide as possible between the drawing table and the construction site, preventing the drawing from being realised.

<u>From Autonomy to Mediation</u>

Dal Co's analysis of the contemporary architectural drawing responds to the specific conditions in which late-twentieth-century architecture found itself. Much of the discourse on architectural drawings had been defined by the notion of autonomy. Exemplified in the work of figures such as Zaha Hadid, Bernard Tschumi or Daniel Libeskind, whose early practices speak, during the 1970s and 1980s, to a shift in understanding architectural drawings where it became widely understood that drawings had value in themselves, beyond their projective qualities. Exemplary for this moment is the much-quoted statement by architecture historian Robin Evans, in the catalogue for the 1989 exhibition 'Architecture and Its Image' at the newly opened building of the Canadian Centre for Architecture in Montréal: 'Architects do not make buildings; they make drawings of buildings.'[4] Taken at face value, this statement seems to affirm the disconnection between drawing and building, but at the same time much of Evans's work was concerned precisely with grasping the relation between the drawing and the building, affirming the drawing's importance as a necessary prerequisite for building. Instead of placing architectural drawings in the realm of the visual arts – and considering them as consumable images, as Dal Co criticised – Evans was interested in the relation between the practices of drawing within the design process and their built outcome. As he writes in his essay 'Translations from Drawing to Building':

> We have witnessed, over the past fifteen years, what we think of as a rediscovery of the architectural drawing. This rediscovery has made drawings more consumable, but this consumability has most often been achieved by redefining their representational role as similar to that of early twentieth-century paintings, in the sense of being less concerned with their relation to what they represent than with their own constitution.[5]

In this essay, Evans departs from the simple but fundamental observation that architects never work directly with the object of their thought, but always necessarily use an intervening medium, the drawing, while painters and sculptors, who might use preliminary sketches in their preparation, always end up working on the thing itself. From this observation, Evans questions the power of the drawing as a medium for translation, between design and building, arguing how this mediation inevitably distorts and transforms the initial design, as also happens in the translation between languages: 'Yet the substratum across which the sense of words is translated from language to language does not appear to have the requisite of evenness and continuity; things get bent, broken or lost on the way.'[6] Similarly, the translation from drawing to building bends and breaks the design, and the question becomes how the instruments and techniques used for drawing direct these transformations. The tendency to think architecture as an attempt at maximum preservation in which both meaning and likeness are transported from idea through drawing to building with minimum loss, is what Evans calls the 'doctrine of essentialism', implying a passive and neutral instrumentality. Instead, Evans calls on us to reconsider the 'agency' of the drawing as a productive actor within the design process, exploiting the gap between drawing and building rather than ignoring it, or perhaps worse, detaching both terms from each other altogether. Evans closes his essay with the note that it would be possible to write a history of Western architecture that would have little to do with either style or signification, and would instead focus on the manner of working: on the instruments and techniques that have been used for drawing, and how their limitations and affordances define the production of architecture through

their mediating role. As such, the history of architecture could be expanded to include the material history of its design processes, a project Evans would develop in his later work and that points towards possible directions for such a historiography.[7]

Between Mental Space and Materiality

This issue of *OASE* takes Evans's call to investigate the gap between drawing and building as its main starting point. Concerned with the relation between the instruments and techniques of drawing and the architectural qualities of the built environment, this issue invited ten authors to reflect on a specific drawing and to investigate its mediating role between design and building. The contributions are situated within a tension between, on the one hand, the drawing as a mental space, in which the ideas of the architect are translated and developed through specific modes of drawing, and, on the other, the drawing as technique, in which the materiality of the drawing seems to shape the design process itself. If the drawing proposes a free space for the construction of architectural thought, the affordances and limitations of the specific media used direct a certain way of thinking about architecture. Likewise, innovation in media and technical instruments has given way to new kinds of design processes and forms of architectural thinking. Whereas architects have always been involved in drawing, the specific practices of drawing have changed over time, according to changing technologies of visualisation: from simple tracings on the ground to delineate the footprint of a building to markings with a stylus in the stones of a construction itself to ink and paper, drawing boards, blueprints and more contemporary practices of CAD drawing, 3D modelling and BIM software. Considering architectural drawings, their making and their materialities, several questions are addressed. How does the technique of representation enable a certain approach to architecture? How does a concise analysis of the drawing and its materiality propose an alternative historiography of architecture? And how might this enable us to rethink ideas of authorship in architecture?

