



Research Network for Design Anthropology

Ethnographies of the Possible

Seminar 1, April 10-11, 2014, Aarhus University, Moesgaard Alle, Denmark

Collected working papers (for limited circulation)

Design Interventions as a Form of Inquiry, Joachim Halse (Royal Academy of Fine Arts, School of Design)

Forms and Politics of Design Futures, Ramia Mazé (Konstfack and KTH Royal Institute of Technology Stockholm)

Imagining Possible Futures – Designing Possible Pasts? Ton Otto (Aarhus University)

Things Making Things: An Ethnography of the Impossible, Elisa Giaccardi (Delft University of Technology), Chris Speed (University of Edinburgh), Neil Rubens (University of Electro-Communications, Tokyo)

Making “The Possible” Possible, Lise Pedersen (University of Copenhagen), Kasper Tang Vangkilde (Aarhus University)

The Design Anthropologist as “Articulation Worker”, Ellen Christiansen (Aalborg University)

Ethnography as Theatre, Jacob Buur (University of Southern Denmark)

Things Could be Different: Design Anthropology as Hopeful, Critical and Ecological, Mike Anusas (University of Strathclyde), Rachel Joy Harkness (University of Aberdeen)

On the Fly, On the Wall: Eliciting Possibility from Corporate Impossibility, Brendon Clark (Interactive Institute Swedish ICT), Melissa L. Caldwell (University of California)

Design Anthropological Encounters as Laboratories of the Possible, Thomas Binder (Royal Academy of fine Arts, School of Design)

Organizers of the seminar

Mette Gislev Kjærsgaard, SDU design, University of Southern Denmark ,
mgk@mci.sdu.dk

Rachel Charlotte Smith, Dept. of Aesthetics and Communication | Centre for Participatory IT, Aarhus University, rsmith@cavi.au.dk

Responsible for the research network in Design Anthropology

Joachim Halse, Royal Academy of Fine Arts, School of Design, Copenhagen
Kasper Tang Vangkilde, Dept. of Culture and Society, Aarhus University
Mette Kjærsgaard, SDU design, University of Southern Denmark , mgk@mci.sdu.dk
Rachel Charlotte Smith, Dept. of Aesthetics and Communication | Centre for Participatory IT, Aarhus University, rsmith@cavi.au.dk
Thomas Binder, Royal Academy of Fine Arts, School of Design, Copenhagen
Ton Otto, Dept. of Culture and Society, Aarhus University

Design interventions as a form of inquiry

Joachim Halse

Royal Danish Academy of Fine Arts - School of Design

Laura Boffi

Copenhagen Institute of Interaction Design

Things could be different

This paper is about research methods that are explicitly oriented towards qualitative empirical exploration of the open-endedness of the world. In short, we propose that design interventions can be seen as a form of inquiry that is particularly relevant for investigating phenomena that are not very coherent, barely possible, almost unthinkable, and totally underspecified because they are still in the process of being conceptually and physically articulated. We see design interventions as a supplement to existing research methods, one that favors and explores unsettled and imagined possibility, yet employs empiricist virtues of embodiment, empathy and documentary forms.

An underlying assumption of many research methods is that the world is a pretty determinate set of discoverable entities and processes (Law 2004:9). The dominant image of scientific research methods is that they aim for clarity and precision, seek to eliminate sources of bias, and strive for unambiguous outcomes. The so called 'randomized clinical trial' pose as the highest standard of rigorous research into human science experimentation, and as a matter of self-evident logic (Dehue 2002:79). In *Logic: The Theory of Inquiry* (1938) John Dewey defined inquiry as "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole". In other words, Dewey's inquiry is about reducing uncertainty. This is *not* the primary commitment of design interventions.

The word intervention is in everyday use typically understood as goal-oriented interfering in a course of events to promote a preferred state; usually defined by an external force, for example diplomatic, military, or medical. Literally it means 'coming between'. In experimental design research, however, the word intervention is less about conflict resolution or correction. Design interventions are increasingly seen as a research method, not to test a prefigured solution to a defined problem, but to enable new forms of experience, dialogue and awareness about the problematic to emerge. As such it is often employed as a strategy of complexification.

Let us take an example of a design intervention, and see how the term is being used in a design research project exploring energy usage:

"Replacing notions of objects, products and even services with placeholder concepts such as "interventions", Switch! explores a range of alternative design expressions, methods for prototyping concepts and strategies for placing design concepts in discursive contexts. (...) This is part of an ongoing investigation of design interventions (as things or happenings) into systems in order to effect an awareness of the values involved - such interventions might operate to expose habits, norms and standards, or to shift and renegotiate actors/variables." (Bergström et al 2009)

The design intervention is a placeholder concept, which because of its ambiguity allows for a wider range of conceptual alternatives to be explored. And the immediate objective is not so much to arrive at closure, as it is to prompt reflections about the issue in discursive contexts.

The employment of early materializations or placeholder artifacts in knowledge production is typical of design: *"Most problems worth worrying about are complex, and a series of early experiments is often the best way to decide among competing directions. The faster we make our ideas tangible, the sooner we will be able to evaluate them, refine them, and zero in on the best solution."* (Brown 2009:89)

Although the design intervention in Switch! explicitly introduces a new artifact, it poses more as an open-ended research instrument to expose habits, norms and standards, than as a resolution of the issue (of energy usage). What happens when the conventional outcome of design processes, namely material, visual and bodily articulations of new possibilities are used to raise new questions? Utilizing basic design methods such as sketching and prototyping, design interventions are often playful, experimental and open-ended in setting up a frame for exploring a given topic in a new light. We should not underestimate the importance of the object, just because it is de-centered. In his essay "Design Fiction" (2009) Julian Bleecker reconsiders what might be the role of the material design object, if not the resolution itself, in more speculative realities:

"If design can be a way of creating material objects that help tell a story, what kind of stories would it tell and in what style or genre? Might it be a kind of half-way between fact and fiction? Telling stories that appear real and legible, yet that are also speculating and extrapolating, or offering some sort of reflection on how things are, and how they might become something else? (...) Design fiction objects are totems through which a larger story can be told, or imagined or expressed. They are like artifacts from someplace else, telling stories about other worlds." (Bleecker 2009)

To what extend can the particular stagings of empirical dialogues around evocative design artifacts (variably named probes, props, and prompts in the design research literature) be seen as a materially integrated version of ethnographic inquiry into people's concerns, aspirations and imaginative horizons?

Transformed Ethnography

Ethnography had a major debate and crisis in the 1980's, where the impossibility of objective and neutral representation of human life was increasingly acknowledged among researchers. The seminal books "Writing Culture" (1986) and "Anthropology as Cultural Critique" (1986) revealed ethnographic methods as inescapably political,

and always also re-creating the realities they set out to describe. The idea of an objective stance from which to view and understand human life was deconstructed, and followed by a range of increasingly collaborative scholarship, including performance approaches, participatory and action research methods that seek to co-produce knowledge, and engage people emotionally through other media than conventional academic papers (for example presented at the 2012 Victoria, BC, Public Ethnography conference, <http://publicethnography.net/home>).

The particular ethnographic field techniques of in situ observation and interview have been widely adopted and employed in various newer professional design fields that value the inspirational potential of qualitative studies and potential for collaboration, such as interaction design (Löwgren & Stolterman 2004), design thinking (Brown 2009), commercial innovation (Kelley 2005), service design (Polaine et al 2013), and public sector innovation (Bason 2010). Also in more academic circles of design research, have ethnography gained relatively much exposure and application (e.g. Dourish 2006 and Koskinen et al 2011).

Some methodological transformations have happened during this: particularly new transdisciplinary methods for bodily exploration of the possible have emerged. Core ethnographic aspects of empathy, open-endedness, attentiveness to situatedness, have met with designerly competencies of articulating new possibilities through design proposals, expressing ideas and hypotheses in rich media from paper sketches, 3D models, service blueprints, bodily performances to interactive dialogue tools, experience prototypes, critical artefacts and speculative design objects, and video-based design documentaries are all examples of these methodological transformations that carry traces of ethnography.

So what we have is a range of hybridized methods that cut across ethnography and design, with a relatively high practical value, yet with limited foundation in terms of their status as research methods. With the notion of design interventions we seek to contribute to the repertoire of inventive methods that explore the happening of the social, as introduced in the book *Inventive Methods* (Lury & Wakeford, 2012).

Design interventions is a materially innovative method that is explicitly oriented towards exploring the contemporary as an open moment, open towards “the possible”.

Almost 20 years after Writing Culture, John Law in “After Method: Mess in social science research” (2004) continues and extends the argument about how methods don’t just describe social realities but also help to create them. Law’s reaction to the fact that the world is often messy, is to encourage messy methods: “simple clear descriptions don’t work if what they are describing is not itself very coherent” (2004:2).

And this is often the case with design interventions. They seek to probe into peoples pains and pleasures, their hopes and horrors. And they often involve things and practices that are vague, ephemeral, unspecific, change shape or don’t have much form at all. This is exactly the case with the following example of a design intervention based on an ethnographic study of palliative care and terminally ill patients.

Weaving Relationships: A Design intervention



Figur 1 What is this? It is not a moment of ethnographic observation of everyday nurse practice, nor is it a staged scene of a fictitious future story either. Yet, it is both. As an experimental moment betwixt and between modes of existence, this is a design intervention playing with situated possibility and constraint.

Italian interaction designer Laura Boffi began her final project at Copenhagen Institute of Interaction Design with 20 days of ethnographic fieldwork in the hospice Antea outside Rome (June 2010). Here, with an occupational therapist as gate keeper, she observed and interviewed patients, staff and relatives as they experienced end-of-life relationships. In parallel literary resources was consulted to learn about anthropological perspectives on medicine, rationality and experience in general, and in particular death as a rite of passage, material culture associated with death rituals, and shamanism (Plus visits to palliative care experts, eg Istituto Maestroni). However, her training as a designer, particularly with respect to materials and media, heavily influenced Laura's tools and techniques for the fieldwork.

By engaging patients in photographing important situations, Laura tried to get to see the hospice as they saw it.

Some female spouses sat quietly for long hours, watching over their dying husband by the bedside. To build on their personal craft skills, and to provide a different kind of medium for the one-sided dialogue, Laura invited them to embroider while they tried to, or wished they could exchange emotional stories about the past, present and future with their loved one. One shows the two of them on a trip to the coast she had imagined with her husband, and conveys an emotional story of preparing for loss.

In concordance with contemporary psychological research (Ecce homo - If this is a man: "Humanization and de humanization of pain in the end of life" May 2010, Padova, www.endlife.it) the hospice nurses expressed that they too, once in a while, needed someone to talk to, to unload. Which made Laura create a little research tool to prompt nurses to talk more about this, in situ. It consisted of a little bag with three pebbles and a miniature notepad, entitled "3 events that are as heavy as stone in your work. Remove a pebble from the bag when you overcome one of them." This dialogue tool allowed the nurses to symbolically treat their difficult emotions, and jot down a few words about them in or after the situation, and open the possibility of sharing them back with the researcher.

One nurse explained about her particular way of giving patients the space to communicate without talking directly about death if the patient does not want it, and yet without lying. She calls this her 'small contract' with the patient, which allows her for example, to say the patient: "anytime you feel worse, you say it to me, and so I adjust the therapy for you. It is important that you tell me."

In the office area of the palliative care staff the patient list is displayed on a magnet board for administrative purposes. Even in here, where only professional staff members come, the direct indication of proximate death is avoided. A small butterfly magnet is used to indicate when a patient's condition worsens.

From the various research techniques, a more general insight was formed: The

palliative team develops specific strategies and language to talk about forecasts and deteriorating health conditions both with each other, with relatives and with patients. In the cases where some of the involved try to avoid direct and critical conversation about death, they instead develop and employ symbols and stories to talk around sensitive issues without having to lie or hurt themselves or others. (This finding is in alignment with research presented at the workshop “Livet og dets afslutning på tværs af virtuelle og realistiske rum”, Copenhagen University, 2012).

Although the palliative care staff are experts in pain relief and physical care, this is only a part of their work. A major effort concerns managing relationships between patients, families and themselves. Palliative care is dependent on an alliance between patients, their relatives and hospice staff.

Although some patients are surrounded by family and friends, their conversations can seem superficial and impersonal. Moving physically out of the confined and clinic-like room, connoting hospitalization and illness, and away from the direct face-to-face communication can feel liberating to some patients, relatives and staff, and help to support their experience of meaningful interaction.

The field study could have stopped here, and gone deeper into analysis mode, and contextualized the insights in socio-historical terms. However, for a researcher trained in interaction design, this is not the default. Instead, translating the findings of the field study into a challenge for further exploration of opportunity *is* the default. This is the question Laura formulated for her project: How can we strengthen the alliance between patients, relatives and the palliative staff, by supporting the sharing of their experiences with deadly disease, loss and sorrow?

Staging elusive end-of-life relationships

Two months after the initial fieldwork, Laura returned to the hospice for two days with a set of three designed but open-ended objects (Aug 2010), and a method for staging a collaborative video exploration of what meanings they might take on in the

context of the hospice, and in the hands of the local participants – a design intervention (footnote: all the patients participating in the initial field study had passed away in the meantime. However, the niece of one of the patients taking photographs, reached Laura to see the last pictures her aunt had taken, and thus starting a new reciprocal conversation among researcher and relative on memories.)

The proposed concept for symbolic communication and meaning creation that supports patients, relatives and the palliative team in sharing individual representations of the disease, and to create meaningful relationships in the patient's last time. It consists of

- 1) hollow matryoshka dolls for developing the alliance of patient, relative and staff. The matryoshkas can contain and present each person's experience of the deadly disease using a collection of symbolic objects.
- 2) a message station hanging in the tree outside; where to start new conversations outside hospitalization context, and without face-to -face confrontation. The conversations are private and intimate.
- 3) a textile blanket. Gives the sensation of being in continuous contact, spiritually and physically, when death occurs through palliative sedation.

The actual design intervention was framed through a verbal introduction as a collaborative exploration of new possibility rather than an evaluative test of the objects as prototypes. So, people often don't talk directly about death, but through various workarounds and coping strategies. But what *would* they talk about if they could? The objective of the design intervention was to make the local participants comfortable with the objects as "things to think with" and "things to act with", in such a way as to build also on their imagination of how hospice life would be with some form of assistive communication tools for exchange of difficult messages and emotions.

The first object, the matryoshkas are introduced to Andrea, a nurse, and he begins to interpret the symbolic objects inside:

"The third one, you could think it is not nice, but the scissors (are important)

because the patient uses them to detaching from his life. (...) An idea could be to bring the doll with me only when I visit that patient. I could bring it on my trolley and then take it with me to the patient's room. (Andrea enters a room, imagining that the patient Luigi is in bed) Ciao Luigi, good morning! I filled my matrioska with 3 objects what about you? (as there is no one to respond, Andrea continues to explain) There is a pair of scissors, because you have told me you are tired of this illness. And you wanted to end it up as soon as possible...." (translated from Italian, video).

The same object, the matryoshkas, are also employed in conversation with Nilde, a friend of a patient named Laura, who passed away some days before the interview. She imagines what would happen if she had put symbols in her matryoshka for her friend:

"This is like denuding oneself, because maybe later you have to explain why you did this thing... With Laura, I don't know, it might have been difficult... She might have required an explanation on the things I put in my matrioska. (...) Maybe a person put the symbols with extreme honesty... I do not know if you can be so honest when explaining them... We can't ignore that... You can enter the hospice door, but you will never leave from it...
(...) A relative to a patient can still have some kind of hope, so the symbolic objects you put inside the matrioska could be symbols of hope. Maybe it could have been... But I think it could work because its like another tool to communicate, sometimes it's hard to start a conversation and get more intimate... There's no occasion, maybe... having objects inside this matrioska could be a key to open doors that are difficult to open." (translated from Italian, video).

The second object, the messaging station is playing with the possibility of displaced conversations. As the hospice already worked consciously with the outdoor space, as distinct from the rooms and as an escape from the setting and its constraints on emotional interaction, the station is hung from a large tree in the garden.

Margot nurse to her patient: (after writing, as reflection:) I thought of a person who has just passed away... I spoke to him now, by writing. (...) The tree is the space where we go and say what we feel and think. Maybe we speak about things we never speak about. It gives serenity for the two minutes you are sitting there. We can abandon ourselves to our suffering here... (translated from Italian, video).

The third object suggests to leave open a channel of communication during terminal sedation. It is a blanket resembling the big tree with the communication station. A nurse, Lorena, is in a patient room and imagines herself with the patient in the moment of terminal sedation. She holds the blanket tight in front of her with both arms:

”The terminal sedation is a particular moment and situation... For me it is each time special, a particular goodbye. (...) (Lorena stands in front of a bed) As it often happens, I imagine that if the patient lies here... before giving him the sedation, I clean him and make the bed neat, and then I use this blanket because it is a symbol of us, I would say... since we have been using the tree to speak indirectly. And we even shared it with the family (Lorena spreads the blanket over the hospital bed). But I think this moment is just our moment. It is the patient's and my moment. (...) I actually imagine the body being all wrapped... on the cheeks as well, like if there was a baby (arranging the blanket so as to tug in a person) If this was the face... hmmm... too big this face (Lorena tries to form the pillow as if it was a person's head, and smilingly speaks directly to the researcher): If you prefer I can lie down myself! (a light giggle from the researcher) And so... I would put the blanket close to his body and... As I usually do, I hug my patients. We stay like this as long as we feel like. And I sit like this... At the bed side (Lorena gives a long hug to the pillow wrapped in the blanket). We stay close for a while... And then it depends on what the patient asks for, if he can speak... And I let the sedation go to him (pointing to an imaginary tube from the medication holder towards the bed) I stay there and sit on the bed. I do not like to stand while the patient is over there, you know..... well... As I usually do, I will say to let himself go and not to be afraid...“

because there will be myself here to watch over him... and.... Have a nice journey (smiles gently)." (translated from Italian, video).

What is this?

What should we make of these three small empirical encounters captured on video? And the embedded use of photo, embroidery, pebble stones, fabric bags, diaries, 3D printing, sewing machine, cardboard and string alongside more conventional interview and observation techniques? Are they ethnographic representations of hospice practice? Not exactly. Are they prototype tests of new communication products? Not quite that either. Our proposal is that they exemplify something in between, and that what they present is messy, ephemeral and not very coherent.

This design intervention and the phenomenon it aims to explore are deeply implicated in each other. Understood as a research method, the design intervention does not afford a transparent representation of the phenomenon, free of personal interpretive bias. On the contrary; the researcher's personal experiences with loss is arguably an important pre-condition for establishing this kind of empathic exploration in such a sensitive, and normally very difficult to access field. The methods are not standardized, nor are they rigorous, and most importantly they do not produce clarity. On the contrary, the methods are highly contingent and locally invented or adapted, they are employed opportunistically and unsystematically, and most importantly they produce complexifications, bifurcations and multiplicities.

They deal with something that resists full articulation because what they circle around is only almost possible. And here we do not talk about possibility as free floating fantasy, but possibility that is empirically situated and exposed to critical investigation by the people it concerns.

There are no clear demarcations of when these methods deal with describing the existing world as is, and when they prompt the human and non-human actors of the field to enact new imaginaries. It is as if these methods assume that *at the same time*

we can learn about the socio-material practices around dying and appreciate that these same practices are being unsettled, re-imagined and re-invented.

We don't want to distort this ongoing mess into clarity. Instead, we propose design interventions as a particular form of messy inventive inquiry that has little in common with the experimentation of randomized clinical trials, which set the current standards for scientific approaches to hospice practice. Design interventions, understood as a form of inquiry, sit well in line with the social science approaches outlined in "Inventive Methods" (Lury & Wakeford) and "After Method" (John Law), although they draw on sources like the 'creative disruption of everyday life' (Thompson 2006) as much as the Malinowskian ideal of fieldwork, or Popperian ideals of scientific knowledge.

By this onto-epistemological move we may not obtain solid knowledge of our field, but we will, hopefully, be able to explore a far wider range of realities, and engage consciously in their contested making and remaking.

It seems to us, that design interventions do pose as an intriguing candidate for an exploratory research method that combines qualitative empirical research informed by post-structuralism on the one hand, and of the generative methods of constructivist design research on the other.

To what extend design interventions, with their stagings of empirical dialogues around evocative probes, props, and prompts, can be seen as a materially enhanced version of ethnographic inquiry into people's concerns, aspirations and imaginative horizons, is, however, a question we prefer to keep open for discussion.

Bibliography

- Bason, C. (2010). *Leading Public Sector Innovation: Co-creating for a Better Society*. The Policy Press, Bristol.
- Bergström et al. (2009). Symbiots: Conceptual interventions into urban energy systems. *Engaging Artifacts 2009*, Oslo, www.nordes.org
- Bleecker, J. (2009). Design Fiction. Near Future Laboratory.
- Boffi web
- Brown, T. 2009: Change by Design. Harper Collins, New York, US.
- Clifford, J. and G. Marcus. (1986). *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley, University of California Press.
- Dehue, T. (2002). A Dutch treat: randomized controlled experimentation and the case of heroin-maintenance in the Netherlands. *History of the Human Sciences* 15:75.
- Dewey, J. (2007)[orig. 1938]. Logic: The Theory of Inquiry. Saerchinger Press.
- Dourish, P. (2006). Implications for design. Proceedings of the SIGCHI conference on Human Factors in computing systems, Montréal, Canada, ACM Press.
- Kelley, T. (2005). The Ten Faces of Innovation. Doubleday, US.
- Koskinen, I. et al. (2011). *Design Research through Practice: From the Lab, Field and Showroom*. Elsevier 2011, Waltham, USA.
- Law, J. (2004). After Method: Mess in Social Science. Routledge, Oxon, UK
- Lury, C. and N. Wakeford (eds.). (2012). *Inventive Methods: The Happening of the Social*. Routledge, Oxon, UK.
- Löwgren, J. and E. Stolterman. (2004). *Thoughtful Interaction Design: A Design Perspective on Information Technology*. London, The MIT Press.
- Marcus, G. and M. Fischer. (1986). *Anthropology as Cultural Critique: An experimental moment in the human sciences*. Chicago, University of Chicago Press.

Polaine, A., L. Løvlie, and B. Reason. (2013). Service Design: From Insight to Implementation. Rosenfeld Media.

Thompson, N. (2004). The Interventionists: Users' Manual for the Creative Disruption of Everyday Life. Massachusetts Institute of Technology and Massachusetts Museum of Contemporary Art.

Forms and Politics of Design Futures

Ramia Mazé

**Konstfack University College of Arts, Crafts and Design
KTH Royal Institute of Technology**

The future is not empty.¹ The future is loaded with fantasies, aspirations and fears, with persuasive visions of the future that shape our cultural imaginaries. The future bears the consequences of historical patterns and current lifestyles, deeply rooted in our embodied skills and cultural habits. The future will be occupied by the built environments, infrastructures and things that we produce today. Many of the ‘images, skills and stuff’ (f.ex. Scott, Bakker, and Quist, 2012) that endure and matter long after are designed, and design, more or less intentionally, takes part in giving form to futures. Some design practices take this on intentionally and explicitly – among others, genres of ‘concept’, ‘critical’ and ‘persuasive’ design. I have (re)positioned my own practice-based design research in relation to such genres over the years, and, increasingly, in relation to futures studies, thereby inquiring into the dilemmas of futurity. This prompts me to ask, what is at stake as we take on the future in design?

In this text, I argue that design must take on temporal politics. Design futures and futures studies are typically preoccupied with questions of ‘what’ or ‘which’ future, or ‘how’ to get there, which are often reduced to methodological issues and a turn to some familiar approaches from the social sciences. However, if futurity represents an outside to the present, this may not be sufficient. Instead, I have been considering further questions and approaches. If the future represents a possibility of formulating an outside, of giving form and intervening a different socio-economic reality, it becomes a political act. From this perspective, ‘the future’ is not a destination that might be defined and reached with the right methods, but a ‘supervalence’ (Grosz, 1999), an outside to an experienced present. As such, futurity represents a possibility to establish critical distance, a distance established temporally. Critical distance may not only be established in order to reexamine the present but also to imagine, materialize, intervene and live particular alternatives.

This perspective on the future changes the questions that we must ask of design and how we might do design. I trace some preliminary thoughts about the temporal politics of design futures here, pointing at some examples, to (re)frame

questions at stake in my own work that may also have wider relevance for design research. This text is the draft of an introduction to a longer forthcoming paper.

Some Political Dimensions of Design Futures

The role of design in formgiving to futures is articulated in several genres of design, which I refer to here with the shorthand ‘design futures’. In some modernist design histories, the political dimensions of design and futurity were perhaps more explicit. Time, memory and futures were themes in *acceptera*, the first manifesto of Swedish Modern design (Åhrén et al., [1931] 2008). Distributed by the publishing arm of the Social Democratic party in 1931, it is also political propaganda, evoking in text, image and form a modern, or future, ‘A-Europe’, “The society we are building for”, and ‘B-Europe’, or “Sweden-then”, fragmented spatially and socially, but also temporally. Differences in values, cultures, families and customs are portrayed as regressive and stuck across multiple past centuries. It is a manifesto for development in a predetermined direction, creation on the basis of time, a specific arrow of time leading to a particular, and singular, social, as well as technological and design, future.

The future is also at stake in contemporary genres of ‘concept design’, ‘critical design’ and ‘persuasive design’,² which aim to project, challenge and steer future images, skills and stuff. In these genres, the political dimensions are not typically articulated or addressed.

The genre of ‘concept design’ has flourished in trade shows and world expositions, for example as prototypes of the ‘ideal home’, ‘future city’, ‘concept car’, and ‘The World of Tomorrow’. In a similar vein, Philips Electronics’ *Vision of the Future* (Baxter et al., 1996) and other industrial and strategic design programs fuse forecasting, sociology, and high-tech research in concept designs. Concept designs have become central to business strategies building shared values and commitments, expanding and marketing the ‘corporate imagination’ (Hamel and Prahalad, 1991) within a company, an industrial sector or a target group. Foresight may be essential for industries that depend on a 20-year lifespan (Gabrielli and Zoels, 2003), however such genres go well beyond technical questions of lifespan to induce desire and (re)produce cultural imaginaries for particular industrial futures.

Some ‘critical’ design genres in industrial and interaction³ design ally with art to produce artifacts that challenge industrial futures. Rather than materializing the “dreams of industry” (Dunne and Raby, 2001), critical design practices borrow from strategies of defamiliarization and estrangement from modernist aesthetics to evoke ‘alternative nows’ or ‘speculative futures’. Critical designs are intended as ‘material theses’, physical rather than written critiques, of existing models of production and consumption (Seago and Dunne, 1999). Placed carefully in settings ranging from art galleries and media outlets to homes, critical designs should stimulate skepticism and provoke debate about current norms. While opposing the mainstream, many such projects nonetheless seem politically neutral or blind (c.f. Prado, 2014; or, I would suggest, perhaps a enact a covert form of power). From an obscure political position, alternatives and futures are elaborated and multiplied.

Design for behavior change, as a genre of ‘persuasive’ design, aims at changing norms. In the area of sustainability, for example, ideals, consequences or futures around energy and water consumption are monitored and visualized in forms intended to educate, persuade, incentivize, or even coerce change in perceptions and ‘good’ behavior (f.ex. examples in Verbeek and Slob, 2006). Designed to ‘fit’ people’s bodies and sensory capacities, or cognitive and emotional ergonomics, such approaches steer behavior change in more or less explicit and conscious ways. Persuasive designs induce self-discipline, regulating, affirming and governing particular behaviors in forms intended to be internalized and reinforced in an ongoing manner in everyday life and social practices (Mazé, 2013). While perhaps not always aware or reflexive about the ideologies and policies (re)produced, persuasive designs oppose present conditions and propose quite particular alternatives and futures.

Concept, critical and persuasive design point to distinct ways of approaching ‘the future’, which I characterize here in perhaps rather over-generalized terms in order to articulate potential political dimensions. By ‘the political,’ here, I do not refer to state sovereignty or party politics but, rather, philosophical uses of the term in the social and political sciences. In a general sense, these design futures evoke not only different perspectives but different realities, and the ‘ontological politics’ of (re)producing, multiplying and choosing between different realities (f.ex. Mol, 1999). Further, enacting, intervening and establishing one reality over another can be understood as a political act, in which a particular social order is privileged or

subordinated to another (f.ex. Mouffe, 2001). Design can be understood as a political act, whether reflexive or intentional about this or not, in which a particular reality or order may be confronted with others (Keshavarz and Mazé, 2013).

Turns in Design Futures and Futures Studies

Design futures are about more than what the future holds and more than just how to get there, thus, but about the political dimensions. However, focus in concept and critical design tends to be on ‘what’ the future could or should be like, and attention in design for behavior change often quickly shifts to methodological issues, of ‘how’ to narrow the gap between possible or desired futures and how to get there. These questions have become acute as such design enters into academic and industrial settings concerned with the reliability, reproducibility and replicability of the design proposals. Questions of ‘what’ and ‘how’, however, have preoccupied design with issues of epistemology and methodology. Discussions in design futures often circle or get stuck, for example, around questions of what can be known, the limits of knowledge and issues of uncertainty and indeterminability, and around what strategies, tools and instruments can be applied to understand future phenomena.

These questions have generated particular responses within the design genres, which parallel some responses in the field of futures studies. Such genres do increasingly look to futures studies, and its methods, but not necessarily to its contemporary currents of ontological or political questioning, which I point at here.

Many responses in design futures and futures studies to these questions is to reframe futurity in terms that can be methodologically studied in terms of the present. Concept and critical designers argue that the point is not to know or understand the future, but to stimulate reflection and discourse in the present. Such responses are also present in futures studies, for example in arguments that the purpose is to better understand a current situation, to expand mental horizons, to enhance anticipatory consciousness, or to stimulate change in the present (f.ex. Glen and Gordon, 2003). Further, persuasive design emphasizes experimental probing processes combined with learning loops conducted within ‘niches’ (such as living labs), in which propositions are made and adjusted incrementally to (co)develop or steer towards a desired future (c.f. Vergragt, 2010). Futures-oriented transition studies, similarly, may combine forecasting and backcasting, in which future visions or concept designs are

formulated, but they are also released, tested and adapted in experimental or participatory settings.

Methodologies that become relevant to design futures and futures studies, thus, may include approaches to discourse analysis, ethnography and participatory action research. Such approaches are already present within mainstream design and design research, representing a turn to the social sciences for these genres of design (c.f. Halse et al., 2010 ; de Jong and Mazé, forthcoming). Such approaches may also be seen as part of a ‘designerly’ turn in the social sciences reflected in a range of mixed and hybrid approaches such as interventionist and ‘inventive’ methods (f.ex. Lury and Wakeford, 2012). In this questions of ‘what’ and ‘how’, along with convergence upon certain methodological issues and developments, ‘the future’ is folded into more general and larger approaches to study and change the present.

However, these questions and responses are not the only way to consider futurity nor its political dimensions and potentials. Some futures studies scholars argue that the epistemological and methodological basis of many social sciences, which have been geared toward understanding the past or the present, are not conducive to fields in which futurity is at stake (Malaska, 1993). Such arguments are also part of a move away from the predictive-empirical and techno-deterministic varieties of futures studies, along with related concerns for scientific method, which have dominated since the post-war period. Such futures have tended to imagine the future as empty, into which possible and normative images (whether fiscal, scientific or cultural) may simply arrived at as distinct realities through linear transition pathways. Other and emerging varieties include those oriented toward ‘prospective-action research’ and also ‘cultural-interpretive’ and ‘critical-postmodern’ traditions (c.f. Gidley et al, 2009), which explore different questions.

Temporal Politics of Design Futures

This turn in futures studies traces some relations to theories of history and futures, representing a shift from diachronic (linear) thinking and arguments that causality itself might be understood as an essentially narrative category (Jameson, 2005). In such theories, concepts of ‘the future’, ‘the new’ ‘innovation’, ‘progress’ and ‘nextness’ are queried not as givens or ideals, but as lenses through which to reflect upon issues of stability, control, determinism and power in the sciences (c.f. Grosz,

1999). Power relations, for example, can be understood in the ways that a regulating institution, instrument or body is directed at containing unpredictability and the emergence of singularities. The future, thus, is arguably a 'supervalence', a concept, or set of concepts, through which ideas or ideologies are manifest. Indeed, the hegemony of rhetorics of futurity can be discussed, in terms of whether or how they determine what is possible to imagine or do in the present (Wakeford, 2014). Through this turn, we can ask other questions, philosophical and political, of design futures.

From a philosophical perspective, thus, inquiry into temporal concepts such as futurity becomes a way of reflecting on ontologies, assumptions and normativites behind scientific methodologies and, I would argue, underpinning forms of design futures. For example, in relation to the *acceptera* manifesto, it becomes possible to discuss the theories and ideologies embedded in the rejection of multiple times in favour of a singular arrow of time, in the envisioned movement towards a singular and universal future, 'A-Europe'. We can examine the ontological politics behind the differentiation of different times, or realities, and ask questions such as how they relate to one another, how choices are made between them, and the political reasons for preferring one reality over another. Further, the consequences of A-Europe future can be traced, in which the design act of materializing and publishing the manifesto can be seen as a form of politics, literally shaping a particular social-economic reality of the particular consumer culture of the Swedish welfare state (Mattson and Wallenstein, 2010).

From critical-political perspectives, such temporal lines of inquiry open for discussing the in- and exclusions implied by different futures. Universal and singular notions of time are refuted in neo-vitalist theories, and power relations of singularity refuted in feminist and post-colonial theories, for example (c.f. Grosz, 1999; Harding, 2011). Multiple times and diverse durations, the untimely and difference may be identified and articulated in order to explore how things are for others, or how things may be otherwise. Such perspectives open for exploring how concept designs continue or contain, produce or reproduce, particular socio-economic and technoscientific futures that may only be imagined from and for a particular time and place, particular parts and groups in society. The alternative nows and futures produced by critical design may be examined not only for the particular ideals that are critiqued but also what, or who, is left out or remains invisible. Both the alternatives of critical

design fail to articulate propositions and the normativities of persuasive design can be discussed in terms of how difference can be articulated, and whether others, or otherness can intervene or take over.

Concluding thoughts

These political questions reframe what is at stake in these genres of design futures and how I may think about and do my own practice-based research, and how that relates to other practices (f.ex. those collected or studied in Ericson and Mazé, 2011 ; Mazé, forthcoming). While I cannot dwell on this here, these are lenses through which I would like to reflect further on the particularities of and different approaches to temporal form and politics within projects such as:

- *Switch! Symbiots* by Jenny Bergström, Ramia Mazé, Johan Redström, Anna Vallgårda at the Interactive Institute with Olivia Jeczmyk and Bildinstitutet (Mazé, 2013b)
- *Switch! Energy Futures* by Ramia Mazé, Aude Messager, Thomas Thwaites, Basar Önal at the Interactive Institute (Mazé, 2013b)

In this text, I have argued that the future is not empty, as an open and infinite realm, into which any number of possible, probable or desirable futures may be projected. The future is already occupied by images, skills and stuff that design, more or less intentionally, takes part in (re)producing. Genres such as concept, critical and persuasive design orient explicitly toward the future or, rather, particular futures, in which concepts of time, duration and difference are materialized in ways that have power. Identifying, imagining and intervening particular realities, over others, entails political questions. While some epistemological and methodological questions entail a turn to familiar approaches in the social sciences, I argue for a further turn to political philosophy and critical-political theories in order to articulate such questions, and to identify lenses through which I may reflect upon and do practice-based design research in design futures.

If futurity constitutes the remaining critical ‘outside’ to the present (Grosz, 2001), futurity represents the most radical potential of design. The many genres and genealogies of design perhaps call for anthropologies or, perhaps, ‘archaeologies’ (Jameson, 2005), of design futures.

