

# 6 Design Interventions as a Form of Inquiry

JOACHIM HALSE AND LAURA BOFFI

## Things Could be Different

This chapter 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 consistently under-specified 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 favours and explores unsettled and imagined possibility, yet employs empiricist virtues of embodiment, empathy and documentary forms. Interventionist speculation blends the techniques of invention with techniques of description; it carries an activist attitude that oscillates between 'what is' and 'what could be'; it embodies a research curiosity inclined towards experimentation; and as such, it dares to pose as a productive line of connection between design and anthropology.

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' poses 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* (2007 [1938]: 108), 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 early scientific work on inquiry is about reducing uncertainty. This is *not* the primary commitment of design interventions as a form of inquiry.

The word intervention literally means 'coming between'. In everyday use it is typically understood as a 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. In experimental design research, however, the word intervention is less about conflict resolution or correction. Design interventions are used to describe an

engaged research method, not to test a prefigured solution to a defined problem as in prototyping, but to enable new forms of experience, dialogue and awareness about the problematic to emerge (see Thompson (2004) for similar usage in art practice). For these reasons, design interventions are often employed as a strategy of complexification (see also Lindström and Ståhl, this volume; Lenskjold and Olander, this volume).

Our task here is to discuss design interventions with the purpose of exploring what they are. We need to take seriously what is implied by intervening as a form of inquiry, both conceptually and practically. Design interventions are currently flourishing as a practice in experimental design, as illustrated in our main case about hospice care in this chapter. However, we see a related but distinct track of more conceptual discourse about intervention in the literatures of Anthropology and Science & Technology Studies (STS), which we will return to below.

Early design mock-ups and prototypes are speculative in the sense that they speculate about a particular direction of understanding and its potential implications, in order to elicit feedback: what if we introduced this feature, or imposed that structure, then what would happen? Design's capacity for evoking alternative opportunities for thought and practice relies on such speculation. Often the process is goal-oriented, but speculation may also be employed in design processes of a much more exploratory nature, as when Carl DiSalvo (this volume) explores how industrial surveillance technology may contribute to the emergence of a public around the issues of informal fruit-picking and urban foraging.

Let us take another illustrative example, and see how the term is being used to de-centre the object in a design research project exploring energy usage in Sweden. Some of the concrete design expressions referred to in this quote are photographic renderings of speculative future scenarios where mundane energy consumption is foregrounded and amplified:

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; see also Mazé, this volume).

The design intervention is here defined as 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. This attention to further discursive values of immediate material artefacts is shared with Zoy Anastassakis and Barbara Szaniecki (this volume) who suggest the notion of 'conversation dispositifs'; speculative and interventionist research experiments developed to open up dialogue and engagement among researchers, students and inhabitants of an urban setting.

The employment of early materializations and placeholder artefacts in knowledge production is typical of design. As Tim Brown, a leading voice on global design consultancy, puts it in his advocacy of design thinking for business in general: '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 artefact, it poses more as an open-ended research instrument for exposing 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 not to 'zero in on the best solution', as suggested by Brown, but 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.

This entails a decentring of the designed object, which, however, should not lead us to underestimate the importance of the object; quite the contrary. 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 halfway 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)

It is in this transdisciplinary mode, halfway between fact and fiction, that we locate design interventions that insist on the importance of specific manifestations, yet explore issues that are unsettled, speculative and imaginative. To what extent can the particular stagings of empirical dialogues around evocative design artefacts (variously 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? Before returning to this question, let us look at ethnography as a methodology for empirical investigation which has paid increasing attention to how methods co-construct the issues they purportedly study.

## Transformed Ethnography

Ethnography had a major debate and crisis in the 1980s, when the impossibility of objective and neutral representation of human life was increasingly acknowledged

among researchers. The seminal books *Writing Culture* (Clifford and Marcus 1986) and *Anthropology as Cultural Critique* (Marcus and Fischer 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 succeeded 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 a relatively recent example, see the 2012 Victoria, BC, Public Ethnography conference, <http://publicethnography.net/home>). In the present volume Marcus goes further and suggests that anthropologists too invoke prototypes in their conceptual thinking, in order to enable 'productive encounters'. This kind of experimentation entails building and staging micro-publics in performing the presentation and receptions of anthropological ideas before they are fully authorized as 'theory', much akin to what we are trying to achieve in this chapter: what if we looked at it this way, then what could be learnt?

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 and Stolterman 2004), design thinking (Brown 2009), commercial innovation (Kelley 2005), service design (Polaine, Løvlie and Reason 2013), and public-sector innovation (Bason 2010), just to mention a few. In more academic circles of design research, too, ethnography has gained significant exposure and application (e.g. Dourish 2006; Koskinen et al. 2011).

