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### DESIGNED FUTURES

Design educators interrogating the future of design knowledge, research and education.

#### Negotiating Material Design Knowledge: Making through design research

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#### Abstract

*My doctoral research critically explored design education in South African higher education through employing post-qualitative methodology. The research was approached from new materialist, posthuman theoretical perspectives. This implied that I set out to practise design research/education aimed at productive transformation in the institution that I work. I critically negotiated a range of individual experiences of being engaged in design/research/teaching in the Visual Communication Design curriculum at Stellenbosch University. It was found that challenging traditional representational practice through playful experimentation allowed individuals time and space to tune into, recognise and respond to moments of productive future change within their situated present. In this paper, I critically reflect on what – in traditional terms – can be regarded as the formal output of the aforementioned research process, i.e. the academic thesis. As the research process evolved, the ways in which data was collected, worked with/through, and represented were challenged. This became an embodied part of the material form of the thesis in a range of ways, e.g. through the informational structure of the document's content, the narrative structure of the text, the typographic and layout structure of the document, as well as its physical form and format. Bringing the specific example of this thesis in relation to theory concerned with materiality and making (Gürsoy 2016; Ingold 2010), I make an argument for using representational media and skills non-representationally (Thrift 2008) to nurture design's creative capacity to transform the world for the better rather than strengthen its predictable, instrumental abilities. As such, this case provides an example of how design knowledge can be negotiated materially through design research, an integral aspect of design theory within the context of advanced capitalism in contemporary twenty-first-century society.*

**Keywords:** Design, making, materiality, representation, design knowledge, design research

#### Introduction

Design is generally understood as a process delivering concrete outcomes/products (Brassett & Marenko 2015). This echoes what is referred to as the Aristotelian hylomorphic model of

creation, i.e. that ‘physical matter, or the product, [is] a static and passive outcome of predetermined human thought’ (Gürsoy 2016, p. 851). Such a perspective on design privileges humanist, representational logic, i.e. mind over the body – thinking over doing and making – and is hence limited. Gürsoy (2016 p. 852) proposes ‘making for’ processes:

Design and making, form and its matter, as well as minds and things, are [...] strictly interdependent [...] [the] form of a thing emerges from the making process itself, established through the active engagement of the maker ‘with materials that have their own inclinations and vitality’.

As a consequence, the things we design and make play an active part in designing us in turn. Design, thus, can be described as inherently ontological (Escobar 2012). The world designs us, and we design the world. This implies the entanglement of a range of global, as well as local forces. Anthropocentrism as the supreme power humans hold in shaping the earth (Chakrabarty 2009) – a power characterised by binary thinking (Davis & Turpin 2015) – has had significant global impact and, as Barad (2007, p. 134) has argued, “[r]epresentationalism, metaphysical individualism, and humanism work hand in hand, holding this worldview in place”. Locally such a worldview has been made manifest in our colonial and apartheid history, and this history has demonstrated that dualistic ontology can cause serious sociocultural, political and/or ecological inequalities.

In response, the first part of this paper contextualises design and representation in the specific historical context of South Africa (SA). Theoretical insight is provided into the ambiguous relationship between these concepts from posthuman, new materialist perspectives. The next section provides an overview of research done towards my PhD. I specifically reflect on what – in traditional terms – can be regarded as the formal output of the research, i.e. the academic thesis. As the research process evolved, the ways in which data was collected, worked with/through, and represented was challenged. This became an embodied part of the material form of the thesis, e.g. through the informational structure of the document’s content, the narrative structure of the text, the typographic and layout structure of the document, as well as its physical form and format. Bringing the specific example of this thesis in relation to the posthuman, new materialist thought discussed in the first section, I make an argument for using representational media and skills non-representationally (Thrift 2008).

## Contextualising design and representation in South Africa

Colonialism served to bring industrialisation to South Africa. Due to the introduction of printed text and images in 1784 (Pretorius 2015), graphic design as a representational medium of communication speedily became the dominant mode of communication in South Africa. Such communication led to Eurocentric ideology, i.e. humanist, binary logic, becoming strongly engrained in South Africa consciousness.