Bibliography

- Åhrén, U., Asplund, G., Gahn, W., Markelius, S., Paulsson, G., Sundahl, E. ([1931 2008) acceptera, reprinted in *Modern Swedish Design*, edited by L. Creagh, H. Kåberg, and B. Miller Lane, 140-347. New York: MoMA.
- de Jong, A. and Mazé, R. (forthcoming 2014) What's for Dinner? Concepts and methods in designing for sustainable social practices.
- Dunne, A., and Raby, F. (2001) *Design Noir*. Basel, Switzerland: Birkhäuser and August Media.
- Ericson, M., and Mazé, R. (eds) (2011) *DESIGN ACT Socially and politically engaged design today*. Berlin: Sternberg Press / Iaspis.
- Gabrielli, S. and Zoels, J-C. (2003) Creating Imaginable Futures: Using Human-Centered Design Strategies as a Foresight Tool, in *Proceedings of Designing User Experiences (DUX)*, 1-14. New York: ACM Press.
- Gidley, J., Fien, J., Smith, J-A., Thomsen, D., and Smith, T. (2009) Participatory Futures Methods, in *Environmental Policy and Governance* 19(6): 427-440.
- Glenn, J.C. and Gordon, T.J. (eds.) (2003) *Futures Research Methodology 2*. Washington, DC: AC/UNU Millennium.
- Grosz, E. (1999) *Becomings: Explorations in Time, Memory and Futures*. Ithaca, US: Cornell University Press.
- Grosz, E. (2001) *Architecture from the Outside*. Cambridge, MA: MIT Press.
- Halse, J., Brandt, E., Clark, B., and Binder, T. (2010) *Rehearsing the Future*. Copenhagen: The Danish Design School Press.
- Hamel, G. and Prahalad, C.K. (1991) Corporate Imagination and Expeditionary Marketing, in *Harvard Business Review* (July-August): 2-11.
- Harding, S. (ed.)(2011) *The Postcolonial Science and Technology Studies Reader*. Durham, NC: Duke University.
- Jameson, F. (2005) *Archaeologies of the Future*. London: Verso.
- Keshavarz, M., and Mazé, R. (2013) Design and Dissensus: Framing and staging participation in design research, in *Design Philosophy Papers 1*: unpaginated.
- Lury, C. and Wakeford, N. (2012) *Inventive Methods*. New York: Routledge.
- Malaska, P. (1993) *The Futures Field of Research*. Turku: School of Economics and Business Administration.
- Mattsson, H., and Wallenstein, S-O. *Swedish Modernism: Architecture, consumption and the welfare state*. London: Black Dog, 2010.
- Mazé, R. (forthcoming 2014) Our Common Future? Political questions for designing social innovation, in *Proceedings of the Design Research Society Conference*. Umeå, Sweden.
- Mazé, R. (2013) Who is sustainable? Querying the politics of sustainable design practices, in *Share This Book: Critical perspectives and dialogues about design and*

sustainability, edited by M. Plöjel, R. Mazé, Olausson, J. Redström, and C. Zetterlund, 83-122. Stockholm: Axl Books.

Mazé, R. (ed) (2013b) *SWITCH! Design and everyday energy ecologies*. Stockholm: Interactive Institute Swedish ICT.

Mazé, R. (2007) *Occupying Time: Design, Technology and the Form of Interaction*. Stockholm: Axl Books.

Mol, A. (1999) Ontological Politics, in *Actor Network Theory and After*, edited by J. Law, and J. Hassard, 74-89. Oxford: Blackwell and the Sociological Review.

Mouffe, C. (2001) Every Form of Art has a Political Dimension, *Grey Room* 2, no 99: 98–125.

Prado, L. and Oliveira, P. (2014) Questioning the “critical” in Speculative & Critical Design, available at <https://medium.com/designing-the-future>.

Baxter, A., et al (1996) *Vision of the Future*. Blaricum, The Netherlands: V+K Publishing.

Scott, K., Bakker, C., and Quist, J. (2012) Designing Change by Living Change. *Design Studies* 33(3): 279-297.

Schalk, M., Kristiansson, T., and Gunnarsson-Östling, U. (eds)(forthcoming 2014) *Feminist Futures*. Stockholm: Axl Books.

Seago, A. and Dunne, A. (1999) New Methodologies in Art and Design Research: The Object as Discourse, in *Design Issues* 15(2): 11-17.

Verbeek, P-P. and Slob, A. (eds)(2006) *User Behavior and Technology Development*. Berlin: Springer, 2006.

Vergragt, P. (2010) Sustainability Future Visions: Impacts and new strategies. In *Proceedings of the LeNS Conference*, Bangalore, India.

Wakeford, N. (2014) Opposition comments to the PhD dissertation of Kristina Lindström and Åsa Ståhl, Malmö University, February.

¹ This is the subject of a lecture and workshop by myself and J. Wangel for a course at the KTH Royal Institute of Technology in 2011, Contents from the course will be published in Schalk, Kristiansson and Gunnarsson-Östling (forthcoming 2014).

² I have written more extensively about these elsewhere (Mazé, 2007), along with relations to my own practice-based design research.

³ Here I frame ‘critical design’ narrowly, as a specific genre within industrial and interaction design. Elsewhere (Mazé, 2007 ; Ericson and Mazé, 2011), I articulate this genre within a much wider spectrum of practices and forms of criticality across design and architecture.

Imagining possible futures - designing possible pasts?

Ton Otto

University of Aarhus and James Cook University

My title is intentionally somewhat provocative. It is so in two different ways. Firstly, designing is generally understood as a process of developing ideas and forms to shape the future not the past. And secondly, one could question whether it makes sense at all to talk about designing the past, since the past has already happened and therefore cannot be changed. In this paper I will develop the idea that a possible future needs a possible past to match and that part of planning the future is to conceive of a past that makes this future possible. Whether this process of conceiving and constructing the past should be called design can of course be debated, but I will argue that it is at least to be considered as an integral part of a design effort. In the cases I will discuss below the construction of the past is part of different creative events - a cultural festival, the production of a video installation, and an exhibition - and therefore I find it defendable to call it a design process in its own right.

I take theoretical inspiration from the pragmatist philosopher George Herbert Mead. In his posthumously published *The Philosophy of the Present* ([1932] 2002) he discusses the consequences of one of his core ideas – that human reality, including consciousness, emerges in action – for our understanding of time. According to Mead the present is the true *locus of reality*; this means that our existence happens in the present, which is in a continuous state of emergence. Of course past and future exist as well, but in Mead's perspective they have to be understood as dimensions of the present. The past, conceived of as past presents, sets the conditions for the emerging present, but the past is only accessible through traces and constructions that are present in the now. Therefore the past is forever under construction since people's interests and cultural constructions change through their actions over time. And people's actions as determined by the conditions existing in the now, give direction to the future as a potential of the emerging present.

In spite of the condensed abstractness of Mead's ideas, no doubt aggravated by my inadequate summary of them, I believe he highlights a key insight relevant for understanding the process of design namely the relative indeterminacy of the future and

the connected indeterminacy of the past. The way I wish to use these ideas in theorizing our topic of the space of the possible is by focusing on the dimension of the past that is necessary for imagining the future. As Mead makes clear, the past conditions the present but we are only partly aware of this conditioning. If we plan and design the future we need to develop a vision that includes a past that can generate this future; that is, we need to construct a past that shows continuities both in the form of the conceived ‘objective’ conditions (such as necessary resources) that make the designed future possible and in the form of the construction of agentive identities that can act to realize this future. With agentive identities I refer to the cultural ideas about agency that define who can act to realize certain goals, whether these agents are social groups such as families, political units, or economic organizations; or whether they are generalized categories such as consumers and citizens conceived as individuals.

In the following I discuss three cases of cultural performance that involve change in order to explore how constructions of the past are part of these processes. In all three cases the interventions of anthropologists play a role albeit to quite different degrees. I use these cases to reflect on forms of ethnography of the possible that involve performance, video recording and museum exhibition as media of exploration.

The cultural festival

My first case derives from my own fieldwork on Baluan Island in Manus Province, Papua New Guinea. In the days from Christmas to New Year 2006/2007 a large-scale cultural festival was organized on the island, a festival that was intended to give shape to a new future for the region but that was simultaneously rooted in an understanding of the past. The main organizers of the festival were re-migrants from the island who had lived their working lives elsewhere, primarily in some of the few urban centers of Papua New Guinea: Port Moresby, Lae and Goroka. In their professional lives they had become aware of the relevance of cultural performance and its power to attract an audience from outside the region. Among other things they had established a dancing group in the nation’s capital, Port Moresby, that with great success performed the fast dances from their home island for tourists in hotels and at public events organized by the government. They were so successful that they were invited on several overseas tours to Australia, Korea and Europe and on these tours they developed their

understanding of staged performances and how to interact with an international audience.

The stated aim of the organizers for the cultural festival was to use culture as a means of development. On the one hand, they were concerned that modern developments in the villages were eroding the feeling of community and the motivation of the youth to stay and contribute to village life. A focus on traditional cultural performances was believed to raise a sense of identity and create ‘unity through culture’, as the motto was for the festival. On the other hand, the organizers saw tourism as one of the few realistic options for economic development on the remote islands, and cultural performance was considered an important ingredient for attracting tourists. I, as an anthropologist with a long-term connection to the island, was invited to make a film about the festival, because the organizers were keenly aware of the power of modern media to address an international audience.

The festival was met with great support and enthusiasm on the island but also with criticism. The criticism focused precisely on the new construction of the past that the cultural festival implied. Whereas the festival organizers claimed that they honored, preserved and even revitalized traditional culture, the critics pointed out that ‘*kalsa*’ (or culture) as performed at the festival was something else than ‘*kastam*’, the Tokpisin term mostly glossed as ‘tradition’. The concept of *kastam* put great weight on the continuity with past practices and concepts. According to the idea of *kastam*, cultural performances were owned by clans or lineages, as part of what constituted their identity as a group. These groups could exchange or give away *kastam* practices, but they could not create new ones. The critics argued that the performances at the cultural festival were combinations, transformations and even inventions, that were different from Baluan tradition.

The organizers did not like the critique and defended themselves by arguing that they did not really changed the tradition but only gave it some ‘colour’ in order to make it more interesting for an outside audience to watch. Some limited change was necessary, they said, for tradition to survive and blossom. But from an analytic point of view there are some substantial differences between *kastam* and *kalsa*, which include dimensions of ownership, group identity and orientation in time (see Otto in press). Unlike the situation with *kastam* performances, it is unclear in the case of *kalsa* who has ownership rights over the new performance practices. This is linked to the fact that the agentive identities for creating ‘unity through culture’ are considerably expanded in

comparison to *kastam*. Instead of clans or lineages, the groups that are now seen as ‘owning’ the culture as part of their identity are at the scale of whole islands or even regions. But the ‘ownership’ is less clearly defined and can be seen as a kind of general heritage in contrast to the well-articulated and well-defended rights of lineages and clans. Finally, unlike *kastam*, which focuses on an intentional preservation of the past, *kalsa* is explicitly oriented towards the future. It can be developed and changed to fit future needs better. It also opens up for the agentive identity of creative individuals, who can claim certain innovations in the performances as their own inventions, something that is not possible in a *kastam* context.

The case of the cultural festival shows how the vision of a different future made it necessary to revise the dominant understanding of the past as the authoritative source of cultural concepts and practices. The discussion about the interpretation of the past and the ensuing ownership rights and appropriate cultural practices continues on the island. The intervention of the anthropologist was in this case limited to making a film at the invitation of the organizers. We (Suhr and Otto 2011) decided to make a film that presented the different voices we heard on the island, and thus included both supporters and opponents of the festival. In this way we thought we could contribute to the informed discussion about how to rethink the past in order to create a dynamic role for tradition in the present. The organizers were originally not completely happy with our choice, but they changed their mind when they discovered that the film was popular both with the local public and also internationally.

Christmas Birrimbir/Christmas Spirit

My second case is located in Northern Australia (northeastern Arnhem land) among an indigenous people known as the Yolngu. It concerns a collaborative project between an extended Yolngu family, in particular the family elder Paul Gurrumuruwuy and his wife Fiona Wanambi, the Australian anthropologist and filmmaker Jennifer Deger, and the Australian video artist David Mackenzie. It started with Deger, who has a long-term collaboration with the Yolngu, wanting to make a film about the intellectual, emotional and aesthetic complexity of Yolngu rituals, especially those connected with the ways the dead are remembered at Christmas. The Yolngu make a connection between Christmas and the yearly start of the rainy season, announced by the arrival of Wolma, big dark thunder clouds, which signify the transitional nature and renewal of life. In

Yolngu understanding the coming of Wolma also indicates the arrival of Christmas, when the birth of Christ is celebrated. However for the Yolngu Christmas is not only a time to celebrate new life, but also to remember the dead. Especially the recently dead are often central in family Christmas rites, in which people adorn the graves and their houses with Christmas lights and decoration, while giving a special place to photographic images of their deceased loved ones.

The project became much bigger than Deger had anticipated, because the Aboriginal family brought in their own cultural agenda, which in Deger's words included a clear ethnographic ambition. Paul and Fiona joined the project as co-directors and creative partners with the explicit intention to communicate to a non-Aboriginal (Belanda) audience something they considered of great value: the way the Yolngu remember and live with their ancestral spirits. As Yolngu people are convinced that one must feel in order to know, Paul and Fiona conceived of the project as a way to invite Belanda to share in the sorrow and joy that are part of a Yolngu Christmas. What they did was however much more than presenting family rites of relating to the dead to a non-Aboriginal audience. In fact they created a community-wide Christmas ritual in which Yolngu traditions concerning the ancestral spirits were connected with these more informal domestic Christmas rites.

To understand what these means, we have to know what role the ancestral spirits play in Yolngu life. Let me quote from Deger (n.d.): "Whenever Paul Gurrumuruwuy speaks publically about the video project *Christmas Birrimbirr* (*Christmas Spirit*), he makes an impassioned case for the enduring power of the 'old people'. Gurrumuruwuy is not talking about senior citizens. Even though he himself is often addressed by his family as *wolman* ('old man'), he uses the term 'old people' to refer to his ancestors: to his father and his father's father, back through the countless generations that came before and whose spirits live in the Dhalwangu clan waters in remote north regions of tropical Australia." In spite of dramatic changes in Yolngu's material and social life during the past eighty years due to the impact of the white culture, there is no doubt that these spirits remain a potent source of meaning and identity for the Yolngu; they are seen as the source of life and the renewal of life. "Yet what non-Aboriginal people often do not appreciate when they hear him talk about the power of the 'old people' is the degree to which the living—those who call themselves the 'new generations'—bear responsibility for renewing ancestral power through their own creative, intellectual and emotional efforts." (Deger *ibid.*).

The community ritual that was created and organized by Paul and Fiona was transformed into a three-screen video-installation and later a film for a non-Aboriginal public. The video-installation has been exhibited in Darwin, Australia, and will be part of the opening exhibition at Moesgaard museum in Aarhus, Denmark, in 2014. Thus a further collaboration, including the co-curating of the exhibition, is taking place between designers and curators at Moesgaard Museum, Paul Gurrumuruwuy and Jennifer Deger (Fiona has sadly passed away after completing the installation and the first exhibition). If we take the last planned product, the museum exhibition at Moesgaard, as object of our analysis, we can identify a complex process of cultural design.

Let me try to unpack the various layers of this design process.

1. At a very fundamental level Paul and Fiona have ‘renewed’ Yolngu ritual by creating the Christmas Birrimbir ritual in which not only the recently dead but with and through them the whole realm of the ancestral spirits are invoked to join the family at this special time. Based on Yolngu *rom* (‘law’ and ancestral precedence) Paul ascribes their innovations to the intervention of the ancestral spirits who communicated to him through his dreams. Thus founding his agentive identity in the ancestral realm makes the innovations both possible and valid from a Yolngu perspective. It is a form of renewal of ancient wisdom and lore, where Paul and Fiona are taking the responsibility of the ‘new generation’ to recreate and activate their culture so that it can live on.

2. An important part of the ceremony is the intention to share it with westerners, who have brought the concept of Christmas (including Christmas lights, Christmas trees, carols, etc.) to the Yolngu but who do not know the special depth of feeling that the Yolngu have contributed to the Christmas idea. By embracing the new technology of video filming, the Yolngu are not only able to add a medium of visual expression to their own rites and ceremonies (see Deger 2006) but also to develop a medium of intercultural communication through which they can offer their cultural (and intellectual and emotional) knowledge to others. The long-term involvement of Deger with this Yolngu group is an important factor in this innovation as it has facilitated the appropriation of this technology in a process of co-creation and co-production. Thus certain elements of ritual signification are expressed and amplified through the possibilities of video (for example the representation of the ancestral as movements of water touched by wind projected over people engaged in traditional dance moves).

3. A further complexity of the design of the past in this ritual, involving ancestral agency, and its transformation into a video installation and film, occurs when it is transposed to Moesgaard Museum where it will be re-contextualized and materialized through various design interventions, suggested by museum workers concerned with the reception by a Danish public. All design interventions are to be discussed and approved by the Aboriginal collaborators and Deger, as the expert ethnographer, who has a mediating and clarifying role in this process as well as being an active co-designer. So we end up with different constructions of the past, that have to be integrated into one whole to create a cultural, intellectual, emotional and sensory experience for the public. First there is the specific concept of the ancestral and its effect in the present, that has inspired Paul and Fiona to create the ritual in the first place. Then there is their understanding of the lack of ancestral concern in white (Australian) culture and the video project to make an intercultural experience of this form of past-present possible. And thirdly, in the context of the Moesgaard exhibition project, which is dedicated to communicating relations to the dead and the ancestors in different cultural worlds, specific Danish sensitivities in this field are brought into play to design a exhibition in which people can be inspired by the Yolngu ceremony to reflect on their own life and relation to the dead.

Digital natives in Denmark

My last case is from Denmark, although the label ‘Digital Natives’ refers to a global development. The concept of digital natives derives from Prensky (2001) who postulated that the generation born after 1980 had physically adapted to the pervasive impact of digital technologies through a social and mental rewiring of their brain functions. While taking distance from this crude and largely undocumented assumption, the anthropologist Rachel Charlotte Smith has recently used the concept of digital natives to zoom in on aspects of the digital cultures that are emerging worldwide and that are particularly embraced by the young generation. Her research on digital culture was part of a larger comparative research project at Aarhus University focusing on innovations in cultural heritage communication. Smith addressed the challenges faced by cultural heritage institutions in an era in which the digital has become an integral part of cultural production and communication. In her view these challenges

rest not primarily in applying digital technologies within the well-known project of documenting, preserving and communicating cultural heritage in museums and other heritage institutions. Rather, she argued, the challenge is to grasp the impact that the digital as a cultural and social phenomenon has on the production of culture and heritage, both within these heritage institutions and outside.

In order to investigate this question she designed a research project that focused on the collaborative production of an interactive, digitally based exhibition displaying the emerging cultural heritage of contemporary ‘digital natives’ in Aarhus, Denmark. Her project began with a more traditional ethnographic fieldwork in which she contacted young people from about 16 to 19 years old, who extensively used digital media as an integral part of their daily life. In this initial phase she endeavored to obtain an insight in the various ways these youngsters incorporated the digital in their social and cultural life. Seven teenagers were recruited to take part in the exhibition project, that apart from Rachel Smith also included another anthropologist (part of the time), and a number of interaction designers and IT programmers. In her PhD thesis ‘Designing Digital Cultural Futures. Design Anthropological Sites of Transformation’ Smith (2013) describes and analyses in depth the process of making the exhibition, including the divergent interests and interactions of the involved parties and the interventionist role of the anthropologists. She also deals with the reactions of the public.

What is of particular interest for my present paper is how implicitly a construction of the past – however limited - was involved in this project that took cultural emergence and change as its point of departure. To start with, none of the youngsters knew the term ‘digital natives’; thus it was in no way a concept that was used as an element of the self-identification of the teenagers. However, at the time of the opening of the exhibition a shift had occurred and the teenagers were happy to take the role as representatives of the digital natives that the project had facilitated. Thus their active participation in conceiving, negotiating and realizing the exhibition had created a reflexive space in which they had become aware of something like a shared culture due to their particular lifestyles which were imbued with the use of digital media. This self-identification was effectively a product of the exhibition, initiated by the anthropologist, and the public recognition that the identity of digital native thus had received. Therefore I would argue that a sense of the cultural heritage of digital nativeness was created in the very process of exhibition making. This (possible)

heritage was a reflexive objectification of an emerging digital culture and thus facilitated and agentive identity that was absent or at least unarticulated before the exhibition project. With its creation, the digital native heritage constituted a past to the forms of digital culture that had been given expression and shape in the exhibition. The previous digital experiences, habits and products of the teenagers, as exhibited in the various installations, became realized as the past that facilitated the emergence of a specific digital culture and a concomitant form of participatory agency.

Comparing the cases

The three cases I have discussed above have, I hope, substantiated my argument that a design of the past is a necessary dimension of efforts to imagine a future that different from the present. Although all three cases in my view clearly demonstrate this aspect, they differ in important ways. I will conclude this paper by identifying three dimensions of contrast.

First, the envisioned time span of the past-future horizons is widely different between the three case studies. In the case of the digital natives, the constructed heritage is very recent as it refers to the formative years of the young people involved in the exhibition. In accordance with this, I would argue, the future horizon is also experienced as rather near: still within the life span of the same individuals. In the case of the PNG cultural festival, *kastam* refers to remembered events and practices in the lifetime of the parental generation of the organizers of the festival, while they explain their efforts to develop culture (*kalsa*) with reference to the possible lives of their children. Finally, the past that informs the presence of the Yolngu ritual innovators goes back to the ancestral realm, which is at least some generations deep and which can be seen as a kind of origin time. Thus while Paul and Fiona renew their culture and lore through the Christmas ritual, they do this on the basis of an understanding of an underlying continuity that reaches far into the future.

The second dimension of contrast lies in the type of agentive identity that is constructed in the different scenarios of past-ness. Whereas the innovation of the Yolngu ritual leaders is legitimated by their accordance with ancestral agencies, that have a kind of lasting present-ness, the conflict at the cultural festival circled around the refusal of the organizers to be bound by the performances of their recent ancestors. Instead they created a more flexible form of cultural heritage that incorporated the

creative innovation of the present generation. The agency of the ‘digital natives’ is at a more individual level, creating personal lifestyles while participating in and exploiting the possibilities of a global technological development. Their heritage is thus less formative of a sense of groupness than of an inter-generational identity linked to the way they engage the digital.

The third contrast between the three cases lies in the interventionist role of the anthropologist in the co-creation of expressive forms of past-presentness. In the Papua New Guinea case, the anthropologists only contributed by making a film, on invitation, of a large-scale festival that was happening independently of the anthropologists’ presence. The film provided a space for reflection and objectification that may contribute to some extent to future plans and projects on the island (cf Otto 2013). Among the Yolngu of northern Australia, the intervention by the anthropologist prompted the innovative organization of a community Christmas ritual and an intentional project to communicate Yolngu lore and cultural wisdom to a broad, non-Aboriginal audience. The intervention in the case of the digital natives in Aarhus, is no doubt, the most extreme, as the identity concept embraced by the collaborators was only realized in the exhibition process. But at the same time, one can argue that this project, by provoking a heritage making process, has created valuable insights in ongoing processes of culture making facilitated by the digital, thus representing an ethnography of the possible.

In their various ways the anthropologists in the three cases contributed to exploring the possible in collaboration with the people involved. They all opted to be guided by the agendas and interests of their collaborators, whether it concerns the exploitation of culture as a social and economic resource; the intercultural communication of the importance of the ancestral; or the reflexive shaping of a personalized and participatory digital culture. I believe this accordance with the collaborators’ interests is a fundamental but not unproblematic premise of this kind of interventionist research (cf. Gatt and Ingold 2013, Otto 2013). What I hope has become clear as well is the enormous potential of visual media of research, communication and engagement, such as photo, video and exhibition, to create inspiring ethnographies of the possible. The specific contribution I have focused on in this paper is the co-design of the past as a necessary part of planning the future. One has to ‘open up’ the past, in order to open up for a new future. The cases I have discussed show how visual media-based interventions can assist in this process.

Bibliography

- Deger, Jennifer 2006. *Shimmering Screens. Making Media in an Aboriginal Community*. Minneapolis: University of Minnesota Press.
- Gatt, Caroline and Tim Ingold 2013. 'From description to correspondence: Anthropology in real time', in W. Gunn, T. Otto & R.C. Smith (eds) *Design Anthropology: Theory and Practice*, pp.139-158. London: Bloomsbury.
- Mead, George Herbert 2002 (1932). *The Philosophy of the Present*. New York: Prometheus Books.
- Otto, Ton. 2013 'Ethnographic film as exchange', *The Asia Pacific Journal of Anthropology* 14 (2): 195-205. doi: 10.1080/14442213.2013.768698.
- Otto, Ton 2013. 'Times of the Other: The Temporalities of Ethnographic Fieldwork', *Social Analysis* 57(1): 64-79. doi: 10.3167/sa.2013.570105.
- Otto, Ton (in press). 'Transformations of cultural heritage in Melanesia: From kastam to kalsa', *International Journal of Heritage Studies*.
- Prensky, M. 2001. 'Digital Natives, Digital Immigrants', *On the Horizon* 9 (5): 1-6.
Suhr, Christian and Ton Otto (directors). *Unity through Culture* (videofilm 59 minutes). Boston: DER.
- Smith, Rachel Charlotte. 2013. 'Designing Digital Cultural Futures. Design Anthropological Sites of Transformation'. PhD dissertation Aarhus University.

Things Making Things: An Ethnography of the Impossible (draft)

Elisa Giaccardi
Delft University of Technology, Delft, Netherlands

Chris Speed
University of Edinburgh, Edinburgh, UK

Neil Rubens
University of Electro-Communications, Tokyo, Japan

This paper describes the theoretical and methodological underpinnings of ThingTank, a project in which non-humans write shared futures with humans. Though not design anthropological in itself, this project sheds light on the meaning of the ‘impossible’ in relation to the current design anthropological discussion.

ThingTank is an Internet of Things (IoT) research project that uses a combination of field studies, object instrumentation and machine learning to listen to what ‘things’ have to tell about their use, reuse and deviant repurpose, and it harvests this data to inspire idea generation, fabrication, rapid prototyping and business development generation.

Much of the rhetoric for investment into IoT platforms is to identify cost saving and process efficiencies (e.g., vehicle manufacturers), to track goods within large networks (e.g., logistics companies), or to monitor the health and safety of systems (e.g., aircraft manufacturers) within a streamlined process of production. But as networked objects become more common, the massive amounts of data that they collect will soon outweigh what we know about these objects – and thus about ourselves.

As these databases of objects intermingle with our own data shadows, it won’t be long before the objects around us begin to make suggestions about how what ‘might be’ desirable. ThingTank aims to interrogate artefacts’ shared use (and abuse) and to elicit new insights outside of a streamlined process of production.

In describing this project, we will discuss the role and challenges of designers and anthropologists in opening up and articulating design spaces invisible to the naked human eye.

1 Researching and Developing the Impossible

1.1 Performing with things as participants to open up the impossible

Designing is about bringing forth something that does not exist (Binder et al. 2011). From an anthropological perspective, this something must be performed in order to be experienced (Bruner 1986, cited in Binder et al. 2011). In line with Binder et al. (2011), in this project we approach design from a performative perspective in which ‘things’ are considered to have the potential to bring forth a shared design space.

According to Binder et al. (2011), the creation of such a design space is the creation of a ‘field work’ that does not exist but it is possible. Intended as a possibility, this fictional space emerges out of the ongoing interaction between participants in design. But what if ‘things’ are to become participants, not just resources?

As an item moves along the value chain from large scale consignment into the hands of someone who values the object from a personal perspective, the definition of what is a ‘thing’ becomes highly subjective. While many of the definitions of what is an artefact or a product remain intact within different frames of consumption (i.e., manufacturer, distributor, shop and home), we argue that the terms ‘thing’ and ‘object’ are consistently being used with mixed meanings, particularly across the broader field of the Internet of Things (IoT) in which this project is positioned.

Coyne (2011) recovers Heidegger's definition of *thing* as “a gathering”, and specifically “a gathering to deliberate on a matter under discussion, a contested matter” (Heidegger 1971). Extending this definition, Coyne also reveals that the Oxford English Dictionary supports this understanding: a thing is a judicial assembly, and in Scandinavian countries the Thing is the Parliament (IBID). With this in mind, an invitation to a friend such as “can I buy you a coffee” evokes a context in which the *thing* is evidently the event, and the material object is merely a material focus around which to meet (e.g., what can be seen and touched).

Such a distinction is critical to the development of a design vocabulary for the Internet of Things grounded in a performative understanding of what ‘things’ can do.

According to Binder et al. (2011), ‘design things’ are socio-material frames. They are to be intended as both (a) material constituents of the evolving design object and (b) public things framing and supporting communication and interaction (168). Because they modify the space of interactions and performance, ‘design things’ can open up new and unexpected ways of thinking.

In this paper, our emphasis on the ‘impossible’ is to problematize and critically explore the epistemological role of IoT in the shaping of ‘design things’, beyond an anthropocentric understanding of what is ‘possible’ and ‘worthwhile’. It is to explore the kind of ‘unspoken’ and the aspects of liminality (Gennep 2004) that are brought into the design process when information and communication technology enable objects that are part of our lives to begin to speak in ways outside a human habitus, and thus participate in the design process on their own terms.

1.2 The temporal frame of designing through performance, and nature of engagement in the context of the impossible

Within a user-centered design approach, things are usually intended as prototypes. Their role is to support people to imagine, discuss, and shape future practices (Donovan & Gunn 2012). By extension, design becomes a kind of stabilizing process, through which imagined future practice(s) are realized (122).

In ThingTank instead, we do not involve ‘things’ in the design process just as provocative artefacts at project time. We take a general metadesign approach (Giaccardi & Fischer 2008) according to which we consider every situation in which things are used and performed (and in which they can ‘speak’ as participants) as a potential design situation. We therefore apply to IoT a way of designing (and with that an understanding) that takes place “after”, “beyond” and “with” the design work at project time (Giaccardi & Fischer 2008; Binder et al. 2011).

As argued by Gunn & Donovan (2012), engagement in design approaches sensitive to anthropological concerns requires developing capacities to offer people different ways of understanding what they know and do (6). These different ways of understanding allow for reframing and reconfiguring relations, and are inherently performative and transformative.

Giving a voice to things as participants requires this kind of ethnographic engagement. It assumes to ‘spend time’ with objects and ‘work with’ them as

participants to exorcise the practices that have accumulated into and have manifested through things ‘after design’. By listening to ‘things’ for an extended period of time, we can learn and reflect on what we usually take for granted, and articulate a design space invisible to the naked human eye.

According to Kjøersgaard & Otto (2012): “*the role of fieldwork and anthropology within design cannot simply be to provide designers with descriptions of users and use practices as in the tradition of ethnomethodologically informed design; nor can it simply be to supply methods and techniques for enrolling users and their knowledge directly within the design process as in the tradition of participatory design*” (179).

However, classic fieldwork based on long-term immersion and participant observation in the field has difficulties dealing with the emergent where there is no stable subject of study (Rabinow et al. 2008, cited in Kjøersgaard & Otto 2012). On the contrary, design anthropology is concerned with challenging and reframing relations between use and design, and in so doing contributes to the crafting of social and material relations.

ThingTank brings the framing and challenging of understandings at the intersection of practices and contexts of use and design at a new level, and values the role of the programmer of the machine learning code as much as that of the anthropologist.

2 ThingTank as design inquiry into networked objects

2.1 The changing value and interpretation of physical objects

Many contemporary material practices across the fields of produce are beginning to develop artefacts with immaterial accompaniments: barcodes, instruction manuals, connections to social media sites. In general, the relationship between these two parts - material and immaterial - is passive or complimentary but rarely active.

In the past many IoT projects have used the network connection of artefacts to identify cost saving and process efficiencies (e.g., vehicle manufacturers), to track goods within large networks (e.g., logistics companies), or to monitor the health and safety of systems (e.g., aircraft manufacturers) within a streamlined process of production. But as networked objects become more common, the massive amounts of

data that they collect will soon outweigh what we know about these objects – and thus about ourselves.

2.2 IoT as technological paradigm, and the emergence of networked objects

However within what is being described as the Internet of Things we can anticipate that material objects do not only bring them with them an immaterial artefact but a data cloud which is likely to play an active role in changing the value and interpretation of the physical object.

The phrase Internet of Things is attributed to the Auto-ID research group at MIT in 1999 (Ashton 2009) and refers to the emerging technical system of objects and materials that are becoming connected to the internet. The specific reference to ‘things’ refers to the principle that physical objects will part of this extended Internet, because they will have been tagged and indexed by the manufacturer during production. It means that the movement of these ‘tagged’ items can be tracked through the various value chains from natural resource through processing / manufacture, distribution and purchase /application, and this history can be associated with the object at all times. Sterling describes these new types of objects as ‘spimes’:

"Spimes are manufactured objects whose informational support is so overwhelmingly extensive and rich that they are regarded as material instantiations of an immaterial system. Spimes begin and end as data. They're virtual objects first and actual objects second." (Sterling 2005).

The relationship between the virtual object and the actual object is not always symmetrical, as more or less data can affect the value of the physical object. For example if a piece of furniture carried with it images of how it was made including the handmade processes that were involved in finishing the material surfaces, or the laughter that was caught during the first time it was used at a dinner party. The impact of these immaterial ‘things’ to transform the value of the material ‘thing’ is something we are familiar with when we consider old things such as antique artefacts and heirlooms that carry with them details of their provenance that affect both their cultural and economic value. Web platforms such as Tales of Things that allow members to attach stories in the form of text, video and audio to QR tags, that in turn can be attached to physical objects, allow the public to generate a personal data cloud that is associated with an material thing (Speed 2012).

However, changes in the perceived value of an object does not stop at the recovery of data from the past, any object that is part of an Internet of Things has the potential to share data about itself with another object and begin to draw novel conclusions. In writing on value and worth, Ng describes how companies will increasingly capitalise upon the connections between objects in social contexts to sell us more things (Ng 2012). Described as ‘contextual archetypes’ Ng suggests that within an Internet of Things, objects can become a point of sale within particular activities, for example, when making a cup of tea, the tea bags will be able to sell you milk because they are part of the same context. This radical shift from vertical lines of consumption to horizontal, means that objects with an IoT are elevated to a role of actors within our networks of distribution and sharing.

Bleeker prepared us for objects developing a form of agency with his Manifesto for Networked Objects (2006) and in recent years designs have appeared that begin to use the connection between a physical appliance and the internet as a means to explore a ‘living’ identity for that thing. “The Addicted products: The story of Brad the Toaster” by Simone Rebaudengo (<http://vimeo.com/41363473>) is a domestic toaster that is able to record how often you use it. Based upon this information it decides if you are a good owner, and if not it asks you to give it to someone else. As networked objects become more common, the amount of data that they collect will soon outweigh what we know about the physical device. As artefacts share information with the other artefacts around them, code can be written to interrogate their shared use. Machine learning is being used across a wide variety of databases to identify patterns in order to elicit new insights (Bandyopadhyay & Sen 2011). As the databases of objects intermingle with each other and our own data shadows it won’t be long before objects begin to make suggestions about their use and value.

2.3 Performativity of networked objects

This new relationship with physical objects is something that we may increasingly have to negotiate as ‘things’ are increasingly constituted not just with material and data but computer codes and algorithms that change our assumptions that an object is inert, or in the context of an ethnographic study, that the object is bounded by its physical parameters. This quality to play a role in influencing and producing spaces

may be best described as performative. A complex term that Dewsbury describes as “the gap, the rupture, the spacing that unfolds the next moment allowing change to happen.” (2000), performativity is used to explain the capacity of speech and gestures to act and offer emergent structures. The term is attributed to the language philosopher Austin who established that words can be used not only to describe something, but can be used to do something. His most poignant example of what he coined as ‘performative utterances’ being when we use the words “I do” to instantiate an action (such as marriage) (Austin 1962).

In his exploration of the role of computer code as a generative form of media, Cox compares the qualities of speech that were identified by Austin with the emerging performativity of computer programs or algorithms that carry out actions:

“Speech acts come close to the way program code performs an action, like the instruction addressing the file. Programs are operative inasmuch as they do what they say, but moreover they do what they say at the moment of saying it. What distinguishes the illocutionary act is that it is the very action that makes an effect: it says and does what it says at the same time. Such utterances are conventional but performative.” (Cox 2012).

As the data that is connected to objects is associated with codes and algorithms to produce ‘performative utterances’ artefacts around us are likely to tell us what they would like to do, or how they would like to be used and perceived.

3 Consider the Fork, and the Perspective of Machine Learning

3.1 Material practices as patterns of use, and the contribution of machine learning to anthropology

A common view of the fork is as a simple tool used for eating. However, the fork has transformed how we not only consume, but also think about food. Given new technological capabilities the fork may still undergo further evolution, which will have further consequences. Technology in the kitchen does not just extend to fridges and microwaves. Technology also extends to the humbler tools of everyday cooking and eating: a wooden spoon and a skillet, chopsticks and of course forks. Through out the history, cooking utensils evolved around the world providing us with the final form, which we often take for granted. Very few people would question the utility of

the fork, but before the fork gained a widespread acceptance it endured centuries of ridicule (Wilson, 2013).

Many once-new technologies have become essential elements of any well-stocked kitchen. Others have proved only passing fancies, or were supplanted by better technologies; one would be hard pressed now to find a water-powered egg whisk. Although many tools have disappeared from our kitchens, they have left us with traditions, tastes, and even physical characteristics that we would never have possessed otherwise (Wilson, 2013).

The ThingTank project identifies that ‘things’ may soon know more about lives than we do and may also be able to make suggestions about what is missing. The purpose of this project is to explore the potential for identifying novel patterns of use within the data that is streamed through the interaction between people and things, and things and things. Through a better understanding of how what data can tell us about how we use objects in practice, new models of use will emerge and reinvigorate the role of things and people within design and manufacturing.

3.2 Impact of a data perspective on developing the impossible



Fig. 1 Traditional Product Development Approach: example with focus on cost optimization

Traditional approaches develop new products by focusing on the product properties (cost, weight, durability, aesthetics, ergonomics, etc.); e.g. cost / material (Fig. 1). But for digital products, long tail business models - providing a large number of unique items with relatively small quantities sold of each - have become increasingly successful and even dominant (e.g. iTunes, NetFlix). In manufacturing, the adoption of long tail business models have been limited, since for the low-volume products it is difficult to recoup the high costs of: (a) production setup, (b) product discovery. The

costs of production setup are starting to rapidly decrease due to new technologies such as 3d printing (Ng, 2012). Yet the high cost of product discovery has remained a major obstacle to long-tail manufacturing, amplified by the requirement for a large number of low-volume products, with each product bearing a high discovery costs. The proposed ThingTank platform is able to overcome this obstacle, by automatically discovering large number of product usages that translate into even larger number of novel products; hence making the long-tail manufacturing feasible (Fig. 2).

