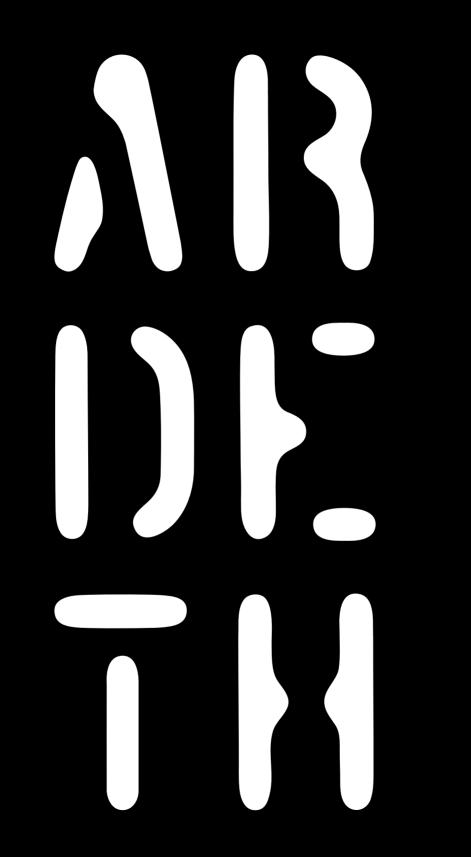


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ethnography design affect • matter

'Concrete Drawing': An Ethnographical Study of Design, Matter and Affect

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Abstract

This paper looks critically at how design evolves through an interaction between human and nonhuman relations. We introduce different ways of understanding this by considering the mediating role that affect has on the design process. To do this we explore a recent work of New Zealand architect Simon Twose through an ethnographical framework. By focusing on affect we highlight the affective capacities and connections between humans and nonhumans. We argue that the affective capacities of non-human objects, matter and spaces are fundamental to the design process, and how knowledge is produced through design. Thus, this paper questions the privileging of human subjectivity - of seeing humans as radically other to matter, where human life remains special and spirited, over the brute force of matter.

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Introduction

Simon Twose exhibited a cloud of images from two of his houses at Venice Biennale in 2012 to depict his design process. The exhibition, Familial Clouds, consisted of a cloud of over 500 images and made evident the innovative edge of chaos, where the drawn iterations of dead ends and frustrations were juxtaposed with those moments where a design changes direction and moves forward. The cloud of images he created elude an understanding of architecture as coherent, final or singular in meaning, instead embodying the recursive, interactive and dynamic process of practice. One could argue Twose had created an ethnographical work; actualised through design. Twose was committed to an analytical research agenda through design to improve theoretical understandings of the design process. He continued this line of thinking through to his next design, which evolved into the 'Concrete Drawing' – discussed in this paper, an installation exhibited at Venice Biennale 2016.

Te Horo House, an unbuilt design by Twose and sited on the Kapiti coast of New Zealand, acted as a catalyst to create the installation. The first agenda was to extract, extend and re-design elements of the unbuilt project, to investigate the way architecture can prompt the body, and to explore 'research through design' more generally. The second agenda was to use the design of the installation as a case study for exploring in detail the complexity of 'research through design'. The latter agenda is discussed here. This paper looks critically at how the design evolves through an interaction between human and non-human relations, by considering the mediating role that affect has on the design process. First we define affect, then discuss the assemblage of relations which shaped the 'Concrete Drawing'. After outlining the methodology, moving chronologically through the design process, we highlight key moments of the design before discussing, in the final section, patterns of relationalities between: affected/learning to be affected and engagement/ detachment.

Affect

'Affect' holds a rich place in the history of philosophy. From Spinoza to Nietzsche to Deleuze, it has been taken to imply both the active senses of drive, will and

How the design evolves through an interaction between human and non-human relations, by considering the mediating role that affect has on the design process. desire (Spinoza, 1982; Deleuze, Guattari, 1987) and the more passive characteristics of passion and feeling, which originate outside the individual (Cox, 1999, p. 127; Spinoza, 1982). Affects, for Spinoza, are located not in the individual but "in the passage from one state to another" which is "purely transitive, and not indicative or representative, since it is experienced in a lived duration" (Spinoza, 1982, p. 49). Transmission expresses the idea that "when you affect something, you are at the same time opening yourself up to being affected in turn" (Massumi, 2002, p. 212). Affect is thus transmitted to those elements, relations, or parts of an assemblage, which are at work (Ash, 2013). Massumi, along with authors such as Anderson, understands affect as extending beyond the boundaries of a particular body, human or non-human, rather, as part of an encounter – the interaction between bodies (Massumi, 2002: Anderson, 2009). And it is this interaction between humans and non-humans, and the material and immaterial, where we focus our discussion; where "change, or variation, occurs when bodies collide, or come into contact or is a transitional product of that encounter" (Colman, 2005, p. 11).

