

A crafting of potentials...

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In the movement from understanding the past towards creating the future design anthropology, as a discipline, will turn from one with archival qualities to one endowed with potentials for change. One challenge facing design anthropology is how to show relevance for theory generation while also incorporating critique as a way to open up the design space in meaningful ways. To consider theory as a form of practice is to explore how one practices theory. Instead of a textual form that reframes our perceptions, theory becomes experiential and in this way changes our actions. The Schönian notion of seeing-as is complemented by designing-for as design anthropologists stage design workshops, span knowledge traditions, and make design moves. Reflecting on my own research process, I trace a few research tools that underline the craft of design anthropology.

Introduction: A style of knowledge

We are discussing the kick-off meeting for an upcoming project when Michael glances over to the foam core board, where I have arranged the images from our visits to the sterile supply wards at the local hospital in an overlapping pattern, suggesting layers that can be peeled away. “You are the only ones with a sense of aesthetic around this place,” he tells us. Perhaps that is not too surprising in that I work at an institute that educates engineers. Yet, I also get called *the scientist* when we start to talk about research projects and of course the potential outcome of producing research papers. In discussions with my teaching colleagues, as I was getting familiar with the institute, I can see why they choose that moniker. Part of it stems from the image of research that they have been exposed to, for example brain imaging studies about where people think when shown pictures of cars, ads, etc. to deduce the emotional beast

lurking inside of us. Another clue is the domain in which they work, engineering practice. Generalizing, it is premised on breaking down components into their smallest parts in order to build them back up into a system with a particular function. In many ways, this is familiar to traditional positivist science in that the approach to understanding life is to *reverse engineer* it by analyzing it into ever-smaller bits and pieces. This is quite different than either design or anthropology, the combination of which makes for an engrossing relationship. They both are about a building up, a synthesis, a bringing together of differences that therein lay the potential for change and transformation. Some would say design has not moved forward for the past fifty years and has been trying on “theoretical clothes” to see what fits and, not feeling attractive enough, buys a new wardrobe; while anthropology struggles to keep itself under the same academic umbrella, as it exposes the vast range of what it mean to be human.

While acknowledging current practices, experiences and identity has become a staple for anthropology, we should recognize that there needs to be a way to approach future practices, otherwise we are stuck in analyzing the past, luckily means there will always be work to be done. To call for a crafting of potentials means that our theoretical processes and products should impart characteristics of a generative nature. In moving out from a particular practice towards opportunity, sounds risky, even a loss of entanglement that is sought for in generating contextual knowledge. The alternative is to leave it to the engineers to figure out the future so we can get on with producing descriptions informants can agree upon as accurate. To do this exploring of potential practices allows for making explicit inherent, yet unnoticed influences as a form of critique. Another name for these potential practices could be *theory*. For Bagnara and Crampton Smith (2006: xxi) there are two opposing meanings for theory:

In its narrowest sense a theory is an imaginative conjecture refutable by empirical observation, usually in the form of quantified experiment, or a coherent structure of such conjectures; thus defined, theory is properly the realm of the physical and life sciences, and those aspects of the human sciences susceptible to measurement. But “theory” is also commonly used to mean the constantly evolving configuration of epistemological assumptions, conceptual constructs, methodologies, and critical values that flow around and through individual practices and fields of study, contributing to their wisdom and power.

To recognize these values flowing through practices is to come to terms with their trajectories. Design, like many fields, has problematized the relation between theory and practice, as one between practitioners in the field and those building conceptual walls as it fights for a place and funding in an already crowded university. The question is how can a field like design anthropology move beyond this characterization and consider theory a form of practice? Hine, working in science and technology studies, draws upon the sociologist Merton in her call for a “capacity to intervene coherently on issues that concern practitioners and policy makers” (2007: 654). In describing what Merton saw as the issues in sociology, Hine says:

...[O]ver-ambitious and premature attempts to develop unified theories with little obvious connection to observable social experience; and a tendency to produce descriptive data focused on specific situations without providing enough conceptualization to guide future study or generalize to other situations. (ibid)

Hence, Merton's appeal for *middle range theory*. Hine ties ethnography's strive for negotiating adequacy and engagement as stretching its role and usefulness. Moving closer to the field of design, Erickson (2006) proposes a similar perspective, in that design needs to draw upon theories in multiple fields, but is free to partake in conceptual *pruning* when required, leaving behind disciplinary arguments and baggage while retaining a certain amount of complexity in order to be helpful. For design anthropology to be a *merger of equals* rather than a takeover by *big D* or *big A* requires forward leaning practices to become recognized as a particular style of knowledge of embodied theory. Or more simply, design anthropologists need to engage in designing!