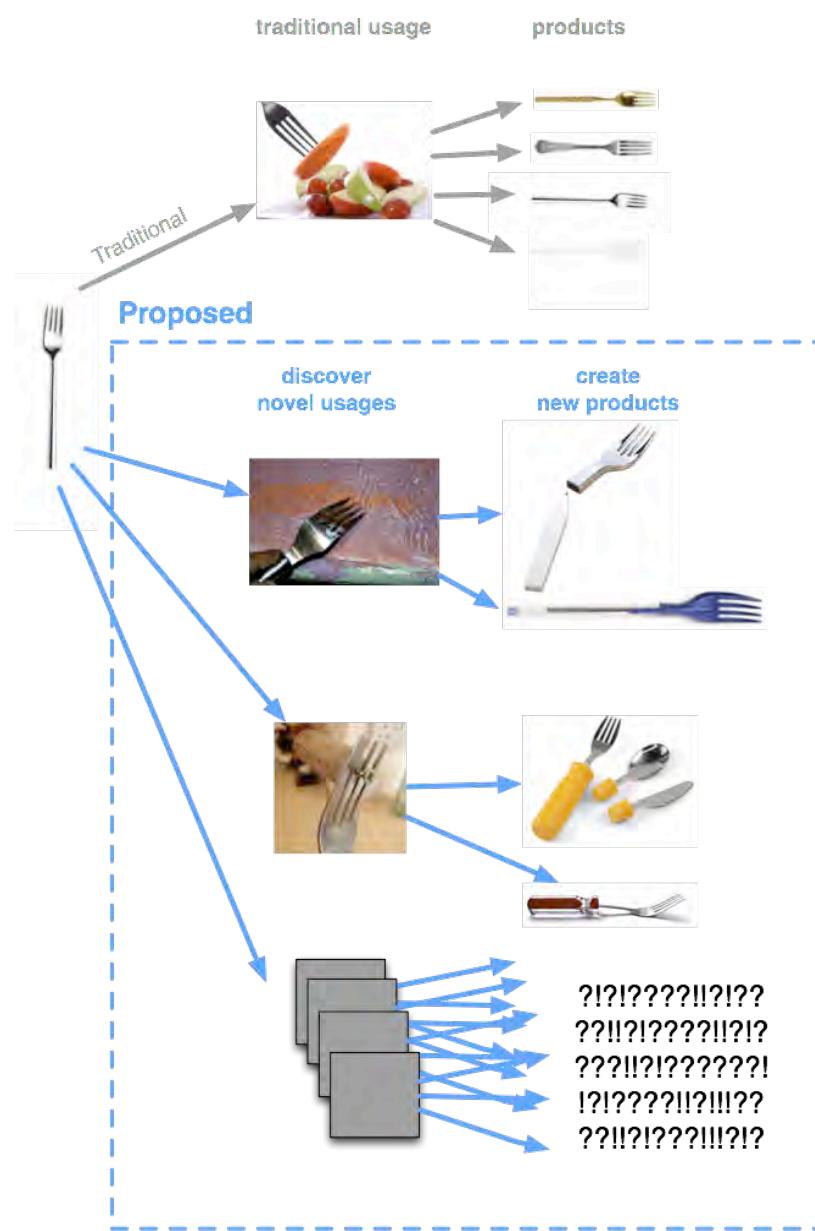


Fig.2 Proposed Approach: Product Development through Novel Usage Discovery

Consumers constantly invent novel usages of objects, but often do not have needed resources and expertise to develop products with the novel usage in mind. On the other hand, product designers are often not the users of the objects; so it is hard for them to imagine novel and meaningful usages. Our proposal is to bridge this gap: discover novel usages by consumers (by analysing sensor data); and use discovered product usages to inspire product designers.

We propose a new task of discovering novel usage patterns by mining objects' sensors data. The principal challenge is to define a quantifiable definition of usage "novelty". The definition of novelty is complex and could be discussed in perpetuity.

We take a pragmatic (instance-based) approach in which we ask participants to evaluate novelty of concrete examples. Based on these judgments the system learns to identify novel usages. The system then presents back to the participants the usages that it considers to be novel; if participants disagree with the system's judgments; system is re-trained (incorporating the feedback); this process is repeated until adequate accuracy is obtained (Rubens et al. 2011).

3.3 Examples of usage categorization in machine learning

We are in the process of gathering large quantities of data on the use and abuse of things. In order to facilitate analysis of this data we are also developing tools that allow domain experts to identify usage patterns of interest. In our pilot study we have focused on various usages of a common fork. Below we discuss preliminary findings which allowed us to create categories for various usage patterns (these categories are non-exclusive, i.e. an object may belong to several categories).

Deviation

In the case of *alternative usage* the object is not modified; however it is used for a different purpose than originally intended (Fig. 3).



Fig. 3 Deviation: using fork for (1) making a bow, (2) painting, (3) weed removal.

Hybridization

In the case of *hybridization* the object is used for a different purpose than originally intended (same as in the case of *alternative usage*), however in order to perform additional function the object is modified (Fig. 4).



Fig. 4 Hybridization

Partial Hybridization

In the case of *partial hybridization*, the object adopts some of the desirable properties of another object; however its usage is unchanged (not extended); unlike in the case of *hybridization* (Fig. 5).



Fig. 5 Partial Hybridization

Re-Purpose

In the case of *re-purpose* the object is modified to fulfil the new functionality, however unlike in the case of *hybridization*, the object is not longer able to perform its original function (Fig. 6).



Fig. 6 Re-Purpose: (1) jewelry, (2) hanger, (3) handle

Instrumentation

In the case of *instrumentation* (Fig. 7), the object is fitted with additional sensors and often provides the sensory feedback to the user; its physical usage is not modified (however via sensory feedback the user's influence patterns might be influenced).



Fig. 7 Instrumentation

4 Implications and Challenges for Design Anthropology

As artefacts within a particular context begin to accrue and share data, and this data begin to be the material basis for computer code to ‘speak’, we envision tremendous implications for anthropology and all traditions of practice. As objects within the ThingTank system will begin to speak and expose patterns that are outside a human habitus, they might identify what we defined as the ‘impossible’: liminal design spaces, invisible to the naked human eye.

As argued by Redström (2012), the unpacking of relations between design and use can be done in many different ways. The analogue technology of industrial production, for example, enforced a discrete and static view of design (93). A critical IoT approach can bring the unfolding of socio-material configurations back to design by contesting relations between design and use that become manifested in forms of practice. Such a IoT approach does not just expose and describe the form of a socio-material practice that it is difficult to express in terms of just design or use, but it may reveal “states of being as much as kinds of things” (Redström 2012: 95).

Our approach is contrary to classic IoT, which is paradoxically still positioned within an industrial paradigm of mass production concerned with increased efficiency

and optimal design, because no changes are possible ‘after design’. In fact, ThingTank not only accounts for deviation, but it legitimizes it as part of the design process by revealing through machine learning ‘forms’ that are time- and difference-generated (Kwinter 2002, cited in Redström 2012).

Design anthropology needs a different notion of form (intended as object of design) to be able to account for emergent forms of practice, argues Redström (2012). “Thus the object would be defined not by how it appears, but rather by practices: those it partakes of and those that place within it” (Kwinter 2002: 14, cited in Redström 2012). With ThingTank we can explore this interplay. In the ThingTank system the form that emerges through design inquiry is preoccupied with the actual material object as much as it is performed and experienced through instrumentation and machine learning.

In design anthropology, emergent forms are usually considered in relation to the making of new artefacts (Wallace 2012); for example, in the form of prototypes (that is, during design) or, in the challenging of assumptions inherent in the design (that is, before design). In other critical design approaches, the questioning of assumptions inherent in the design makes often use of defamiliarization as a means for interpretation and reflection “towards better and more innovative designs” (Bell et al. 2005: 153), or to provide alternative viewpoints in the form of “narratives” (Dunne & Ruby 2013). Instead, we interrogate objects within a performative process aimed to deal with emergence in ‘design after design’, and to critically articulate objects of design and design spaces invisible to the naked human eye. To listen to the humans we are asking the fork.

Acknowledgements

ThingTank is a project funded by the Skoltech Institute, Moscow in the context of the MIT Skoltech Initiative, “Ideas Lab” funding program.

Bibliography

Ashton, K. (2009) ‘That “Internet of Things” thing’, RFID Journal, 22 June. <http://www.rfidjournal.com/article/view/4986> (accessed 4 December 2011).

Austin, J. L. 1962. *How to Do Things with Words*. Oxford: Clarendon Press.

- Bandyopadhyay, D. & Sen, J. (2011) Internet of Things: Applications and Challenges in Technology and Standardization, *Wireless Personal Communications: An International Journal archive*, 58:1 (May 2011): pp. 49-69.
- Bell, G., Blythe, M., Sengers, P. (2005) Making by making strange: Defamiliarization and the design of domestic technologies, *Transactions on Computer-Human Interaction (TOCHI)*, 12:2, pp. 149-173.
- Binder, T., De Michelis, G., Ehn, P., Jacucci, G., Linde, P., Wagner, I. (2011) *Design Things*, MIT Press, Cambridge, MA.
- Bleeker, J. (2006) *A Manifesto for Networked Objects – Cohabitating with Pigeons, Aphids and Aibos in the Internet of Things*, University of Southern California, CA.
- Bruner, J.S. (1986) *Actual Minds, Possible Worlds*, Harvard University Press, Cambridge, MA.
- Cox, G. (2013) *Speaking Code: Coding as Aesthetic and Political Expression*, MIT Press, Cambridge, MA.
- Coyne, R. (2011) *No-Thing as it seems*, <http://richardcoyne.com/2011/04/23/nothing-as-it-seems/> (Accessed September 2012)
- Dunne, A. & Ruby, F. (2013) *Speculative Everything: Design, Fiction, and Social Dreaming*, MIT Press, Cambridge, MA.
- Donovan, J. & Gunn, W. (2012) Moving from objects to possibilities, in W. Gunn & J. Donovan (eds) *Design Anthropology*, Ashgate Publishing Company, Farnham, UK.
- Gallaugh, J. (2010) Information Systems: A Manager's Guide to Harnessing Technology, Flat World Knowledge, Nyack, NY.
- Giaccardi, E. and Fischer, G. (2008) Creativity and Evolution: A Metadesign Perspective, *Digital Creativity*, 19:1, pp. 19-32.
- Gunn, W. & Donovan, J. (2012) Design anthropology: An Introduction, in W. Gunn & J. Donovan (eds) *Design Anthropology*, Ashgate Publishing Company, Farnham, UK.
- Kjørsgaard, M. & Otto, T. (2012) Anthropological framework and design potentials, in W. Gunn & J. Donovan (eds) *Design Anthropology*, Ashgate Publishing Company, Farnham, UK.
- Kwinter, S. (2002) *Architectures of Time: Towards a Theory of the Event in Modernist Culture*, MIT Press, Cambridge, MA.
- Ng, I. (2012) *Value & Worth: Creating New Markets in the Digital Economy*, Innovorsa Press.
- Rabinow, P., Marcus, P., Faubion, J., Rees, T. (2008) *Designs for an Anthropology of the Contemporary*, Duke University Press, Durham, NC.
- Redström, J. (2012) Introduction: Defining moments, in W. Gunn & J. Donovan (eds) *Design Anthropology*, Ashgate Publishing Company, Farnham, UK.
- Rubens, N., Kaplan, D., Sugiyama, M. (2011). Active Learning in Recommender Systems, in Ricci, F., Rokach, L., Shapira, B., Kantor, P.B. (eds) *Recommender Systems Handbook*, Springer.

- Speed, C. (2012) Mobile Ouija Boards, in E. Giaccardi (2012) *Heritage and Social Media*, Routledge, London.
- Stirling, B. (2005). *Shaping Things*, MIT Press, Cambridge, MA.
- Wallace, J. (2012) Emergent artefacts of ethnography and processual engagements of design, in W. Gunn & J. Donovan (eds) *Design Anthropology*, Ashgate Publishing Company, Farnham, UK.

Making 'the Possible' Possible

Lise Røjskær Pedersen

Department of Anthropology, University of Copenhagen

Kasper Tang Vangkilde

Department of Culture and Society, Aarhus University

I'm a consultant. It means that I have a client. It starts with a dialogue on how to create a path to a new form of sense making. People have their reasons. As a consultant, I want to get them a new road, and then I need to understand where they come from [...] You want to push things to certain levels, push the bars. It is about how far you can get away but still be meaningful. It is about distance; how far can you jump and still be relevant.

Consultant of a Danish strategy and innovation consultancy

Let us begin this paper with a few brief, and rather commonplace, observations. From the phones in our hands to the smells in our cars, everything seems *designed* these days. While it may be a general human capacity, design appears particularly pervasive in modern societies, clearly representing 'one of the major sites of cultural production and change, on par with science, technology and art' (Otto & Smith 2013:2, see also Clarke 2011, Moeran & Christensen 2013). Often, these design processes may appear chaotic or unstructured but, in most cases, they are nonetheless *organized* in the sense of being configured in a certain way (see e.g. Djelic & Ainamo 1999, Moeran 2009). Organization, in other words, 'is an ongoing struggle to impose order, for strategic ends' (Batteau 2000:728, see also Garsten & Nyqvist 2013, Gellner & Hirsch 2001, Wright 1994). And what is more, a broad range of aspects – from health to security, education to welfare, and, importantly, creativity to design – are today *commoditized*, literally turned into a business. In fact, it may be claimed that '[a]ll aspects of *social* behaviour are now reconceptualized along economic lines' (Rose 1999:141, original emphasis, see also Maurer 2005, Miyazaki 2013, 2006, Moeran & Garsten 2012).

NOT FOR CITATION

In this paper, our aim is to integrate elements of these broad developments in an ethnographic exploration of ‘the possible’, generally assumed, as in the seminar blurb, to form a ‘peculiar space betwixt and between the present(s) and the future(s)’. Drawing on Lise Røjskær Pedersen’s fieldwork among consultants in a Danish strategy and innovation agency, we seek to illuminate how ‘possible futures’ emerge not merely through ideation and design activities but through processes of socio-political exchange and positioning, as well as business interests, inside the organization. As design anthropology is broadly acclaimed for its focus on relating, contextualizing, and reframing aspects of design and use (Gunn & Donovan 2012, Kjærsgaard & Otto 2012, Otto & Smith 2013), our purpose is – intentionally polemical – to show that too little attention is paid to the fact that these relations, contextualizations, and framings are themselves embedded in other relations, other contexts, and other framings in organizations, which often have a commercial objective. We contend, therefore, that ‘the possible’ comprises not solely a kind of fuzzy galaxy of potential futures but the actual and intense efforts that go into *making ‘the possible’ possible* inside a corporate organization.

We are, of course, not the first to emphasize these intricate relations between design, organization, and business; including such issues as structures, profit, power, politics, etc. (e.g. Flynn 2009, Oliveira 2012). However, we suggest that a distinctive kind of ‘scaling’, understood as a particular attention to, or perspective on, a specific phenomenon (Hastrup 2013, Strathern 2004), characterizes the ways in which aspects and notions associated with ‘the possible’ – for instance, the creation of new ideas or potential futures – are explored in design, organizational and business anthropology, among other fields. We begin, therefore, with a discussion of these modes of scaling the possible, before we turn to the consultants and their way of creating new ideas.

Scaling the possible

The complex question of scaling has received increased attention in recent years (e.g. Hastrup 2013, Holbraad & Pedersen 2009, Strathern 2004). On the very first pages of *Partial Connections* (2004), Marilyn Strathern argues that a certain kind of ‘Western pluralism’ (*ibid.* xiv) underlies the particular mode in which anthropologists tend to organize their ethnographic material; that is, anthropologists generally imagine the

NOT FOR CITATION

world as composed of numerous bits and pieces, which bring about the challenge of how to make order out of these multiple, or ‘plural’, data. The widespread solution, Strathern continues, is captured by the notion of scale and practices of changing scale, meaning ‘switching from one perspective on a phenomenon to another’ (*ibid.*). Thus, the notion of scale is a function of knowledge interest and denotes a *scale of attention*, as Kirsten Hastrup has it: ‘Rather than providing the anthropologist with a fixed frame of reference, the act of scaling is a profound matter of putting a particular perspective to work, and of identifying the complexity of any detail or fragment’ (2013:148). For Strathern, the latter point is momentous. It is *not* the case that complexity is reduced through modes of scaling, but rather that it remains constant and replicates itself at every level. In this sense, by acts of changing scale, one is, in fact, playing a zero-sum game (Holbraad & Pedersen 2009:373). ‘Each single element that appears to make up the plurality of elements seen from a distance,’ Strathern writes, ‘on close inspection turns out to be composed of a similar plurality that demands as comprehensive a treatment’ (2004:xv, see also Holbaard & Pedersen 2009).

Let this brief discussion suffice to point out that the possible may precisely be conceived as a complex plurality of elements upon which particular perspectives can be brought to bear; not, as emphasized, in the sense of reducing its complexity but of perceiving and ordering it in a certain, yet partial, way. In this respect, a distinct kind of scaling, we believe, characterizes how the possible is approached, conceptualized, and discussed in design anthropology and organizational and business anthropology. Here, space allows us only to touch briefly on this issue.

It is generally accepted that the emergence of design anthropology is indebted to various research traditions, not least ethnomethodologically informed design and participatory design (cf. Halse 2008, Kjærsgaard & Otto 2012, Otto & Smith 2013). While these traditions differ in their approaches to design and the integration of users into design – and, by implication, to the relation between design and ethnography – they nonetheless share precisely this focused attention on linking practices of design and practices of use (see e.g. Button 2000, Ehn 1993). Design anthropology, it seems clear, builds heavily on this tradition, perhaps most explicitly expressed when a book entitled *Design and Anthropology* focuses on ‘the building of relations between using and producing, designing and using, people and things’ (Gunn & Donovan 2012:2).

NOT FOR CITATION

Indeed, there is nothing wrong about this, and we are sympathetic with these attempts at rethinking and renewing the relation between design and use, including the relation between design and anthropology. Our point, however, is merely that this constitutes a very particular mode of scaling the possible; namely, as a phenomenon essentially emerging through the intersection of contexts and practices of design and use (see e.g. Donovan & Gunn 2012, Halse 2013, Kjærsgaard & Otto 2012).

While this may be fairly obvious for design anthropologists, it is all the more significant to emphasize that scholars of other fields within anthropology, not least organizational and business anthropology, tend to apply a different scaling. In studies on advertising (Moeran 1996), fashion (Vangkilde 2012), and food (Lien 1997), for instance, the possible is seen to emerge not so much through an intersection of design and usage as through social, political, and economic processes and relations inside the given organization. This is not to say, of course, that contexts and practices of design and use are indifferent in these organizations, but rather that, when switching the scale of attention, a set of different aspects comes into view. As Brian Moeran argues in his study of a Japanese advertising agency:

What the PKW case study clearly shows is that, even if a convincing argument were to be put forward that advertising *does* create a ‘consumer culture’ and that it *does* manipulate the minds of consumers, it needs to take account of the fact that the Agency first has to persuade its *clients* that its approach to a particular problem is best. In this respect, it is as concerned with selling a would-be advertiser an image of *itself* as it is of selling consumers an image of that advertiser’s *products* (Moeran 1996:96, original emphasis).

In what follows, we take inspiration in this attention to the client, as we now turn to the strategy and innovation consultants, amongst whom Lise Røjskær Pedersen has conducted 8 months of ethnographic fieldwork in 2013 for her Ph.D. in anthropology.

Detectives of the future

In a recent article in an American business magazine, two partners of a strategy and innovation consultancy define the method of their company: ‘sense making’, they call it. Following the authors, ‘sense making’ is a problem-solving method based on the

NOT FOR CITATION

human and social sciences and suited for solving a distinct kind of business problem: ‘the big unknowns’. These denote situations where executives have lost grip of their industry, and where it feels like ‘navigating in a fog’, as the consultants often put it.

Jesper is one of the inventors of the method of sense making and participates in numerous articles, blog-posts, public talks, radio and TV shows, promoting the company and its seemingly unusual approach to business problems. On a grey day in November, he describes the sense making process:

The creative process is about going from pattern recognition to insights. There is nothing creative about pattern recognition. That is pure analysis. That is about systemizing all data into a need hierarchy. But insights are the answer to the original problem – with data integrated. You take what has come out of pattern recognition and measure it against the client’s assumptions, and out of that asymmetry comes an insight, which is a kind of opportunity, a direction.

It is risky; you take a risk and a jump. That is what is creative.

In the succeeding account, we follow a concrete project in the consultancy, *the wound care project*, during a couple of hectic weeks leading up to a presentation of preliminary insights and a workshop with the client. We primarily follow David, the project manager, and Thomas, the partner responsible for the project.

The double funnel approach

It is Friday. David turns up around 10 this morning. He is happy. Yesterday’s steering group meeting went well. The client is content about the project’s progress. David has been extremely busy the last couple of weeks managing the wound care project that has been running for about two months now. Next week, the project moves into the ‘pattern recognition phase’, meaning that the unusually large team is brought together to explore and analyse the qualitative data generated during three weeks of fieldwork amongst nurses, doctors, and patients in China and Brazil. The team will be working towards presenting a couple of early insights from the project on a full day workshop with almost 20 stakeholders from The Client across different divisions and countries.

David has thought a lot about how best to structure the pattern recognition so that the fieldworkers will discuss ‘all the good stuff’. And he has an overall plan:

First, I want everybody to tell openly about how it is being in a hospital with a wound. After that, we will focus on the individuals – the doctors, the nurses, and the patients. It's important to talk about the persons and their motivations, before you talk about the activities. If not, we won't be able to understand the causalities behind the activities.

David calls this approach 'a funnel'. He says: 'On the outside towards the client and concerning all the deliverables, the process is a funnel. But it's different on the inside. The inside is barbed.'

David has made several templates to help him manage and capture the many ideas and thoughts that he expects to emerge over the next weeks. One such template is for capturing data that can be showed to the client. This template, however, should be handled carefully. As he stresses: 'One of the products that should come out of this week is a list of all the challenges that the fieldworkers observed in China and Brazil. But I deliberately keep the list out of the analytical process in the beginning. Such a list has a tendency to kill discussions.' David shows an example from another project – a list containing more than 100 'needs' – and he explains how he later transformed it into different categories. He is certain that this will prove to be a valuable tool in dialogues with the client: 'If you don't have the list, then you might end up lacking a lot of details. And details are what bring trustworthiness.'

David seems almost obsessed with form. He has made tons of templates and power point slides; it is time for 'fish catching', it seems. What he will get from this week's discussions is all the stuff on which he will work during the rest of the project. This is why he carefully lays out clues and points of orientation such as templates and lists, and it is also the reason why he is applying a deliberate order by which he, for instance, looks for the users' motivations before their activities.

The clues are his way of knowing that he *will* get what he needs to finish the project; and they seem to fulfil a double purpose: on the one hand, they are a sort of safety net to find a way (and a way back, as we shall show) and, on the other, they consolidate a display that functions to document the route and the links (between pieces of data) that he is continuously making and remaking. In this sense, being a project manager means running the inside and the outside of the funnel in parallel, entailing that David needs not merely to manage the internal pattern recognition but,

importantly, to build a convincing display of interesting results that can be shown to the client at any given moment. This is why David is so preoccupied with creating preliminary ‘products’ (such as a list), because he works under the premise that everything can change in an instant. The client might call for a status, change the date of a meeting, or, as we shall see, unexpectedly invite themselves to participate in the analysis.

Staging the inside

It is the first day of the pattern recognition week. The team is gathered in one of the rooms in the stylish office in central Copenhagen. The consultants have labelled the room ‘the wound ward’ and papered it with photos, notes, post-its, and power point prints. This is where ideas are meant to emerge. David goes through the plan of the week. Having explained how he first wants everybody to think about ‘the big picture’, i.e. ‘the big idea’, and then to move into the details in order to make user profiles, i.e. ‘the funnel process’, he tells the team that a couple of people from the client’s R&D division will join the workshop the next two days. A couple of the team members look worried, but David calms them down: ‘we have agreed that *we* run the process, and they are going to just listen. They have to respect our process, and they should not expect any “ethno magic”.’ But one of the younger consultants asks: ‘So how should we be when the client is here? Are we allowed being confused?’ A more experienced consultant replies:

It is very important that you are honest about being confused. We can’t take too much care of them being here. We really need to get all uncertainties and concerns out this week. You should think about the fact that you have done fieldwork for three weeks in Brazil, so your questions will not be stupid.

On the next day, three people from the R&D division join the team. Thomas, a partner in the consultancy and the overall responsible for the project, makes sure to attend to the clients: ‘Isn’t this exciting? We think it is, but there is a long way to go, of course.’ Thomas walks in and out of the workshop, his role being to set the overall frame and explain what is going on inside ‘the engine’ of creating ideas. When one of the clients asks about the open-endedness of the method, he says confidently:

That is how it is. We try to cover it all without concluding too fast. My role as the responsible partner is to try to ask some questions at the research, but it's also to let the thing have its own life. Then at a certain point, I will try to bring in the initial overall question again. It's very much about finding our... or your take on this whole field. But right now, it's about making sure that we understand the users' world.

In a both calm and authoritative manner, Thomas explains the process to the clients, assuring them that the team will eventually make conclusions but that, at this stage, the right place to be for both consultants and clients is inside 'the fog'.

Contrary to Thomas, David has a double role. While being an integral part of the analytical process, he also spends much time talking with the clients, discussing different 'user stories' and comparing them to the clients' usual ways of thinking about products. When one of the clients says that 'there is a huge uncertainty in our organization about who we are actually selling to,' and another client adds that 'it's like we only focus on the types of wounds that we make products for,' David seems content about their reflections. The heavy focus on products (versus people) is exactly why The Client needs help. Picking his words cautiously, David says:

Later today, we will have a session about how people talk about wounds and how they categorize them. That will be pretty interesting for you. There are so many logics about how to make products. From what I've learned so far, there might be a tendency in your organization to say that everything that is needed is better education. The doctors, nurses, and patients just need to know better. David carefully contextualizes the clients' experiences of the data. He points out that there seems to be an asymmetry between their perspectives on future wound care (e.g. better education) and the fieldworkers' research in Brazil and China. Staging himself as a mediator able to see this gap, he is engaged in creating new ideas, or possible futures; not only in the sense of exploring the world of the user but, importantly, in the sense of drawing the clients into the funnel in order for them to reach the same kind of 'moments of clarity'. Rie, one of the clients, has apparently experienced such a moment:

Wounds are unpredictable ... In these countries such as Brazil and China, there are also other skills. It would be such a shame if these insights from your

NOT FOR CITATION

research just got lost in all this talk about how different internal stakeholders perceive education ... I think we are maybe starting from a completely wrong place when we think about education.

We might interpret the wound ward with its ‘sticky barbs’ as a kind of lab for exploring possible futures, and inviting the client inside the lab is both risky and full of potential. For what seems to be crucial for the consultants is to make possible that the clients experience their own moments of clarity, which will clarify why it matters to do research into people’s lives in order to create good products; that is to say, why it matters to use the sense making approach.

Staging the outside

It is a few days before the important workshop with numerous stakeholders from The Client. The team, David, and Thomas are having a meeting, since yesterday’s steering group meeting did not go that well. Apparently, an issue concerning the overall scope of the project can no longer be ignored. The team has conducted fieldwork in China and Brazil, as well as carried out more than 30 interviews with internal stakeholders in various European countries. The problem, however, is that the client wants a *global* ‘value proposition’, not just one for China and Brazil.

David is frustrated, and worried about the quality of their research. He was not part of agreeing on the initial scope of the project, where fieldwork in European markets was excluded, and where it was approved that the so-called ‘European gap’ could somehow be filled by doing stakeholder interviews and updating a similar study from 2009. ‘We can’t get away with insights from 2009,’ David says. ‘A lot of things can change in four years ... I’m fine with reporting their ideas [the ideas of the clients gathered through interviews and workshops], but if we integrate data from 2009 into this study, then the quality of what we do decreases.’ Thomas hesitates, but makes it clear that the client cannot use a result that is not globally founded: ‘We can’t build a value proposition that is only bottom up. We need to have that overall perspective on how to think about wound care generally.’

It is show time. The consultants need to put together a display which is both believable and fits what they promised in the contract. But David is concerned about the storyline of the preliminary insights. How do they stitch it together in a credible

way? How far can they stretch the data from fieldwork in China and Brazil? And in which formats should they present their findings in order to ‘get away’ with it? In a sense, what the consultants discuss is how to create a convincing link from the future end-goal and back to the (past) data. As Thomas argues, this cannot only be done in a bottom-up way; that is, creating the insights in a forward moving (linear) way from bottom to top. Rather, they need to somehow assemble both pasts and futures in order to build the ground that allows them to present a particular (global) future. Hence, the discussion concerns how to lay the bricks to create a particular stepping stone from where they can *jump* to the conclusion of the global value proposition.

It is Monday morning, two days before the presentation and the atmosphere is hectic. The team has worked all weekend, but the issue of ‘the European gap’ remains unresolved. Now, Line pushes for a solution: ‘Don’t we need to make some decisions here on whether we show data that is global?’ Thomas replies: ‘You know how they are. They only want to hear that it’s global. We can ruin the whole day if that isn’t what we prioritize. They are stuck with this in their heads. They will be sitting nervously with a knot in their stomachs all day.’ But David is still worried:

The most important thing for me right now is that you, Thomas, think about what we do about them [the client] being so obsessed with ‘the global’. I think that it is really hard to crack [...] We need to help with all we can, but it’s hard for me to see how we ‘cut it’ without losing the credibility in what we do. That can easily slip out.

The client wants a particular result, i.e. a particular global future, and the consultants need to ‘crack it’. If they do not work onwards – or backwards, as it were – from the perspective of this future, they will get stuck. But David is unsettled. He cannot see how they can build a creditable link from a global future to the pieces of data at hand. He needs to find the crack that will make *jumping* to a global level possible.

In the afternoon, David meets with Thomas and Jesper, the two partners who sold the project. After around an hour, he returns to update the team:

You know that there has been this thing with the Global versus China and Brazil. What we will do is that we will be heads on with the fact that we don’t know about Europe. We only know a few things from the 2009 study, so they should help us here. We’ll be honest about that.

NOT FOR CITATION

This decision to be straightforward with the client, admitting that ‘we don’t know about Europe,’ can be seen as a kind of last minute *jumping*. Trying to cover up the gap by way of linking or twisting different types of data turned out to be too risky, as they could lose their credibility as consultants. Instead, they made a jump by taking advantage of the original scope of the project and holding the client responsible for the missing knowledge on the European markets. The point is, however, that this was done by deliberately turning the client into an expert in European wound care on par with their own expertise in Brazil and China. This sudden change in the relationship between client and consultant, making the former the expert and the latter the novice, is an important defining characteristic of how ideas are created.

In the morning before the presentation, the atmosphere is nervous. Although being satisfied with the team’s work so far, Thomas, the responsible partner, is still concerned:

It’s not because what we have done is not good. It’s really good! You have seen it. But it’s this thing about our method or process that they are not so familiar with, so they might not be able to see how and why we got to this. The presentation is fairly open as you can see; there are a lot of open points for discussion, and then again we have chosen something out of other stuff. Now we need their input to get on from here. We need to know if it is the right things that we discuss. They are not used to talking about the people whom it is all about. They are used to working with products. But you are always a bit nervous. But I do think that we will be all right.

Thomas is worried. The presentation and storyline are compelling, but the key issue is if the client will ‘buy it’. *Some* things have been prioritized over others, and a number of points *are* left unclarified, Thomas explains. Indeed, the consultants have jumped around to compose a neat storyline for the client, stitching together futures and pasts through acts of jumping. In a sense, this is how they work. This is their method. But will the client be able to see the leaps and links that have been made in order to reach the insights? And, most importantly, are they going to believe it?

Making believe

NOT FOR CITATION

These questions lead us to our closing reflections. What the consultants sell to their clients is not merely a product in the sense of a result that comes out in the end of a creative process. It is also, and perhaps more importantly, a distinct approach, ‘a new path’, or a promise of a particular experience: ‘a moment of clarity’. In this sense, what is product and what is process are by no means easily separated, as the process *is* somehow the product that the client buys. This is precisely what makes it hard to distinguish between futures, pasts, and presents when attempting to grasp how ideas are created and the possible explored amongst consultants.

The above account builds on a range of recent anthropological ethnographies and approaches to time and the future in social life (see e.g. Coleman 2009, Hodges 2008, Miyazaki 2013, 2006, Pedersen 2012). Their differences notwithstanding, these authors share an approach to time that is inherently non-linear. Drawing on Bergson (1944[1907]) and Deleuze (1992[1966]), time is understood in the form of duration, conceived by Morten A. Pedersen as ‘a dynamic field of potential relations without beginning or end, from which the present is actualized’ (2012:144). This approach to time is fundamentally anti-phenomenologist, indeed anti-humanist, in the sense that it is not understood to originate in any subjectivity. Rather, the unfolding of time (*la durée*) is what makes subjectivity and intentionality possible (Hodges 2008:411).

While these are indeed complex discussions, let it suffice here to stress that *jumping*, as a mode of creating ideas in a consultancy, should be understood in these terms. It is *not* that the consultants are jumping around randomly nor that they do not have a structure. In fact, as we have seen, templates and lists are crucial. Rather, the point is that *because* the process by which they work (sense making) and the premise of having a client are fundamentally unpredictable, they are remarkably attentive to moments and situations of sudden change. Hence, the consultants are exploiting the sometimes unfortunate (i.e. the European gap), sometimes fortunate moments in order to gradually stitch together the idea. In fact, the ideas being created can be seen as the non-causal outcome of attending to and exploiting particular moments of change.

Interestingly, this mode of jumping seems to overlap with what Pedersen has discussed as ‘jumping from the future into the present’ and ‘living for the moment’ as a way of hope among Youth in Ulaanbaatar, Mongolia (2012). As he explains: ‘living for the moment involves an exalted awareness of the virtual potentials in the present –

NOT FOR CITATION

the tiny but innumerable cracks through which the promise of another world shines' (ibid. 145). Adopting the idea of non-linear or, to be more precise, more-than-linear time, and thinking with the notion of 'the virtual' as an inherent potentiality of the present, containing all futures and all pasts in a single moment (ibid.143), we might better grasp how the consultants manage to fix 'the European gap'. As demonstrated throughout the paper, the role of the client plays a constitutive role in how ideas are created in the consultancy. Working in a context where the key objective is to create a solution to a distinct (commercial) problem, the end goal is present at the very outset of a project. As such, the consultants are not so much exploring infinite possibilities but rather looking for *the best* idea within a particular framework and under specific constraints.

In a discussion of the becoming of bodies, Rebecca Coleman writes about the difference between 'the possible' and 'the virtual', which may further illuminate these processes of creating ideas in an unbounded-yet-bounded way. Referring directly to Deleuze, she writes: 'while the possible refers to an infinite series which is realized – everything is possible and can be made real – the virtual refers to a series which is, in some way, structured and determined [...] possibilities of becoming are limited and fixed in particular ways' (2009:51). Following Coleman, the virtual thus constitutes a finite set of possibilities and, in this way, accounts for the limitations and restrictions of what becomes actual (ibid.). While the consultants collect data and create insights by somehow moving forward in an improvisational and bottom-up way, they are also piecing together bricks of knowledge and information in a manner that is *more-than-linear*; jumping by way of being actualized from the virtual, as it were. Jumping, then, is the actualization of the virtual through the inherently unstable relation of consultant and client. What drives the creative processes, in other words, is the management of relations, and this finally brings us to the point where we wish to end our argument.

For the consultants, it is imperative to keep the client happy; 'when a client is in the house, it's show time!', as they often say. While they can come up with highly innovative ideas, what really matters is if the client *believes* in it – and this, we argue, is the tricky part, which both guides and challenges the consultants in all aspects of their work. As the partner whose words opened this paper further explains:

The birth of creative ideas is about psychology. It is hard. But the true creative

NOT FOR CITATION

act is how you get people to believe it. How the story works, how people obtain ownership of the story [...] How do you integrate the perspective of the client in the creative act?

The consultants create stories through connecting pieces of knowledge; not only from the world of the users but also, and crucially, from the world of the client. And they evaluate or measure their creative success on whether or not they have made the client believe. This is a paramount criterion. This is what makes the consultants jump, look for cracks, and stitch together pasts and futures in order to find a credible road back to the future of the client, so to speak.

In the introduction to their edited volume *Design Anthropology. Theory and Practice* (2013), Ton Otto and Rachel C. Smith emphasize that design anthropologists ‘have to develop ways to include the anticipation and creation of new forms in their ethnographic descriptions and theorizing’ (*ibid.* 12-13). In this respect, they point to the challenge for anthropologists to engage in processes of designing and intervening in those social and cultural contexts which they typically merely describe and analyse. This, they point out, ‘is in many ways a large leap for anthropologists’ (*ibid.* 13).