Thinking of the act of designing in terms of affect means that meaning is no longer held by the subject who is then able to ascribe it to brute matter, but rather arises during the encounter and interaction embedded in the act of design. This raises questions for architecture and how we think about the architect and the process of design, in particular, of a linear and human-centric understanding of design. In architecture we have been encouraged to see architectural design progress 'in a linear fashion from a state of zero information to a completely known and defined object' (Yaneva, 2005, p. 870). And following Yaneva (2009) we argue that the affective capacities of human and non-human interaction are fundamental to how design is produced, and moreover that affect shapes and contours the possibility of design. Affect then is not additive: but rather is a basic constituent of the design process.

Recent ethnographies of design have exposed that design is not confined to the individual imagination of a single architect. Research in this area has focused on how ideas are made concrete through collaboration and social interaction, over and around sketches Thinking of the act of designing in terms of affect means that meaning is no longer held by the subject who is then able to ascribe it to brute matter, but rather arises during the encounter and interaction embedded in the act of design.

In this paper we try to make room for how affect is part of the description and explanation of the design process.

on paper (Luff, Heath, Pitsch, 2009; Murphy, 2005). A closely related focus has been on the design discussions themselves, which is understood as the medium through which a design is performed (Dong, 2007). It is in these discussions where ideas are made transparent through gesture and social interaction (Luck, 2012; Streeck, 2008; Ivarsson, Linderoth, Saljo, 2009). Research has also focused on how the material space of the studio has an impact on the design (Telier et al., 2011) including the atmospheres of studios (Ash, 2016) where artefacts and spaces have agency in the design process (Moore, Wilson, 2014). From a similar perspective, scholars have also considered the techniques and tools of designers such as scaling as a way that knowledge in architectural practice is brought into existence (Yaneva, 2005, p. 869); or perspectives as a technique where new design is imagined to create a common space for humans and non-humans to cohabitate (Houdart, 2008); and, tools such as simulations support and mediate engineers professional relationships (Loukissas, 2012). Through this brief overview what is apparent is how design is mediated by techniques, tools, materials and is fundamentally collaborative, offering a far more complex view of architectural design than that offered by the myth of the individual genius architect. However, what has not been explored to the same extent are those aspects of design which are harder to articulate in words or directly observed - what is felt by those working on the design. In this paper we try to make room for how affect is part of the description and explanation of the design process (Skoggard, Waterston, 2015).

Methodology

Methodologically, the analysis is based on ethnographic research. This research was confined to the initial design process, carried out at VUW School of Architecture. When the design process shifted to material testing of the concrete, which took place in Twose's own home, a close following of the design process was untenable. For the initial design process, Twose and both his Research Assistants (RA) were observed as closely as possible to capture the characteristics of the design process: documenting the process with sound recordings, interviews, drawings, notes, which were then transcribed. The material was then approached, inductively – where categories were defined by clustering and which are explored in the discussion section. However, there is a shift in this project from a more traditional ethnographic approach of just looking at and collecting data to actually "being in and engaging in ways of knowing about the worlds and actions of other people" (Pink, 2011, p. 271). This engagement enabled a detailed, thick description making explicit the patterns/webs of relationships between bodies (human and nonhuman) and paving careful attention to the contextual detail surrounding the design process. Following a more sensory approach to ethnography, rather than just observing how Twose and the RAs designed and developed the project, we discussed the design with them. As Pink outlines, the "practice of sensory ethnography involves the researchers' empathetic engagement with the practices and places that are important to the people participating in the research" (2011, p. 271). In this respect, our status as insiders, as trained in architecture, teaching in or working in design studios for 18 and 12 years respectively, enabled us to access the scene of design – "as one of them" (Watts, 2009, p. 52). As such, we were part of "the production of meaning in participation with them through a shared activity in a shared place," (Pink, 2011, p. 271) rather than being tolerated as inquisitors (Finch, 1984, p. 167, cited in Watts, 2009, p. 52). This degree of understanding enabled insight into the pragmatics of design; the process of documentation was a visceral experience of how the design atmosphere is charged and restless (Ahmed, 2004). Thus where appropriate, our responses are situated in relationship to our experiences because we found the variation between skilled and unskilled, in particular, allows us to talk about the different patterns of relationalities between human and non-human.