While the articles in this *OASE* are presented in a chronological manner, one could easily read a thematic order, starting with contributions that focus on the relation between the drawing and the inner world of the architect's mind, and progressing towards the contributions that emphasise the relation between the technique of drawing and the conception and construction of built architecture. Such a thematic reading might start with the contribution by Marianna Charitonidou, in which she investigates how the sketches by Frank Gehry are generators for architectural thought. Through the use of a single uninterrupted line, the drawings, or 'drawdlings', both express and facilitate the iterative thought process of the early design phases. Here, the drawings are not so much static images, as they become the locus of a continuous search for architectural form.

Similarly, Mariabruna Fabrizi zooms in on the drawing *Casa sul mare di Sicilia* by Lina Bo Bardi, which presents a fantastical landscape of architectural fragments. The surrealist mode of drawing, she argues, is the externalisation of the mental process of imagination, and affords the construction of new associations between references, images, and buildings.

Bart Decroos extends this argument by examining the hand-drawn plates in John Ruskin's *The Seven Lamps of Architecture*. By relating Ruskin's drawing practices to his architecture theories on the Gothic and his critiques of modern society in general, the drawings are understood as the embodiment of a specific ideological view on the world. They are not only the externalisation of a mental process, but also frame our perspective on the physical world accordingly.

In parallel, Jurjen Zeinstra compares four distinct hand drawings by Heinrich Tessenow, and relates their differences to a conceptual shift in his architectural production. For Zeinstra, the gradual transition from densely hatched interior scenes to plain outlines on a white surface reflects the changing qualities in Tessenow's architecture, a shift from *Stimmung* over *Abstraktion* and *Sachlichkeit* to *Gewöhnlichkeit*.

Francesco Marullo explicitly addresses the technique of drawing as a provocation for the mental space that the drawing evokes. In his contribution, Marullo examines the reverse-axonometric drawings of El Lissitzky and Josef Albers, claiming that these reversible architectural compositions resist their consumption as mere images, and instead become a project of awareness and emancipation for the observer.

The importance of the technique of drawing is further addressed by Richard Hall in his analysis of Tony Fretton's 'mouse-drawings'. Produced in the 1990s and the early 2000s, these drawings are part of Fretton's exploration of digital drawing software, consciously exploiting these tools rather than following their conventional and standardised uses. Fretton's series of drawings were made by using a computer mouse as one would draw with a pencil, and in doing so, Hall claims, these drawings reflect a conscious economy of drawing, that is translated into the conception of Fretton's architecture.

This relation between a specific drawing technique and the conception of architecture is rendered explicit in Leonidas Koutsoumpos's contribution on the section. Using the drawing of a theatre section found on an archaeological fragment of an ancient vase, Koutsoumpos suggests that the architectural section is related to the epistemological practice of cutting and categorising, as this was developed in Greek philosophy. As such, he asks us to rethink the section, from a mere outcome of the design process to a practice of sectioning as the foundation for design thinking.

Similarly, Gregorio Astengo explores the overlooked and fragmentary history of the mechanisation of parallel projection. Using early examples of the automation of this specific drawing technique, Astengo suggests that the externalisation of the mental process of drawing might help us grasp the conceptual categories of infinity and uniformity.

In contrast, Merlijn Hurx shifts the perspective from the design process to the practice of building. He demonstrates how the systematic combination of plan and section was not exclusive to the drawings of the Italian artist-architects of the Renaissance, but was developed at the same time in the construction industry of the Low Countries. Here, the combination of orthographic projections was not an artistic practice, but a very pragmatic solution to changing industry standards.