While this is indeed an intriguing vision or project, not least when assuming a non-linear notion of time (as the authors do by referring to G. H. Mead) and the idea that the future and the past are to be understood as emergent capacities of the present (*ibid.* 17), something additional might be gained by exploring the capacity of the leap itself, not that dissimilar to jumping as explored in this paper. To understand how new ideas, or ‘the possible’, emerge through creative design processes for particular ends, it might be valuable to look into how different disciplines (e.g. design, anthropology, business), conventions (e.g. social science, natural science), and agendas (e.g. social, political, commercial) intersect, and how different actors involved in these processes are *leaping* in order to assemble ‘the new’. Consultants, who work across disciplines and conventions to create paths for newness, may thus have, at least, some things in common with the design anthropological project as outlined by Otto and Smith, who consider collaboration across, and by virtue of, differences to be a central feature.

Based on our ethnographic account, we suggest, in other words, that leaping or jumping between different times (futures and pasts) might be understood as inherent to creative design processes. And we contend – somewhat polemical perhaps – that a

NOT FOR CITATION

key aspect slightly overlooked in design anthropology concerns the fact that outcomes of design processes (ideas, products, experiences, etc.) are to be presented somewhere and to someone. Obviously, they do not happen in a nutshell. Quite the contrary, what seems mandatory is that design processes are ‘cut’ at a certain point and that the many interpretations and experiments with design and use are stopped in order to give rise to communication, evaluation, and, in some cases, implementation (see also Oliveira 2012). Switching the scale of attention to the consultants and their way of scaling the possible, as it were, makes it clear that the client is ubiquitous, forming a constitutive part in the creation of new ideas. Leaping, jumping, linking, and cracking are different ways of *making believe*; a paramount aspect, we claim, of creativity and design. We all have an audience.

NOT FOR CITATION

Paper for the seminar "Ethnographies of the Possible", April 10th-11th, 2014, Aarhus, DK,
The Research Network for Design Anthropology.

15

Bibliography

- Batteau, A. (2000). Negations and Ambiguities in the Cultures of Organization. *American Anthropologist*, 102(4): 726-740
- Bergson, H. (1944[1907]). *Creative Evolution*. New York: Random House
- Button, G. (2000). The ethnographic tradition and design. *Design Studies*, 21(4): 319-332
- Clarke, A. J. (Ed.). (2011). *Design Anthropology. Object Culture in the 21st Century*. Wien & New York: Springer
- Coleman, R. (2009). *The Becoming of Bodies. Girls, Images, Experience*. Manchester: Manchester University Press
- Deleuze, G. (1991[1966]). *Bergsonism*. New York: Zone Books
- Djelic, M.-L., & Ainamo, A. (1999). The Coevolution of New Organizational Forms in the Fashion Industry: A Historical and Comparative Study of France, Italy, and the United States. *Organization Science*, 10(5): 622-637
- Donovan, J., & Gunn, W. (2012). Moving from Objects to Possibilities. In W. Gunn & J. Donovan (Eds.), *Design and Anthropology*. Surrey, England: Ashgate, 121-134
- Ehn, P. (1993). Scandinavian Design: On Participation and Skill. In D. Schuler & A. Namioka (Eds.), *Participatory Design. Principles and Practices*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., 41-77
- Flynn, D. K. (2009). "My Customers are Different!" Identity, Difference, and the Political Economy of Design. In M. Cefkin (Ed.), *Ethnography and the Corporate Encounter. Reflections on Research in and of Corporations*. New York & Oxford: Berghahn Books, 41-57
- Garsten, C., & Nyqvist, A. (Eds.). (2013). *Organisational Anthropology. Doing Ethnography in and Among Complex Organisations*. London: Pluto Press
- Gellner, D. N., & Hirsch, E. (Eds.). (2001). *Inside Organizations. Anthropologists at Work*. Oxford & New York: Berg
- Gunn, W., & Donovan, J. (2012). Design Anthropology: An Introduction. In W. Gunn & J. Donovan (Eds.), *Design and Anthropology*. Surrey, England: Ashgate, 1-16
- Gunn, W., & Donovan, J. (Eds.). (2012). *Design and Anthropology*. Surrey, England: Ashgate

NOT FOR CITATION

Halse, J. (2013). Ethnographies of the Possible. In W. Gunn, T. Otto & R. C. Smith (Eds.), *Design Anthropology. Theory and Practice*. London & New York: Bloomsbury Academic, 180-196

----- (2008). Design Anthropology: Borderland Experiments with Participation, Performance and Situated Intervention. Ph.D. Dissertation. Copenhagen: IT University of Copenhagen

Hastrup, K. (2013). Scales of attention in fieldwork: Global connections and local concerns in the Arctic. *Ethnography*, 14(2): 145-164

Hodges, M. (2008). Rethinking time's arrow: Bergson, Deleuze and the anthropology of time. *Anthropological Theory*, 8(4): 399-429

Holbraad, M., & Pedersen, M. A. (2009). Planet M. The intense abstraction of Marilyn Strathern. *Anthropological Theory*, 9(4): 371-394

Kjærsgaard, M., & Otto, T. (2012). Anthropological fieldwork and designing potentials. In W. Gunn & J. Donovan (Eds.), *Design and Anthropology*. Surrey, England: Ashgate, 177-191

Lien, M. E. (1997). *Marketing and Modernity*. Oxford & New York: Berg

Maurer, B. (2005). *Mutual Life, Limited. Islamic Banking, Alternative Currencies, Lateral Reason*. Princeton, NJ: Princeton University Press

Miyazaki, H. (2013). *Arbitraging Japan. Dreams of Capitalism at the End of Finance*. Berkeley & Los Angeles: University of California Press

----- (2006). Economy of Dreams: Hope in Global Capitalism and Its Critiques. *Cultural Anthropology*, 21(2): 147-172

Moeran, B. (2009). The organization of creativity in Japanese advertising production. *Human Relations*, 62(7): 963-985

----- (1996). *A Japanese Advertising Agency. An Anthropology of Media and Markets*. London: Curzon

Moeran, B., & Christensen, B. T. (Eds.). (2013). *Exploring Creativity. Evaluative Practices in Innovation, Design, and the Arts*. Cambridge: Cambridge University Press

Moeran, B., & Garsten, C. (2012). What's in a Name? Editors' Introduction to the *Journal of Business Anthropology*. *Journal of Business Anthropology*, 1(1): 1-19

Oliveira, P. (2012). Ethnography and Co-Creation in a Portuguese Consultancy: Wine Branding Research as an Example. *Journal of Business Anthropology*, 1(2): 197-217

NOT FOR CITATION

Otto, T., & Smith, R. C. (2013). Design Anthropology: A Distinct Style of Knowing. In W. Gunn, T. Otto & R. C. Smith (Eds.), *Design Anthropology. Theory and Practice*. London & New York: Bloomsbury Academic, 1-29

Pedersen, M. A. (2012). A Day in the Cadillac. The work of hope in Urban Mongolia. *Social Analysis* 56 (2): 136-151

Rose, N. (1999). Advanced liberalism. In *Power of Freedom. Reframing Political Thought*. Cambridge: Cambridge University Press, 137-166

Strathern, M. (2004). *Partial Connections. Updated Edition*. Walnut Creek, CA: Altamira Press

Vangkilde, K. T. (2012). *Branding HUGO BOSS. An Anthropology of Creativity in Fashion*. Ph.D. Series no. 70. Faculty of Social Sciences, University of Copenhagen: Department of Anthropology

Wright, S. (Ed.). (1994). *Anthropology of Organizations*. London & New York: Routledge

NOT FOR CITATION

Collaborative formation of issues, and the design anthropologist as “Articulation Worker”

Ellen Christiansen

Aalborg University, Dept. of Communication and Psychology, eLearningLab, Center for User-driven Innovation, Learning and Design

“When considering the issue of whether one is operating in one’s own or another’s space, I am concerned with whether one is operating with one’s own or with the other’s language, narrative “social language” [Bakhtin, 1986, Wertsch, 1991], or other form of textual space.” (Wertsch, 1998, p. 148)

ABSTRACT

The paper discusses collaborative formation of issues in multi-stakeholder design settings, and argues that design anthropologists have an important role to play as articulation workers who can negotiate a division of labor and reintegrate of the partitioned units in collaborative issue formation. Taking point of departure in a workshop in a multi-stakeholder design setting, and in the work of Bråten, Wertsch, and Ingold, the following argumentation is build: A multi-stakeholder design settings holds many models of issues, which will have to be expressed in many languages, should they unfold on equal terms; hence someone must take the responsibility for making these models public to the participants, a process, which requires listening and responding to all issues raised.

INTRODUCTION

What are the conditions for formation of design issues in multi-stakeholder design settings? The aim of this paper is to dig into this question. In order to keep the discussion as close to the ground as possible, let me begin by referring to my current research in a project called UserTEC, <http://sbi.dk/usertec>. It is an energy management research project, the purpose of which is to get a deeper understanding of different user practices and their relations to energy consumption. The project is funded by the Danish Council for Strategic Research, and encompassing qualitative

and quantitative analysis of users' everyday practices regarding home energy management, and how these practices relate to households' energy consumption; also development and test of new user adapted energy efficient building technologies will be conducted; and analyses of user involvement in low energy construction processes as well as in energy refurbishment of existing housing will be researched. The work-package, for which I am responsible, WP2, is meant to analyze and enhance communication about households' energy consumption among "*end-users, designers, engineers and architects as well as energy companies and utilities,*" which is what I here call a "multi-stakeholder design setting."

The first open field studies my colleague Pernille V.K. Andersen and I have done in some "multi-stakeholder design setting" in the context of UserTEC was within a building company. The management, being partner in the UserTEC project, invited us, and we said "Yes", and thought it to be an easy version, a rehearsal of the really difficult ones we have to do for later, which are (a) housing association communicating with tenants and utilities, (b) SME companies communicating with utilities about end-user perspectives, and (c) large utility and tech-companies communicating about end-user perspectives.

We were invited to the office building of the domicile, in the Autumn of 2013. The 9-12 agenda we sent out in advance to the manager (who would then send out to those he wanted to participate) said that after a welcome-round we would present our view on Use and Users, then we would facilitate that the partner-participants expressed their views on the topic, together we would then try to build a shared picture of our different views, and in the end we would discuss challenges and potentials in using user-knowledge in development and marketing. We brought and used various materials to facilitate the expression of views: cards, a paper-based game, and paper, pens and post its. Throughout the workshop the atmosphere was friendly, most positive were the participating manager, and the developers. We taped the conversation and took some photos, this way Pernille got data for her PhD research on the role of materials in design communication. On departure, the manager and we agreed that they would contact us, in case they wanted us to conduct another workshop. Four months have gone by, and we have heard nothing from the company. My interpretation is that the manager, through this workshop, wanted to try to alert his people more to the importance of thinking about end-users, while the marketing people especially felt that they already know the customers, and the boss's invitation was maybe taken as an indirect critique of their competence. We went in on their turf, so to speak.

This example shows one set of conditions for formation of design issues in multi-stakeholder design settings. Maybe a better preparation on our side, maybe us taking 5000 Dkr. pr. hour would have made the participants taking the workshop more seriously, but that would not prevent the marketing people from feeling insulted by the arrangement, and it would not have opened a window in the company for working more with user-knowledge. In any case adversial conceptualizations of the importance of including more user knowledge were at stake, but was left un-addressed. This is business as usual for HR-specialists and consultants in management, but when it comes to formulation of issues in design, conceptualization processes are sometimes supposed to just need the right form of facilitation to come out, speak up, and align themselves. Hence the relevance of the challenge we have set in front of us at this seminar: *“theorizing ethnographies of the possible, interventionist speculation, and collaborative formation of issues as important emerging modes of knowledge production within design anthropology, yet with constructive implications for both disciplines.”*

We need a discussion of how design anthropologist can deal with issues about model power and democracy in design anthropology. Still, in the interest of keeping the discussion close to the ground, I begin with, in section two, to remind us as design anthropologists that we are human beings needing to earn our living somehow, and I use IDEO as my “scape-goat” example of what this implies/may imply. In section three I discuss the issue of model power and the possibilities of dealing with it as in the UserTEC case just described. This leads me in section four to discuss the relevance of Gatt & Ingold’s concept of correspondence, and also to touch upon which concepts of democracy may be a load star for the activities of design anthropologists. In the concluding section five I try to give meaning the concept of a design anthropologist working as articulation worker, facilitating to express design issues collaboratively.

Follow the money

One indispensable aspect of working as a design anthropologist is to earn money. Here I use IDEO as my “scape-goat” example of what kind discourse around user-centeredness it implies/may imply to be employed in this company.

New artifacts, new groups of users, new markets, ever-changing constellations of collaborators: Actors in design-processes spontaneously seek to keep up with all this ‘newness’ by proposing new methods and new theories, and “user-centeredness” is in this connection a

buzzword. Design anthropology emerge and develop in this situation, and design anthropologists are confronted with the question, if they by managing user-contact of some form can generate more profit for a design company, or ... ?

IDEO, the world famous design company, do employ design anthropologists, and I am going to use IDEO's website formulations as an example of a discourse of what we may call "positive" design anthropology. On March 24, 2014, under the label "About" I find the following statements:

"OUR APPROACH: DESIGN THINKING

Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." —Tim Brown, president and CEO

Thinking like a designer can transform the way organizations develop products, services, processes, and strategy. This approach, which IDEO calls design thinking, brings together what is desirable from a human point of view with what is technologically feasible and economically viable. It also allows people who aren't trained as designers to use creative tools to address a vast range of challenges.

Design thinking is a deeply human process that taps into abilities we all have but get overlooked by more conventional problem-solving practices. It relies on our ability to be intuitive, to recognize patterns, to construct ideas that are emotionally meaningful as well as functional, and to express ourselves through means beyond words or symbols. Nobody wants to run an organization on feeling, intuition, and inspiration, but an over-reliance on the rational and the analytical can be just as risky. Design thinking provides an integrated third way.

The design thinking process is best thought of as a system of overlapping spaces rather than a sequence of orderly steps. There are three spaces to keep in mind: inspiration, ideation, and implementation. Inspiration is the problem or opportunity that motivates the search for solutions. Ideation is the process of generating, developing, and testing ideas. Implementation is the path that leads from the project stage into people's lives."

Behind these formulations we find an unrealistic conceptualization of what makes up decisions in design processes. Admitted IDEO suggests that design thinking is "a system over overlapping spaces", inspiration, ideation, and implementation, as opposed to, we read, more conventional problem-solving practices, a position well known and argued in current design research. But what is not addressed, but what is just as real, is the underlying systems of adversarial

models of these spaces. These spaces are either dominated by one interest or highly contested by several, and the resulting collaboration is adversial, which may well bring idea generation to a hold. In prior research I have been part of efforts to – NOT overcome, but to acknowledge and deal with - adversial collaboration (Zander & Christiansen 2010), where we suggested to encourage participants to give proposals that also express solutions to needs of the opponents, as was also tried in the DAIM project (Halse 2010), as far as I recall.

Still, the challenge remains, to both get the job done and ensure issues are in fact formulated collaboratively in multi-stakeholder design settings. The following is meant as inputs to our discussion of this challenge.

Follow the others' languages

In a paper about “model power” Kanstrup and I (Kanstrup & Christiansen 2005) took up a discussion raised in a keynote by Stein Bråten at the Second Aarhus Conference in Systems Development in 1985. Bråten had in his book about “The Conditions of Dialogue in the Computing Society” (Bråten 1973) outlined a theory of model power based on the assumption that understanding takes place on either own or on the premises of others. “Model strong” participants are rich in their understandings, ideas and language on a certain subject area (e.g. systems design) whereas “model week” participants are poor on relevant knowledge, ideas and language. If participant A, Bråten states, is to be able to control x it is necessary that x is developed on the premises of A. If two participants, A and B, are to be able to communicate it is necessary that they have access to models on the subject area. Following this, a trade or conversation between a model strong A and a model week B means that the model week B will try to acquire the models of the model strong A; the better the model week B succeeds in acquiring A’s models, which are developed on the premises of A, the more B will be under A’s control. (op.cit. 25). At the conference in Aarhus, Bråten raised the question: How come, that a person can sit on a bench in a park and tell a complete stranger about a difficulty in life, and feel relieved, by being listened to, while the same person can not tell about this difficulty to his wife. Because there, in the park - so I recall from memory what Bråten said - there is no power game, but a shared human condition, given and received in costless trust.

Costless trust is not exactly what characterizes most multi-stakeholder design settings. The power issue, ever present, is however hidden under the optimistic discourse we find in the

IDEO formulations quoted above, the “deeply human process that taps into abilities we all have.” Still IDEO also states that “This approach, which IDEO calls design thinking, brings together what is desirable from a human point of view with what is technologically feasible and economically viable” – and we can only guess that IDEO in this case is a rather model strong A, and we hear nothing about how the voices of the potentially model weak B, C, D are to be heard.

Bakhtin, and later Wertsch, have dealt extensively with the ways in which the models held by A may become shared by B. Bakhtin suggests a relationship between “one’s own word” and “the alien word of others,” because language for the individual consciousness lies on the border between oneself and the other, and appropriating someone else’s words always involves some sort of resistance:

“The word in language is half someone else’s. It becomes “one’s own” only when the speaker populates it with his own intention, his own accents, when he appropriates the word, adapting it to his own semantic and expressive intention. Prior to this moment of appropriation, the word does not exist in a neutral and impersonal language, (it is not, after all, out of a dictionary that the speaker gets his words!), but rather it exists in other people’s mouths, in other people’s contexts, serving other people’s intentions: it is from there that one must take the word, and make it one’s own. ...” (Wertsch quoting Bakhtin 1998, p. 54).

Overcoming the resistance to make someone else’s words one’s own, has to do with the fact that words cannot be used in private ways. “Whenever we speak”, Wertsch maintains, “we must “buy into” an existing set of linguistic terms and categories … a set of terministic screens …”. I emphasize here the metaphor of “screens,” because of the family resemblance, yet difference to IDEO’s metaphor of “spaces.” If we command only one language, these “screens” may be unconscious to us, but once we for some reason find ourselves going from being the model powerful A to be the model powerless B, we all of a sudden become aware of being silenced by loss of terms or categories in which to express ourselves. Here I am in line with IDEO stating something I take as a shared human condition. We should, in order to understand the depth to which appropriation goes to the human heart, separate it from the process of acquiring and learning to master a skill (Wertsch, 1998). These two lines of internalization run in parallel, sometimes with resistance on the one line sometimes with resistance on the other, much like the *correspondence*, which Gatt & Ingold describe as characteristic of an anthropology, which is capable of both listen and respond, of which they speak metaphorically as “setting points in motion to describe lines that wrap around one another” (Gatt & Ingold, 2013, p. 143).

This correspondence thinking, the way of listening and following, Kierkegaard expressed in his often quoted formulation about “the helping profession”:

“This is the secret in the entire art of helping. Anyone who cannot do this is himself under a delusion if he thinks he is able to help someone else. I must understand more than he, but certainly first and foremost understand what he understands. If I do not understand that, then my greater understanding does not help him at all. If I nevertheless want to assert my greater understanding, then it is because I am vain or proud, then basically instead of benefitting him, I really want to be admired by him. But all true helping begins with a humbling. The helper must first humble himself under the person he wants to help and thereby understand that to help is not to dominate, but to serve, that to help is not to be the most dominating, but the most patient, that to help is a willingness, for the time being, to put up with being in the wrong and not understanding what the other understands ...” (Kierkegaard: essay on authorship, chapter 1, §2)

And concerning the role as a teacher, Kierkegaard in the same paragraph states:

“To be a teacher is not to say: this is the way it is, nor is it to assign lessons and the like. No, to be a teacher is truly to be the learner. Instruction begins with this, that you, the teacher, learn from the learner, place yourself in what he has understood and how he has understood it, if you yourself have not understood it previously, or that you, if you have understood it, then let him examine you, as it were so that he can be sure that you know your lesson. This is the introduction; then the beginning can be made in another sense.” (Kierkegaard: essay on authorship, chapter 1, §2)

This “to put up with being in the wrong and not understanding what the other understands ...” is VERY difficult. When you come out, as Pernille and I did, and are given three precious hours to do something, taking the humbling road is truly a challenge, because we are in an open position allowing all sorts of framing. I know a trained anthropologist is much better at this than I am, my question for further consideration is whether coming with tools and techniques is the way to go, if we are to follow Kierkegaard.

Follow the dots while the line emerge

This rather depressing insight leads me to discuss the conditions for democracy as a load star for the activities of design anthropologists: whose models to build on, since we can not go on forever, sitting in circles and exchange feelings and stories, should we also earn a modest living.

Let us once more return to IDEO-web, to the Work section, where all the fields in which the company works, are presented. Under the label “Social Innovation” we on March 24 2014 among other things can read:

“This means that before introducing anything new, we figure out what really matters to the target population—and what will motivate them to accept and adopt our solution. We also consider funding ...”

It is hard to find the word “new” at IDEO’s website. IDEO is selling design thinking, and design thinking is about “what really matters”. Still IDEO brings solutions, to be accepted and adopted, in other words, IDEO brings a model, a new “language,” be it an artifact, a procedure or a service. But also on the IDEO website you find David Kelly giving a TED talk about regaining creative confidence, how he teaches at the D-school at Stanford, building on Bandura’s concept of guided mastery to self efficacy, to attain what you set out to do, and how IDEO take clients, distinguished CEOs, through series of steps, small successes, so that they eventually realize they are creative persons.

http://www.ted.com/talks/david_kelley_how_to_build_your_creative_confidence

The “You-can-do-it” model is taught to kids in Palo Alto from early on. I have often seen and heard mothers with their kids on a playground, who, when the kids are crying, being afraid of claiming higher or swinging faster, enthusiastically shouts “You can do it, come on, you can do it.” But the obstacle, which gets buried under the optimistic self-efficacy discourse, is, still, that of model power. The little fearful child did not get to express his or her position, but was taught that to be fearful is NOT OK.

Now the problem with IDEO-CEO Kelly’s story on TED, or with the mother in the park in Palo Alto, is not their viewpoint, nor that they advocate it. The problem is that they are so innocently unconscious about how they exercise model power. This, what Bateson would call “deutero-learning,” the second order learning, which makes us conscious about the way we are learning, is far from their mind, they see only one good way forward.

Such a first order A model attitude is in contrast with the way Gatt & Ingold describes anthropology as characterized by an attitude of willingness to listen and respond, which taken together they call “correspond”, an attitude, which allows other voices to be listened to and responded to. Again, returning to my workshop example, Pernille and I did not do much listening to other voices, and we did definitely not respond to the little we heard, although throughout the full three hours all conversation was about users and user practice, and the participants’ opinions on this

issue. So everyone was heard, their voices are on tape, but they were not heard in the sense of getting a response to their position, while we, on our side, got a lot of response to the position we presented.

Concluding remarks: Follow *the public* instead of staging it

According to Honneth in his discussion of Dewey's concept of "the public", recent years have fostered a debate between two normative models regarding how to understand democracy: republicanism, which takes its model from antiquity's model of citizenry: you must negotiate common affairs, it is a life form, whereas proceduralism will argue for democracy as morally justified procedures, to which end a democratic public sphere is the mean (Honneth 2000). Famous anthropologists such as Margaret Mead, Bateson and Ingold argue in favor of the first position – democracy as a life form, because you can not predict the future, while designers like those on IDEO (as we believe what they write on their website), and Beyer and Holzblatt, and other designers argue for a user-centered approach as a mean to the end of getting enthusiastic users/customers.

In their concluding section of "Design Things," A. Telier writes:

"But the really demanding challenge is to design where no such consensus seems to be within immediate reach, where no social community exists. In short, the challenge is to design a platform or infrastructure for and with a political community, a public characterized by heterogeneity and difference, with no shared object of design, not necessarily to solve conflicts, but to constructively deal with disagreements - public controversial things where heterogeneous design games can unfold and actors can engage in alignments of their conflicting interests and objects of design. *Res Publica*, making things public (Latour and Weibel 2005), stands out as the ultimate challenge when we gather and collaborate in and around participatory media and design things". (A. Telier 2011, p. 193).

I take this as a state-of the-art expression among participatory oriented designers, and as such worth a discussion in the light of the above made distinction between two models of democracy: republicanism and proceduralism. Although it says explicitly in the A.Telier quote that "*Res Publica*, making *things* public (Latour and Weibel 2005), stands out as the ultimate challenge when we gather and collaborate in and around participatory media and *design things*" (*ibid.*), the approach appears to me as belonging to the proceduralistic model of democracy, because

designers intend to go to “places where no social community exists” and “design a platform or infrastructure for and with a political community, a public characterized by heterogeneity and difference, with no shared object of design”. Here the idea is to try to “unfold design games so that actors can engage in alignments of their conflicting interests and objects of design”.

I can not help but contrasting this formulation with that of Jahoda and colleagues, in their account for their famous sociological study of the social impact of unemployment in a small community “Die Arbeitslosen von Marienthal”, the research which became famous in sociology for qualifying Steinmetz’s so-called “sociography” method, by taking an action approach: The group around Jahoda decided that they would approach the community, which they had chosen as object for their sociography, by engaging in whatever problem this community saw, and make their resources available for the community to use in their solutions. That way they also came to organize collection of clothes, medical care and more.

Going back to the distinction between living the public and staging [for] it, and relating it to collaborative formation of issues, and the role of the design anthropologist as “articulation worker” – and to the case of the UserTEC workshop – I will tentatively conclude that: collaborative formation of issues requires some articulation work in the sense, which articulation work was defined in the early days of the research field Computer Supported Cooperative Work/CSCW, where Strauss coined the term ‘articulation work’, referring to negotiation of division of labor and reintegration of the partitioned units in collaborative projects. Next time Pernille and I are invited to do a three hour workshop, we will try to design it with the following agenda: after a welcome-round we will form groups of participants, who will then express their most burning issues regarding their work, and if they see any relation to user issues. Together we will try to build a shared picture of the different issues, and in the end we will formulate responses to the issues raised in the beginning. We may ask participants to bring materials, which they think are relevant for the workshop.

Bibliography

Bakhtin, M. M. (1986) *Speech Genres and Other Late Essays*. Trans. by Vern W. McGee. Austin, Tx: University of Texas Press

Bråten, S. (1973) Model Monopoly and Communication: Systems Theoretical Notes on Democratization In: *Acta Sociologica*, vol. 16, no 2

Gatt, C. & T. Ingold (2013) From Description to Correspondence in: Gunn, Otto & Smith (eds.) *Design Anthropology*. Bloomsbury

Halse, J. (ed.) (2010) *Rehearsing the Future*. Danish Design School Press

Honneth, A.(2000) Democracy as Reflexive Cooperation John Dewey and the Theory of Democracy Today. In: *Political Theory*, vol. 26, no. 6

IDEO <http://www.ideo.com>

Jahoda, M., P. Lazarsfeld, H. Zeisel & C. Fleck (1974) *Marienthal: The Sociography of an Unemployed Community* . Transaction Publishers

Kanstrup, A.M. & E. Christiansen (2005) Model Power: Still an issue? In: Bertelsen et al. (eds.) *Proceedings of the 4th decennial conference on Critical computing: between sense and sensibility*. ACM, 2005

Telier, A. (2011) *Design Things*. MIT Press

Wertsch, J.V. (1991) *Voices of the Mind*. Harvard University Press

Wertsch, J.V. (1998) *Mind as Action*. Oxford University Press

Zander, P-O & E. Christiansen (2012) Adversarial collaboration through shared representations. In: Stevens, G. (ed.)*Workshop Proceedings of 9th International Conference on the Design of Cooperative Systems - COOP2010*. Vol. 7 no. 1 IISI : IISI - International Institute for Socio-Informatics, 2010.

Ethnographic Theatre

Jacob Buur
SDU Design, University of Southern Denmark

For quite many years I have collaborated with the theatre group Dacapo to instill different forms of change, and I've been fascinated with the role theatre can take in exhibiting the 'possible' in a form that encourages discussion, and hopefully change. The acts we have created have been deeply rooted in an understanding of current practices, albeit trying to break free and to point in new directions. Based originally in a forum theatre tradition, the Dacapo Theatre has 15 years of experience working with organizational change in business and public organizations. It has developed theatre into a framework for learning and collaborative engagement in a Scandinavian participatory tradition. In recent years Dacapo has engaged in user-driven innovation in for instance the health sector, acting out 'users' in real life situations to encourage industrialists to establish empathy and discuss consequences of technology interventions. Dacapo was a partner in the Danish strategic research centre SPIRE 2008-13 on participatory innovation.

I will pick three very different cases to discuss how theatre may relate to design anthropology and help envision and move towards the 'possible':

Case 1: A use scenario of future technology (Embodied Technology Study)

Case 2: An ethnography performance (Indoor Climate Project)

Case 3: A future visions of the role of ethnography in industry (EPIC)

The experiences from these cases will also help explain, why we at SDU Design have decided to establish a Theatre Lab to further inquire into the social processes that drive innovation and change in organisations.

Case 1: Embodied Technology Theatre

In an ongoing project a group of researchers are discussing how to establish new research into novel ‘embodied technologies’ and how such technologies will influence human practices. Embodied technologies are digital devices that function close to the human body – by enhancing human capabilities, measuring vital life signs, exchanging information etc. The research should build knowledge of a ‘repertoire of technology’, i.e. inquire into a range of emerging technologies to understand potential applications rather than dive deep into a single technology. As an example, the group began studying brainwave sensing, eg. with the commercially available NeuroSky Mindwave headset.

To investigate how to deal with new technologies, the group invited professional actors to assist them in acting out ideas for future applications of this particular technology. Whereas the brain wave sensing technology is presently launched as an individual control mechanism, the group made an effort to create social scenarios in which brain sensing adds an extra communication channel.

Brainwaves as unconcious communication *A group of researchers meet over coffee in the morning, then go each to their desk to start work. Two stay behind at the coffee machine to eagerly discuss a new idea. Their animated brainwave signals call back first one other researcher, then the director, who cancels a planned meeting to give more time to this spontaneous discussion.*

At this event, three sub-teams of 5-6 researcher colleagues improvised scenarios with one professional actor in each team. The event took 2 hours and towards the end each group acted out their scenarios to get critique. The scenarios were video taped for later discussion of both the technology and the method.



Figure 1. A commercially available brainwave measuring sensor (NeuroSky)



Figure 2. Improvised brainwave sensor scenario. What if researchers in university could sense each other's excitement?

Theatre In Design

Such ‘use scenarios’ are not unknown in interaction design. Since the early 1990s, there has been increasing interest in using performance to help design interactive systems. Role-play has been extensively explored in the early stages of both academic and industrial design projects. This technique typically aims at providing user perspective on new technical solutions through informal, improvised acting of use scenarios. Burns et al. (1994) suggest that performance can help designers by activating imagination; facilitating empathy with users; communicating within and outside their team; and encouraging less self-conscious contributions. They improvised team role-plays to trigger discussion and evaluation of early design ideas in sessions that they called ‘informance design’. Sato and Salvador incorporated professional actors in their method ‘focus troupes’ to engage an audience in a richer conversation about design concepts and with sketches based on ethnographic studies. They also identified that the presence of designers can help to ‘facilitate the session rather than fostering an unrelated conversation’ (Sato & Salvador 1999: 37). They proposed a number of techniques that can be used for product development, and recognized that such sessions are not always organized to evaluate specific ideas but can also be exploratory, to provide insights before the actual design process starts. Svanæs and Seland (2004) propose a workshop setup in which users take the main

role, observed by designers and developers. By offering the audience an opportunity to actively contribute throughout the session (Sato & Salvador 1999), performances can play a transcendent role in eliciting knowledge that would not otherwise emerge (Iacucci et al. 2002). In their review of past studies on performances within the user experience, participatory design and embodied interaction areas, Macaulay et al. (2006: 951) point at the improvement of ‘quality and utility dialogue within design’ and suggest that ethnography is capable of shifting discussion in that direction.

‘Use scenario’ is not a form of theatre that our actor collaborators are particularly happy with, as we designers tend to exhibit the new use of technology as a rosy-red idyllic scenario. Such performances are mostly ‘happy stories’ of how technology eases the lives of users and solves all eminent problems. They help projects progress in a given design direction, but may also gloss over fundamental conflicts between different perspectives of who ‘users’ are and what they do. With their training in organisational change, the Dacapo actors have developed an ability to find conflicts and work with them – through an ethnographic inquiry. In this case, however, there is a real dilemma: As we are talking a very new technology, the potential may not be very obvious yet, but everyone can recognise the pitfalls and arguments why this may not be such a good idea to pursue. To which extent do we need to hold back (likely well-grounded) critique for the sake of progress?

Case 2: Indoor Climate Theatre

The context of this study is a project between five company partners within indoor climate control and two universities in Denmark. As university partner, our role was to carry out ethnographic studies of how people perceive indoor climate comfort and how they seek to achieve comfort in their home environments. Over the course of three days, our researchers were participant-observers in the homes of five families and they also followed one parent along to work and one child to kindergarten. We uncovered that people think and act quite differently from what the company partners expected. We described two of the controversial findings with the headings '*Indoor comfort is what people make*' (as opposed to something fully controlled by technology) and '*Indoor comfort is doing social relations*' (as opposed to an individual value scale to be determined by climate chamber experiments). The project findings were first shared with a wider audience of indoor climate researchers and

practitioners at a symposium on ‘Zero Energy Buildings’ in 2011. Having seen how difficult it was for the project partners to accept the ethnographic message, the project team decided to use theatre at this event to generate discussion among the expert participants about people’s ‘indoor climate practices’. In earlier work we have discussed the unique ability of ethnography to challenge conflicting conceptions within organizations, and argued for new representations of ethnographic material (Buur and Sitorus (2007)). For this event, the researchers and actors together prepared three scripted scenes to convey what the researchers had observed in homes, kindergartens and offices; these were acted out as discussion starters. The controversial findings were clearly embedded in the scripts, conveying how contradictory someone’s behaviour can seem in different environments, and showing that technical low-energy systems may not align well with people’s practices (Figure 3). For instance, the office scene:

When is Cold Cold? – *Marianne works in the open-plan office of an insurance company. Though it is 27°C outside, both Marianne and Lis, her colleague at the next desk, feel cold inside as the ventilation is turned on. They want to call the janitor; but Søren, the head of the office, who arrives sweaty after a 15 km bike ride, feels warm and does not understand why the ventilation should be turned off, given that the temperature in the room is a perfect 20°C!*

The three scenes were staged at the beginning of the event, with a few minutes in between for group discussion. After this, the floor was opened for general discussion across table groups, and the actors would improvise several new scenes based on the suggestions from the audience. The event took 1,5 hours. The audience included 35 indoor climate experts from industry and academia, and the event was organized by three professional actors, a facilitator with over ten years’ experience in organizational theatre, and three of the project researchers. Also among the audience were three industrialists from the project team, who were familiar with the



Figure 3. Three scripted theatre scenes on comfort practices in a private home, kindergarten and office.

ethnographic findings. The programme was documented with two synchronized video cameras, which captured both the scenes and the audience discussion.

A key theme to emerge from the discussion following the three scenes was to what extent people should adjust their behaviour in accordance with what an indoor climate system is designed to do. In particular, this was fuelled by one of the actors' lines:

Actress 1 (as Marianne): *'I'm someone who likes to put on different clothes in the winter and in the summer. In this office you have the same clothes on all year because of the temperature. It is so boring.'*

This led to a discussion of whether the system is designed 'right'. One audience participant – an indoor climate professor – suggested a new system design to remove the problem of individual preferences. At this point, the facilitator suggested that they enact a scene where the head of the office approaches a specialist designer. The participant-professor accepts to take the part of the specialist designer:

Actor (as office head): *'So, I just told you about the problem we're having. What can we do about it? I mean, I get really annoyed with these two ladies.'*

Participant (as designer): *'You have an old-fashioned type of cooling system, you are using air for cooling. You spend too much energy to do that. You have to have a new system where you cool the room by radiant cooling in the ceiling. And this we can divide so you can have a cool place, you can turn it on. And the lady over there will have her own individual controls so she can turn it off. So you will both have what you need to have.'*

...

Actor (as office head): *'So I mean there is this problem about – technology and these two girls is just, I mean, they can ruin everything.'* [...]

Participant (as designer): *'I have a very nice, competent lady in my company. She'll go and take care of instructing them how to behave.'* (laughter)

This improvisation leads to a longer discussion about who is 'qualified' to adjust indoor climate systems and improvisations about what role people can play in deciding for themselves. Towards the end of the session, the audience reprises the discussion about user behaviour, with one participant concluding:

Participant: *'I think it's very important that we don't count on changing their behaviour. We also have to make room for the mother, who leaves the door open all the time, even though it is April. [...] We cannot expect her to change her behaviour. I think that would be wrong.'*

The actors here seamlessly move in and out of fiction. They tend to stay in role, participating in the discussion from their characters' viewpoints. Also, the barrier for audience participants to act is very low: they simply take the role from where they are seated. At first, the facilitator urges participants to act; but eventually the merest



Figure 4. Actors improvise roles, based on suggestions from a participant.

suggestion from the actors triggers contributions from the audience. A detailed analysis of that session and a following one helped us identify ways to foster audience engagement with ethnographic findings (Buur & Torguet 2013).