The design process

The starting point of any project, in retrospect, is not as clear as one would expect: a conversation, an old project, and even a precedent seen years ago. For this project, one could suggest, the gestation of the design began with a grant proposal – to explore 'research through design', through the act of design itself. However, this section of the paper is structured chronologically. The linear structure may seem to run at odds with the inherent character of the process under examination, the constant reconsideration of design without, at times, a



Te Horo House had been developed to a sketch design stage. This unbuilt project took on a new life as a catalyst to create the exhibition discussed in this paper. clear point of origin or end point; but it has allowed for an orderly account of this design story. However, instead of describing the whole research project in detail we focus on particular vignettes – and as such we acknowledge the description could have been extended a number of ways. For example, we write about the desk and how its dimensions impact on the social space, but we could have also talked about the slip coefficient, the reflective surface, the locking mechanism, the imprint of previous projects scored into its surface, and we could have even talked of the desks own genealogy. But due to the brevity of the paper, we have narrowed our framing to specific elements within the assemblage of relations.

The parameters of the exhibition itself, were loosely defined – to explore how architecture could prompt and orientate the body. Twose had suggested in the grant proposal the outcome would be an exhibition, but it was only much later in the design process that the exhibition found a home at the Venice Biennale. In an architectural project focused on a building this would normally be an opportunity for seeking information to define the parameters of the building (Yaneva, 2005). The brief for the exhibition, being more self-directed, was more fluid. This period without the normal building constraints, aside from those embedded within the grant (VUW), led to a long period where Twose explored simply what the exhibition could be developed from. Because the temporal duration was dictated by a grant rather than a client, this meant Twose could invest more time in the development stage of the design.



The extended time frame meant, for example, that the hiccups in the 3-D printer (which will be subsequently discussed) were resolved, rather than finding a simpler and more productive solution to the problem. Thus, the project is embedded with an institutional temporalization which differs from an architectural project whose rationalisation is defined by contracts and a brief. It was in this lengthy period, and through discussion with other people involved in the project, that he came to use a previous unbuilt design. Te Horo House had originally been designed for a client who lived on the Kapiti coast of New Zealand, and had been developed to a sketch design stage. This unbuilt project took on a new life as a catalyst to create the exhibition discussed in this paper (Fig. 1).

Initially, Twose began a process of scaling down. The house was examined from a variety of positions, using the computer program, Revit. At this early stage. Twose said he wanted the exhibition do more than 'mirror the felt presence of the walls' and to explore how to 'emphasise the presence of the walls'; Te Horo has been designed with large concrete walls, which had been shaped to respond to the view and to the landscape. Following this, through a rather loosely defined design direction, there was a simultaneous movement backwards and forwards in the design process. The backward movement considered the different forces, pressures and constraints, which had originally shaped Te Horo - these forces were diagrammed, after discussion between Twose and one of the RAs¹. The RA recorded this discussion and then

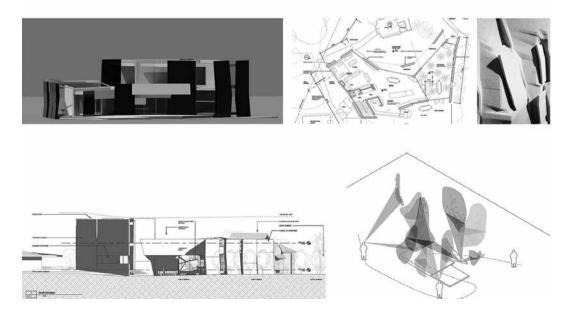
<u>Fig. 1 - Site (2013);</u> image courtesy of Twose.

<u>1 - The RA referred</u> to in this section of the paper only worked on diagramming the original building.