The concern around a style of knowledge is crucial to a field with anthropology as part of its identity. Descola (2005:72, original emphasis) speaks of the process as experiential:

...[A]nthropology, in the wider sense of the term, is not an endeavour that could be characterised by a clearly circumscribed domain of inquiry, or even by a type of method answering to the logical requirements set forth by the philosophy of science. It should be seen, rather, as a certain style of knowledge – that is, as a pattern of discovery and a mode of systematisation that are supported by a set of skills progressively acquired through practice, both a turn of mind and a tour de main, a particular knack picked up through experience...

Ehn (1988: 30), a leading participatory design researcher, echoed the significance of style in the creation of knowledge:

Compared with information and computer science, architecture is a mature art searching for its scientific identity. Considerations that have been important to architectural design should be worth reflecting upon for a science or art of designing computer artifacts. After all, houses and 'computer systems' are both social artifacts that play an important role in many people's lives. A comparison gives insight into the social and political aspects of design. It also sheds light on the creative sides of design, and leads me to argue that design of computer artifacts is just as much a craft or an art as a science. The question of style becomes just as important as that of scientific theory and method.

If, as a field, we are to engage in the contexts we work, to negotiate a role at the table in creative processes that impact future practices, there needs to be a way to nurture and support this approach to generative knowledge. Through the rest of the paper, I hope to sketch out what this means and offer a few examples of tools for doing so.

From *seeing-as* to *designing-for*

Using my personal experience as part of design and research projects over the last few years, I would like to highlight a shift taking place in the role of design researchers in general. The role of seeing or perception has been critical to

research as well as practice. Schön (1988: 186) looked at this from a range of disciplines:

Thus in technological development as in scientific research, inquirers can sometimes figure out how to solve unique problems or make sense of puzzling phenomena by modelling the unfamiliar on the familiar. Depending on the initial conceptual proximity or distance of the two things perceived as similar, the familiar may serve as exemplar or as generative metaphor for the unfamiliar. In both cases, the inquirer arrives at a new description of the phenomena before him by reflecting-in-action on an earlier perception of similarity. [...] But the idea of reflection on seeing-as suggests a direction of inquiry into processes which tend otherwise to be mystified and dismissed with the terms "intuition" or "creativity," and it suggests how these processes might be placed within the framework of reflective conversation with the situation [...].

Throughout my own dissertation work (Kilbourn, 2008), I refer to *patients as skilled practitioners*. This stems from the initial perception on the similarity of the self-care patients I worked with and the healthcare professionals who are charged with overseeing their care. While at first, I would have been unable to articulate exactly why I associated the two; through exploration of the metaphor I came to understand the ways in which the metaphor was appropriate and how it was inadequate. In part, the dissertation explored and described this metaphor, as a technique suggested by Marcus (1995:106) framing a study “as practices of construction through (preplanned or opportunistic) movement.” Perhaps more importantly, it points to the role of *seeing-as* to a way to propose possible human practice. Ehn (1988:139) also points out the necessity of viewing to practice:

The questions have to be asked in ways that allow new aspects to be seen, e.g. so that practical knowledge can be brought into focus. Only then is new theoretical knowledge produced. If successful, this can be understood by others as new insight and in the long run as new practice and understanding.

While situated in multiple contexts such as industry, education and research, much of my research explores personal health practices. To in a sense “break away” from a fixation on medical concerns or any other disease-specific concern, I proposed *designing-for* as a complementary process to the Schönian *seeing-as*. Designing-for serves as a catalyst for crafting future potentials. While *seeing-as* provides the linguistic and reflective aspect of possibilities, *designing-for* creates the materials necessary to achieve the design experiments for future practice. The design experiments help reify the possibilities of human ways of working by producing concepts which helped to trigger associations between the theoretical insights and empirical material. But this has an effect on the researcher as Ingold (2008:82-83, original emphasis) points out:

An education in anthropology, therefore, does more than furnish us with knowledge about the world – about people and their societies. It rather educates our perception of the world, and opens our eyes and minds to other possibilities of being. The questions we address are philosophical ones [...] But it is the fact that we address these questions in the world, and not from the armchair – that

this world is not just what we think about but what we think with, and that in its thinking the mind wanders along pathways extending far beyond the envelope of the skin – that makes the enterprise anthropological, and by the same token, radically different from positivist science.

It is here where the opening for a design anthropology appears. “What we think *with*” is the crucial element that distinguishes it from the larger discipline of, take your pick, design or anthropology. I argue that is the tools we bring to the situations that differentiates us from other fields. It is our ways of *working*, the process of *thinking*, of *doing* that distinguishes how we engage with others in the course of our research.