Binary logic, for example, was even a defining feature of attempts at opposing imperial power through communication design, e.g. *Die Afrikaanse Patriot* was an Afrikaans newspaper that appeared in 1880 in reaction to British imperialism in South Africa. It ironically appropriated the visual style of *The Times* in London, while simultaneously taking a stand against the English language by being printed locally in Afrikaans (Pretorius 2015). It thus “define[d] itself by seizing the language of the centre and re-placing it in a discourse fully adapted to the colonised place” (Ashcroft, Griffiths & Tiffin 2002, p. 37). This example demonstrates a strong allegiance between binary logic and visual representation. It makes evident how dualistic logic can position design as purely capable of representing what is already known to exist (Brassett 2015). One’s understanding of design is thus tied to the formal entities materialising through the larger process of design and is limited to what is already known. What happens between these entities seems to be omitted from this definition of design.

The missing perspective of design mentioned above can be contextualised in terms of Deleuze's philosophy. Design can be described as a continuous process of actualisation (Deleuze 2004). The actual, here, constitutes the realm where latent potential – i.e. possibility for change, or what Deleuze refers to as the virtual (2004) – is momentarily stopped in its tracks, resulting in the materialisation of things that, in turn, become “the object[s] of representational thought [while] occlud[ing] the intensities which gave rise to them” (Bonta & Protevi 2004, p. 101). Actualisation thus constitutes “the (problematic and problematising) relationship between what is and what could be” (Brassett & Marenko 2015, p. 18), while representation, although an active part of the process, keeps us from gaining access to the immanent properties that could result in any form of qualitative change (Bonta & Protevi 2004). Design, understood this way, is ontological – it keeps on designing (Escobar 2012) – as mentioned earlier. Through the process of doing and thinking the unknown, what has not been doable and thinkable before can come into being.

Thinking about design during colonial times in this way, one could argue that colonialists, in bringing the technologies of industrial Europe to Africa, ontologically designed South Africa in their image through processes of actualisation. Given the value tied to concrete form – its embodiment of objectivity and truth – the notion of design, however, came to be strongly associated with the representational field of graphic design. Whereas, as touched on earlier, representation has most certainly formed part of design and design – understood as a process of actualisation – is not wholly representational (Escobar 2012). Taking this aspect of design into consideration, it could be argued that graphic design during colonial times, being a thoroughly Eurocentric endeavour, harnessed the productive capacity of ontological design, through representational communication, to hide possibilities for thinking outside binary logic while promoting a humanist mode of being as the only valued option.

Furthering the above line of thought, it could be argued that the South African apartheid state (1948–1994) seized the potential for the co-existence of difference (the virtual, in this case) through the materialisation of policies and laws that enforced binary logic. As in colonial times, oppression through control of dominant communication media proved effective, e.g. censorship led to the banning of publications deemed threatening to the ruling nationalists. It could again be argued that, just as in colonial times, communication design harnessed the productive capacity of ontological design to hide possibilities for thinking outside binary logic, through a diverse range of representational media, while promoting a modern, humanist mode of being as the only viable option.

The engineering of apartheid society as a premeditated process of design as actualisation clearly sprung from a place privileging one thing over another, the mind at the cost of the body, culture above nature, self above other. Through rational thought, humankind initiated processes that enabled it to assert its supreme position in society and, in the process, the minds and bodies of South Africans were shaped, in turn, along divergent axes. As differences were exacerbated on a material level, they became naturalised, thus fuelling a process of negation. The overbearingly restrictive political power (*potestas*) with which the apartheid state asserted its values and beliefs on the nation, seemed to blind the populace to the underlying productive power (*potentia*) it held for affecting change (Braidotti 2013).

However, the material effects of oppression during apartheid were also a strong force contributing to the resistance movement. It seemed to allow for the emergence of productive power that contributed to positive change. Initiating a process of design for change seemed to be ontologically designed by little material resources and strict censorship, e.g. these restrictive forces resulted in the production of protest posters beyond South African borders. The Medu Art Ensemble consisted of a group of activist South African exiles in Botswana (SAHO 2016). During 1979–1985, they produced posters, smuggled them over the border and put them up in South African streets at night, just to be destroyed by apartheid police soon after