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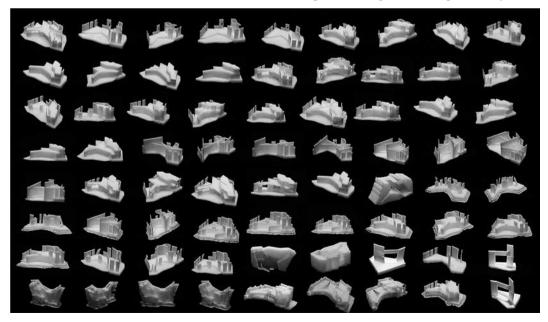
<u>Fig. 2 - Original de</u>sign Te Horo (2014); image courtesy of Twose.

built up a comparative diagram of the various pressures shaping Te Horo. These drawings were used for some publications of the exhibition. However, for the most part, this was a dead end for the overall design process. This is the dead end that we will discuss in this paper. Indeed, there were many dead ends - drawings and models that were discarded. However, these were not nihilistic dead ends, rather, the expectation of failure is seen as an affective condition which is both positive and negative. Failure, as an affective condition, is a hallmark of the design process where the dead ends, misfires, surprises, interruptions and accidents are an actual part of what defines the liveness of the design process (O'Gorman, Werry, 2012). In this instance, it allowed a focusing of the project and a clear discussion about the project in terms of 'what it was not.' Of note in all of the discussions of the failed diagrams, or other failures in the design process, was how comfortable Twose was to dwell 'creatively in uncertain situations' (O'Gorman, Werry, 2012, p. 4 citing Connolly, 2008). Key to this short vignette is how the assemblage of human and non-human interaction is shaped by the affective charge of failure which functions to shape the orientation of the design, not as a crippling affective force, but as necessary for the design process to evolve innovatively (Fig. 2).



In the 'forward movement' of the design process, Te Horo was examined from various positions in Revit. In discussion with the RA a number of decisions were made, to which the primary author was present and involved. Twose asked the RA to explore the Revit file and subtract elements from the original drawing. He discussed a range of options – such as "extrude and focus on these walls." So each print would focus on only certain walls – that could become the basis for the central wall of the 'final' exhibition. The Revit model was then converted into a file to be read by a 3-D printer to create small-scale models (the design was transferred from Revit to Rhino and finally developed as an analogue project). However, due to technical issues with the printer, this stage of the project slowed down, and expanded. The 3-D printer operates in its own sapient way. It works by using a thread of material, in this case a plastic (PLA or Polylactic Acid), which winds up from the base (or where the base or raft is assigned); the single line fuses to form a shell to embody the form of the design. A 3-D printer prints organic forms quickly. Following Ash and his account on affective transmission as perturbation (2013, 2015), the Revit software and the sketch model, the 3-D printer and thread of plastic, have their own spatiality and materiality. The encounter between what Ash calls 'inorganic entities' has potential to "generate atmospheres that have effects on humans within these atmospheres outside of a particular emotional or affective register, through the way they actively generate space and time" (2013, p. 21). In this case, the sketch model's discontinuous form was unable to communicate the same language as the printer. Some elements would print, while the parts that did not speak the same language as the printer resembled sections of a bird's nest, where the plastic fused at odd angles. I, the lead author of this paper, asked one of the industrial design lectures if he could help. He met with the RA in his office and supported the RA to develop a raft for the model and to stitch discontinuous elements together so negative spaces were still readable, with the form still able to be built. The RA commented on how [the design lecturer] "helped and it speed things up." Agency was distributed between a series of elements, people and spaces within this early design assemblage, but what was clear is that the interaction between human and non-human agents had a very apparent and articulated felt presence in what was designed (Fig. 3).