Finally, Helen Thomas offers us a reflection on the practice of architectural drawing as such, as an almost non-sensical activity in the economic context of an architecture office. However, instead of being economically productive, Thomas claims that the time spent on architectural drawings can be understood as a Bataillean expenditure, which proposes alternative purposes for the drawing beyond utilitarian pragmatics.

From a chronological perspective, on the other hand, the selection of contributions comprises a select number of cases taken from antiquity, the Middle Ages, the Renaissance and Victorian England, followed by a number of twentieth-century examples up to the introduction of the computer drawing in the early 1990s. As such, the selection excludes the contemporary explosion of drawing practices, both analogue, digital and post-digital, from a conviction that these more recent

practices are heavily indebted to the history of the architectural drawing, and as such, have much to gain from insights in their predecessors.[8]

Practices of Drawing

As a whole, the papers in this issue explore the gap between drawing and building, from a variety of perspectives and within a variety of periods. Yet, they all aim to understand how the drawing functions within the process of conceiving, designing and constructing architecture, shifting the perspective from the drawing as a static and autonomous document to the drawing embedded in an on-going process. While Dal Co criticised the consumption of drawings as cultural objects in their own right, the work of Evans points towards a more relational approach to the role of the drawing. This seems to resonate with recent developments in the social sciences, where a renewed interest in 'material agency' considers things as actors embedded in human and non-human networks. While this networked perspective runs the risk of exhausting material things into immaterial relations, it does help to foreground the active role instruments, technologies and materials can play in the design process. As sociologist Bruno Latour and anthropologist Albena Yaneva write:

> The hundreds of models and drawings produced in design form an artistically created primal matter that stimulates the haptic imagination, astonishes its creators instead of subserviently obeying them, and helps architects fix unfamiliar ideas, gain new knowledge about the building-to-come, and formulate new alternatives and 'options', new unforeseen scenarios of realization.[9]

While the question of material agency appears as a new paradigm at the turn of the twenty-first century, this issue proposes to understand the history and theory of architecture as an already longstanding exploration of how the materiality of our lived environment shapes and influences the social world of humans, not only in the buildings constructed over time, but also in the drawing practices that underly the design processes through which these buildings are produced.

Notes

1 Francesco Dal Co, 'De moderne en eigentijdse architectuurtekening', *OASE* 36 (1993), 3-10.

2 Ibid., 4.

3 Ibid., 5.

4 Robin Evans, 'Architectural Projection', in: Eve Blau and Edward Kaufman (eds.), *Architecture and Its Image: Four Centuries of Architectural Representation* (Cambridge, MA: MIT Press, 1989), 369.

5 Robin Evans, 'Translations from Drawing to Building', in: Robin Evans, *Translations from Drawing to Building and other Essays* (London: AA Publications, 1997), 153-194:160.

6 Ibid., 154.

7 For example, see Evans's major and final work on the role of geometry in the conception of architecture throughout history. Robin Evans, *The Projective Cast: Architecture and Its Three Geometries* (Cambridge, MA: MIT Press, 1995).

8 Following the so-called 'digital turn' of the first decade of the twenty-first century, much of the contemporary drawing practices have been called 'post-digital', in which architects seem to have moved beyond the distinction between analogue and digital, and drawings can be seen to move swiftly between the drawing board, the modelling room and the computer screen. Yet, many of these 'post-digital' drawings can still be seen to rely on the notion of autonomy, as demonstrated in the numerous and quasi-identical painterly collages, which proliferate endlessly on social media while rarely being translated into any built reality.

9 Bruno Latour and Albena Yaneva, 'Give Me a Gun and I Will Make All Buildings Move: An ANT's View of Architecture', in: Reto Geiser (ed.), *Explorations in Architecture: Teaching, Design, Research* (Basel: Birkhäuser, 2008), 80-89: 84.