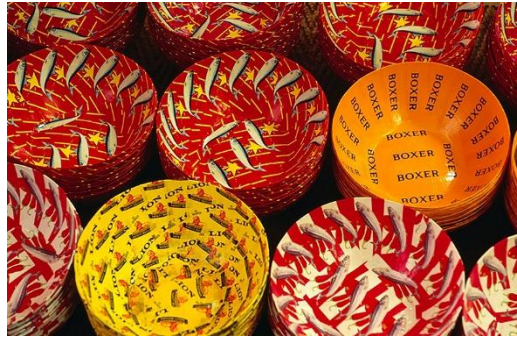
(SAHO 2016). Mnyele, one of their members, described the organisation's role as follows, "[T]he act of [designing] should complement the act of creating shelter for my family or liberating the country for my people. This is culture" (SAHO 2016). Meaning did not lie in the semiotic value of the posters alone, but in the sensitive processes involved in moving between concept and practice (Brassett 2015). Hence, design could be described as "teasing out a form from the material" as opposed to 'imposing a shape' (DeLanda cited in Gürsoy 2016, p. 852) upon pre-existing ideas. "Conceptualisation does not [...] precede materialisation, but instead evolves through [...] interactions with [...] materials" (Gürsoy 2016, p. 855).

Whereas communication design during apartheid could be regarded predominantly as a workmanship of certainty operating within ontological dualisms, the design of resistance to apartheid could be seen as workmanship of risk (Crawford 2015). Thinking about design as risky, one does not reject binary logic completely – one just aims to escape its restrictive power (Escobar 2012). This can be done through taking on relational, flat ontologies. In such ontologies, the focus is shifted away from the objects constituting dualisms. Escobar (2012, p. 31) explains it as the belief that "nothing pre-exists the relations that constitute it", what we *are* is a product of what we *do* is a product of what we *know* – without any one of these aspects overshadowing another (my emphasis). Ingold, similarly, articulates it as "assign[ing] primacy to the processes of formation as against their final products, and to the flows and transformations of materials as against states of matter" (cited in Gürsoy 2016, p. 855). Thus, emphasising "thinking through and with the matter" (Gürsoy 2016, p. 855). It is in this sense that design can be regarded as new materialist that can "create concepts that traverse the fluxes of matter and mind, body and soul, nature and culture" (Dolphijn & Van der Tuin 2012, p. 86).

Having gained insight into the productive change, a Deleuzian notion of design offers, one would expect it to be active in the post-apartheid era. The twenty-first century, however, brought its own contradictions to the already complex task of negotiating South Africa's troubled past with the eye on a more just and sustainable future. Advanced capitalism is contributing to the destructive power of the Anthropocene while simultaneously accommodating a more posthuman<sup>1</sup> sensibility.

There is no doubt that design, in a variety of forms, has contributed to the contradicting forces active in contemporary society, e.g. whereas a strong desire for rekindling just social relations has been driving design practice in the post-apartheid era (Simanowitz 2015). These noble intentions are easily hijacked by capitalistic forces, thus resulting in design initiatives aimed at productive change being limited to perpetuate what already exists, i.e. social difference. The complexity of design has become a matter extending beyond design for societal good (or its detriment), and rather seems to involve careful experimentation with positive and negative potential in relation to capitalistic forces.

The initiative Wola Nani is a prime example. They have been using craft since 1994 to support those left vulnerable due to HIV in South Africa (Wola Nani 2017). They provide HIV-related counselling and health education, while also affording opportunities to earn a livelihood to those who, under apartheid rule, were not allowed access to equal education, and due to additional compromising factors like poverty, cannot provide for their families (Simanowitz 2015). The organisation's income-generation programme provides training in craft skills to produce a range of consumer goods (Figure 1) that are sold locally and internationally, online and at selected retail outlets. It so effectively "envisage[s] new forms of alliance between tradition and the most advanced technologies, and [...] between manual and artisanal expertise and the virtualities opened up by the new technological devices" (Antonioli 2015, p. 61).



**Figure 1: Wola Nani papier-mâché bowls, Pan African Market (Lonely Planet 2019)**

When critically considering Wola Nani, it is clear that the organisation capitalises on modern technology and concomitant capitalism to serve its purposes. Without securing financial income through participation in the dominant global economy, it would not be possible to affect local individual lives positively. Its own aim is thus not generating profit for spending, but generating profit to enable ‘resistance to the present’ (Deleuze & Guattari 1994, p. 108). Wola Nani has, through design, strategically positioned itself amid restrictive capitalistic forces in ways that resist those very forces and opens up productive potential.