<u>Fig. 3 - Fabricated</u> model tests of building elements Te Horo (2014); image courtesy of Twose. As the design started to develop, meetings were held weekly or twice-weekly. Their purpose was to discuss the 'direction of the exhibition.' What was solidified at this stage was the exhibition would have one central wall that people would walk around. The number of meetings increased once the printed models were accessible. At each meeting the models were arrayed on the desk or in boxes. The models were discussed in the RA's work space but also in Twose's office, which was a more intense sphere of decision making. We would all pick up the models and compare them as part of a sequence. The affective charge of the situation would change depending on the room we were in when discussing the project. This shows that relations between humans and non-humans is dependent on the situation where the agency, the orientation, of the human-nonhuman working group shifts (Bennett, 2010). For example, when we gathered around the large drawing desk in Twose's office, the location of the desk in the small office and the size of the desk dictated our proximal relationship to the models – and each other. We could all sit close to the models. The arrangement of the desk, the objects and our own proximity meant that we could feel the shifting atmosphere that shaped the type of work that could be done (Ash, 2016, p. 91). Often Twose would speak at length about a possibility he



could see and the various directions – speaking to all the opportunities. We all did. But tension was palpable when our opinions diverged from Twose's. Sometimes the dynamic would shift if we were gathered on the other side of the room next to Twose's computer – here the design and the process was orientated more strongly towards Twose – through the spatial shift. The design developed and evolved at this stage through the interaction between the various components of the human and non-human working group (Bennett, 2010, p. xvii). While there was an aesthetic-affective openness and curiosity to the material vitality of diverse elements and materials the assemblage was still orientated through Twose's words, orientation and gestures – the topography of the assemblage was still uneven (Bennett, 2010, p. 24). And, of course, he is a registered architect with extensive national and international experience. What is highlighted in this stage of development is the shift in the affective charge of the design environment, and that the space of design was not limited to a single site; this had a direct impact on the design that evolved. The space of design was a shifting "set of spheres and atmospheres within which localized struggles and encounters take place between a variety of objects and bodies, many of which do not appear to the humans who supposedly wield authority in these studios" (Ash, 2016, p. 91). At exhibition scale, the design in Revit was (and in conversation) starting to stabilize around a large concrete wall having a modulated surface. Covered in elements which would work through forced perspective, the viewer – standing in the correct position and viewing the elements – would give them some form. Moreover, Twose planned for a series of these anamorphic moments to stage the movement of the viewer. Twose, in discussion with the RA and the lead author, talked about how the scale of the wall would not only orientate people through its angles, but also disturb how people relate to the wall - due to its sheer scale. The concept of orientation in relationship with the body and the wall starts to guide the development of an assemblage of 'wall + human-body' working group to enable sensorial experiences which amplified our everyday experience of the wall (Bennett, 2010).







<u>Fig. 4 - Design</u> discussions/ gestures series (2014); image, Smitheram.

The variations in the 3-D models had produced a number of results, which enabled us to discuss what these models contribute in terms of the design of the installation wall. Twose started to sort the models into groups which were successful. Success was also bound to the imagined (full scale) exhibition – and how it operated to "orientate" people positively towards the wall (Ahmed, 2010). In discussion of what makes the printed models successful, Twose describes the moment he moves forward with one model over the series of others – as 'it felt right. He talked about how it resonated with him; we discussed a general sense of rightness at this stage in terms of the charge held by the model, rather than how it met the criteria or how one could consider this as a type of knowing held within the body due to experience (Ammon, 2017). But of note, he picked up a model, held it close and rotated it – he would also distance himself from the models and engage in a lengthy discussion about its role, there was a continuous movement between engagement and somewhat disengaged approach to the model (we all did this to different degrees) (Fig. 4).

Twose oscillated between the scale of the building (Revit model) and the scale of the physical model to explore how elements of the wall could operate as an exhibition, while the RA continued to produce small scaled 3-D models. The main guestion in the discussion at this stage and in relation to the Revit model was how the wall would stand up and how would it be supported. Twose worked to explore these guestions by hand sketching and by using Revit, sometimes drawing over the digital drawings. He drew different options of how the wall might stand, literally, in a gallery space, casting off some ideas, before exploring them again – shifting and expanding possibilities. The lines on the page, began to build up a consistency – a pattern which started to stabilize as the underlay of a design, until there was a sense of rightness to the design (Ammon, 2017). The conversations at the same time mirrored the development; they were circular in some respects, and lengthy as different options were sounded out.