Expanding the repertoire of tools to meet the challenges

While design research has critiqued methods and tools as a way of advancing the field, I still find value in looking at the tools we use as a way of crafting potentials. I highlight the following tools, not because I think they are extraordinary in their execution, but rather they are based on my own experiences in design research practices. The first category I call *non-textual synthesis* as it explores ways of understanding not premised on linguistic frameworks. While the process of synthesizing and creating meaning of our experiences is present in both anthropology and design, it is the latter, which draws upon other approaches than text to achieve that. It is a shame that we experience the world with a range of perceptual capabilities and then when trying to understand it, we resort to squeezing it into words. Designers have used *mood boards* as a way of both proposing the material, visual surroundings and as a way of pointing towards a particular trajectory. A way of making sense of the present while also carving out a space for exploring the future. As part of an industrial project during my time at the design and innovation consultancy IDEO, I was working with two industrial designers as we explored a new global product. The challenge was to understand the practices of people today while simultaneously proposing a strategic product portfolio to engage with practices, as they would be a few years down the road. Returning to the studio with experiences from five distinct parts of the world, I set out to visualize the experiences of the product as it existed today and could exist. Starting with only images, a visual framework appeared which allowed the designers and I to have a dialogue. Of course, using information dense photographs to convey complex ideas can have unintended meanings for designers as they convey material choices, instead of the focus on values and attitudes. As writers we can get attached to certain words, but with images it is even harder to breakdown attachments when it is not working to rebuild the framework. As our understanding of the design space grew however, the original images were eventually replaced with concepts as we worked towards a new understanding of the design opportunities within new practices. What would happen if as a field we started to incorporate and embodied non-textual synthesis as a part of our repertoire?

The next category of tool is *relations from the future* and is about getting to experience the embeddedness of practices that have yet to exist. Often, concepts appear really great at addressing one particular aspect of a problem

space, yet the interconnected nature of social life gets left behind. Designers interested in new technology have used drama and acting to great affect in exposing the seams of practices. These performances are rich with explicit understandings of our current relationships and how we wish them to change moving forward. In a workshop with hospital supply technicians and companies interested in robotic technology, we generated robot scenarios of completed solutions as a way of both understanding conflicting visions for the project and how workers would relate to the likely new co-workers. While we set up the session by advising the teams that at least one person should play the role of the robot, in all the groups, there was not a person to be found! The technological vision of the fully automated ward came to life and consumed the entire working process. To be fair, one group enacted a scenario where the robot sorted the simple instruments from the complex, with the latter being worked on by people. The strength of working with a tool like this is that the social web (including people and their environment) quickly gets laid to allow for space to critique, question, and reflect before full scale implementation and the following “finger-pointing” of why its such a failure.

The final category of tool that I suggest is *experience juxtaposing*. The purpose of such a tool is to explore potential experiences while firmly present in the here and now. Imagining such a possibility is, of course, not the same as having the experience, but the power comes from the comparative aspect. One example I draw from is from the hospital project, where we create a series of cards with “superpowers” which our participants could select. While it might come across as silly and a bit childish through the tone of the cards with illustrations that looked as if they came from a comic book, the participants took them quite seriously when we asked which three they would choose and why. We took this approach as we wanted to understand what role robot technology would the worker’s practice. While visions of technology often turn out much more mundane than anticipated, by pushing the hospital worker into the central role with the “choice” to wield technology as a power we could get closer to what it would feel like if technological solutions were implemented.

Okay, but how are these in anyway *theoretical* as it relates to building a research practice in design anthropology? How do researchers engage with theory? How do we work with the literature? In what ways can it become more collaborative rather than a solitary activity? One experiment I tried involved making theory tangible, and in a way putting it in a box, as a quote on a card. Drawing upon design processes, I sought to make a more direct relationship between “theory” and empirical “data” perhaps even seeing how theoretical perspectives change how one sees the material. Often, the hidden aspect of the research craft is how experiences, theory and empirical material collaborate. To inquire about possible ways of working, I created a workshop called *The Research Game* in which simplified theoretical perspectives were used as a starting point for developing research questions and subsequently used as a way to analyze a set of video clips. There have been three variations of the game. The first with fellow PhD students, the second as a workshop at an

international design conference (Sitorus and Kilbourn, 2007) and the final most recently at a research planning session at my current institute. Specific comments regarding the process in the conference workshop included that it was interesting to see if theory guides design work. Some found it hard to jump from these large concepts to specific material and thought perhaps it would be more fruitful to end with concepts rather than start with them. Another suggested a further experiment could be to give two groups the same video cards but different concept cards and compare the results. Towards the end, a detailed discussion into the ethics of changing the context through technology highlighted the dilemma of preserving the current practice. While the game did not provide a seamless transition from theory to design, it did provide a more transparent and tangible approach to incorporating theoretical concepts in designing.