Organizational Theatre

The kind of theatre we employ here derives from another tradition than the use scenario improvisation – that of theatre in organizational change, in particular Forum Theatre (Boal [1979] 2000). Developed by Boal in 1970s Brazil to encourage people to escape oppression (indeed, it was known as the ‘theatre of the oppressed’), Forum Theatre enacts a situation with built-in conflict to a point of impasse; the audience is involved in suggesting the next moves, either by telling the actors what to do or by trying out their own intentions on stage. For instance, the actors might play a conflict between manager and employees that deteriorates into chaos; the facilitator will then invite the audience to intervene in the next enactment, stressing that ‘Unless you do something, the situation will end just as desperately’. While the actors repeat the play, anyone from the audience can stop it at any time to change the course of events by instructing an actor to act differently, or even by going onstage and taking over the role of manager or employee. Forum Theatre has been taken up in several strands of organizational change (Jagiello 1998; Meisiek 2006; Nissley et al. 2004). There is, however, ongoing debate about how theatre performance contributes to change. While some authors claim that theatre requires adequate change management activities to follow up on the experience (Schreyögg 2001), or that change depends on audience reflection after experiencing the theatre performance (Meisiek 2006), others maintain that the sense-making process does not result from theatre, but is itself part of theatre activities (Larsen 2006). In our use of theatre, the focus is less on oppression than on

disagreements within the audience. The actors bring out the different perspectives present and play them out against each other.

Improvisation is vital in this form of theatre. Improvisation draws the audience into the action; it encourages spectators to see that they too can influence how a situation develops. Keith Johnstone (1981) suggests that new creative ideas emerge and develop in the relationships between players, rather than as a result of an individual genius. Improvising is relational; it is not about acting, but about re-acting. Larsen and Friis (2005) link Johnstone's work to Mead's understanding of communication as gesturing and responding (Mead 1934). According to Mead, the gesture of one person provokes a response in another, but the response simultaneously gives meaning to the first gesture in a relational process; thus, improvised theatre can be seen as actors and audience in a mutual sense-making process that can lead to novelty. In our theatre events, the actors first act our scripted scenes to trigger discussion with the audience. They then improvise responses from the figures they enact, or even jump into new, improvised roles to explore the audience's suggestions for resolving the situation. Overall this event was quite a success. To gauge the long-term impact of the theatre method, we conducted telephone interviews with the participants of the event to see what they remembered from this session two years later. The initiative to do this sprang from conversations with the actors, who in Dacapo work as organizational change consultants. Where consultants will usually be expected to deliver a report to the client with findings and proposals, Dacapo does not: '*If people can't remember the discussions we started years after the event, we haven't done our job properly!*' commented one of the consultants. Surprisingly, of the 12 respondents we contacted, all remembered the theatre event with positive feelings. The words they use – 'excellent acting', 'live images', 'very entertaining', 'lots of fun', 'provoking' – indicate that the theatre event did indeed trigger emotional engagement. The head of the zero-energy building research centre was quite firm that this event had an influence on conversations within the team later on:

'It has changed the way we talk about it [user behaviour], because we suddenly got another frame of reference to discuss the things from. Normally you discuss based on something you've read in a book (...). Sometimes things stick better in your mind if you can relate them to a special event or an experience you've had.'

In general, the respondents found the theatre event to have worked well because it was a refreshing alternative to traditional presentations of numbers and graphs. Theatre can challenge the audience to think of well-known practices from a different perspective, as it presents them in a sometimes exaggerated fashion and therefore, in the words of one participant, shows '*how dumb what you do really is*'.

Case 3: Directors of the Future

For the panel at Ethnographic Practice in Industry Conference (EPIC) 2008 we invited three prominent ethnographers, from consulting, corporate and academic environments, to stop thinking about the past and present (usually the realm of ethnography) and to 'play' with a future vision of industrial ethnography (Buur and Arnal 2008). Ahead of the conference the panelists engaged in a storytelling process with actors from the Dacapo Theatre to create a concrete scenario of what the future might hold. Theatre has the capacity to speak directly to personal experiences and emotions. With this panel we wanted to move beyond the slightly distanced, reflective stance that ethnographers may take towards their own practice. At the conference the actors played each of the scenarios, invited the audience to discuss what they saw, and gave the panelists the opportunity to explain their intentions. One of the three scenes was directed by Ken Anderson, design anthropologist with Intel Corporation:

Digital Ethnography of Rubberband Use *As part of an ethnographic customer study, a business manager is invited along to visit the home of a lead-user og rubber bands – on the condition that he doesn't interfere with the study. But he later learns that competition has replaced ethnography entirely with digital surveillance techniques and close customer participation.*

After the audience discussion, Ken Anderson explained his intentions:

I was trying to get out two different points: One is our relationship to both the participant on the research side, and to the participant on the client side. The other is how our methods are (or are not) facilitating the new way of thinking about those relationships.



Figure 5. Three Dacapo actors enact a vision of future ethnographic practices directed by Ken Andersen, Intel, at the EPIC conference.

The panel was an experiment of trying to visualize the future of ethnographic practices. The objective was to provide thought-provoking scenarios in order to generate questions, more than answers: Will we continue to do traditional ethnography forever? How will we innovate within our practice? And how will we employ new tools and technology?

Theatre as Fiction

Technology plays a very small role here. The theatre acts serve the particular purpose of questioning current (ethnographic) practices by creating a fiction of how things might develop in the future.

I quite clearly remembered the reaction from one of the actors on the audience discussion: *"They react just like Danish school teachers!"* To him it seemed the discussion stayed on a surface level – the audience would use the discussion to criticize the actors for not playing the role of ‘proper’ ethnographers, rather than talk about the theme suggested – that ethnography as we know it might be overtaken by extensive digital surveillance. *"When your professional identity is under attack (as presently with school teachers in Denmark), its easier to shoot the messenger than discuss the message!"* In particular the first two EPIC conferences in 2005 and 2006 were largely spent debating, if industrial ethnography should be acknowledged as ‘real’ anthropology, or if ethnographers, who take up work in industry, are prostituting the academic discipline. And in 2008 the wounds weren’t quite healed yet...

Discussion

The cases show three ways in which theatre may help bridge an ethnography of the present with a vision of the possible. Case 1 showed a use scenario of a future technology in use. The scenario is improvised based on the participants' own experiences of context and practices. Thus the ethnographic grounding (as a formulated theory of human rationales) is rather thin, but could be stronger in other projects, where scenarios are anchored in field studies, or where users participate in creating the scenes. Case 2 is a set of scripted scenes based directly on ethnographic findings, meant to provoke company partners to rethink their understandings of human practices. The actors manage to seamlessly transcend from present to future in dialogue with the audience. Case 3 is a scripted scene of future ethnographic practices themselves, aimed to challenge ethnographers to rethink their own methods.

Rather than thinking about theatre as ways of discussing *about* ethnographic insight, I suggest that we think of the theatre acts *as* ethnographies themselves, i.e. as accounts of people's (future) practices. In this way the theatre activities become a mutual process of inquiry, a collaborative ethnographic sensemaking activity.

Bibliography

- Anderson, R. J. 1994. Representations and requirements: The value of ethnography in system design. *Human-Computer Interaction* 9(3):151–182.
- Blomberg, J. and Burrell, M. 2008. An ethnographic approach to design. In *The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications* (2nd ed). Mahwah, NJ: Lawrence Erlbaum Associates, 982.
- Boal, A. [1979] 2000. *Theatre of the Oppressed*. London: Pluto Press.
- Boyarski, D. and Buchanan, R. 1994. Computers and communication design: Exploring the rhetoric of HCI. *Interactions* 1(2): 24–35.
- Burns, C., Dishman, E., Verplank, W., and Lassiter, B. 1994. Actors, hairdos & videotape: Informance design. In *CHI '94: Conference Companion on Human Factors in Computing Systems*, Boston, MA, 119–120.
- Buur, J. and Arnal, L. 2008. Directors of the future. Panel report in *Proceedings of the Ethnographic Praxis in Industry (EPIC)*, Copenhagen, Denmark.
- Buur, J. and Larsen, H. 2010. The quality of conversations in participatory innovation. *CoDesign* 6(3): 121–138.

- Buur, J. and Matthews, B. 2008. Participatory innovation. *International Journal of Innovation Management* 12(3): 255–273.
- Buur, J. and Sitorus, L. 2007. Ethnography as design provocation. In *Proceedings of the Ethnographic Praxis in Industry Conference (EPIC)*, Keystone, CO, 146–156.
- Buur, J and Torguet, R. 2013. Ethnographic Findings in the Organizational Theater. In *Proceedings of Ethnographic Praxis in Industry Conference 2013*, London, UK.
- Cooper, Alan. 2004. *The Inmates are Running the Asylum: Why High-Tech Products Drive us Crazy and How to Restore the Sanity*. Indianapolis, IN: Pearson Education.
- Diggins, T. and Tolmie, P. 2003. The ‘adequate’ design of ethnographic outputs for practice: Some explorations of the characteristics of design resources. *Personal and Ubiquitous Computing* 7(3–4): 147–158.
- Iacucci, G., Iacucci, C., and Kuutti, K. 2002. Imagining and experiencing in design: The role of performances. In *Proceedings of the Second Nordic Conference on Human-Computer Interaction*, Aarhus, Denmark.
- Jagiello, J. 1998. Organisational theatre of continuous learning: The application of the Forum Theatre technique to continuous improvement. In *Proceedings of 2nd EuroCINet Conference*, Enschede, The Netherlands.
- Johnstone, K. 1981. *Impro: Improvisation and the Theatre*. London: Eyre Methuen.
- Jones, R. 2006. Experience models: Where ethnography and design meet. In *Proceedings of the Ethnographic Praxis in Industry Conference (EPIC)*, Portland, Oregon, 82–93.
- Larsen, H. 2006. Risk and ‘acting’ into the unknown. In P. Shaw and R. Stacey, eds. *Experiencing Risk, Spontaneity and Improvisation in Organizational Change: Working Live*. Milton Park: Routledge, 46–72.
- Larsen, H. & Friis, P. 2005. Theatre, improvisation and social change. In P. Shaw and R. Stacey, eds. *Experiencing Risk, Spontaneity and Improvisation in Organizational Change*. Milton Park: Routledge, 19–43.
- Mead, G. H. 1934. *Mind, Self and Society from the Standpoint of a Social Behaviourist*. Chicago, IL: University of Chicago Press.
- Meisiek, S. 2006. Dissonances, awareness, and aesthetization: Theatre in a home care organization. In S.-E. Sjøstrand, C. Gustafsson, and P. P. Guillet de Monthoux, eds. *Aesthetic Leadership: Managing Fields of Flow in Art and Business*. Basingstoke: Palgrave Macmillan.
- Macaulay, C., Iacucci, G., O'Neill, S., Kankaineen, T., and Simpson, M. 2006. Editorial: The emerging roles of performance within HCI and interaction design. *Interacting with Computers* 18(5): 942–955.

NeuroSky: <http://store.neurosky.com/products/mindwave-1>

Nissley, N., Taylor, S.S., and Houden, L. 2004. The politics of performance in organizational theatre-based training and interventions. *Organization Studies* 25(5): 817–839.

Sacks, H. 1995. *Lectures on Conversation*. Chichester: John Wiley & Sons.

Sato, S., Salvador, T. 1999. Methods and tools: Playacting and focus troupes. *Interactions* 6(5): 35–41.

Schreyögg, G. 2001. Organizational theatre and organizational change. *Proceedings of 60th Annual Meeting of the Academy of Management*, Washington DC.

Svanæs, D. and Seland, G. 2004. Putting the users center stage: Role playing and low-fi prototyping enable end users to design mobile systems. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, Vienna, Austria.

Ylirisku, S. and Buur, J. 2007. *Designing with Video: Focusing the User-Centred Design Process*. Springer.

"Things Could Be Different": Design Anthropology as Hopeful, Critical, Ecological

Mike Anusas
University of Strathclyde

Rachel Harkness
University of Aberdeen

Introduction: The "Things Could Be Different" Impulse

We are presenting this paper as two people concerned with how things could be different. We understand this as a hopeful and critical approach to designerly-anthropological praxis that made from a position, partial and situated (Haraway, 1988), that is influenced heavily by the environmental or ecological. Bezaitis and Robinson (2011) have written about what they call a "things could be different" impulse in design, and it struck us as a telling and useful way of prompting our thinking about the issues raised by the call for Ethnographies of the Possible seminar. In their use, Bezaitis and Robinson speak of themselves, as academics with social science and humanities backgrounds who self-identify with the design/anthropology intersection, as 'immigrants'. They write:

The design/research intersection seems to be a very appealing destination for folks trained in what were once unrelated fields. The reasons an emigrant has for leaving a well-settled home are always varied, but a constant across those variations is the idea that *the future could be different* – at an individual level, but perhaps more importantly for many, the potential to bring change to the world, to shift the ground, to alter the rules. It has been no different for us. Like many immigrants, we retain a good deal of where we come from in the ways that we think and in the values which we maintain, while at the same time trying to make as much out of the opportunities we came here to explore as we can. (ibid: 185)

Temporal orientations: assumptions and reformulations

It is often premised that design is a discipline that is constantly looking ahead, that it is a practice which is very much future-looking, that it has a ‘robust future orientation’ (Otto and Smith, 2013: 17). Anthropology meanwhile, often seems to be cast in contrast to this as a discipline that is fundamentally retrospective, as a practice that recounts lives lived in its ethnographies (Ingold and Gatt, 2013) and provides analysis of events and customs experienced in the past. Here, we are setting out to reformulate this premise. Whilst we can understand where these ideas of design as prospectively making things for the future, and of anthropology as retrospectively writing about lives past, we seek to destabilise any clear-cut correlation of one discipline with future-orientation and the other with a past-orientation.

We seek to do so partly because we do not recognise these temporal distinctions in our own experiences and observations of anthropology and design practice. Instead, in both anthropology and design, we argue, there *is* and perhaps always should be *a concern with that other which is possible*. Work in both realms can possess this critical orientation towards the possibility of difference. Furthermore, it can also and simultaneously be attentive to that which has happened and could have happened in the past. Thus, multiple temporal orientations simultaneously help to shape action in an understanding of the world in both anthropological and design works. To clarify, we see anthropology and design as practices sharing a concern with alternative and possible others: the others of contemporary cultures; the other and multiple histories revealed in reinterpretations; the other ways of living that might emerge with alternative shapings of the future. Such others are of course intertwined, with reinterpretations of the past influencing formations of the future, and vice versa.

Acknowledging the multiple and myriad ways in which people do or do not, have or might, make, interpret or imagine things different(ly) is an essential part of moving well away from too-oft privileged ideas of linear progress and development. These latter ideas seem to proceed as if life happens along some sort of fixed singular temporal track from a past through a present into a future. Instead, we are part of a movement towards a sense of lived experienced time that loops, circles, changes, is multiple and multi-linear (Latour, 1993; De Landa, 1997; Ingold, 2012).

Our other motivation to take the premise to task (i.e. the premise that anthropology and design have opposing temporal orientations) is that we consider the

attribution of different temporal orientations like this to be allocating responsibility for the shaping of the future to certain groups of people, certain professions, certain disciplines. We can see that, in a sense, one could identify different temporal orientations in all sorts of (academic) practice. Archaeology, history, craft and anthropology could all be disciplines set to the retrospective end of the temporal scale, while towards the other prospective end, we might position design, engineering and modern art. These kinds of allocations or positionings lock these disciplines in to certain roles. They run the risk of denying the necessity of history in informing future actions, of the innovation involved in craft, of the historical bedrock on which engineering projects rise, the lineages that designers, artists and their designs unfailingly belong to – even when they are attempting the avant-garde. Perhaps most importantly however, these kinds of positionings imply locations of responsibility for the work of creating better futures. This, we feel, is the project and responsibility of no single discipline, area of society or set of practices¹. Rather, it is the project of all.

In order to make our case for a more nuanced understanding of the temporal in relation to the anthropological, to design and to responsibility for the shaping and imagining of the future, we will draw upon a number of examples from our work. These are examples of people making things, a fact that we hope to show is important, and they are also examples that highlight the usefulness and therefore centrality of environmental thinking and practice to our case. For, as we intend to illustrate, the environmental prism offers a particularly valuable insight into the nature of the anthropological and of design because of the way that it promotes the importance or centrality of the material in our present and future lives, because of the way that it focuses consideration upon changes as they happen over time such as movements, entropies, growths, exchanges and flows, and – fundamentally – because of the way that it demands a critical and ethical reflexivity about humanity's impact upon the planet that is linked to this extended temporal awareness.

¹ Joachim Halse has made a similar argument in his article 'Ethnographies of the Possible' when he argues that 'Anthropology could leave contemporary future making to those privileged enough to claim directions for attractive futures on behalf of everyone, or we can begin to employ the anthropological sensitivity to differences and particularities as an active driving force of establishing design events as more open-ended dialogues about what constitutes attractive from various viewpoints' (2013:194).

Design: caught-up in the close-present

Design, like any other human practice, is temporally mobile, by which we mean that its contemporary engagements are shaped by past ideas and makings, and its contributions to future human life are emergent in an ongoing present. However, we would argue that this temporal mobility of mainstream design is rather limited and restrained. That is, we contend that design does not cast its reflexivity extensively far back, nor its imagination profoundly far forward, and that such temporal limitations have real material consequences in contributing to the ecological crises of waste, pollution and climate change, and their associated economic disparities.

Over the last few years we have been observing design practice within educational and commercial studios, focusing on perception and creativity in relation to material form and environmental change. Considering the temporal dimensions of our observations, we note that design is often associated with ideas of the ‘new’ and ‘innovation’, whereby creativity requires ‘thinking outside of the box’ or ‘starting from a blank sheet of paper’. Here, the ‘new’ appears to be formed by relinquishing the past, transgressing the constraints of everyday social life and an orientation from a position of blank, untainted neutrality.

However, such a position is implausible. As imaginative as design practice might be, it is - as with all human practices - intimately entwined with the transformations of the past; not only a recent past of years or decades, but a far past of centuries and millennia. No matter how determinate the form of a box, or blank a sheet of paper, these starting points are in fact particular sorts of *forms* which are cast from ideologies and material practices with extensive historical traces. Such starting points directly influence the potential of imagination and the way in which imaginings become materially effectual.

It would appear then that design finds its current creativity in precisely the drawing (or construction) of a blank canvas over a much more patterned, nuanced and temporally mobile complex. It is a skilful utilisation of a level of ignorance which places material concerns of the far past and far future to one side in order to enable the creative practitioner to pretend that they are starting from a clean slate and thus attain an ethical comfort with the idea of projecting a new object into an unknown future. It is important to note that to practice this form of creativity does genuinely involve the enskilmement of particular perceptual and ethical dispositions in relation to

time, materials and ecology. An enskilment that, understandably, is discouraged rather than nurtured in the critical, social and environmental sciences where, by contrast, the direct intention is to extend trajectories of temporal understanding and their social and ecological effects.

Thus, design practice is one of *temporal expedience*, with its creativity limited to objects of concern and their respective time-frames. For example, within packaging design, temporal concerns are typically minutes, days or weeks; within product design, time is focused from months to years; for building design, perhaps up to a few decades and with infrastructure design (such as that concerned with energy, resource and transportation systems) timescales are framed around decades, if possibly to centuries. Such temporal scales are familiar within the design studios we have worked within where the ultimate focus is on transforming studio-based prototype experimentations to commercial mass-productions that comply with the temporal parameters set by manufacturers and legislators (such as ‘sales guarantees’). It is rare for mainstream designers to be in commercial situation whereby they might attend to ‘the long now’ (Brand, 2000); a stance - perhaps a much more mobile one than we are used to - which considers cultural evolution across extra-temporal spans more similar to those typically considered by archeologists or geologists in their studies of the past. Within the context of expedient action in the everyday setting of a design studio, the opportunity to reflexively acknowledge inherited perceptual histories of form are rare, as is the occasion to think far forward beyond the material and temporal confines of objects of concern. Consequently, mainstream design is typically drawn into what we could call a close-present: the present of a recent yesterday, limited now and almost tomorrow.

To address these limits, escape the close-present, design does well to critically reflect on the environmental. Thinking through the prism of the environmental invites or provokes an attention to extended temporalities and the transformative qualities of *materials*, rather than foreclosed attributes of the *object*. A concern with the environmental reveals materials in flux, continually undergoing transformation, materials giving rise to objects for a time, which, regardless of their minutes or centuries of existence, eventually become subsumed within shifting material states, turned over, and lead on to further emergent things. Within this understanding of the environmental, then, materials are uncontainable, resisting objectification and

attempts of constructed ignorance or ‘blank canvassing’ and reductionist foreclosure. An environmental focus only serves to reveal the amorphous, deceptive, and often wild qualities of materials-in-transformation².

Such an extra-temporal perspective on the transformative potential of materials is increasingly evident in the continued evolution of ‘design for environment’ philosophies and methods, which are typically motivated by ethical, holistic and long-term views of eco-systems. As an example, one of the most recent developments in this area is the formulation of the ‘circular economy’ framework which models objects as ‘roundputs’, designed to be ‘made and made again’ through a continuous process of reproduction and material flow (Ellen MacArthur Foundation, 2014). Such formulations, which indicate the existence of material histories and futures, sit in notable contrast to conventional throughput linear depictions of the design process where materials appear to arrive with no origin and leave with no destination.

What is potentially apparent here is a shift in creative design practice. One that understands the sheet of paper that it starts-out with, not as blank slate, but a rich inherited material substrate to be reflexively worked with, and that perceives its constraints not as the internality/externality of a box requiring to be innovatively worked out of, but rather as material lineages to be improvised *with*. This shift appears to draw us away from a notion of design as a *model*, which can be applied to any given circumstance, and more towards design as an anthropological *practice*, reflexive and respondent to the particular conditions of the field.

Anthropological work is not retrospective: it moves with the currents of life and living

Shifting, now, to consider the anthropological in relation to this idea of temporal orientations, again we will suggest that we do not see anthropological work as being retrospective. We will draw from our own understandings and experiences of anthropology as a taught academic discipline, of it as a wider project of the humanities (as it strives to understand people’s ways of life), and also from anthropological work that we have carried out with people who are themselves precisely interested in the shaping of contemporary and future societies and

² By ‘materials’ we refer to *all* materials – those of bodies, organisms, synthesised things, organic life, geological and their varied physical states - solid, gaseous and fluid. ‘Wild’ in this context then, is for example, the unpredictability of our cleaning chemicals once released into the sea, as much as it is the untameable seas, or ravaging crop blights.

environments. With this latter work we find that these people provide us with an interesting case of participants in our anthropological research helping to shape our understanding of what the anthropological is and/or could be.

As we see it, then, anthropological work is by and large carried out with people who are living, and whose lives and memories are on-going often long after their engagements with anthropologists, and intersections with anthropological works, have come to an end. So, whilst the anthropologists encounter with the people might have then led to their film-makings, photographs, writings and lectures, there is always a sense that these productions (which will live on in numerous and often unplanned ways) are both enabled by and entwined with lives, stories and processes that are ongoing.

Furthermore, we consider the anthropological project as being one which is often allied with the projects of those with whom the anthropologist works. We mean this in a similar sense to both David Harvey (2000) and Hirokazu Miyazaki (2004) when they talk of contributing to ongoing efforts in social theory to reclaim the category of hope for progressive politics (e.g. Hage, 2003; Zournazi, 2003). In Harvey's words: 'exercising an optimism of the intellect in order to open up ways of thinking that have for too long remained foreclosed' (2000: 17). In our terms of sharing a project, sometimes the anthropologists project and the participants' projects are literally and specifically one and the same, sometimes they are only metaphorically and/or much more generally allied.

We concede that in some cases, it is true, the projects are quite dissimilar: the anthropological project having a direction that is in stark contrast to the project of those the anthropologist is working with. However, even in this latter of cases, there is still no denying that there is a future-orientation, inherent in both the anthropological work and in the living culture being studied. Even if, as happens rather rarely, anthropologists declare their project to be that of the disinterested observer, it is really only here where we feel one could think of an anthropological work without an *intentional* future-orientation. But even an absence of *intention* does not necessarily imply an absence of *effect*, regardless of whether the nature of the effect is acknowledged or not.³

³ The apolitical is not an option, in fact, it is itself a political position; just as claiming to not have an aesthetic or ethical concern is in fact an aesthetic or ethical position.

Perhaps much of this understanding of anthropology comes from the ways in which we have been taught anthropology and the ways in which we in turn teach it, (and, of course, this means also that we are including teaching as both a future-concerned and fundamental aspect of both design and anthropological practices). Teachers, either in person, or via persuasive texts, from within the discipline and out (perhaps most famously, Marx), have instilled in us a sense that we and our work are part of something that is not only concerned with understanding the world but also capable of contributing to changing it. This belief then helps extend the anthropological well beyond the confines of academic halls, or journals for that matter, out in to the wider world. Here it contributes to education in the widest sense, as Hylland Eriksen puts it: ‘apart from providing accurate knowledge of other places and societies, it gives an appreciation of other experiences and the equal value of all human life, and not least, it helps us to understand ourselves... Anthropology can teach humility and empathy, and also the ability to listen, arguably one of the scarcest resources in the rich parts of the world these days’ (2006: 130).

Our argument here is also founded upon the idea that the lives that we study as anthropologists are lives that we contribute to, in shared worlds that we together inhabit and help shape. Research carried out with eco-home self-builders in Scotland and New Mexico, in 2005 and 2006, gives a keen sense of this, perhaps most clearly as it provides insight into how people envision and make greener futures (Harkness, 2009). Moreover, it reveals, once again, that the environmental prism, or an environmental approach, shapes and influences people’s relations to and understandings of space-time, experimentation and future-casting, and – perhaps most importantly – underlines the centrality and political importance of making. The environmental approach towards living and making, that eco-builders take, are ones which are fuelled by and, in turn, generate extended temporal scopes or long understandings of the now. Furthermore, these communities of people are enabled or as some of the builders themselves put it ‘empowered’ to forge alternative futures: equipped with abilities to critique histories and the status quo; to imagine different ways of living (often drawing ideas from examples of ways of living in other places or times); and also to competently (Shove, Watson, Hand and Ingram, 2007) experiment and create homes which – never quite finished and thus always open or

on-going – are transformative projects at levels from the individual, to the social, to the environmental and global.

The off-grid eco-builders attended to the long now, to a much extended sense of the historical and future implications of making, materials, actions, in a variety of ways: for example, materials for construction are sourced with consideration of their provenance and their life-after use; things such as architectural components are considered in terms of their material form, their qualities, but also their embodied energy; recycling, re-using, reclaiming and repurposing are integral to the activities of building and lend a cyclical sensibility to the whole project; and finally, waste is completed reenvisioned – despite the taboos – as plentiful resource! What we see here is an environmental approach to living and making that has a fundamentally different temporal nature: that is one that is temporally and spatially extended, and one that is multiple-simultaneous, which leads to a more fluid sense of materiality. Put more simply, it is an approach that is fundamentally *not* object-bound, but rather is sensitive to the on-going flows of materials throughout the world, and the impact or effect of human action, movement and making within these flows.

Design anthropology: entwining the threads of a hopeful ecology

We have been suggesting that anthropological and designerly practices can both be, and can be understood as, imaginative, critical and conscious of, and attendant to, the environmental-material. Furthermore, we have argued that studying different ways of living, and sharing them, is about opening-up our understanding of the possibilities of contemporary and future life. Perhaps even about different tellings of history. It is, as Harvey (2000) and Miyazaki (2004) have both described it, about having space for alternative modes of knowledge, critical thought and, we might add, alternative modes of action. Designing artefacts and processes is similarly about considering how things have been made, or might have been made differently, and about how we might make things differently in our time and whether others do things differently already.

We are arguing for an approach to design anthropology which critically and reflexively questions ideas and/or assumptions of spatio-temporal orientation, clarity of vision and positionality-responsibility. In this approach, we postulate the need to consider alternative perceptions of time, such as that of the Aymaran people of South

America who live “with the future behind them” (Núñez and Sweetser, 401:2006); a way of perceiving time which has the potential to provoke a ‘facing up to’ the profound significance of the past in how it shapes contemporary design. From this perspective, the future is *fuzzy* - in the sense that it can only be peripherally gazed into and it is full of multiple and various possible versions of itself. This is no different from history (*his-story*) and looking at the past, where memories paint various and interpretative versions of events happened, and the victors are those who live to tell their stories. This argument of course, is one that various scholars, many feminists amongst them, have taken when they have challenged us to consider that positions taken are always situated and partial. Thus, what emerges here is an idea of designerly and anthropological enterprise, which, rather than being positioned fixedly in orientation to the all the facts of the past or the all the possibilities of the future, is more so situated in a temporally dynamic realm that can only partially account for the continued convolutions of socio-environmental change.

As we have attempted to show through our brief examples above, it is the environmental which really crystallises the importance of this extended temporal approach. We are thinking about the temporal in a lived, material and experienced sense. Therefore, the question of responsibility for future-making becomes a tangible, perceived and practical reality. That is, eco-approaches are about *what* matters, *and* about matter itself⁴. They bring a fundamental grounding in the material (though this is not a grounding that prevents or is opposed to imaginative flights), and a grounding in the responsibility to and of making. Temporal orientations, then, now understood to be multiple and non-oppositional, might be understood as being about how we deal with stuff and also with each other; eco-justice and social justice are inextricably linked.

We contend then, that design and anthropology do not have differing temporal orientations, at least not from the point-of-view that one discipline is backwards-looking and the other forwards-looking. We view design and anthropology as being equally influenced by their historical forms, developments and tracings, and see both as being engaged and active presences that are helping shape the future. As disciplines however, we have seen that too often there is either an absence or a gulf between their different exercisings of a *temporal reflexivity* and of the way in which

⁴ Also in the sense that Karen Barad (2003) and others in the material feminist, humanities and social science schools have persuasively argued that *matter matters*.

temporal responsibility is considered relevant to the practising of their disciplinary crafts. As we have argued, these frissures between different practices become profoundly important when concerned with matter itself, and how it undergoes transformation to become benign or disruptive within the long-term dynamics of ecosystems. Here, temporal orientations, reflexivities and responsibilities gain real poignancy and significance as there is recognition of both anthropology and design's roles in the ways in which human practices are attentive to, capable of changing, empowered to influence, and must be held accountable for, the future state of things.

However, to circle back to what design and anthropology very much share, we should return to their concern with the unfurling of possibilities, of alternatives. And it is this attention to *diverse manifestations of the possible* where an integrative practice of design anthropology can make a significant contribution to exploring how *things could be different* in a hopeful and critical way. Design as a creative practice is in constant conversation with the possible; exploring ways in which practices might be carried out, how materials might be used, what sort of forms things might take and how future transformations might influence the enlargement of human potential. Anthropology is also engaged in a constant conversation with these possibilities of practice, materials, form, future and human potential. However, the focus of anthropology is one which evolves through a gathering of the manifold ways in which these possibilities take place across the diversity of human life. The opportunity for design anthropology is therefore to draw on a reflexive and diverse understanding of humanity and direct such insight towards the formulation of a more *open* material life, one that somehow lends itself to continued reinterpretation and resists foreclosure⁵.

Thus, rather than considering design and anthropology as two temporally opposed directional vectors which require to be adjoined to form a temporal span, we can instead see design and anthropology as two flexible temporal strands, which already weave through multiple pasts, presents and futures. Currently, these strands often have widely differing properties, however, environmental versions of both strands introduce important changes to the way that design and anthropology are practiced and theorised - particularly in relation to the temporal and to issues of socio-environmental responsibility. These changes help to entwine the strands. Together, these two -- now environmentally influenced -- strands can be woven, to form *design*

⁵ One way to approach this is to consider the possibility of 'designing environmental relations' through the interplay between design, form and environmental perception (Anusas and Ingold, 2013).

anthropology; a twine which extends the temporality and sensitivity of design and which amplifies the agency of anthropology in its role in shaping the material world. As a form of human practice it has the potential to perceive, imagine and help realise more open ways of thinking and more possibilities in/for the material world.

Having been inspired to start thinking about Ethnographies of the Possible with the “things could be different” impulse, we wish to close with a venture into how we imagine design anthropology might be evolving, ie. *how things might be different*. Drawing threads together we would suggest that it could be different constellations of the following:

Like the eco-builders and circular designers, the concern of design anthropologists would be environmental, ie. with/in the activity of life, and the processes of how we make things would become more grounded in or attentive to the ecological and material, to issues of justice, resources, power, (bio)diversity, and inclusive of the other-than-human. Design anthropology would be reflexive, critical, attentive to both the aesthetic and the ethical. It would be non-linear, meaning not working to linear developmental forms, but rather, attentive to the circular, the multi-linear and multi-perspectival. Thus, design anthropology practice would likely be situated and responsible: anthropological and design practitioners would hopefully see themselves and their practice in the creation of worlds (even down to their consumption practices, their organisation of their workplaces, and the material processes used to share their knowledge). Responsibility, it would be recognised, lies with us too – not just those others we see as having been specifically tasked with future-making.

Design anthropologists would be attentive to material flows rather than discreet and bounded objects, so often created for rapid consumption and then waste. With an attentiveness to the past-present-futureness of life and living (the creativity and blurriness of recounting past or imagining futures, both) they would also have a more open-ended, and non-foreclosed idea of how making, planning and living in society and on this shared planet happens and could happen. Furthermore, their project would be recognised as collaborative, in that living is a collaborative project and the sharing of approaches, the interdisciplinary too, is essential in our efforts to combat our current global environmental concerns.

Finally, there would be license across design anthropology to be prospective, to draw on an extended pool of material possibilities, and to bring the *anthropological imagination*, which is so often about bringing out the alternative possibilities of things, to bear in the design process. Such a disciplinary entwinement, as is imagined and depicted here, does not only suggest interesting intellectual avenues and useful practical applications to explore, but we view it is a highly *necessary* form of practice to enact a transition to a more nuanced and attuned way of working with the temporal dynamics of materials in the context of a hopeful ecology of life.

Bibliography

- Anusas, M. and Ingold, T. (2013) 'Designing Environmental Relations: from Opacity to Textility.' *Design Issues: A Journal of History, Theory, and Criticism*, 29(4): 58-69.
- Barad, K. (2003) 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter.' *Signs: Journal of Women in Culture and Society*, 28(3): 801-831.
- Bezaitis, M. and Robinson, R. (2011) 'Valuable to Values: How 'User Research' Ought to Change.' In A. J. Clarke (ed) *Design Anthropology: Object Culture in the 21st Century*, 184-201.
- Brand, S. (2000) *The Clock of the Long Now: Time and Responsibility: The Ideas Behind the World's Slowest Computer*. New York, NY: Basic Books.
- DeLanda, M. (1997) *A Thousand Years of Nonlinear History*. Brooklyn, NY: Zone Books.
- Ellen MacArthur Foundation (2014) *A New Dynamic: Effective Business in a Circular Economy*. Cowes: Ellen MacArthur Foundation.
- Ingold, T. and Gatt, C. (2013) 'From Description to Correspondence: Anthropology in Real Time.' In W. Gunn, T. Otto and R. C. Smith (eds), *Design Anthropology: Theory and Practice*. London: Bloomsbury, 139-158.
- Hage, G. (2003) *Against Paranoid Nationalism: searching for hope in a shrinking society*. London: Merlin Press.
- Halse, J. (2013) 'Ethnographies of the Possible.' In *Design Anthropology: Theory and Practice*. In W. Gunn, T. Otto and R. C. Smith (eds), *Design Anthropology: Theory and Practice*. London: Bloomsbury, 180-196.
- Haraway, D. (1988) 'Situated Knowledges: The Science Question in Feminism as a Site of Discourse on the Privilege of Partial Perspective.' *Feminist Studies*, 14(3): 575-99.
- Harkness, R. (2009) *Thinking Building Dwelling: Examining Earthships in Taos, NM and Fife, Scotland*. PhD. Aberdeen: University of Aberdeen.
- Harvey, D. (2000) *Spaces of Hope*. Edinburgh: Edinburgh University Press.
- Hylland Eriksen, T. (2006) *Engaging Anthropology: The Case for a Public Presence*. Oxford: Berg.
- Ingold, T. (2012) 'Toward an Ecology of Materials'. *Annual Review of Anthropology*, 41: 427-42.

Latour, B. (1993) *We Have Never Been Modern*. Cambridge, MA.: Harvard University Press.

Miyazaki, H. (2004) *The Method of Hope: Anthropology, Philosophy and Fijian Knowledge*. Redwood City, CA: Stanford University Press.

Núñez, R. E. and Sweetser, E. (2006) 'With the Future Behind Them: Convergent Evidence From Aymara Language and Gesture in the Crosslinguistic Comparison of Spatial Construals of Time.' *Cognitive Science*, 30(3): 401-450.

Otto, T. and Charlotte-Smith, R. (2013) 'Design Anthropology: A Distinct Style of Knowing.' In W. Gunn, T. Otto and R. C. Smith (eds), *Design Anthropology: Theory and Practice*, 1-29.

Shove, E., Watson, M., Hand, M. and Ingram, J. (2007). *The Design of Everyday Life*. Oxford: Berg.

Zournazi, M. (2003) *Hope: New Philosophies for Change*. New York, NY: Routledge.