The central, or cyclic, debate at this stage was simply the size of the wall. At eight by three metres, weighing over two thousand kilograms, and needing substantial structure, meant the current design was problematic. Ahmed (2010, p. 29) argues that affect has a stickiness which allows objects and ideas to generate attachments, in this case the problematic current in the design attaches to the design as a sticky connective element. The lack of progress was palpable – creating an uncomfortable emotion in the office when this was discussed. Chairs and people started to space further out. Everyone involved with the project discussed the merits of pursuing the original design intent. Eventually over prolonged and tension filled discussions the wall became horizontal. Being a part of this discussion enabled the primary author to understand the tension that operates within and through the design process, and the negotiation that takes place between an original, or growing desire, the practical constraint of stabilising a large concrete free-standing wall and transporting it. Affects are not always transformative nor do they have potential to dismantle ways of thinking; negative affects can attach or stick to an object, a design and a workplace – which makes it harder to orientate yourself towards the issue - in this case, discussions around the project (Ahmed, 2010). Clearly, I, the primary author, was disturbed by the project. I argued for the horizontal alignment of the wall, which at times was not well received. After this I gained some distance from the project.

Some, but not all, of the design ideas persisted in this modification of the wall to meet practical demands. One persistent idea, though modified, was the cloud of elements that covered the surface of the 'wall', although these elements were now defined and explored as scaled down versions of the large wall. They also spoke to the original exhibition in Venice in 2012 – which, as already alluded to, sought to make transparent the different stages of a design process: as an installation. The next stage of the design, as well as how some of these wall elements developed, evolved in Twose's private residence where the concrete cloud was explored through its material conditions – the final, evolved design. The iterations of the wall became a physical record of all the design tests, which evolved into the final large-scale wall. At the end there were 310 smaller versions embedded into the larger wall. To explore the relationship between the large-scale wall and the smaller elements, the assemblage included a range of people including





<u>Fig. 5 -Design</u> discussions/ gestures (2014); image Smitheram.

Twose, two RA's, the lead author, family members, multiple spaces of design and studio arrangements, Rhino, Revit, various servers, hard drives, thumb drives, pencil paper, hands gestures, talking. All of these human and non-human elements, with their own material properties and constraints, in interaction with each other, contributed to the evolving design (Fig. 5).

Discussion. Affected/learning to be affected In discussions, we co-authors found that making sense of the project emerged when we compared it with students who we have taught design, to start to articulate a more general model of design, or more specifically, to extract clearer themes. In teaching design we have often had to support students who struggle with the uncertainty of the design process. This means that in the design process students come to a standstill, they slow down, fixate on a problem, repeat the design, or do not move past the initial diagram (Sachs, 1999, p. 195). Some students will 'jump their design'; they will disengage from the non-linear and slow progression of design, and come up with a building that is limited or has no relation to the conceptual intents and explorations. In this way they reproduce a normative understanding of design, and a linear understanding of the design process. In comparison, what was of note is how Twose was comfortable with a more novice designer when they deal with uncertainty and risk – there was a higher level of self-efficacy. In contrast, failure is something we find design students avoid, because these are affects someone normally wishes away or hides from. Turning away from the affect of failure risks isolating oneself, freezing efforts and dwelling on the idea of failure (O'Gorman, Werry, 2012). So while no one likes to experience failure, Twose was more comfortable dwelling with this and with the uncertainty of the design process itself, and in this respect allowed him to go beyond the expected. And he indicated, in some respect this affective discomfort was necessary to the development of 'new ideas.'

Twose had a sense of trust in the slow progression of building up a design, even when the solution did not seem apparent. There was also a level of affective professional control. However, the discussion of this

There is a problem here, as once more we start to treat design as a black box, where the central figure of the design process is Twose who we remove from the interaction between human and non-human relations when we speak of his gut reaction, alone. paper was directed, as already alluded to, quite narrowly to a discussion of affect, as affective resonance or a gut feeling that Twose had about the design. We acknowledge there is a problem here, as once more we start to treat design as a black box, where the central figure of the design process is Twose who we remove from the interaction between human and non-human relations when we speak of his gut reaction, alone. Yet, in different discussions we spoke to his history of design and the school, and the value he placed, on his education. In this respect, and following Latour's excerpt on the 'odour kit,' we can discuss similarly how Twose has 'learnt to be affected' (2004, p. 206). He has acquired a body, a social body, an architectural body, to design with, delimitated from his education and architectural experience. Twose, of course, benefits from his expertise, which has made him sensitive to the contrasts between lines of paper, or corresponding relationships which operate between what is drawn on paper and what can be built; these move him towards action, or not. And this is a body – or what Latour calls, an articulate subject, "who learns to be affected by others - not by itself" (2004, p. 210, italics original). Such a subject draws our attention to how the architectural body becomes increasingly sensitive through interaction with other bodies, so one is not an isolated architect designing, but a body who is becoming "together with the world" (Parolin, Mattozzi, 2013, p. 357).