Deleuze and Guattari equate the workings of capitalism to a machine that constantly “frees-up and constrains, dissolves and freezes” (Brassett 2015, p. 46). Communication design can be seen as a similar machine that functions as a cog in the capitalist machine. Just as representation is an integral part of design without design being representational, communication design can be in service of capitalism without it being an essentially capitalistic endeavour (Brassett 2015). The relationship between capitalism and design – as between representation and design – is consequently such that both “are products of, co-produce, and at times intensively resist” (Brassett 2015, p. 229) themselves, as well as each other. Critically thinking about communication design in this context thus implies focusing our attention on the ambiguous interplay of all involved processes and what transpires as a result.

## Negotiating material design knowledge through making

Research towards my PhD aimed to do exactly that. I wanted to explore the interplay of all processes involved in design education in the context of South African higher education, particularly at Stellenbosch University. I aimed to do this through following a post-qualitative<sup>2</sup> approach, i.e. through becoming the change I wanted to make rather than studying it at a distance. I endeavoured to practise design education as research (and design research as education) all the while aiming to affect productive transformation within and as part of the institution. I worked with a specific case of design/research/teaching in the Visual Communication Design (VCD) curriculum at Stellenbosch University and particularly negotiated individual processes of subjectification<sup>3</sup> that transpired throughout the experience. I designed and facilitated three Visual Communication Design projects with a specific student group while collecting data through observation, written reflection, informal interviews, and visual documentation of Visual Communication Design processes. This data was then critically engaged with since, as St Pierre (2014, p. 4-5) has argued,

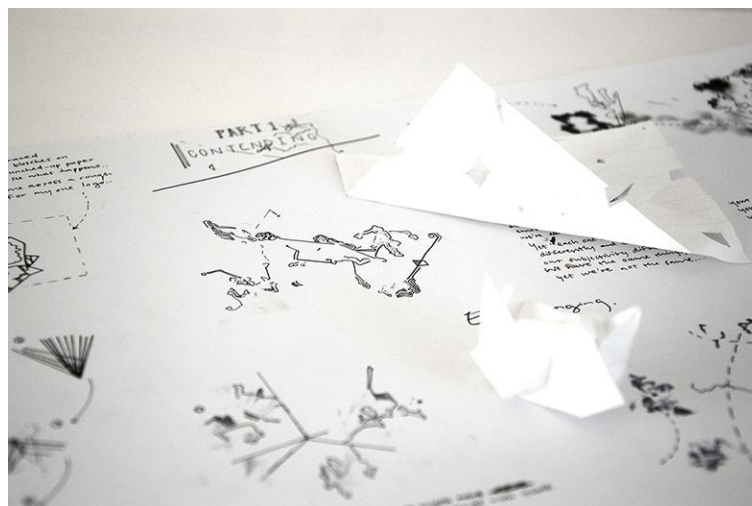
[C]ritique does not begin with the assumption that what exists is wrong or in error; rather, critique examines the assumptions that structure the discursive and the nondiscursive, the linguistic and the material, words and things, the epistemological and the ontological to foreground the historicity and, so, the unnatural nature of what exists.

Ethical and institutional clearance to conduct the research was obtained, and all participants provided informed consent to partake.<sup>4</sup>

In the first project, students had to design a digital brochure for an NPO that strove to “creat[e] income and economic growth through crafts in the [local] region” (Perold 2015). I was aware that community interaction projects held potential to highlight inequalities within a varied participant group, but was of the opinion that the benefit of having to negotiate design/research/education actively in a real-life context outweighed the risk it carried.

During this project, student participants did not seem to engage in ‘making for’ processes (Gürsoy 2016, p. 852). This could be due to the perception that the brochures as concrete, representational end products were the ‘things’ that had to make a positive contribution to society. Representation was used to serve an external purpose, rather than allowing for a process of connection to emerge through making. I was reminded of the example of Wola Nani. Antonioli’s (2015, p. 62) claim that the ‘forms’ worked with include “essential components of the production of subjectivity”, rather than formal representational forms typical of Visual Communication Design (e.g. line, colour, among others) is crucial. It seems that Visual Communication Design, being an inherent representational practice, can focus undue attention on representational end products *and* be geared towards experimentation through its negotiation of representational media. By using representational form to challenge the existing world order, Visual Communication Design practice holds the power to function non-representationally.<sup>5</sup> To use this power effectively, however, designers have to be critically conscious of *how* they are using representation so that they are enabled to actively resist the perpetuation of dominant discourses through their practice. Making through representational media needs to “invite the viewer to join the [designer] as a fellow traveller, to look with it as it unfolds in the world, rather than behind it to an originating intention of which it is the final product” (Ingold 2010, p. 96).