On the Fly, On the Wall: Eliciting Possibility from Corporate Impossibility

Brendon Clark
Interactive Institute Swedish ICT, Sweden

Melissa L. Caldwell
Department of Anthropology, University of California, Santa Cruz

Introduction

Anthropologists famously go to the source of action in order to engage with people in their day-to-day lives. Being on location and deeply immersed in a local context over long periods of time – what has often been described as “deep hanging out” (see, for instance, Clifford 1997) – have marked the ethnographic project. Within academia, cultural depth and breadth marks the ethnographer’s ability to “prove” that one knows the site and has captured the experiences of one’s informants adequately, and is measured in both length of time spent in the field and the number and intensity of encounters with informants. This doctrine is frequently incompatible with the scale and tempos of commercial, applied projects, where the lifespan of projects from project inception to completion can be measured in weeks. Yet the broader appeal of ethnographic work in industry has been recognized as providing intimate and synthetic studies of people in order to deliver insights and explanatory frameworks about people’s behavior, which are then used as a basis for design, marketing, and business decisions. However, the study of people in their local context is only one aspect of ethnographic work in industry settings. Research is embedded in a dynamic set-up of circumstances and negotiations that influence what can be studied, how it is studied, the nature of analysis and the output. In exploring the “ethnographies of the possible” in a corporate setting, we look broadly at arrangements that make and re-make the possible and the valuable.

We have been exploring the value of participation and collaboration as methods of research and analysis, inspired by our work together in a series of seven-week innovation “labs” in the food

industry, The “lab” project was initiated by a global food company that sought to explore healthy food and service concepts for families. The project combined the people and interests of the global entity, and people and interests of the various brand entities in each country. The first two labs ran for 7 consecutive weeks and moved between two countries.

In this paper we look at the emergence of a specific metaphor and icon during a series of planned collaborative activities, and consider how the process that emerged symbiotically with the metaphor was partially set in motion by the tasks, partially supported by the introduction of materials, and partially dependent upon the perspectives and interests of those involved. We look at how the materials, the people, and the flow that set the conditions for the emergence of such metaphors were the result of an openness of the process, but also had high stakes and therefore great risks, not just to us as participants but to the success of the project itself. The interdependency and the performative nature of the arrangement supported a dynamic performance that we see as a form of “ethnography of the possible.” In many respects, it is a performance for those present even as it is an organically generated intellectual relationship that emerged spontaneously and unexpectedly.

And finally, we reflect on our roles as two forms of “design anthropology” practices. In the case of the expert facilitator or “ethnodramaturg,” the role was to “provide occasions for performance.” For the case of the consulting anthropologist with area expertise, the design anthropology practice role was much different because it was responsive to a different set of conditions and catalyzing agents, including that of the ethnodramaturg.

Innovation Labs For Healthy Living

The project was structured so that for each lab, a core research team worked in several locations in two countries, while carrying out distinct yet overlapping stages of consumer research, analysis, co-creation with consumer-users and stakeholders, express prototyping, and consumer evaluation of prototypes and concepts. The results were intended to feed into both the country-level innovation pipeline (in the short-term and long-term), and to contribute to the global-level

pipeline. A key question for the project was what insights could “travel” across particular regional contexts and potentially be mobilized for a potential global consumer. At every stage, the core team sought to, or was asked to, invite, incorporate, and engage stakeholders into the process (more than 110 participants in a seven-week period).

The dynamic qualities of these activities and the constantly emerging social relations that were forged, even if for only a few hours, have been productive for considering what, precisely, we were doing, both individually and together, as anthropological researchers. In turn, our shared work has suggested critical questions about our stance and dance in relation to one another, the interactions made possible and emerging out of the material, social, and spatial aspects of the collaborative set-up, and how roles and authority were (re)negotiated in this process. In describing and analyzing this project, we join other writers who have been exploring how we, as anthropologists, depart from the ethnographic processes into which we have been indoctrinated and mix, match, loosen, reject, and re-interpret our unfolding roles and how our co-constructed roles match the ideal roles we see for ourselves. Ultimately, we arrive at a different form of participating in and producing the unfolding of future possibilities.

Transforming ethnographic work

Ethnographic work for design and business purposes commonly ties the role of the person to the phase of work, such as the ethnographer or the ethnographic team conducting ethnographic research and the design team moving from research to concept. The division of labor between research and its application puts strong emphasis upon how the research outcomes are represented and presented. Wakeford (2006) explores how the normalization of PowerPoint software for representing data in corporate ethnography masks the analytic work of ethnographers. While she finds ethnographic presentations using PowerPoint can be “thick” sociomaterial social events, the separation of the ethnographer and the material format of representation turn PowerPoint presentations into rather “thin” knowledge transfer devices. She challenges ethnographers to find ways to extend the relationship between the ethnographer and the material.

A key issue for anthropologists working in the corporate environment is how to deal with the inherent “messiness” of ethnographic data and insights. While ethnographic richness and contradiction is privileged in academic anthropology, both as a practical reality of “thick description” (Geertz 1977) and as a theoretical model (e.g., Tsing 2004), it can be problematic in corporate settings ruled by reductive models of presentation such as executive summaries, bullet points, and one-page business plans. The trick, as ethnographers working in the corporate world have noted, is to push back against such reductive logics in ways that make complexity a productive part of the process (e.g., Darrouzet, Wild, and Wilkerson 2009; Flynn 2009).

Brun-Cotton offers possibilities for engaging complexity and foregrounding it as an explicit task for anthropologists (2009). By highlighting how ethnographers in industrial projects are challenged to focus both on “recipient design” when representing their work for diverse audiences that often include informants, various stakeholders, and colleagues, as well as on the representations must be crafted for these myriad potential audiences as the results are passed around the industrial setting (Brun-Cotton 2009), she presents the anthropologist as an ontological choreographer who performs various “dances” that the interactions with each of the audiences represent. The researcher holds the responsibility of producing results and stories in different ways to different audiences. For Brun-Cottan, the dance also refers to the challenges inherent in communicating with multiple people who are positioned differently.

The challenges inherent in the division of labor between research and design have given rise to a variety of techniques for less simplified, experiential communication of results. Most notably, “the workshop” has emerged as an important format for combining research and design, and especially in relation to research for design. For instance, the “bridging workshops” introduced by Karasti (2001) were intended to replicate, at least to some degree, the research experience for design practitioners and represent a form of organizing research for the design team. As Karasti writes:

it reflects the participant observer's inside-outside view by making visible both the multiple partial views and situated locations of practitioners from within the actual

practice (emic) as well as it integrates an overall account of work as it is edited according to the fieldworker's outside, analytic and synthesized view (etic). Furthermore, it embodies the two perspectives of observation and intervention in which the fieldworker engages by including clips meaningful from the point of view of both practice and design.

(Karasti 2001: 217) 1

Nafus and anderson (2009) depict a much more porous and fluid form of ethnographic delivery in their work at Intel. By focusing on the role of project rooms and the social configuration of the rooms, the practices of writing on the walls, speaking about the writing, and the use of visual material, Nafus and anderson argue that this institutionalized format of working anthropologically, departs from the single author model of knowledge production: “*working through project rooms, rather than individually authored texts, de-centers the self as the technology or knowledge production*” (Nafus and anderson 2009: 139).

More significantly, project rooms and the forms of brainstorming engendered by these spaces are themselves institutionalized practices of making things new:

Project rooms are places where people who have different levels of engagement and different disciplinary commitments dip in and out of a research effort. This instability usually seems to lead in a certain direction. It has a theme of sorts. Knowledge does not just circulate, but is consistently made to appear as if it were new, regardless of its origins (Nafus and anderson 2009: 139).

At Intel, the walls and materials of the project room introduce a collaborative form of engagement that “de-centers” and democratizes authority of ethnographic output. Rather than acting as authoritative sources, mediators of real world facts, or carriers of insights about others,

1 While Karasti developed a video collage format to support this re-enactment, there have been a wide variety of material formats and activities developed by design researchers to support introducing representations of “the users” or use situations in a way to be handled, analyzed and negotiated by others.

the ethnographer becomes one voice among many who are making claims of meaning, identifying connections, patterns and negotiating possibilities. The propensity for discovery and the identification of newness appears to be part and parcel to the pressures of innovation within organizations such as Intel. In this case, the bits and pieces of fieldwork material can be viewed as triggers for interaction, exploring through the frames of the participants, instead of complete single authored stories about human life. Working collaboratively, such as in project rooms, puts different constraints on work practices familiar to the anthropologists.

However, the way of working depicted at Intel raises questions about whether the working practices such as writing on walls, is the result of “creating locally appropriate” tools for engaging ethnographically, or if they are compromises holding true to specific model of ethnographic work. As Nafus and anderson note, as multiple participants work across and through the multiple milieus of the walls, legitimacy of materials and authority becomes increasingly contested. They write that “just as the actors shift, so do the props. It’s never clear what ethnographic knowledge is speaking to” (2009: 139). At the same time, even as the walls and other material props of the project rooms pull people together into common threads, they also produce a narrowing of those threads and that possibility: “a contained world is still seen as a knowable world, and therefore can be managed” (2009: 148). Consequently, there is a potential paradox of both an endless possibility and a contained set of possibilities. As a result, even the most purposeful modes of corporate ethnographic work that result from experimentation on formats, materials and collaborative events can appear to be a compromise of an ideal born in the academy.

Gatt and Ingold (2013) distinguish between the descriptive practice of anthropology-by-means-of-ethnography, in contrast to “anthropology-by-means-of-design” as a practice of correspondence”. Participant observation, rather than ethnography, they argue, is a form of apprenticeship responsive to the unfolding of other peoples’ lives, while at the same time active in the unfolding. Participant observation is “...founded in a willingness to both listen and respond—that is, to correspond—to what others have to tell us” (pp. 147). As Renato Rosaldo (1989), Michael Jackson (2013), Anna Tsing (2004), and Karen Barad (2003) have argued in

different ways, ethnographic work is always emergent and contingent upon dynamic processes that arise from shifting collaborations and interactions.

As a collaborative project

In contrast to an individual researcher holding responsibility for conducting ethnographic research and designing the output, transforming the process into a collaborative design project restructures accountability and delegates responsibility to the templates and formats that individuals, teams, and groups are asked to follow, as well as the flow of activities that combine and invite to or block people from performing, and the facilitation along the way. The role of preparing the formats, team make-up, and flow is more akin to Turner's ethnodramaturg (Turner 1982: 100). It is a director role of putting working activities in motion through concrete instructions, with a clear goal and concrete ending to the activity. However, the concreteness of the ending can be challenged by the very argument of this paper.

While this role of ethnodramaturg or ontological choreographer has analogues in team-based research in academic settings, this is not the usual mode of research for academic anthropologists. Although participatory and participatory-action research are envisioned as possibilities for sharing power and allowing subjects to shape the research agenda, these models in fact merely flip the researcher-researched relationship rather than reconfiguring the entire set of relationships among participants and the methods. Managing others most typically falls under the category of supervisory "administrative" work rather than being understood as part of collaborative research by peers. As a result, control, oversight, responsibility, and authority are born individually rather than shared.

At the same time, it is similar to responsive modes of teaching, in that it introduces new ways of working to people who can see what the results may be. Experimental modes of teaching privilege scripted modes of work that are publicly presented and performed as unscripted, dynamic, spontaneous, and generative. Instructors carefully guide student work and interactions through directed activities that are intended both to facilitate open-ended and innovative thinking

while also keeping students on-track and integrating their ideas and responses into a cohesive narrative.

The innovation labs, as they were introduced, were not physical places, but rather a construct created by the organizers, defined by time, focus, working methods and participants, as well as connected to location. The organization and reproduction of the lab structure were supported by a number of documents and people in various leadership roles, such as the overall leadership team. The labs involved global members of a large international organization, local members from the international organization's regional office, and many other individuals who worked in branding, consultancy organizations for design, advertising, research, semiotics, Zmet, and emotional engineering/surveying, as well as locally contracted designers and illustrators, local and international chefs, and translators. The size of the project and the nature of the project made it quite unique for all of the participants, a common theme during small talk.

Adding to the mystique of working in the lab, the way each participant was contracted to work in the lab and by whom, for how long, under what conditions, and for what purposes was not clearly communicated. The structure was not explicitly or visibly supported in a systematic, coherent or unified manner. Rather, documents and materials were used intermittently over the seven weeks, and leadership roles and participants were constantly in flux. The result was that the structure of the lab, the sequence of stages, the formats used, and types of presentations, discussions, and activities were based partially on plans and partially on emergent form. It was under these conditions that we met and worked together, entering the project under very different circumstances.

In the lab set-up, however, once a project starts, and we are "in the mix of activities", both the temporal conditions and the degree of intensity are unique. And while they may resemble the activities used in more academic ethnographic projects, they depart from them in significant ways. The urgency of timely collaborative project work constitutes the way of working with others, the material formats, and the roles that we play. The labs were defined by perpetual action and predominately collaborative activity. There were not many dedicated spaces or moments for individual reflection. When individual reflection happened, it occurred in "made-

up” spaces, such as when an individual walked around the room with a packet of sticky notes or left the room on an extended bathroom or coffee break.

Who we are

We both work as professional anthropologists with PhDs. Brendon holds an MA in anthropology from the United States and a PhD in User-Centered Design from Denmark. We have both conducted long-term individual fieldwork in our respective field sites, published, taught, and navigated the gauntlet of applying for and receiving funding for our work. We share interests in material culture and experimental methods, among other topics. Yet our post-PhD career paths have diverged, so that one of us works as a senior researcher in an experimental IT and design research institute in Sweden, and one of us is a tenured professor of anthropology in an American research university. In some respects these divergent paths have disciplined us into very different literatures, methodological approaches, writing styles, and audiences. Yet at the same time, as we discovered in our work together, and as we will discuss here, those differences are not necessarily as sharp as might be expected.

Roles

As an academically based scholar, Melissa’s experiences have been based primarily in independent research in which she relied on her own insights, hunches, skills, and knowledge to collect, interpret, and present her data. While methodological, theoretical, and ethical reasons inspired her to work closely and interactively with her informants to elicit their perspectives and experiences and to capture their experiences in ways that remained true to their perspectives, the responsibility for documenting and communicating that work was ultimately hers. Thus while Melissa’s interests and approaches were similar to those of Brendon, her role has conventionally been that of responsible authority – all data were filtered through and mediated by her experiences and positionality. Brendon, on the other hand, has spent the last eleven years working in relation to design work, with emphasis on exploring formats and arrangements for issues or conflicts to be raised and addressed in collaborative project work. As an organizer of collaborative activities, Brendon’s interest often lies in supporting the development of coherent

stories that are complex and grounded in and incorporated the perspective of people (often termed users or consumers), and other interests. The formats and activities that he introduces in collaborative project work often seek to provoke people to summarize different aspects of what they see as valuable and the possibilities they had been working on together in a way that synthesized. There were three main purposes of this: (1) to introduce the person's value into the discussion through hearing and seeing their perspective on what took place, and (2) to practice complex story telling, and (3) to "curate" multiple individual perspectives into collaborative expressions.

Our first encounter was through a voice Skype call with Brendon sitting in a room of consultants in Moscow, and Melissa sitting at home in California. We both remember this as a challenging meeting, as the project manager at the time was deeply skeptical of Melissa's potential contribution to the project. We first started working together face-to-face during the analysis period in Stockholm, then more intensively in the rooms of a large restaurant, hired out and closed to patrons for two weeks to accommodate 50 plus people during "co-creation week".

Melissa's formal role was that of a consulting "food anthropologist." Hired directly by the large transnational food corporation behind the project, Melissa was brought in to provide factual knowledge about Russian food cultures. Initially, her primary task was to create a detailed cultural overview to help the research teams decode and interpret their data. Her task was not to conduct ethnographic research. Over the course of the project, however, her role evolved to include providing deeper and broader knowledge about Russia more generally; interpreting the data provided by the semiotics and emotional engineering consulting agencies; and interacting with the Russian research subjects and other local Russian team members (frequently in Russian and not through the paid translators). Melissa participated for only two weeks in Russia, and then again in a subsequent project in Brazil.

In general terms we found ourselves working in labs defined by perpetual action and predominantly collaborative activity. There were few dedicated spaces or moments for individual reflection. When individual reflection happened, it occurred in "made-up" spaces, such as when

an individual walked around the room with a packet of sticky notes or left the room on an extended bathroom or coffee break. The shift from a task-based division of labor to that of performing continuously in the presence of others shifts the nature of work in terms of what is desirable and what is possible. In the lab format there was a core team working together throughout the seven weeks, and other people or teams who would spend periods of time with the group, come in and out, or deliver in different “research streams”. In many instances, different stakeholders from the hiring company who dropped in for an hour or so had the potential to move, challenge, or even redirect the process and findings based on their own interests and understandings.

Taking home with you:

As an example of our collaborative work, here we focus on week five of the lab, just after returning from the analysis period in Stockholm, with our “co-design briefs” in hand. On day two of the co-creation week, there was a morning session focusing on consumers and an afternoon with stakeholders and experts. In the morning; there were three simultaneous consumer workshops, each room with 6-8 consumers that had been previously interviewed 3 weeks before. After engaging them in boundary work, eliciting categories, and a co-creation activity in which they were guided through a process to build metaphoric constructs that held their ideals in relation to eating food outside the home, there was a collaborative design activity with consumers and “experts” exploring new service concepts. Mixed in with the 6 consumers were chefs, food experts, brand experts and researchers. Brendon was responsible for the overall schedule and facilitated one of the workshops in the room that held the *out of home breakfast* brief and the *my own creation* brief. Melissa joined the collaborative design workshop with the consumers as an expert, sitting with two consumers, a local chef, an industrial designer, and a local culture expert. Once the session ended, we organized the output of the workshop for a session with a number of other stakeholders in the same room to discuss the output of the co-creation. In the morning, some of them had been part of a discussion with the emotional engineering group and now joined us. At the end of that 2-3 hour activity, as facilitator, Brendon asked to make a video summary – a 13-minute video that has a total of four speakers. The video

moves from wall to wall each with someone ready to explain that section of the material. Before starting to film, Brendon had asked and encouraged the participants to decide who would speak about what and where. Brendon begins the video:

"So now we're back in the workshop of *out of home second breakfast* brief and *my own creation*, and today we had a set of activities with consumers and experts, and we focused on the out of home service, in many respects, and also touched on *my own creation* through doing that." He then points the camera toward the next person, who begins introducing two concepts that came from one of the collaborative design sessions. Next, Melissa introduces the concept from the group she was part of, and then someone else introduces the concepts from the third group.

The making of a metaphor

The main project's responsible manager and project organizer, Herald, was in the room with us during the afternoon. Herald was often the focal point of the discussions, both because he frequently took charge of the conversations, leading them in directions that interested him, and because other participants deferred to him and directed their presentations to him. During this discussion when we were talking about the out-of-home second breakfast and the picnic mobile a consumer had created during the co-creation activity, the concept of "Taking home with you" arose. Once the phrase was stated, Brendon drew a body with a house as a head on a Post-It note. The phrase and the drawn metaphor emerged spontaneously: we had never discussed or planned to identify metaphors. Herald became enthralled by the metaphor and icon. He attributed the identification of the metaphor and the value of the entire process to Brendon's expertise in co-creation. Herald was able to now tell a coherent story of moving from consumer research to analysis and co-creation to surface powerful metaphors and the accompanying design principles.

We see three consequences of this: First, Herald formally recognized Brendon as an expert in Co-creation, and in many respects acknowledged and affirmed his expert role in the project. Second, Herald's enthusiasm for what he attributed to be Brendon's technique of creating a visible metaphor became the standard by which Herald evaluated the progress and outcomes of

the other workshop groups. When the other groups did not come up with a metaphor or other working technique, they received strong criticism and their ideas were not given the same consideration. And third, the metaphor became established and codified as a key component of the design briefs. Even to the extent that a team of illustrators were contracted to participate in the same stage of the lab in Brazil.

The unanticipated success of the metaphor illuminates the extent to which spontaneity and contingency exist within these projects, both as the practical reality of the give and take flows of the research and analysis processes, but also as critical inspiration for both insights and techniques for interpretation and innovation. Because both the phrase and the drawing were unplanned and seemingly on the spur of the moment, they disrupted the otherwise scripted nature of the discussion's format and the methods we had been using. Yet to what extent was the creation of the metaphor truly random, or was it an outcome of a different mode of ethnographic work?

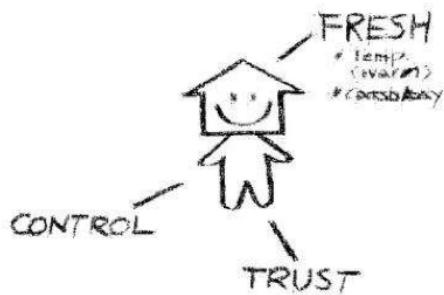


Fig. 1 Icon representing “taking home with” you metaphor

In many respects, the creation of the “Take home with you” metaphor showed that despite the fact that our work was highly scripted, with various tasks defined by instructions, tailored to participants and assigned to specific individuals who were responsible for leading the activities and generating output in forms predetermined by Herald and his team, much of the real work of generating insights occurred in these seemingly unscripted, spontaneous moments. Was this as a result of the constrained nature of the activities preceding them, or despite them? Just as curious

is that the temporal confusion of these moments makes it difficult to recall precisely when these moments of apparent spontaneity occurred: were they part of a chronological series of events building from introductory exercises to more comprehensive and synthetic resolutions, or did they occur repeatedly as part of a give-and-take, recurrent looping between materials as participants raised ideas and returned to previous ideas.

Another example is that of the anthropology briefings that Melissa did at various moments during the project, especially that week. The original anthropology brief was written in response to a set of questions generated by Herald and his project managers. While Melissa provided answers to those questions, she also took the initiative to refine and expand the questions, providing further information to contextualize or even challenge the assumptions within the questions. She was then added to the schedule to make a formal presentation, following the formal presentations made by the other “expert consultants.”

Yet whereas the other presentations were “finished” in that their findings were presented as absolute “conclusions,” the anthropology brief was more open-ended and highlighted contradictions, paradoxes, and unknowns – in other words, the ethnographic messiness of everyday life. The anthropology presentations generated further conversation and discussion among participants, including possibilities by the local team to question and challenge the conclusions made by the other expert consultants – especially the semiotics and Z-met groups. These discussions digressed far from the intended scripts but opened up spaces for new insights and directions, and even for new methods. Much as the spontaneous metaphor creation led to a new method that became a staple for the remaining projects, so too did the anthropology briefs become a new tool.

In many respects, the lab activities seemed to be governed by principles of “adhocracy” in which seemingly contingent and spontaneous events generated new data, insights, and practices (Dunn 2012). Especially as we worked through the ideation and co-creation activities, the scripted portions of our work frequently gave way to improvisational activities as we moved quickly and fluidly between roles, materials, and goals. Above all, this flexibility became a form of performance that required us to deploy skills of improvisation and persuasion.

What was especially noteworthy about these interactions was the constant negotiation of spontaneity against structure, and the need to produce business-appropriate insights against an anthropological commitment to recognize and work with messy data. At different moments, we found ourselves working together and working against one another. But in those interactions, there emerged intriguing possibilities and impossibilities, some anticipated and others not.

Eliciting possibility

Possibility and impossibility are not about design concepts and use fit alone, but rather how the puzzle of multiple research streams, organizations, leaders, and sites can be incorporated into meaningful dialogue. In Russia, the research team was asked to absorb the extensive research streams of Zmet and semiotic research. Slide “decks” of 150 slides were presented to us, with a quick query “Can you join the semiotic download?” often unaccompanied by any further elaboration of what the purpose was meant to be. However, once asked to plan for this type of research integration, Brendon developed a format of activity that connected the representations, the people, and the research themes. When the Zmet team arrived in to the project room in Brazil, rather than rely upon an extended presentation about their findings, we asked the team to locate their research findings on our material on the walls. They then presented their findings through the examples they found on the walls. When we were creating themes, we made mini printouts of the Zmet and other research PowerPoint slides, and asked the teams to populate the themes with their own material.

As the expert consultant on the region and topic, Melissa was pulled into conversations to make sense of and explain confusing data through insights about the cultural context. Initially those moments occurred when members of the research team were working through data, but they became more frequent during the “share out” exercises at the end of sessions. One of her roles became that of pulling together disparate ideas and reframing them into coherent narratives, often taking the creative metaphors, such as those that Brendon designed, and fleshing them out with ethnographic insights. The materials Melissa worked with ranged from storyboards, Post-It notes, fragments of scribbled data, and remembered conversations. Melissa did not so much

retell vignettes as she provided a “back story” in terms of historical context, cultural significance, and connection to larger theoretical issues. Brendon, on the other hand, sought out Melissa at key moments to curtail over simplifications or cases of imposing strong frames on local behavior, in ways that his knowledge of Russia, his use of theory or his position as organizer did not allow.

The “off the cuff” nature of these narrations highlighted the precarious and indeterminacy of the project, especially as Melissa was sometimes asked to make a presentation without warning for a video camera or for a corporate executive who dropped in for a visit. As Melissa had not expected to fulfill this role, she did not have prior training or any notion of what to do. Yet in many ways these encounters resembled her experiences in the classroom. When teaching, she is always prepared for any kind of question or comment, no matter how vague, unclear, or off topic. As a teacher, her job is to take what students throw at her, rework it, reinterpret it,neaten it up, and return it to them in an accessible and authoritative way. Thus without realizing it during these lab moments, she automatically went into “professor mode,” which enabled her to respond to high-ranking corporate executives without feeling flustered or constrained to follow things their way.

At the same time, Melissa’s background as an academic researcher and teacher was a hindrance, both ethically and practically. Because her commitment was first and foremost to the research subjects, it was at times difficult to “give up” on the ideas and experiences of the subjects or to homogenize and sanitize their perspectives into a neat package for a sound bite. She also initially found the very different time frame challenging, as the need to work through materials in a highly compressed time period seemed to violate the integrity of the data. Yet the different temporal mode seemed (to Melissa at least) to be productive for Brendon, with his interest in capturing the dynamic nature of people’s experiences and finding ways to represent in their collaborative and complex forms.

Within the precarious, indeterminate, and always fluid nature of the lab encounters, we found ourselves forging an intriguing partnership that allowed us cooperatively to open up additional possibilities. Even when our starting points and reference points were vastly different (especially since Melissa had never worked in a corporate environment before and was not responsible for

an entire team, and Brendon was pushed to the center of an overwhelming organizational task with countless surprises), we found ourselves intuitively anticipating the other's ideas and language and, perhaps more importantly, engaging with one another outside the scripted roles assigned to us. There was something about our shared anthropological training – the shared language, intellectual genealogies, and approaches – that enabled us to translate disparate materials, ideas, and corporate expectations into a working milieu. The lab was an intersubjective space, or as Jackson would put it a state of being that exists “between one and one another” (2012) marked by the interplay between the self and the other, between acting and being acted upon. But at the same time it was a space marked by indeterminacy in the sense described by Friedrich (1986) as “the processes by which individuals integrate knowledge, perceptions, and emotions in some creative way … in order that they may enter into new mental states or new relations with their milieus.” In other words, as much as the lab space was a scripted, overdetermined space, it was also an immensely dynamic state of being - a place of great opportunity.

This dynamic state of being produced possibilities, especially open-ended, forward-moving insights. It also required new tools and techniques for apprehending data and insights on the move. Because the methods and tools devised by the other “expert agencies” were geared at generating quantitative interpretations that could be easily reproduced, replicated, and proven, they were not necessarily amenable to the more dynamic “on the fly” nature that was the reality of the project. Every time a new stakeholder entered the project, the data and insights could shift, thus threatening the stability of quantitative-based models. Only the anthropological approaches were inherently flexible and able to accommodate change.

Implications and further thoughts

What, then, can we take away from this project, our shared work, and our respective experiences? What might this type of collaborative partnership reveal or inspire for future ethnographic work in both corporate and academic settings? As we are still thinking through these possibilities, this section is not meant to be exhaustive but rather an initial set of thoughts.

First, our experiences with this project highlighted the inherently translational aspects of this type of collaborative ethnography. In every instance and at every moment, we were both translating across languages, concepts, methods, data, modes of representation, and professional standing. We each brought our own respective languages and expertise – terminological, representational, ethical – but through a shared sense of the ethnographic project, including both what ethnographic work has been in the past and what its potential might be, we were able to engage one another in a dialectic in which through negotiation we reached a shared understanding (Bakhtin 1981, Habermas 1984). From that shared understanding we were able to move forward together as partners who, to a certain degree, were able to anticipate the other's next steps or were able to make sense of those next steps and quickly align with them and support them. One of Herald's working phrases was instructive for this: rather than framing his critiques of data or approaches as differences of opinion, Herald repeatedly began his comments, suggestions, and absolute directives with the phrase “To build on that.” This sense of adding to is also evident in the improvisational acting game of building a story with “Yes and.” In many ways, the two of us were engaged in an improv dynamic of taking another's work and moving it forward.

That shared understanding and cooperative dynamic was only possible because of a shared trust that we had forged. Thus a second insight is that trust building, both implicit and explicit, is essential to this kind of work. Yet that kind of trust is not always possible or even predictable. Certainly the critical imperative within academic work can easily lend itself to disruptive and preventative modes of scholarship, rather than more productive ethos of cooperation. In many ways we were fortunate that we were able to forge quickly a harmonious relationship so that even when we did not anticipate the other's next moves or, more importantly, when we disagreed, we were able to continue working together without impeding the dynamic. In that respect, the design orientation of the project was essential because it required us to put the needs of the group and the larger project ahead of our own personal interests. It became clear that not everyone in our larger project was capable of doing this. In fact, the outside experts from the Z-met, semiotics, and emotional engineering were much more wedded to their ideas and refused to budge, even when other participants and stakeholders were skeptical or provided data to refute

their claims. In fact, the semiotics group was eliminated from future projects, largely because they could not respond to the dynamic nature of the data and interpretations.

Third, the materiality of the project, both in terms of the intended outcomes of the project and in terms of how the data and interpretations were documented and represented through practice-based methods and models of presentation, was likely enhanced by the fact that we were both trained in different forms of practice theory. Although we came at practice theory from different orientations – one a more theoretical use of practice theory, the other a more applied engagement – we shared a common frame of reference to think about how culture, human dispositions, materiality, and activity were related as ways of being in the world and knowing the world. At the same time, we were each able to draw on our experiences in different ways to play our very different roles, albeit, in relation to one another.

Fourth, our collaborative work was enhanced by our different roles and positions as “experts” in the process. We could each draw on our respective assignments and the expectations played on us in different ways – Brendon as a team leader with oversight over many of the pieces and a desire to introduce and explore new forms and formats of collaborative production, Melissa as a topical expert who could be drawn into different conversations and streams of work as needed. Together, we could move around the various rooms and constituencies and use our positions to speak on issues with authority. Again, the particular professional rapport we established was crucial because we each worked to bolster one another, not compete with or minimize the other’s contributions.

Collectively, these experiences highlight the extent to which anthropology as a method and repository of knowledge is fruitful for corporate-based research, not just in terms of providing a useful framework for rethinking culture and cultural processes, but also in terms of modeling a type of research and interpretation that is oriented to emergent and dynamic streams of data. Anthropology itself is a contingent exercise that is always in the mode of navigating difference, contradiction, and the unexpected. In addition, the scalar orientation of anthropology allows for possibilities to navigate and contextualize multiple layers of meaning, from the macroscopic to the microscopic, in order to identify and pull out cultural patterns that recur at multiple levels.

At the same time, these experiences provide opportunities for rethinking academic anthropology. On the one hand, this sort of cooperative engagement is an excellent model for collaborative research and interpretation, especially to encourage work that is more oriented to partnership rather than independent researchers working alongside one another on a shared project. It also allows for new ways of devising methods on the fly in response to changing circumstances, a useful skill for any fieldworking anthropologist. On the other hand, the dynamic nature of this project, as well as the need to communicate data, concepts, and interpretations in material form, is instructive for devising innovative pedagogies that take students out of a traditional lecturing-passive listening model and into a more active engagement with materials.

Ultimately, these experiences suggest ways in which the constraints of our respective professional fields, and that of the corporate environment in which we worked, can be productively turned into possibilities. It is finding ways to be comfortable with, and even creative with limits and unknowns.

Bibliography

- Bakhtin, M.M. 1981. *The Dialogic Imagination: Four Essays*. Ed., Michael Holquist, Trans, Caryl Emerson and Michael Holquist. Austin: University of Texas Press.
- Bourgois, Philippe. 2009. *Righteous Dopefiend*. Berkeley: University of California Press.
- Clifford, James. 1997. *Routes: Travel and Translation in the Late Twentieth Century*. Cambridge, MA: Harvard University Press.
- Dunn, Elizabeth Cullen. 2012. "The Chaos of Humanitarian Aid: Adhocracy in the Republic of Georgia." *Humanity* 3(1): 1-23.
- Gatt, C & Ingold, T. 2013. From description to correspondence: Anthropology in real time. In *Design Anthropology: Theory and Practice*. London & New York: Bloomsbury Publishing, pp. 139–158.
- Geertz, Clifford. 1977. The Interpretation of Cultures. Basic Books.
- Habermas, Jurgen. 1984. *The Theory of Communicative Action*. Trans., Thomas McCarthy. Boston: Beacon Press.

Holmes, Seth. 2013. *Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States*. Berkeley: University of California Press.

Jackson, Michael. 2012. *Between One and One Another*. Berkeley: University of California Press.

Karasti, H., 2001. Bridging Work Practice and System Design: Integrating Systemic Analysis, Appreciative Intervention and Practitioner Participation. *Computer Supported Cooperative Work*, 10, pp.211–246.

Kjærsgaard, M., 2011. *Between the Actual and the Potential. The challenges of design anthropology*. PhD dissertation. Aarhus, Denmark: Aarhus University.

Kleinman, Arthur. 1997. “Everything that Really Matters: Social Suffering, Subjectivity, and the Remaking of Human Experience in a Disordering World.” *The Harvard Theological Review* 90(3): 315-35.

Mann, Anna, and Annemarie Mol, Priya Satalkar, Amalinda Savirani, Nasima Selim, Malini Sur, and Emily Yates-Doerr. 2011. “Mixing Methods, Tasting Fingers: Notes on an Ethnographic Experiment.” *HAU: Journal of Ethnographic Theory* 1(1): 221-243.

Nafus, Dawn & anderson, K., 2009. Writing on Walls: The materiality of social memory in corporate research. In *Ethnography and the Corporate Encounter*. New York: Berghahn Books.
Rosaldo, Renato. 1993. *Culture & Truth: The Remaking of Social Analysis*. Boston: Beacon Press.

Tsing, Anna Lowenhaupt. 2004. *Friction: An Ethnography of Global Connection*. Princeton, NJ: Princeton University Press.

Turner, V., 1982. From Ritual to Theatre: Human Seriousness of Play. In New York: PAJ Publisher.

Design Laboratories as Everyday Theater: Encountering the Possible

Thomas Binder
Royal Academy of Fine Arts, School of Design
Copenhagen , Denmark
tbi@kadk.dk

In this presentation I will try to get hold of some very special moments that have become almost an obsession for me in my work with what my colleagues and I call the design laboratory. These very special moments are not some that we can easily stage and though we have experienced them again and again they always come as a surprise and with a deep feeling of fulfillment. One of such moments arrived in the middle of an intense design research project where we were a group of colleagues working for the Sony Ericsson company to educate their UX team in codesign approaches to user research. Together with a small network of mobile phone users we had explored the everyday transition going to work and returning back home. We had played design games with visual materials gathered through our participation in these transitions and together we had enacted a small series of fictional video stories about how we imagined mobile phones in the future. At the end of one of the first workshops our small research group was gathering and one of my colleagues very nicely summed up one of those moments I am talking about, by saying that now it is like the lid has come off and everything is possible. What he pointed to was not (solely) a sense of alignment with the company or our user collaborators, nor was it (just) a feeling of knowing how to bring the project successfully to an end. It was a more specific experience of being at a point where the design and use of possible future mobile phones was no longer a blind search for openings in the company product strategy (or for that sake in the mundaneness of established user practices), but instead a completely open and contingent landscape unfolding in front of us. It is such moments of encountering the possible that I will address in the following, and though the remark of my colleague may well be seen as a reflexive thought on what had just passed, I will try to show that these moments are not moments of reflection or “breakdown” but rather moments of flow and becoming that bring different worlds

within reach. I will however start with a brief introduction to the design research practice that we call the design laboratory.