Engagement/detachment

Design, drawing and modelling are assemblages – they are not things but doings produced through interaction. However, even in an assemblage, power relations are uneven, in particular around certain positions, points and paths, which at times Twose, as a registered architect, occupies and activates (Bennett, 2010, p. 24). So on the one hand architecture is a quintessential craft activity, because it is about a constant interaction that engages the head and hand in dynamic interplay of human and non-human relations. However, on the other hand, architecture is historically and traditionally defined in opposition to craft – as a profession (Woods, 1999). Twose's work reflects an oscillation between a craft and engaged activity; but, also at times, an activity where he perOn the one hand architecture is a quintessential craft activity. On the other hand, architecture is historically and traditionally defined in opposition to craft – as a profession. forms the role of an 'architect.' His work resonates to an extent with Yarrow and Jones's (2014) observations when they explore the notion of detached-engagement, although their research is in terms of an established craft, specifically masonry. They situate their research as a counterpoint to existing work on craft "which assumes an antipathy between detached and engaged relations"; instead what they show is "how they are necessarily mutually implicated" (ivi, p. 272). Thus they acknowledge that craft requires a "cultivated self that acknowledges subjective thoughts and individuated actions, but deliberately seeks to regulate these through the embodiment of traditional rules, procedures, skills, and personal characteristics" (ivi, p. 272). However, they also distinguish this from alienation - in particular, a desire to "create an artefact that indexes individual creativity" (ivi, p. 272). In contrast, through the observation of Twose's work, and as already alluded to, the performance of 'being' an architect plays in and through an understanding of individual creativity, which orientates the human and non-human working party. Thus we start to consider the impact of identity whose performance is tied to normative prescriptions which guide behaviour; and clearly at times, to exercise coercive authority. This is important for engagement and detachment are



Fig. 6 - Installation Venice (2016); image provided by Peter Bennett. charged with relations of affect, and a particular sensitivity – but not necessary in the same way, depending on the situation. Thus we suggest, and drawing from the 'series of vignettes' presented in this paper, design operates as a synthesis of events, where the design as a situated assemblage emerges as a product of different proportions of being and becoming (see also Wilkie, Michael, 2016, p. 30) (Fig. 6).

Conclusion

In this paper we argue that the affective capacities of human and non-human interaction are a fundamental aspect of how design is produced, and moreover, that affect shapes and contours the possibility of design. What is striking about Twose's work and exhibition is how he considers the possibility of exhibiting his design process and the performance of relations which occur through material encounters and interactions. The exhibition is, in itself, a form of embodied ethnography which provides a rich source to evaluate. The 'Concrete Drawing', as a physical thought experiment, allows us to think of categories and concepts like architecture, the body and matter as being co-implied rather than seeing the body, matter and even practice as discrete concepts. This is a theory of practice that is built. Importantly, it manifests how the design process is shaped by affective landscape in which it is produced. The exhibition and the process of design act as a way to question linear and human-centric understandings of design - yet they also point to the shifting role that the performance and the trace left as an index of the architect has on the design process. Exploring the design of architecture through the lens of affect, contributes to practice theory by enabling us to understand the design process as spatial-temporal, experiential conditions moved by relationships, rather than being limited to form-creation or the imagination contained within an individual head. Affect acts as a connective element, within the interplay between the systematic and the more momentary practices of design. Moreover, thinking through affect helps us to understand within the various processes of design how people working to design a project orientate themselves. We also suggest that ethnographical research in architecture can be supported further when it makes room for affect within the design process - to

Design as a situated assemblage emerges as a product of different proportions of being and becoming.

The 'Concrete Drawing', as a physical thought experiment, allows us to think of categories and concepts like architecture, the body and matter as being co-implied rather than seeing the body, matter and even practice as discrete concepts. see affect through conditions of possibilities for encounter and interaction – as a mediating layer bridging human and non-human interactions.

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