In reaction, Project 2 facilitated processes of making while keeping open what the end product would/should be. It concerned the theme of identity, and students mapped this concept by playful experimentation with text and image. Directed visual exploration exercises were included to help resist students’ conception of what a map *should* be. Students had to represent identity simply through, for example, folding, tearing and/or moulding a sheet of paper (Figure 2.1).



**Figure 2.1: Project 2. Process development (Julie 2015)**

They then used their paper sculptures as drawing tools to produce a range of abstract visual marks (Figure 2.2). These marks were consequently used to construct a map representing identity.



**Figure 2.2: Project 2. Process development (Hannah & Julie 2015)**

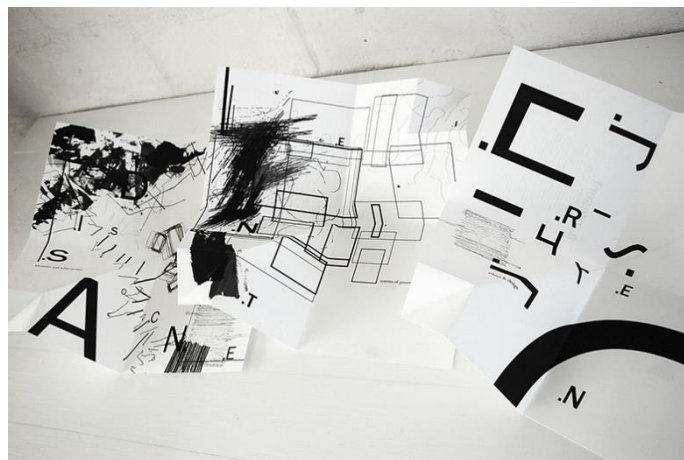
It was found that making allows the representational nature of design to be used to blur the boundaries between the poles of existing binaries. This was evident in how Emma came to think about the mind/body relationship throughout the project. She simultaneously experienced how, on the one hand, one can make without thinking – “you already have a visual representation of something without really thinking about it” (2015) – *and* how making can facilitate the evolution of new thought – “you just make something and then all of a sudden you start thinking about it in a different way” (2015) (Figures 3.1-3.3). This demonstrates how making can allow Visual Communication Design to be a powerful force in negotiating representation non-representationally.



**Figure 3.1: Project 2. Process development (Emma 2015)**



**Figure 3.2: Project 2. Maps: Front (Emma 2015)**



**Figure 3.3: Project 2. Maps: Inside (Emma 2015)**

At this stage, a rich range of forces constituted the research process. The 2015/2016 student protests<sup>6</sup> contributed political force to the mix. In Project 3, students were challenged to step out of their comfort zone on campus by interacting with someone with whom they shared any key difference. Through participatory design<sup>7</sup> processes, they jointly had to consider the editorial design of a specific text distributed in the institutional community. Mandy commented that experimental play with typographic layout and composition allowed her to “f[i]nd a way to work with the disunity and chaos of it all. I think the disunity in all the students’ statements made the message stronger than if I had to [have] use[d] one person’s opinion” (Mandy 2016). A shared sense of vulnerability became tangible and, through negotiating it representationally, strength seemed to be found to claim difference affirmatively (Figure 4).