The results of this are not relevant to my argument, however, the discussion after the workshop shows awareness by the participants of some of the main threads we hoped to explore. In particular, the ethics of what it means to design *from* or *for* skill touches upon what role empirical material is to serve. Should we replace, mimic, react to, preserve, maintain, or enhance a particular skilled practice? The workshop was a microcosm of representations that find their way in design practice and participants questioned if it might be better to return to the original source. From a broader perspective this questions the role of a type of theory to overpower practice and the balancing required respecting theory and practice simultaneously. Comparative tools for collaboration in design anthropology should be further researched, as it comprises a field that straddles a strong practice-based tradition with a rich theory-generating field.

Sketching a design anthropology approach

As we approach the final section of this paper, I'd like to sketch out my approach to design anthropology in broad strokes. I frame the general trajectory as quite different from traditional anthropology as it does not start from the academy and work out to the world. Rather, it starts from within practice towards the academy. This shift gets to the fundamental heart of a design + anthropology discipline. A way of generating knowledge at the local, situated level and then sharing that insight to a broader audience. There are three movements in such an approach: *moving in*, *moving along*, and *moving out*. The first, *moving in*, is concerned with the collaborative approach to understanding *with* others through the tools we employ to think with. In many ways it is critical to reflect *with* and *on* practice to introduce change. It is not enough to document how it is. To do this requires helping to articulate embodied practices, while also bringing together design and use practice. Such an approach has a strong history in action research, especially in educational settings as McNiff describes the fundamental tenet of "research WITH rather than research ON" (1988:4, original emphasis). A corollary of this means a limit of control over the direction of the research and balancing multiple interests. In order for *moving in* to be successful, research tools are developed

for collaborations among practitioners. While these types of movements are essential for any anthropological pursuit, design anthropology also *moves along*.

Early in my PhD project, I visited the local hospital in Sønderborg and observed a person preparing to undertake home hemodialysis. Compared with the simplifications that had been suggested by the literature and medical device companies to ensure the safety of patients, this person became involved in a complex medical procedure at home, without the surveillance of healthcare practitioners. This contrast led to the simile (a type of metaphor) *patient as skilled practitioner* and served as both the frame and the object in which I crafted the continuing research. Although I did explore additional people involved in home hemodialysis, this particular medical disease was not my object of research and I continued to search for additional lines of inquiry. As Hines says “moving around gives us ways to suspend judgment about the appropriate places to study experience and make interventions and the appropriate ways to reproduce methodologies” (2007: 669). Bundled with expectations from the university faculty regarding course obligations, teaching requirements, as well as “knowledge transfer” obligations I sought to balance the multiple interests as well as generate knowledge in an industrial context. One way of smoothing and shading the complexity was to explore how the research could span the contexts. In choosing the metaphor *patient as skilled practitioner* I could flexibly situate myself within these particular contexts as well as appropriating the research to satisfy my own experiences and make it “adequate to intervene in the issues of the day” (Hines, 2007: 653). The necessity of generating knowledge spread across multiple contexts and the importance of that movement of knowledge along contexts in order to make relevant and useful the research underlies the *movement along*. Movements *between* research projects show not only an understanding within one particular place or configuration, but an interrelationship in how materials and knowledge are mediated through various actions in multiple contexts. This allows for an emergent dimension to the research. The boundaries between the projects are not fixed, but instead are threaded by the research. This is not only an academic exercise. During my time in industry, I found they also wish to learn along projects, rather than starting back at zero for each new undertaking. The comparison needs to extend between projects. Hines (2007:656) sees the shift from *ethnography* to *imaginary* as a way to highlight the “constructed nature of research projects” and the role of the researcher in this process.

Moving out suggests leaving a zone of comfort and understanding. And it is more exploratory than either of the two earlier movements. It is about opening up lines of inquiry rather than closing them down in fine-grained analysis. It is about the *what ifs* and inspiring by probing the edges of the known. McNiff (1988: 43) points to the trajectories created by such an approach:

...the need for a theory of generative capacity, that is, that could communicate the potential of one theory to create new theories. Rather than stopping at the traditional notion of a theory arising out of a specific set of circumstances and having relevance only to that setting, a generative approach views a theory as an

organic device to create other theories that may be applied in other settings.

These might seem to be speculative potentials but as Fulton Suri (2008:54) underscores the relationship between empathy and imagination:

By definition, as soon as we start to think ahead to future experiences and how people might respond, we begin to draw upon our intuitive and interpretive abilities. We begin to imagine and empathize. [...] Design research both inspires imagination and informs intuition through a variety of methods with related intents: to expose patterns underlying the rich reality of people's behaviours and experiences, to explore reactions to probes and prototypes, and to shed light on the unknown through iterative hypothesis and experiment.

Through this anthropology *with*, researchers aim to achieve an understanding that is at once holistic and processual, dedicated not so much the achievement of final synthesis (although it does have a role) as to opening up lines of inquiry. Tackling the difficult and value-laden domain of change and transformation, seems to me, to be a worthy cause for design anthropology.

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