From participatory third space to design laboratory

As hinted at above I have a background in interaction design with strong roots in the tradition of participatory design. Working for a long time with information technologies, such approaches as prototyping, designing through the interface and bringing together ethnographically inspired exploration of contexts of use with committed involvement of future users are part of a heritage which is still vivid and productive in both design and design research. Where participatory design originally has been concerned with participatory processes as a means towards arriving at designs that more adequately respond to the aspirations and interests of those affected, the participatory design tradition has also provided a rich repertoire of tools and techniques for staging collaborative encounters between otherwise disparate communities (Brandt et al, 2013). From very early on those encounters have been foregrounded as a space of mutual learning (Lanzara, 1991), a coming together of language games (Ehn, 1988) or a third space (Müller & Druin, 2007) that whatever the specific conceptualization was seen as much more than a negotiation of interests between different stakeholders. In the work that I have been part it is precisely this third space that we have been interested in. Unlike researchers like Bødker et al. (2004) who have brought participatory approaches to systems design or Björgvinsson et. al (2010) who have explored the role of things or infrastructures in participatory community development we have not committed to a particular genre of design or a specific topical field. Instead we have made the staging of collaborative encounters and the formation of third spaces where everyday experiences are re-constructed through design interventions the centerpiece of our research. We have called this research practice design laboratories with a dual reference both to the Deweyian approach to open-ended experimentation that we have appropriated mainly through the work of Donald Schön (1987) and to the work of STS-scholars like Callon (2004) and Latour (2005) who have convincingly disclosed how the power of the (scientific) laboratory is inherently associated to its porosity of networked relationships between people and things. The design laboratory is not confined to a particular place or a particular event but is rather to be seen as a social space or a landscape of agency that

unfolds through a series of collaborative engagements. When we started to talk about the design laboratory it was often staged through a number of linked workshops where different people came together to explore overlapping issues through iterative cycles of staging, evoking and enacting what we called possible futures (Binder, 2007). Later we extended and expanded our repertoire of engagements in time and space to let design laboratories unfold in compressed formats like the one-day fieldshop (Halse in Halse et al. 2010) and in long-term collaborations similar to living labs (Brandt et al, 2012). In this move we also went further in embracing perspectives of emergence and performativity of network agency as we conceptually and practically loosened our emphasis on discrete events and instead sought to accommodate the frictions of collaboration (Tsing, 2005) among only partly overlapping networks (Binder et al. 2011). With this laboratory we have taken part in as diverse project themes as the configurability of distributed process control, employee involvement in workplace design, citizen participation in sustainable waste handling, horizontal service models for enhancing social networks among senior citizens and co-production of cultural events initiated by community centers.

What makes the design laboratory coherent as a design research practice is a particular set of strategies and instrumentations that, with a reference to Rheinberger (1994) creates an experimental system that is able to produce difference without deteriorating. In Halse et al. (2010) we name the strategies: collaborative inquiry, generative prototyping and sustained participation and we suggest that the design laboratory is rehearsing the future. The implicit references to the world of theatre and performance studies become even more pronounced in the instrumentation of the laboratory where we from early on were heavily informed by the tradition of forum theatre (Brandt and Grunnet, 2000). Though alternating moves of estrangement and familiarization we intermingle the re-enactment of everyday practices with a probing for glitches and breeches through engagements with evocative props. The formats and media we employ range from video documentary, to puppet theatre and concept design games (Brandt et al. 2008) and though *we* here in a narrow sense can be seen as the design research group providing these formats and media, the ‘we’ of the design laboratory is always emerging through the collaborative encounter between researchers and the people who choose to join them in the lab. These are off course only coarse pointers to a particular research practice, but perhaps sufficient to indicate

both the genealogy of our approach and my concern for coming to terms with the laboratory encounter also as encompassing moments of deliberation and change. In recent years we have seen important criticism raised towards the participatory design tradition in general and also more specifically towards design research approaches like the design laboratory for over-emphasizing the participatory event at the expense of all the work of alignment and mobilization of networks that goes into establishing such events (Pedersen, 2007, Clark, 2008). Similarly we have seen contributions that productively complicate the unfolding of collaboration and the emergence of outcomes in participatory processes in ways that point towards de-emphasizing the stagedness of such processes (see e.g. Kjærsgaard, 2011). I will not in any way dispute the relevance of these contributions, as they convincingly argue against any attempts to perceive of participatory encounters as strategically manageable modes of inquiry. Nevertheless I will in the following return to the discrete moments or episodes that in my view more often than not stand out in these encounters as the points of bifurcation through which the possible emanates.

Enacting a different (every-) day at the plant

Let me now move from the high flying overview to re-visit a very specific encounter with a group of industrial process operators that I and my colleagues worked with some years ago. As a research group we were interested in approaches to process control and instrumentation that let process operators configure their view of and interactions with operating process installations in ways that augmented their skillful practices of keeping the plant running (Nilsson et al. 2000). We also had a wider interest in expanding the interaction design for ubiquitous computing to encompass devices that transcended the separation between tools and automated systems. With this interest we negotiated a collaboration with a group of process operators at a local waste water plants, who agreed to team up with us for a number of visits and workshops. At the first visit I teamed up with Rolf a middle aged process operator, who received me with a friendly but also somewhat reluctant attitude to the project I wanted to involve him in. We had agreed to be together for half a day and I persuaded him to have my video camera turned on all the time during my visit. At first he showed me the plant control room and his office and I did not have much to ask. The environment and what he did in it was overwhelming and I hadn't come to learn about

neither his background, the central control room installation nor the community life in the office corridor. Eventually he went on his daily round and here something started to happen. He touched pumps, he listened to flow of tubes, he noted the smell of the waste water bassins and quit often he was also on the intercom to discuss or exchange information with his fellow operators. My questions started to come more fluently and with the directed camera as a very visible indication of my interests, Rolf began to tell stories about what he did, that posed him as the competent process operator in the field that I wanted to get aquainted to. Sometimes I got distracted and sometimes he got impatient and through these imperfections we soon found a mode of conversation that ran fluently onto my video recorder. After the visit I and my colleagues who have followed other process operators edited our video material into condensed accounts of our visits , that we brought back for discussion and confirmation. The tone of our collaboration loosened up and while Rolf maintained his authoritative voice when the camera was on he also started joking and telling stories of what else process operator work was about.

The next turn to be taken was for us as researchers to bring in our ideas for a different kind of portable process control. At an afternoon workshop we brought very coarse card board mock ups of small, medium and large screens and devices that we suggested to be used to ‘dress up’ the plant. We introduced the mock ups by showing more closely editied videos from the earlier visits where we higlighted what we found to be salient aspects of operator work and we ended our presentation by asking what kind of use they could think of for our card board devices. There was very little discussion. The atmosphere was friendly but also somehow loaded with a sense of the researchers being at an exam that the process operators had not yet decided if they had passed. I asked if Rolf would be willing to take us on a tour where he could show us what the devices could do, and as he agreed I had very little idea of where he would take us. We started walking to some of the places where he had taken me before and as we walked we started talking again as on the first visit. The camera was on and as we went along Rolf showed where he may put the different screens and how he would use the device. There was no script but a probing and groping into what the things could do that was improvised as we took clues from the environment. We ended the day by agreeing that I should come back some days later to shoot a video story of the card board in use.

The day of the shooting became again one of these moments where “the lid went off”. I came with a colleague and a student and very soon the student was taken on the same tour as I was on at my first visit. Rolf moved around with the card board mock ups and willingly explained to the student how he was leaving messages for fellow operators, adjusting a faulty meter and setting up a monitoring unit for a part of the plant that were malfunctioning. Rolf had his authoritative voice that I already knew and he had no hesistance detailing the operation of the fictous devices or elaborating on an imagined collaboration with his colleagues. We later understood that Rolf had discussed at quit some length with his colleagues how to use our card board products, but in the situation there was nothing that seamed scripted or make-belief apart from the little blushing of Rolfs cheeks and the sudden change of voice as he turned to us at the end of the walk and asked: “was it ok?”

For us as researchers it was more than ok. The relay had shifted and we had just witnessed Rolf enacting the story of distributed plant control that we had only vaguely envisioned. When the video of this tour was later screened for the entire group of process operators we felt that they as well as we looked into a slighlty altered world of process control that we would be able to do over and over again. I still only know very little about Rolf. I never interviewed him or followed up on the leads he gave me to how the work of process operators is also often long and boring hours in front of a computer screen where not much is happening. But for many years I have shown the video of Rolf to students, process operators and fellow researchers and still today more than 15 years later it seems to convey a world of working with computing in industry that is both still a vision and a very present realm of the possible for the spectator to step into.

Playing around in the office

Let me turn now to another example of how the rigidity of the well known everyday opens up towards a world of the possible not through distanced reflection or creative leaps “out of the box” but through playful explorations of the multiplicity of practices encountered in all the networks where people come together. We are in a project funded by the national foundation for the research of working life, where we together with other colleagues are commisioned to propose a methodology for employee involvement in office design (Binder and Lundsgaard, 2014). As a case we have gotten the opportunity to work with employees and management in one of the offices

of a municipality. Our research group has already visited the office several times and we have met most employees in the office at an introductory meeting. For this meeting we prepared post card size photos from the office that we had taken at our first walk through, and we prompted our first encounter with the office by asking people at the meeting to collect what they found to be interesting postcards and to talk to each other about why they thought we as researchers had taken those particular pictures. This made a good start for our collaboration and at the episode that I will go a bit deeper into we are all well aquainted with each other. This time it is not in a direct confrontation with the office but back in our research quaters that my colleague Christina and I experience an opening into a world of the possible. We have been processing a number of workbooks that the people at the office have filled out in pairs, providing us with visualization of how they move about following different paths and different rythms over the day as over the week and over the year. In the work book is also small portraits that the pairs have made of each other, using photos of typical places and typical activities supplemented with drawings and hand written text. As we go through the material we are struck by the plentitude of stories evoked by the photos and we also see how the office forms different landscapes spanning from the calm back office of the the municipal officers servicing the politicians to the intensity of preparing major sports events for the almost call center like group of office workers who are in direct contact with the citizens of the city. But the episode I want to get to is further down the line. We are preparing two design games, that will be played at the following workshop. One of the games is called the landscape game. It offers a small selection of game boards marked with various abstracted topological patterns (a series of circles, parallel lines, overlapping eliptical patterns), that the workshop participants can choose among when exploring their 'dream office'. On the game board the participants will be encouraged to take turns with placing and naming locations and activities as they envision them best accomodated in this office. Like before in other projects Christina and I try out the landscape game to see if we can get the game ot work for us. It certainly does. We play for several hours, becoming more and more not role players simulating the imagined role play of our collaborators and not researchers and game designers trying out the mechanics of our game. We become adventurers of the game universe that presents itself to us increasingly real. What we here experience first hand appears to us as emerging similarly among the

group of office employees playing the game a few days later. The dream office could be like this, but it could also be like this and in the fluidity of game moves and repeated replay it is as if a mastery of the work space is played out in a way that makes it hard to distinguish if what emerge on the game boards is how it is or how we would like it to be. This mastering of an emerging world of the possible is perhaps even more pronounced in the other design game played at the same workshop. In this game, called the office scrabble the same photos of people and locations in the office is used to tell important stories about office life based on series of at least three photos lined up in a row on the game board. The stories do not have to be true in any strict sense. The available photos both set limits and call forward new stories when the turn is passed to the next participant, who has to make her story cross the first like in the well known scrabble game. Once again it is not the individual proposals brought forward by each participant that matters the most, but the growing reliance among the game players on their capacity to improvise and weave a string of narratives that may (re-) enact the office landscapes of the everyday in still new formations.

Similarly to the process operators and researchers in my first example the office workers and our research group in the design game inhabit and dwell in emergent landscapes of design. The experience may very well be very different between acting out a possible reality in scale 1:1 and moving indexical photos from a work context around on a game board but across these differences I see again the possible stand out not as choices between options nor as agency to be either taken on or not taken on, but as contingent landscapes that can be travelled and transversed with grace and ease.

But it is all already here!

My last example comes from a series of encounters that my colleagues and I had with a loose network of senior citizens and municipal officers concerned with how the municipality may support community building around mundane everyday activities like shopping and out door work out. In our research group we got introduced to different community centers where many seniors were active. Here we met Ketty and the women she gathered with once a week to knit sweaters for poor children in Bela Rus. Part of our job in the project was to propose re-designs of social media and mobile technologies to make those technologies relevant and appealing for seniors for

getting together with old or new acquaintances (Foverskov and Binder, 2011). To recruit people for project workshops we had prepared a visual dialogue tool that invited miniature accounts of what we termed ‘a good day’ and the dialogue tool also exposed and invited commentary to our initial design ideas. Ketty and a number of her friends accepted our invitation to be part of three workshops, though she very persistently made it clear to us that ‘mobile phones was not something for her’. At the workshops we worked again with the staging and enactment of fictitious stories of how seniors may come together built implicitly or explicitly on top of the collected stories of ‘good days’. In mixed groups of researchers, seniors and municipal officers we produced doll scenarios about getting together, and the scenarios were immediately video recorded and screened to all participants towards the end of the workshop. Between workshops the research group visited some of the participating seniors to pursue ideas or contexts raised at the workshop. At the second workshop the researchers had prepared new doll scenarios that elaborated on what was produced at the previous workshop but now bringing in generic communication tools that allowed the user to address several separate networks of friends that she saw herself as part of. Again the scenarios were commented upon and reworked tentatively. Ketty was still skeptical when it came to mobile phones: “my children say I should get one, but I really don’t want to”, but despite this she grabbed the messenger, a large card board tube, and started to call her friend across the table to suggest an imagined trip to the local shopping mall. For the last workshop we prepared a 1:1 enactment of the polished scenarios, this time acted out in a forum theater format by the research group and the municipal officers with the seniors as the audience. Also this time there was a lot of commenting but towards the end of the session we believe that Ketty had one of those opening moments as she declared to the group that “ all this is already there!”

Actuals and the necessity of being two places at once

The moments I have tried to bring you close to in this paper are not moments we can plan or control. They grow out of the design anthropological encounter as a mutual experience of becoming at the same time knowledgeable and in possession of agency to enter emerging landscapes (Binder et al, 2011). This experience is not as suggested by for example Bødker (2011) a breakdown in the flow of the everyday that sets us off from acting in the world. Neither is it a moment of setting into motion a journey

towards accomplishing a goal (though this may very well come later). Instead I see these moments as what Schechner has called actuals (Schechner, 2011) – the outcome of staged encounters where the subjunctive “what if” touches upon the real. Actuals are performing the possible as a potentiality that becomes almost tangibly present. In the design laboratory it is this actualization of the movement of the present that is at the same time exposed and held back as an experience of difference. It is not action neither as a cause nor an effect of networks but a moment of becoming that paradoxically is at the same time both imagined and real. Eugenio Barba (1994) talks about how the professional actor on stage must always be in two places, on the moon and in his hometown. Schechner similarly talks about how we experience and perform the actual not as *me* and not as *not-me* but as *not-not-me*. It is precisely when we happen to encounter this extended presence between several here-and-now's that knowledge is produced in the design laboratory.

Bibliography

Barba, E., FALLESEN, A., & LARSEN, N. (1994). En kano af papir. Gråsten: Forlaget Drama.

Binder, Thomas (2007), Why Design:Labs, paper presented at the 2'nd Nordic Design Research Conference, Konstfack, Stockholm

Binder, Thomas, Brandt, Eva, Halse, Joachim Foverskov, Maria, Olander, Sissel, Yndigegn, Signe (2011), Living the (codesign) Lab, Proceedings of the Nordic Design Research Conference (NORDES), Helsinki

Binder, Thomas, De Michelis, Giorgio Ehn, Pelle Jacucci, Giulio Linde, Per and Wagner, Ina (2011) Design Things, MIT Press

Björgvinsson, E., P. Ehn, and P-A. Hillgren. (2010) Participatory design and "democratizing innovation". In Proceedings of the 11th Biennial Participatory Design Conference (PDC '10)

Brandt, Eva Thomas Binder and Elizabeth B.-N Sanders, Tools and Techniques: Ways of Engaging Telling, Making and Enacting in Simonsen, Jesper and Toni Robertson (eds.) (2013) Routledge International Handbook of Participatory Design, Routledge, New York

Brandt, E., Fjerritslev Mortensen, P., Malmborg, L., Binder, T. & Sokoler, T. (eds.). (2012) SeniorInteraktion: Innovation gennem dialog. Det kongelige danske Kunstakademis Skoler for Arkitektur, Design og Konservering

Brandt, E., & Grunnet, C. (2000). Evoking the future: Drama and props in user centered design. In Proceedings of Participatory Design Conference (PDC 2000) (pp. 11-20)

Brandt, Eva Jörn Messeter, and Thomas Binder (2008). Formatting Design Dialogues – Games and Participation. Article in Binder T, Brandt E and Gregory J (guest editors) CoDesign. Volume 4, Number 1. Taylor and Francis.

Buur, Jacob, Thomas Binder and Eva Brandt (2000), Taking Video beyond 'Hard Data' in User Centred Design, paper presented at PDC 2000 conference in New York

Bødker, K., Kensing, F., & Simonsen, J. (2004). Participatory IT design: designing for business and workplace realities. MIT press.

Bødker, S. (2011, August). Use is everywhere and changing: analysis and design with the human-artifact model. In Proceedings of the 29th Annual European Conference on Cognitive Ergonomics (pp. 3-10). ACM

Callon, M. (2004). The role of hybrid communities and socio-technical arrangements in the participatory design. Journal of the center for information studies, 5(3), 3-10.

Clark, B. (2008) Design As Sociopolitical Navigation: A Performative Framework for Action-Oriented Design. Syddansk Universitet.

Ehn, P. (1988): Work oriented design of Computer Artifacts, Arbetslivscentrum, Stokholm

Foverskov, Maria and Binder Thomas (2011), SUPER DOTS: Making social media tangible for senior citizens, Proceedings of the DPPI conference, Milan

Halse, J., E. Brandt, B.Clark & T. Binder (eds.) (2010), Rehearsing the future, Danish Design School Press

Kjærsgaard, M. G. (2011). Between the Actual and the Potential: The Challenges of Design Anthropology: Ph. D. Dissertation. Department of Culture and Society, Aarhus University

Lanzara, G.F.(1991) Shifting stories: Learning from a Reflective Experiment in a Design Process, in The Reflective Turn - case studies in an on educational practice edited by Schön, D.A., Teachers College Press (p.285-320)

Latour, B. (2005). Reassembling the social-an introduction to actor-network-theory. Reassembling the Social-An Introduction to Actor-Network-Theory, by Bruno Latour, pp. 316. Foreword by Bruno Latour. Oxford University Press

Muller, M.J. and A. Druin Participatory design: The third space in HCI (revised). In J. Jacko and A. Sears (eds.) (2007), Handbook of HCI 2nd Edition. Mahwah NJ USA: Erlbaum.

Nilsson, Jörn, Tomas Sokoler, Thomas Binder, Nina Wetcke (2000), Beyond the Control Room, Mobile Devices for Spatially Distributed Interaction in Industrial Process Plants, paper, HUC 2000 conference, Bristol

Pedersen, J. (2007). Protocols of research and design (Doctoral dissertation, Ph. D. thesis. Copenhagen: IT University)

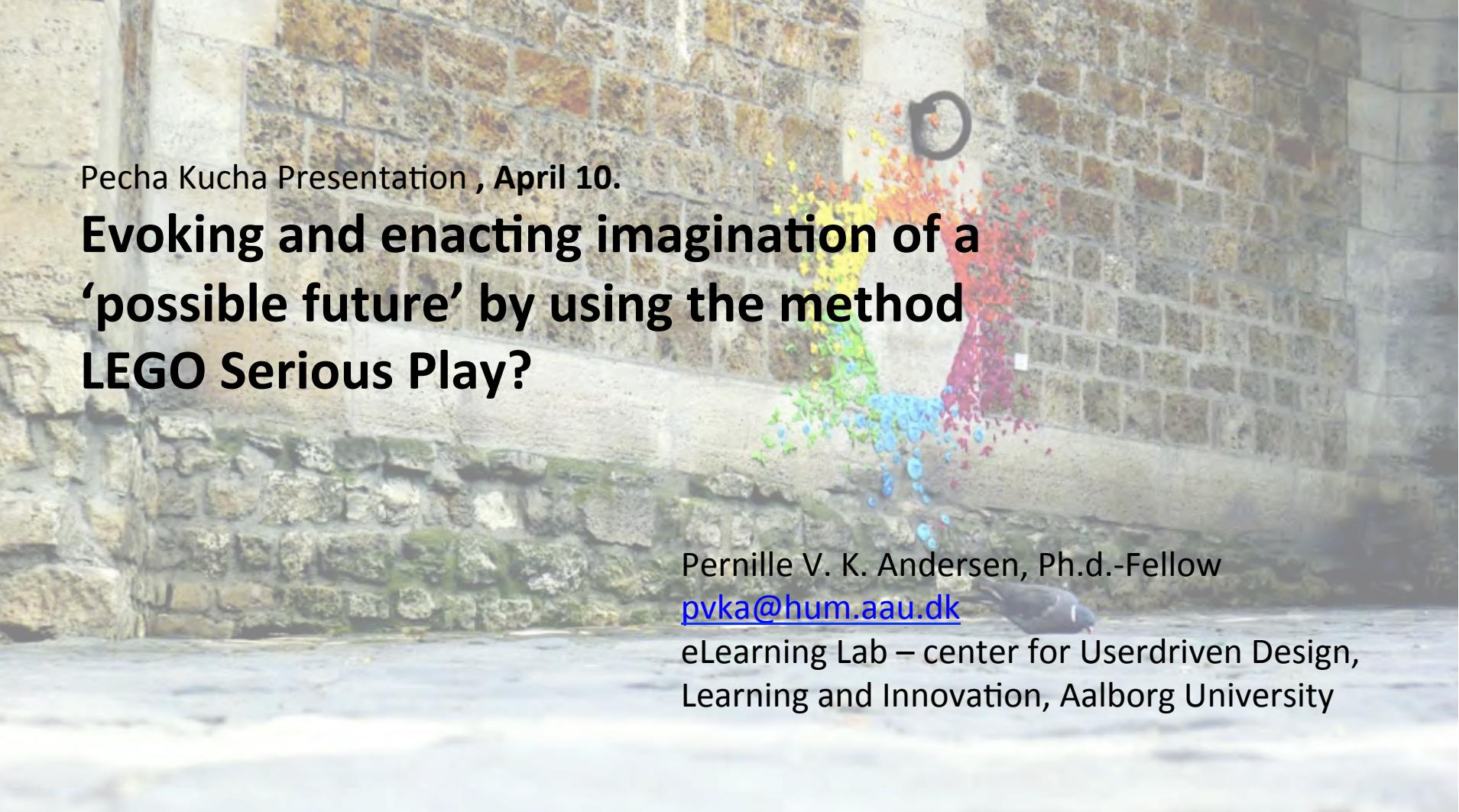
Rheinberger, H. J. (1994). Experimental systems: Historiality, narration, and deconstruction. *Science in Context*, 7(1), 65-81.

Schechner, R. (2011). Between theater and anthropology. University of Pennsylvania Press.

Schön, D. A. (1987). Educating the reflective practitioner (pp. 153-199). San Francisco: Jossey-Bass.

Tsing, A. L. (2005). Friction: An ethnography of global connection. Princeton University Press.

Turner, V. W. (1982). From ritual to theatre: The human seriousness of play (pp. 47-48). New York: Performing Arts Journal Publications.



Pecha Kucha Presentation , April 10.

Evoking and enacting imagination of a 'possible future' by using the method LEGO Serious Play?

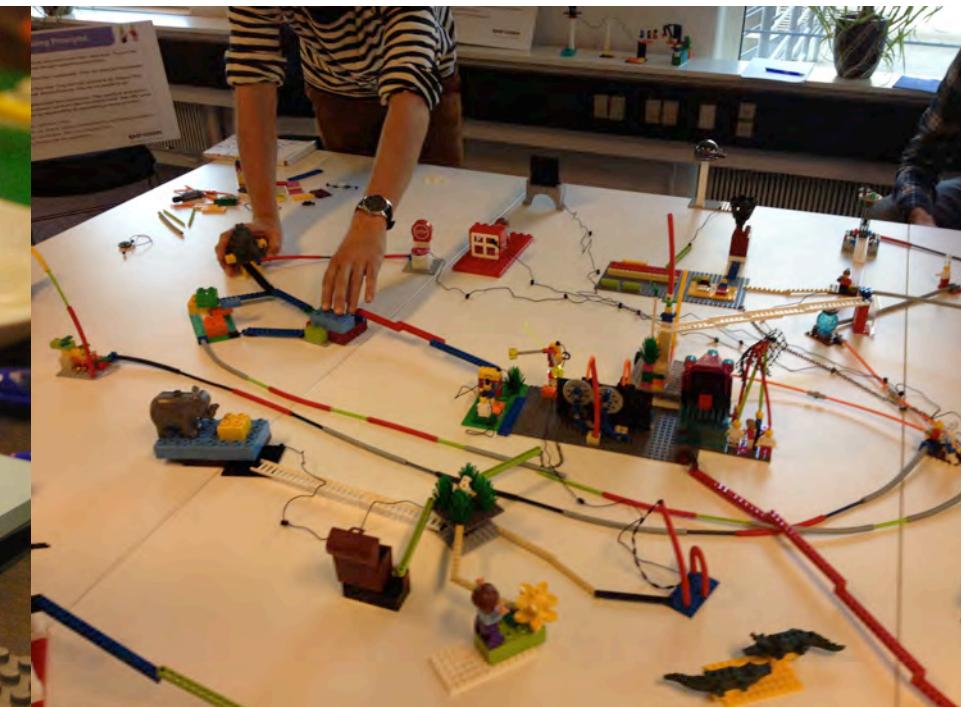
Pernille V. K. Andersen, Ph.d.-Fellow

pvka@hum.aau.dk

eLearning Lab – center for Userdriven Design,
Learning and Innovation, Aalborg University

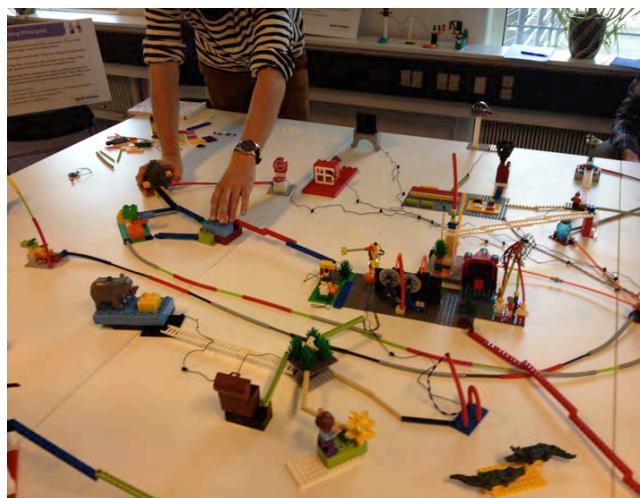
Enhancing imagery formation using LSP

- Can different imagery forms help bring quality to imagination of a possible future?
- At what level of abstraction do we need to work as articulation workers to enhance people's ability to form imagery and envision the possible?



The Lego Serious Play methodology (LSP)

A facilitating technique used to enhance thinking, knowledge-sharing, communication and problem solving within organisations, teams and for individuals.



Open source: www.seriousplay.com
or www.seriousplaypro.com

The four core steps

1. Pose the question

The challenge is posed

2. Construct

Individual building

3. Share

Presentation of individual story

4. Reflect

Questions are posed based on the LEGO construction and reflections are made in plenum.



The LEGO construction shows how research could be optimized

Imagination forms in LSP

Descriptive



Creative



Challenging



Allowing descriptions of
'what is'

For describing patterns and
observations from present
and past

Imagination forms in LSP

Descriptive



Creative



Challenging



Allowing descriptions of
'what is'

For describing patterns and
observations from present
and past

For evoking new
possibilities from
combination,
recombination and
transformation of things or
concepts

Imagination forms in LSP

Descriptive



Creative



Challenging



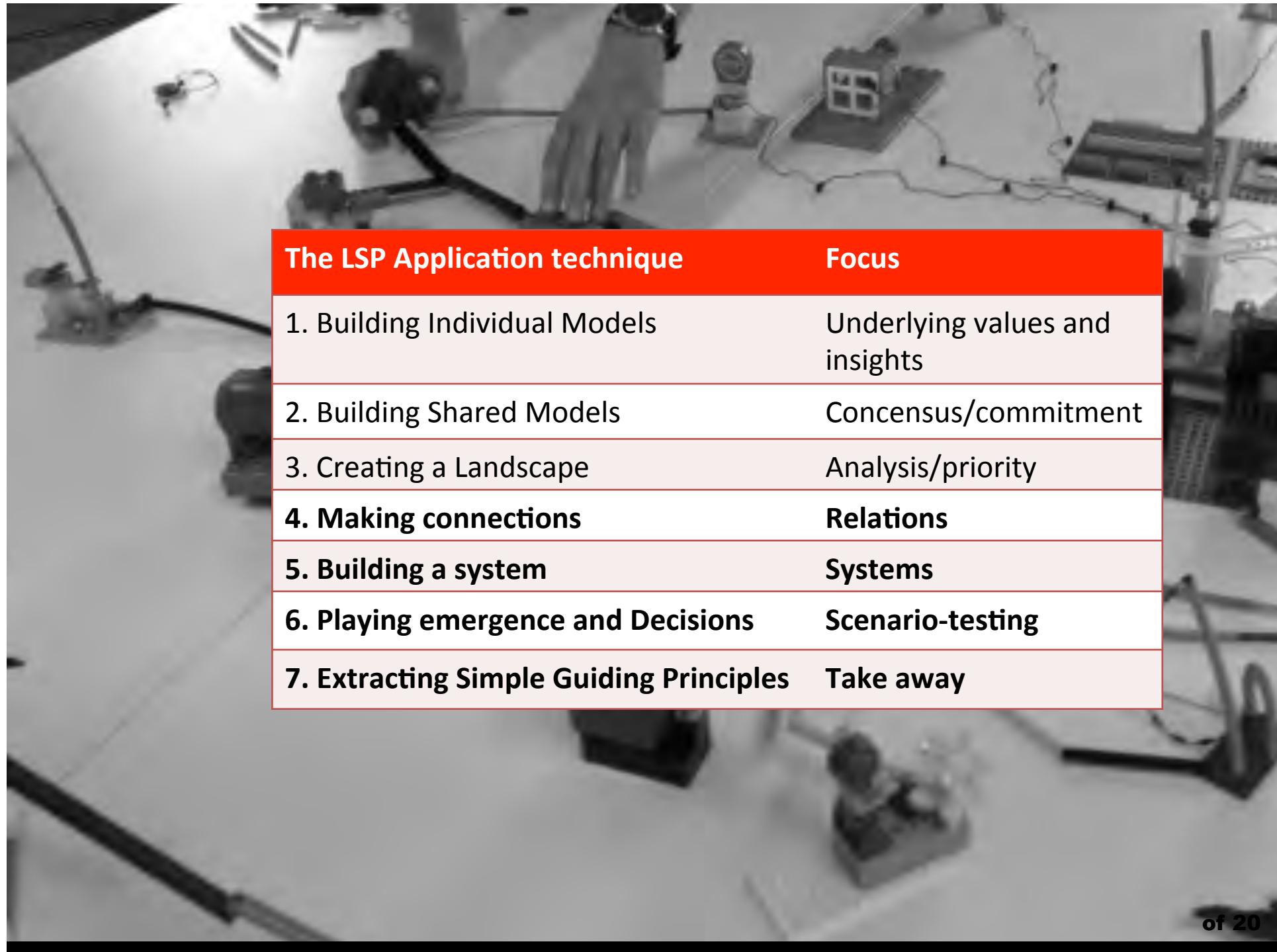
Allowing descriptions of
'what is'

For describing patterns and
observations from present
and past

For evoking new
possibilities from
combination,
recombination and
transformation of things or
concepts

For deconstructing,
negating, deframing,
contradicting, and
destroying ideas

The LSP Application technique	Focus
1. Building Individual Models	Underlying values and insights
2. Building Shared Models	Conensus/commitment
3. Creating a Landscape	Analysis/priority
4. Making connections	Relations
5. Building a system	Systems
6. Playing emergence and Decisions	Scenario-testing
7. Extracting Simple Guiding Principles	Take away



The LSP Application technique	Focus
1. Building Individual Models	Underlying values and insights
2. Building Shared Models	Conensus/commitment
3. Creating a Landscape	Analysis/priority
4. Making connections	Relations
5. Building a system	Systems
6. Playing emergence and Decisions	Scenario-testing
7. Extracting Simple Guiding Principles	Take away

Representational modes of knowing in LSP

Supporting metaphorical imagery formation

The LEGO constructions →
pictorial/visual knowing



Storytelling →
verbal/narrative knowing



LEGO bricks/figure →
haptic/kinaesthetic knowing



spatial relationships, colours,
textures, and symbolic
associations

linguistic metaphors and
story-making techniques

Participants actively
construct images

Enhancing metaphorical imagery formation through LSP



A future community of practice



Knowledge-sharing in the future

Metaphorical imagery



Future energy use



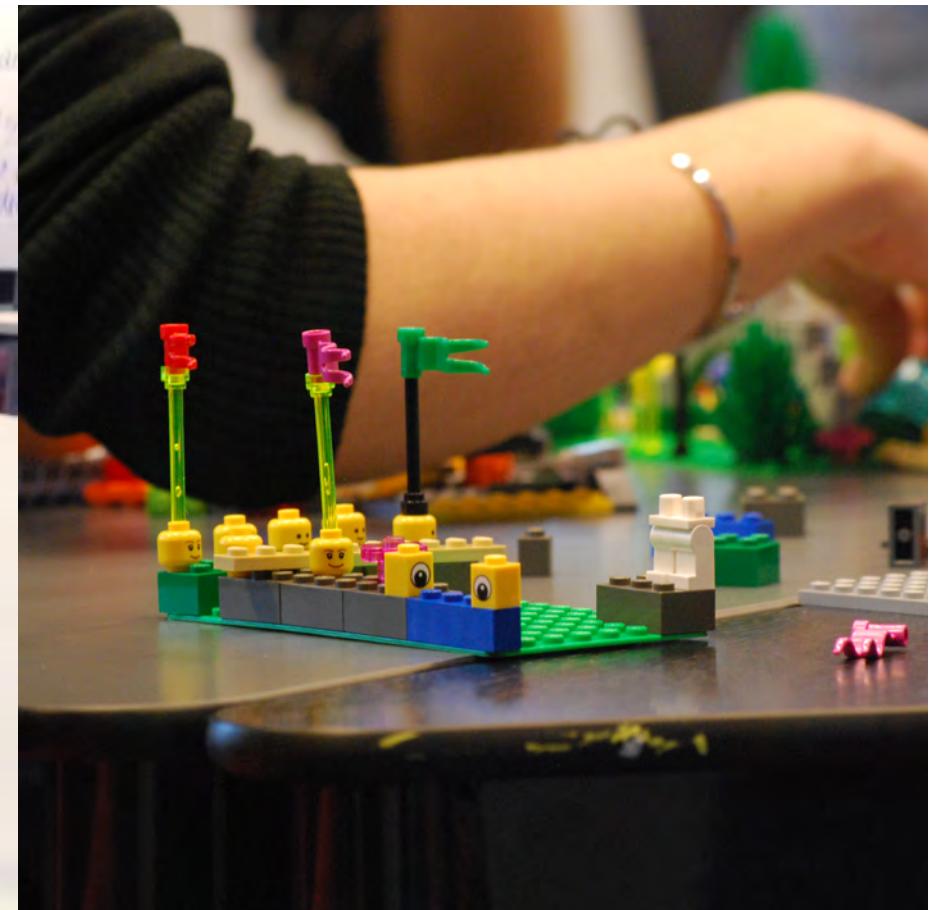
Making expert knowledge accessible

Metaphorical imagery

Thinking from the literal to the abstract moving freely on a different plane.



A new company concept



Third world water supply

Designing a future practice



“Reality is always more complex than the ways in which we can represent/communicate it – the idea using LSP is to make explicit this complexity” (LSP)

Designing a future practice



3. Creating a Landscape

4. Making connections

5. Building a system

6. Playing emergence and Decisions

“Reality is always more complex than the ways in which we can represent/communicate it – the idea using LSP is to make explicit this complexity” (LSP)

Designing a future practice



“Reality is always more complex than the ways in which we can represent/communicate it – the idea using LSP is to make explicit this complexity” (LSP)

Mediating articulation

What qualities makes a method/tool valuable in order to mediate articulation of visions of a possible future?



www.shutterstock.com · 103607756

What kind of abstraction, knowledge representation or imagination forms do we aim for?

- At what level can imagery formation help us to envision a possible future?
- What kind of abstraction, knowledge representation or imagination forms do we aim for using mediating tools?



Mediating values or mediating context awareness?

- Mediating articulation of values or mediating knowledge about context to envision a possible future?
- How do we bring quality to imagination of a possible future?