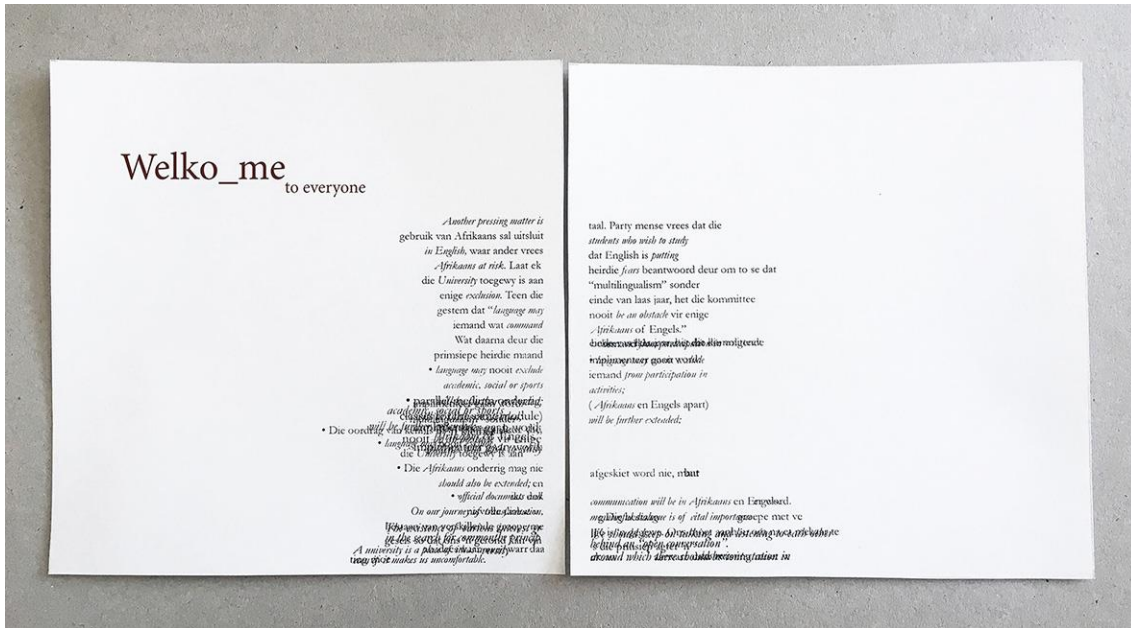


Figure 4: Project 3. Experimental layout (Mandy 2016)

Throughout the unfolding research process, I tried to resist the stronghold of dualistic, representational logic through allowing my own design – a practice focused on materiality and making – to shape and direct the process actively. Having to represent such a process in the form of an academic thesis, i.e. a comprehensive and logically structured document, was difficult. Jackson and Mazzei’s (2012)<sup>8</sup> methodological tool of plugging-in was helpful. It helped me realise that – in staying true to what I set out to do – I could not merely reflect on and describe what transpired throughout the research in linear form. I had to try and make the complex, relational nature of the process manifest in how I was writing, how I was structuring the text in the space I was working, and how I designed the reading experiences for readers.

I consequently decided to dedicate a separate section to each of the four participants with whom I worked. Each section came to embody plugging-into the processes of subjectification of a respective participant’s learning experiences. Ultimately, each of these sections came to exist as two separate, albeit inherently related texts. The first part of each section (reading on the left side of each designated spread) came to be after I went through a first round of plugging the data produced during the participant’s learning experiences into relevant theory. The second part of each sub-section (reading on the right of each spread of the document) became in plugging what I had written back into each respective participant’s then lived experience. I shared my writing with participants by making it available to them to read, but also through mapping it out visually (Figure 5) while engaging with them in conversation regarding how I came to do, think and write what I did.

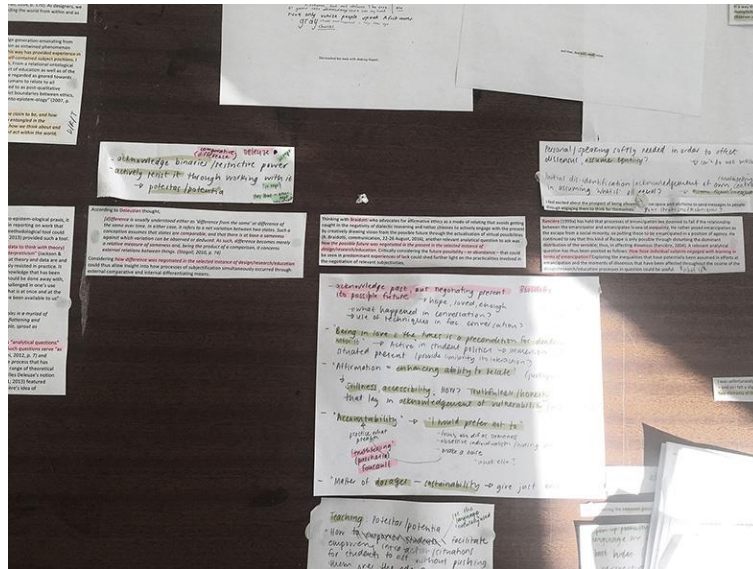


Figure 5: Excerpt from follow-up discussion map (Perold-Bull 2017)

Consequently, I contrasted aspects of the ensuing dialogue with the original text written so that new meaning could become in-between. Ultimately, two independent (and interwoven) narratives came to be. Each could be comprehended when read independently in vertical fashion, but both could also be read simultaneously across facing pages (Figure 6). This, I believe, mimicked a making for process through representational form and thus allows for new narratives to emerge from between.

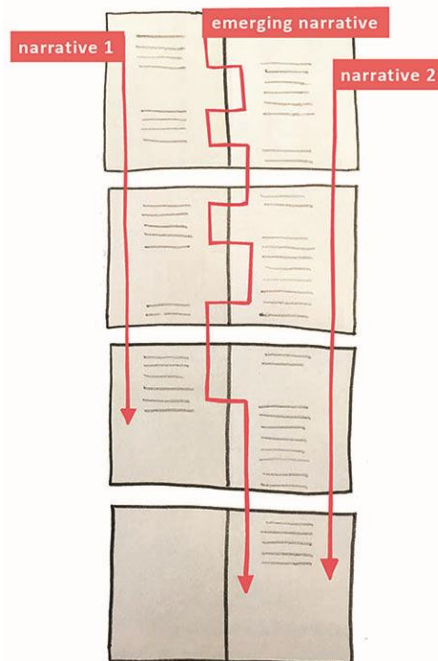


Figure 6: Structure of emerging narratives (Perold-Bull 2018)

The creative process of writing a second narrative to function alongside and with the first did not merely involve putting words on paper but invited an explorative process of critically considering how the words I wrote could relate to the parameters of the space on the pages they sat and to the already present text. Through creative play, I came to notice individual

moments of active resistance to binary, representational logic and realised that I could represent these fleeting moments without spelling them out in words. The transformative moments that emerged in the relations between what was actually said and what was interpreted could be allowed to emerge non-representationally in between the two narratives that were present explicitly. Representational design practice allowed me, to quote MacLure (2013, p. 666), to “engage [more] fully with the materiality of language and its challenge to the workings of representation”. I realised that, through making, I could affect productive change, “not through the application of exterior force to inert substance, but through intervening in a play of forces and relations both internal and external to the things under production” (Ingold & Hallam cited in Gürsoy 2016, p. 855) (Figures 7.1-7.2).