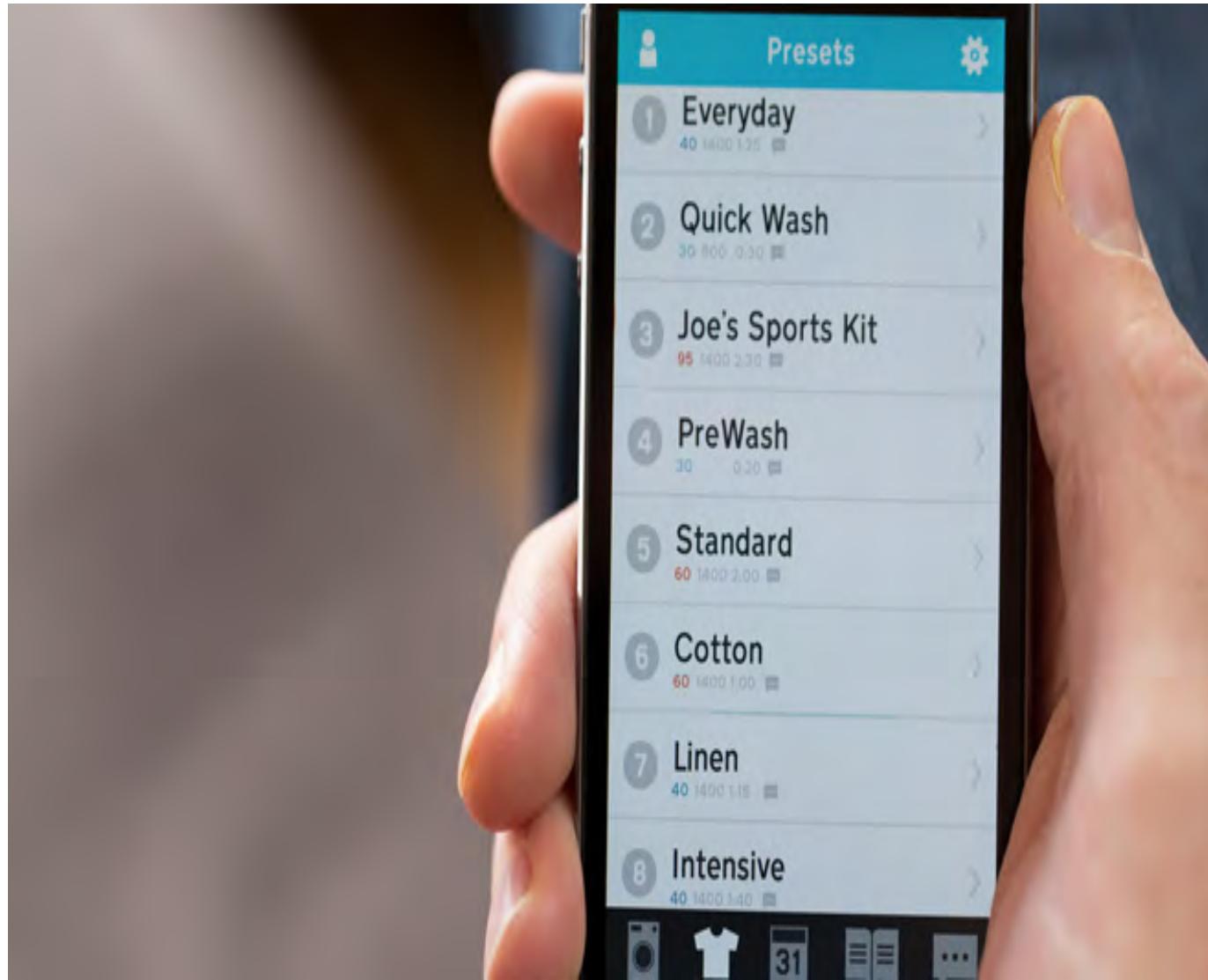


Human instruments, imagined returns

Siobhan Magee,
Mark Hartswood,
Martin De Jode,

Chris Speed, Eric Laurier,
Fionn Tynan-O'Mahony,
Andy Hudson-Smith





The first permanent
OXFAM shop
began trading here
in December 1947

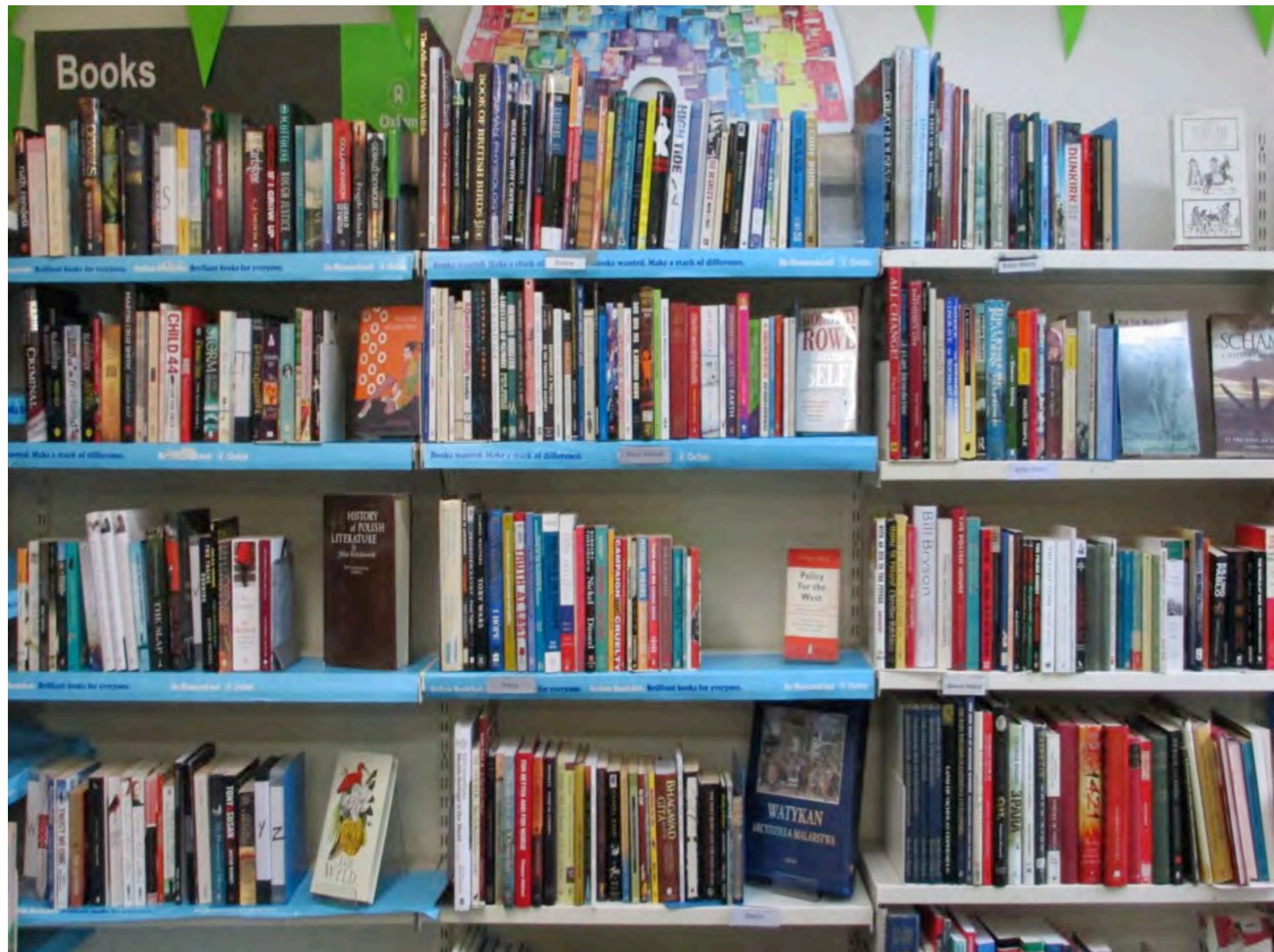


"I've become
more independent -
it's really, really
worthwhile."

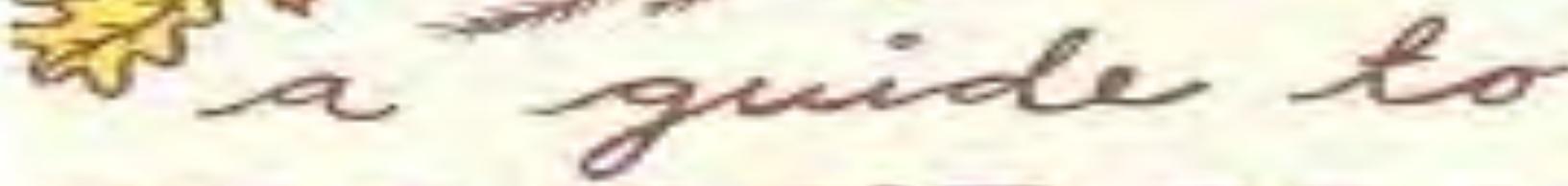
Erhan Hussein, 23,
Enfield Oxfam shop

Photo: Andy Holt/Oxfam









a guide to

HAGGLING

AT YARD SALES

without being a
JERK FACE







The image displays two side-by-side screenshots of the Amazon Student Trade-In program.

Screenshot 1: Home Screen

At the top, it says "amazon student". Below that is a green header bar with the text "Sell Your Stuff via Trade-in". Inside this bar is a search bar containing the placeholder "Search Amazon.com" and a barcode scanner icon labeled "Scan a Barcode".

How It Works:

- 1. Select Items**
Search for items to trade in. Your trade-in items must meet the product eligibility criteria.
- 2. Ship Items FREE**
Print a shipping label and packing slip, package your items, and ship them for FREE.
- 3. Get a Gift Card**

At the bottom are navigation icons for Home, Cart, Wish List, Trade-in, and More.

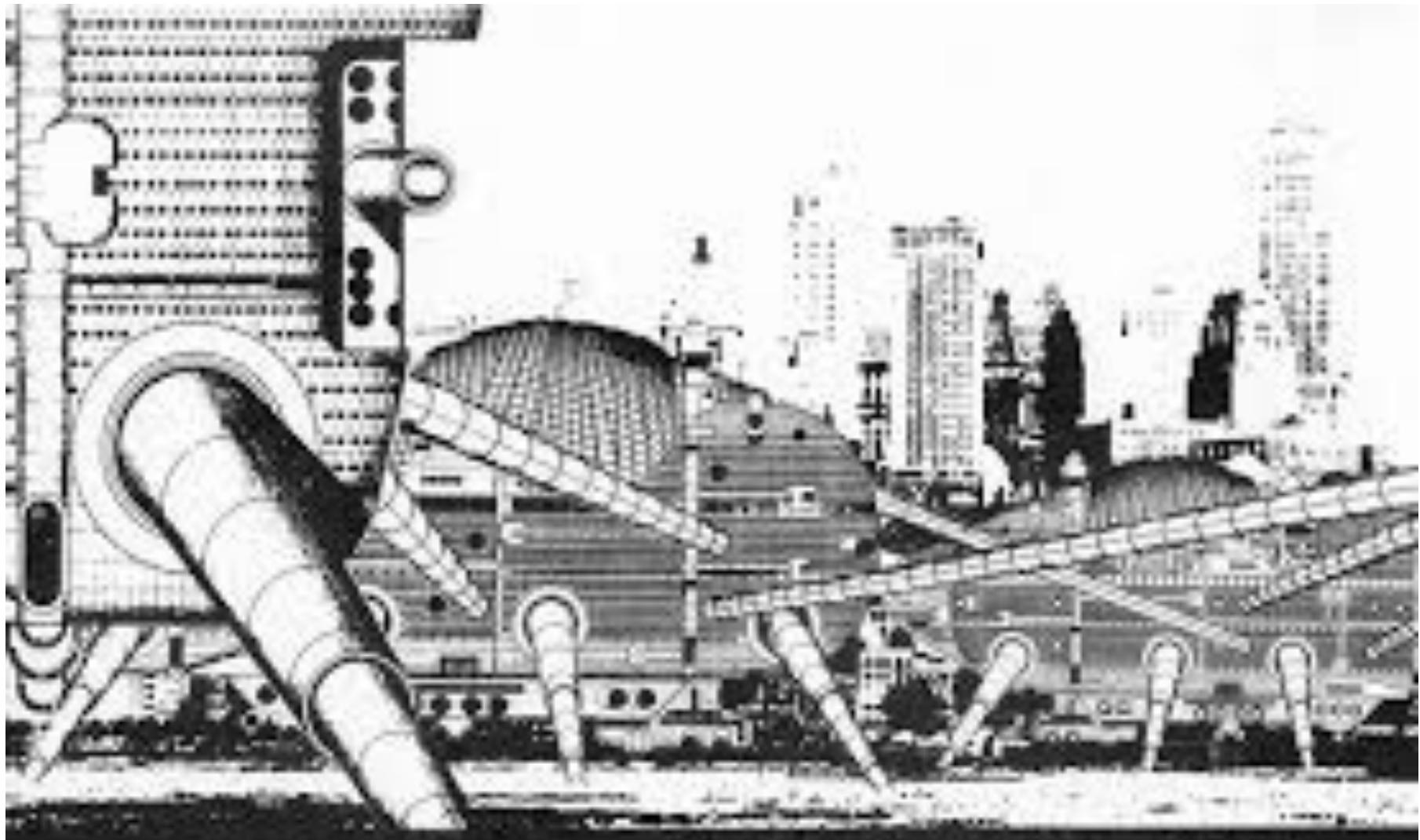
Screenshot 2: Your Trade-In List

The title is "Your Trade-In List" with a "Continue" button. It shows two items listed:

- The Hero with a Thousand Faces (Collingwood Series)**
Trade-in Value: \$3.24
Quantity: 2 ▾
Condition: Good
Remove
- Star Wars Knights of the Old Republic**
Trade-in Value: \$8.75
Quantity: 2 ▾
Condition: Good ▾
Remove

Total: \$219.98

At the bottom are navigation icons for Home, Cart, Wish List, Trade-in, and More.



© 2007 Arcadis USA, Inc. All rights reserved.
ELEMENTS OF THE DESIGN BY KENNETH L. STONE
PHOTOGRAPH BY ANDREW PELLEGRINO, STONE

A WALKING CITY







Haggler

• £4.50

£4.50

£4.00

£3.20

£1.00

£3.50

50p

£1.00

£2.50

Total

£29.70

Difference - £17.72

original

• £6.99

£6.00

£5.99

£3.99

£4.99

5.99

1.49

£1.99

£4.99

Total

£42.42

The “possible” in research – accounted for through an experimental practise

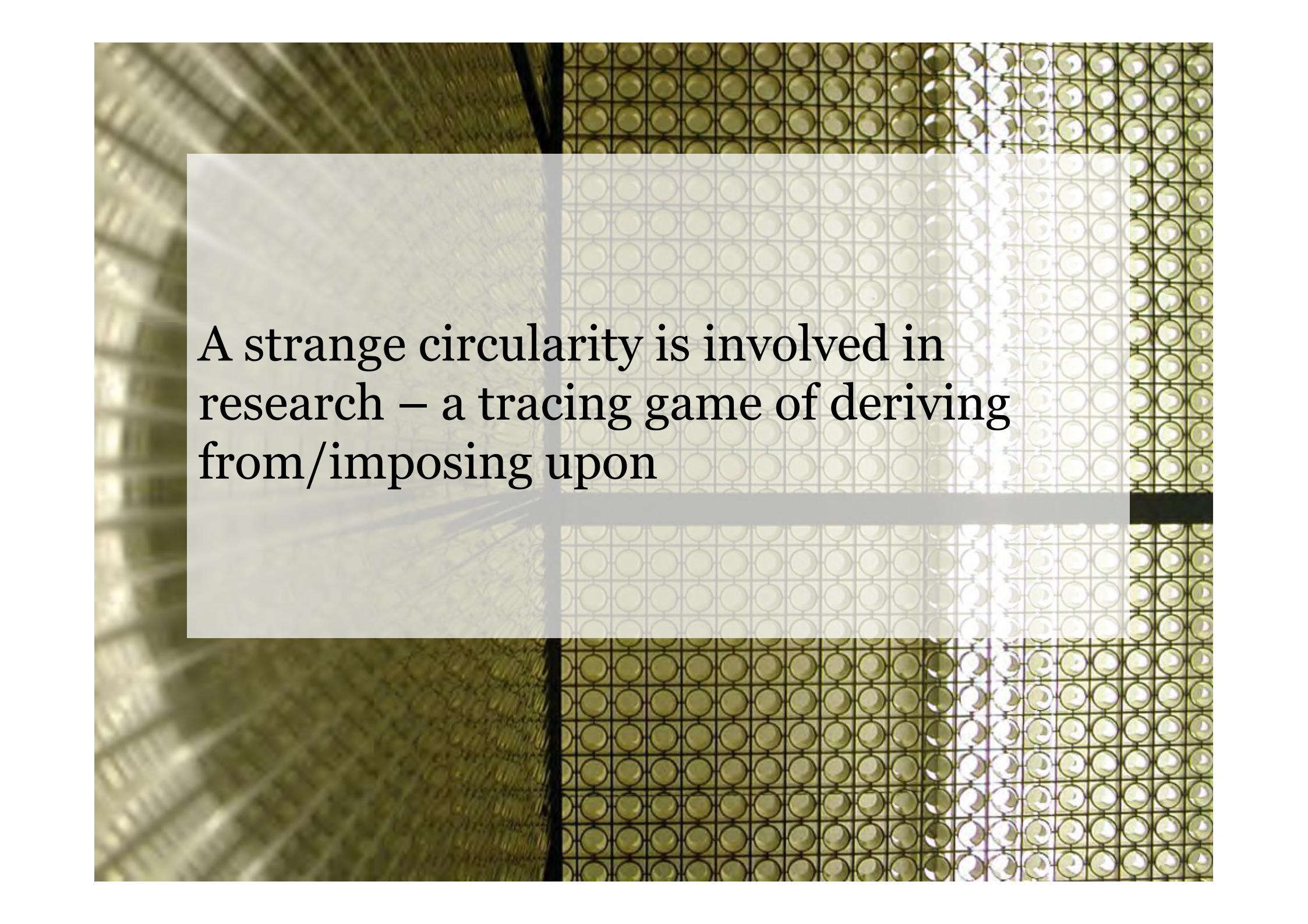


Hans-Jörg Rheinberger
An epistemology of contemporary
experimentation

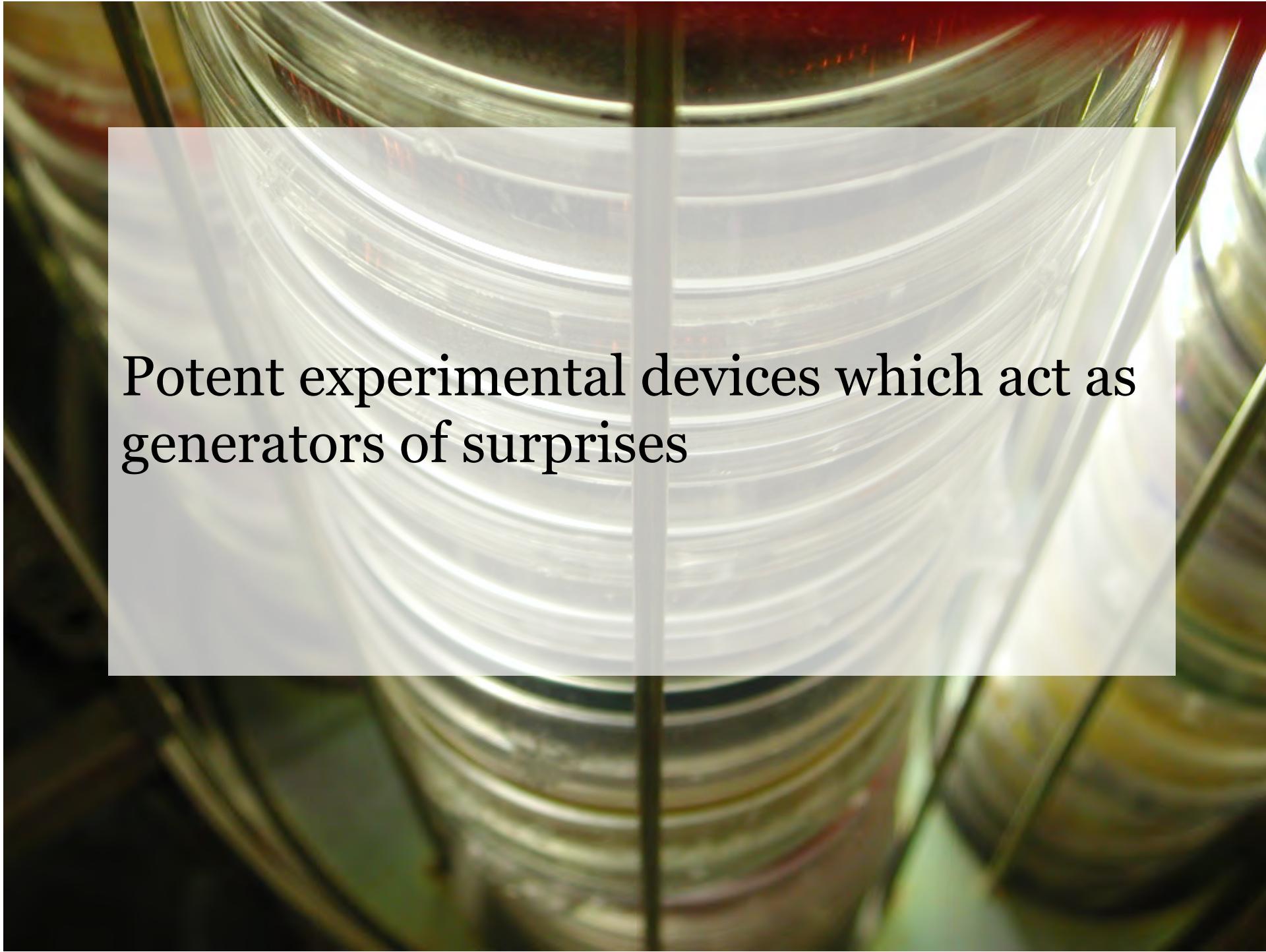




The new is never just given:
Tracing is never the one-dimensional
movement that simply derives knowledge from
the empirical. Scientific activity consists in
creating some platform that allows for the new
observation, the new insight and the new entity
to present itself



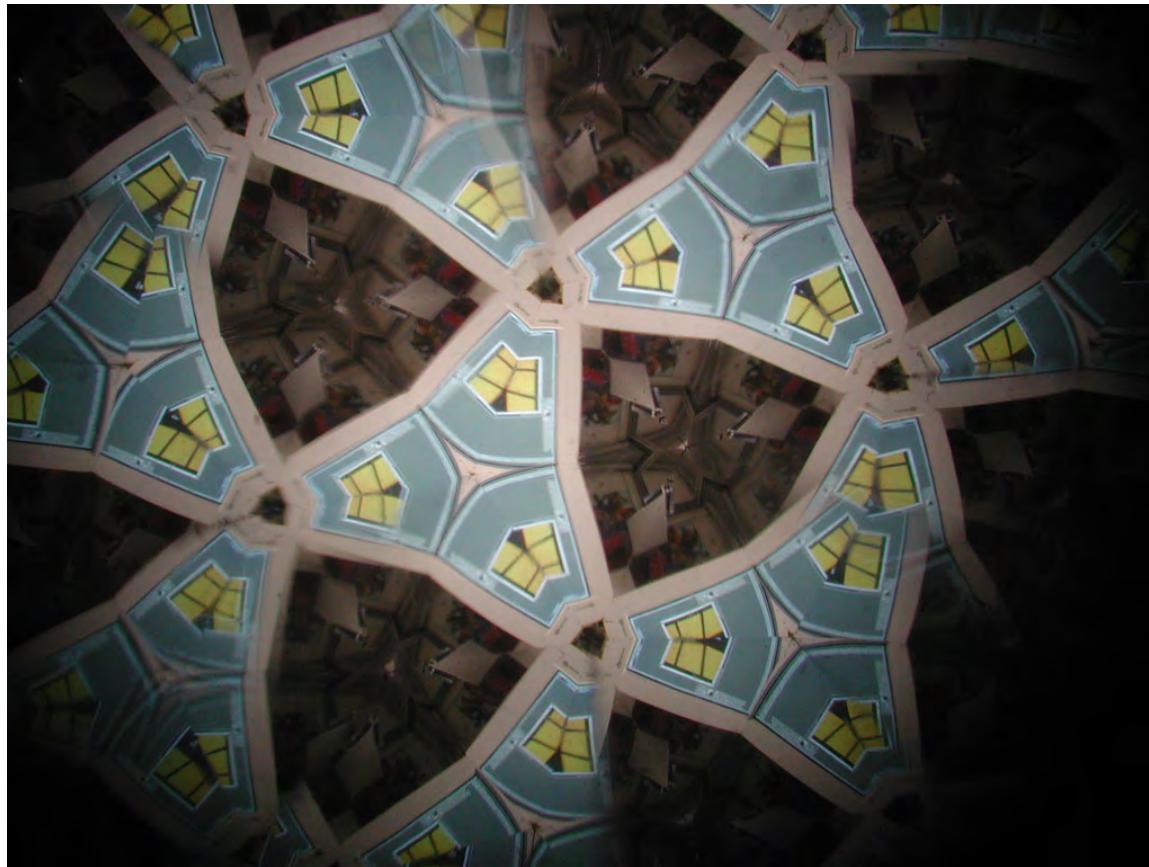
A strange circularity is involved in research – a tracing game of deriving from/imposing upon



Potent experimental devices which act as
generators of surprises

Experimental systems

A research platform stable enough to produce a network
of experiments – a series of “here-nows”



The Co-design Lab

A shared tool-box across different projects



Methods that are part of an assemble, but brought to life in relation to a specific concern or a specific problem



The Co-design Lab as a design-anthropological experimental practise



But what about the possible?
The limitation that lies in any epistemology or
any experimental system becomes also the
prerequisite for the emergence of events that
cannot be anticipated

As far as scientific research is concerned, we have to conceive of the "possible" in the double sense of the word: It is something that is within the realm of an experimental system, and it is something that is beyond proper control. The possible has a strange and fragile presence. On the one hand it does not exist in any strong sense of the word, on the other hand, "one must already have decided- il faut déjà avoir décidé – what is possible".

(Rheinberger 1997 p.76)

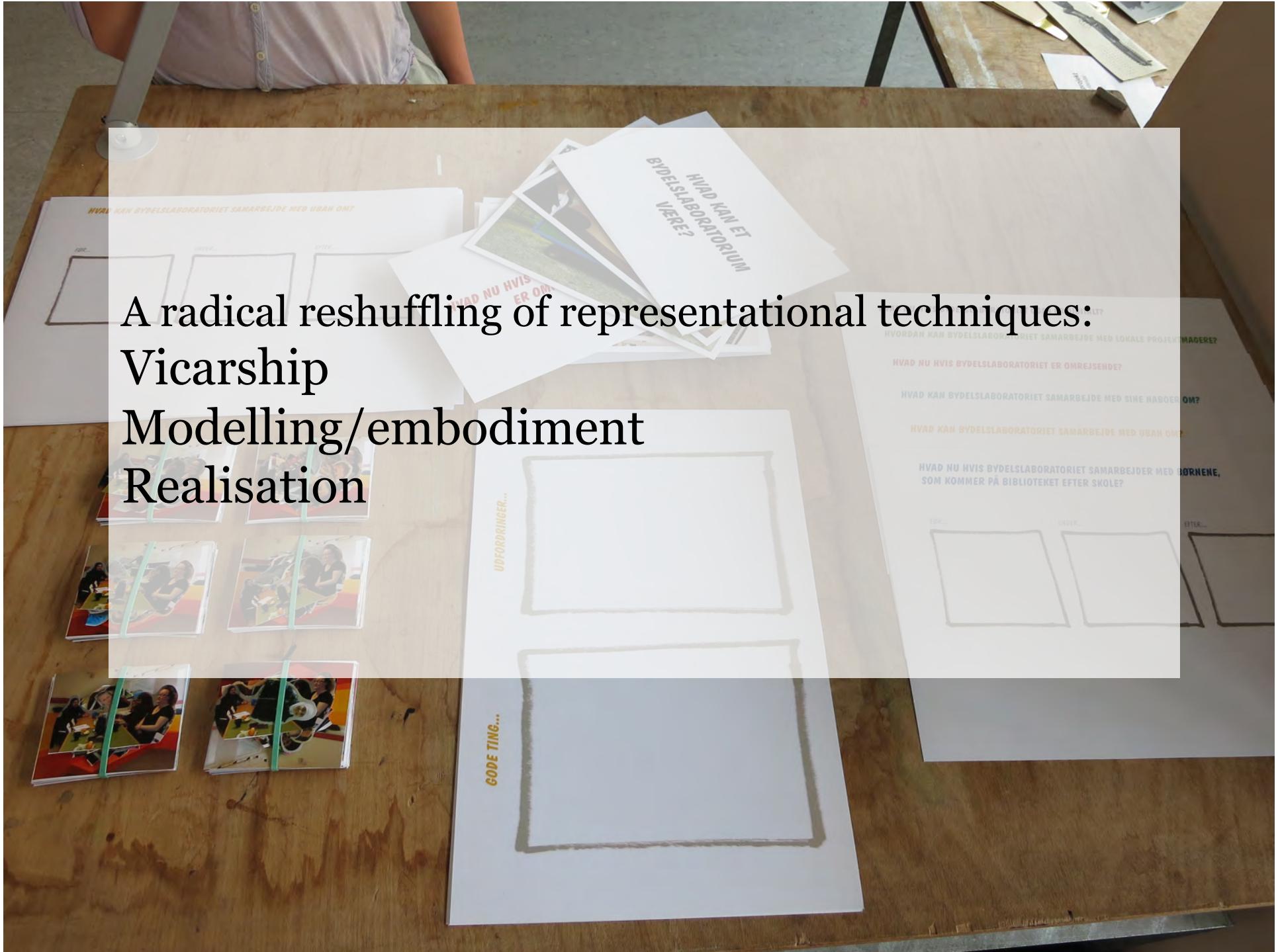
The experimental “here-now” is a tightly scripted space,
there is always some forging going on





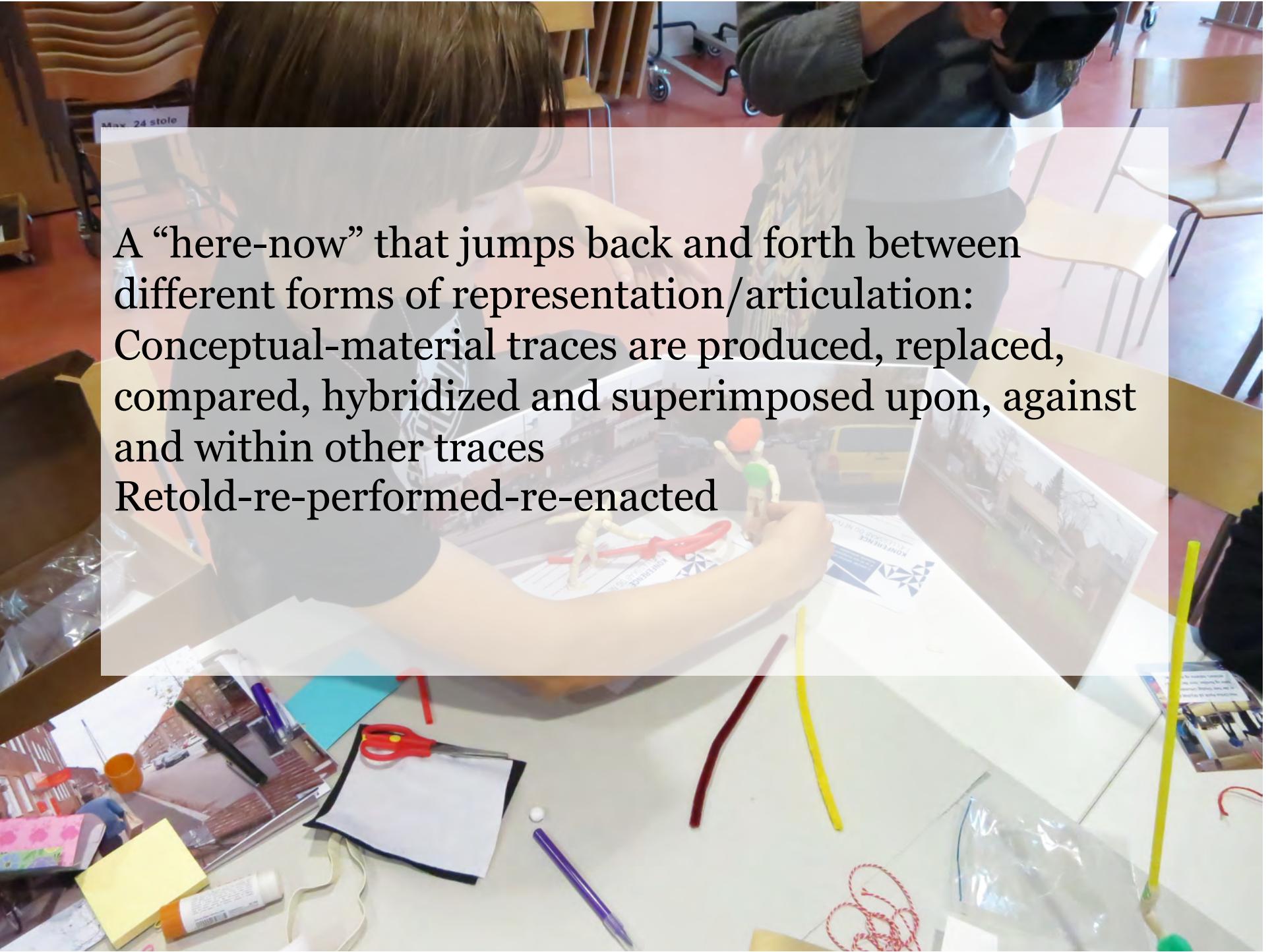


A radical reshuffling of representational techniques: Vicarship Modelling/embodiment Realisation



No lab can do without representation *of* something

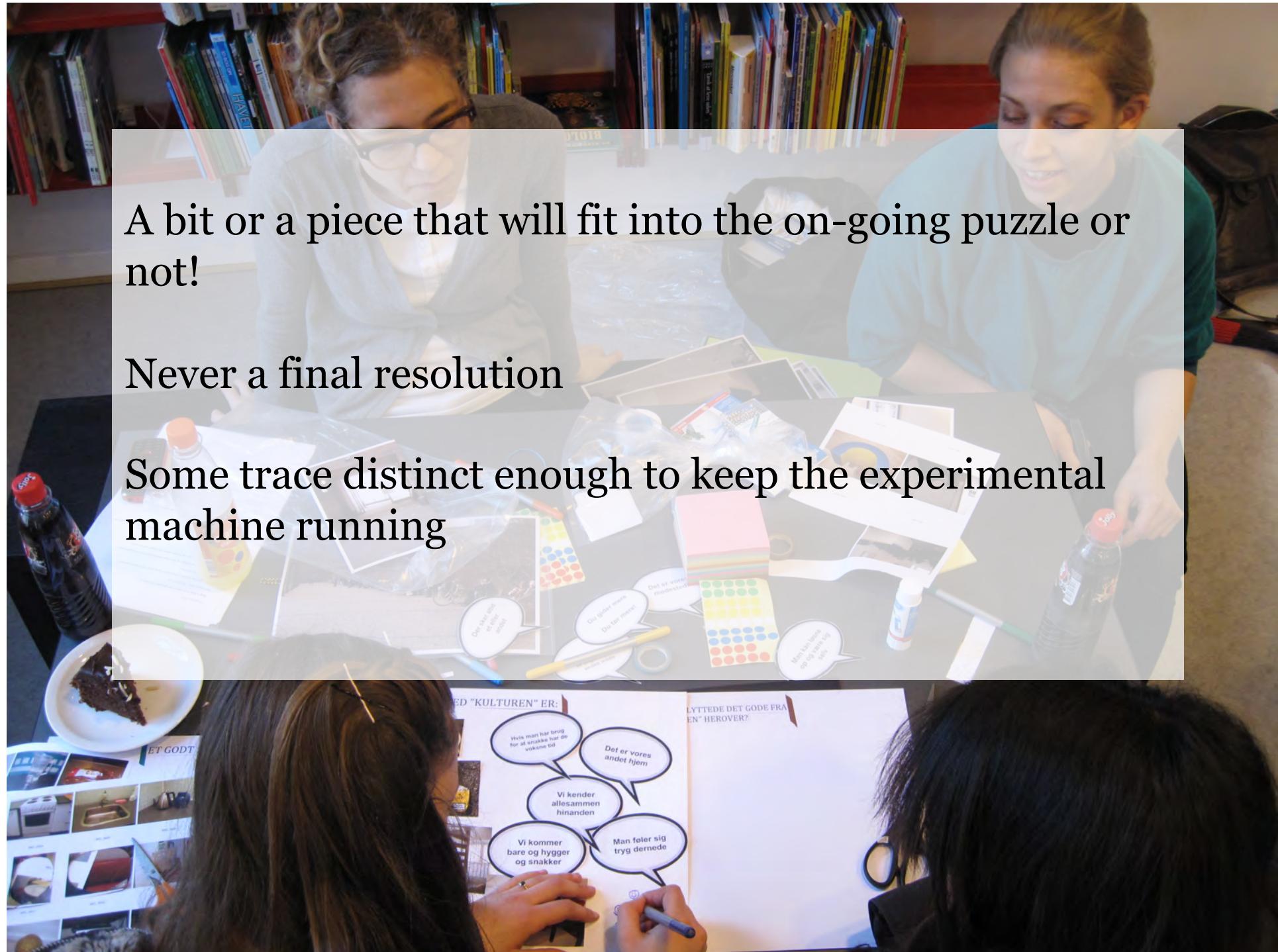




A “here-now” that jumps back and forth between different forms of representation/articulation:
Conceptual-material traces are produced, replaced, compared, hybridized and superimposed upon, against and within other traces
Retold-re-performed-re-enacted

No clear path from modelling to realisation





The “possible” for an experimenter is local, specific and situated difference – displacement and change must be grasped within the research platform itself