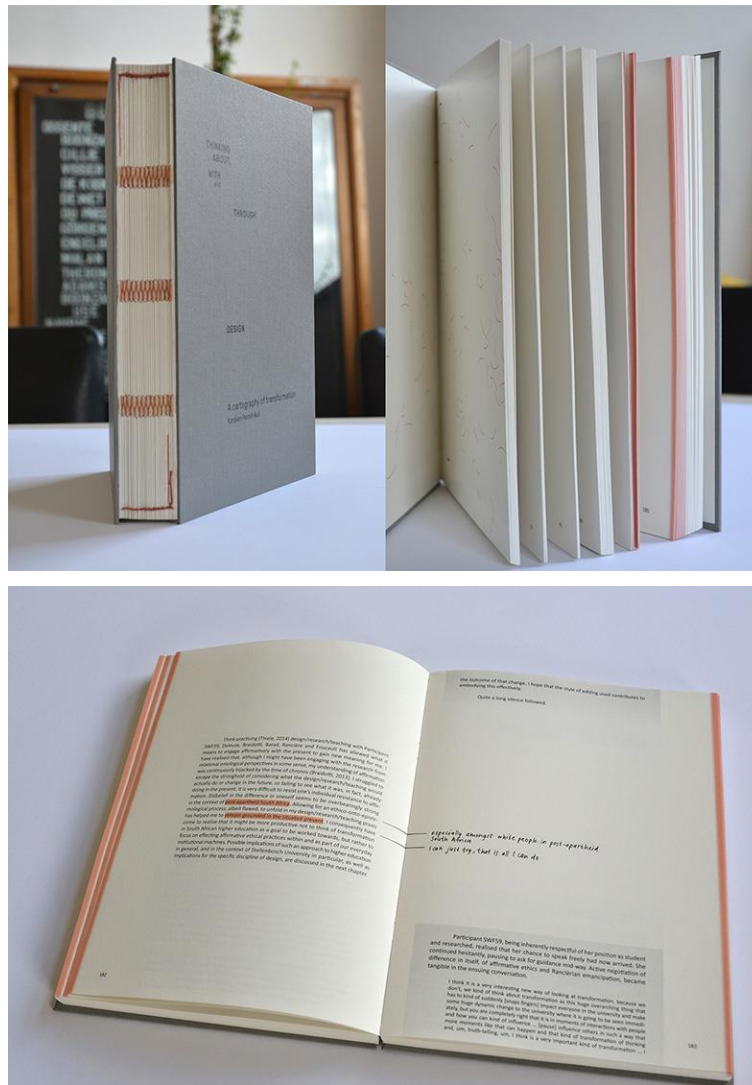


Figure 7.1-7.2: Final thesis (Perold-Bull 2018)

Basic elements of design, such as colour and composition, were used to structure the text to assist readers’ navigation thereof. While Narrative 1 embodies how difficult it was to resist extractive logic despite trying to, reading it together with Narrative 2 demonstrates how transformative moments can become in-between. I hoped that the engagement in diverse reading patterns when exploring the text would allow readers to become actively involved in a process of resisting the easy extraction of meaning from data, to become a dynamic part of the research process, and to share in the transformative change that design as ‘making for’ could hence afford.

## Conclusion

This paper has critically reflected on the processes of ‘making for’ involved in an instance of design/research/education within the context of the Visual Communication Design curriculum at Stellenbosch University. It has demonstrated that incorporating experimental play with traditional representational media (e.g. typography, maps, documents, books, among others) as part of a design/research/education process can allow individuals time and space to tune into, recognise and respond to moments of productive future change within their situated present. For example, the process of making the thesis this research culminated in opened a range of opportunities for the research participants to resist and challenge their own preconceived ideas and behaviours, and as such, they came to know and be differently. Making facilitated the use of representational media and skills in non-representational (Thrift 2008) ways, and this held power to transform the world for the better rather than strengthen its predictable, instrumental abilities. Accordingly, this research has demonstrated how design knowledge can be negotiated materially through design research, which is an integral aspect of design theory within the context of advanced capitalism in contemporary twenty-first-century society.

## Notes

1. Posthumanism recognises the mutual dependence of all beings on one another – human, animal, and earth – and believes this can allow resistance to the dominance of human agency in shaping lived reality (Braidotti 2013).
2. Post-qualitative methodology investigates “the impossibility of an intersection between conventional humanist qualitative methodology and ‘the posts’ [...] [e.g.] postmodernism, poststructuralism, posthumanism” (St. Pierre 2014, p. 2-3). It moves from a “logics of extraction to more relational means of identification” (Kuntz 2015, p. 51).
3. Subjectification entails the process of becoming a posthuman, and not a traditional humanist, subject. Posthuman subjects are “relational subject[s] constituted in and by multiplicity [...] subject[s] that work across differences and [are] also internally differentiated, but still grounded and accountable” (Braidotti 2013, p. 49).
4. Participant identities have been protected using pseudonyms.
5. Non-representational theory originated in the field of human geography (Thrift 2008). It proposes, “not prioritising representations as the primary epistemological vehicles through which knowledge is extracted from the world”, and understands representational practice as “active and affective interventions in a world of relations and movements” (McCormack 2005, p. 122).
6. The #RhodesMustFall movement rallied against institutional white supremacy at the University of Cape Town during 2015 and sparked related activist movements at South Africa’s other institutions of higher education throughout 2015-2016 (Langa 2017).
7. Participatory design constitutes mutual “investigat[ion], reflect[ion] upon, understand[ing], establish[ment], develop[ment], and support [of] mutual learning processes as they unfold between participants in collective ‘reflection-in-action’ during the design process” (Robertson & Simonsen 2012, p. 5).
8. According to Jackson and Mazzei, plugging-in involves “us[ing] theory to think with [...] data (and us[ing] data to think with theory) to accomplish a reading of data that is both within and against interpretivism” (2013, p. 261). This implies that traditional qualitative research methods and practices should not be used uncritically. Researchers should actively resist these methods and practices through its very use (Jackson & Mazzei 2012).

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