Specific methodological transformations are implied by these adoptions and adaptations: in particular, new transdisciplinary methods for bodily exploration of the possible have emerged. Core ethnographic virtues of empathy, open-endedness and attentiveness to situatedness have been combined with designerly competencies in articulating new possibilities through design proposals, expressing ideas and hypotheses in rich media from paper sketches, 3D models, service blueprints and bodily performances to interactive dialogue tools. Experience prototypes (Buchenau and Suri 2000), critical artefacts and speculative design objects (Dunne and Raby 2013), and video-based design documentaries (Binder 1999) are all examples of these design methodological transformations that share aspects with 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 and Wakeford 2012). Design interventions are a materially innovative method that is explicitly oriented towards exploring the contemporary as an open moment: open towards 'the possible'.

Almost twenty years after *Writing Culture*, in *After Method: Mess in Social Science Research* (2004), John Law is continuing and extending the argument about how methods do not just describe social realities, but also help to create them. While Law explicates in clever and convincing ways how purportedly descriptive methods partake in creating the world, the field research practices he himself carries out as a sociologist are interviews and observation. These field techniques serve to expose orientations that already take part in producing the world. It is as if the creative aspect is conceptually, but not practically, appropriated as a layer on top of already-existing social science practices.

When we have sometimes proposed to colleagues in ethnology and anthropology departments that the ethnographic interview could perhaps be developed in the shape of tangible design games (Brandt, Messeter and Binder 2008), our colleagues are usually quick to accept the conceptual possibility of doing that, because the interview is *already* an intervention for them. Viewed in the context of what has been called 'the ontological turn', there *is* no conceptual contradiction between a playful game around possibilities, and an ethnographic interview. Already in 1983 Ian Hacking suggested the interrelatedness of representation and intervention in *Representing and Intervening: Introductory Topics in the Philosophy of Natural Science*, which has since become foundational for a line of research that continues to challenge the boundaries between depictions of the world and interventions into its composition. What has since been labelled 'the ontological turn' has been used to describe a vast range of diverse ideas in the social sciences, and here we use it to refer to scholarly work that refuses any clear distinctions between what could be called the real physical world on one hand, and the symbolic or representative world of thought, discourse, or narrative on the other. As Henare, Holbraad and Wastell put it: 'concepts are real and reality is conceptual' (2007: 9).

In two special issues of STS journals devoted to conceptually unpacking 'intervention', (Zuiderent-Jerak and Jensen 2007; Jespersen et al. 2012) we have seen a range of established ethnographic research techniques reinvigorated by the suggestion that they are in fact interventions: 'Description as Intervention' (Vikkelsø 2007), 'Ethnographic Stories as Generalizations that Intervene' (Winthereik and Verran 2012), and 'Cultural Analysis as Intervention' (Jespersen et al. 2012). These authors variously lay out the argument that cultural-analytical work composes and brings forth new, and possibly better worlds (for a critical and thorough discussion of these articles, see Olander 2016). These authors are deeply concerned with how research is always implicated in the field under study, and we appreciate it as a methodology of implication. However, we are sceptical towards labelling this line of research particularly 'interventionist' or 'ontological', because in our view it is not committed to crafting interventions that will plausibly create ontological imprints perceivable by anyone outside the academic discourse of the ontological turn itself.

In light of this intriguing embrace of the *concept* of intervention from the social sciences, what we are looking for in this chapter is a corresponding platform for *practice*. Well aware that theories and actions are inseparably intertwined, we look

for more specifically crafted engagements that are materially articulated, available for bodily experience and reflection in the actual site and moment of practice – not as an analytical or text-based afterthought, as in the case of the above-mentioned articles. Finally, but not least importantly, we look for a practice of intervention that is driven by a transparent researcherly interest and passion for specific directions of development, not disguising behind ideals of disinterested research in the service of all or value-neutral facilitation.

How may that constitute a form of inquiry? To the trivial fact that the world is messy, John Law's response was 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 people's pains and pleasures, their hopes and horrors. And they often involve things and practices that are vague, ephemeral, unspecific, that 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

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 gatekeeper, she observed and interviewed patients, staff and relatives as they experienced end-of-life relationships. In parallel, literary resources were 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, alongside ongoing dialogue with palliative care experts at Istituto Maestroni, Cremona. However, Laura's training as a designer, particularly with respect to materials and media, heavily influenced her tools and techniques for the fieldwork. As an example of engaging the visual sense, now relatively common in ethnographic practice, Laura tried to get to see the hospice as the patients saw it, by engaging them in photographing important situations.

Some wives sat quietly for long hours by the bedside, watching over their dying and often sedated husbands. To build on their personal craft skills shared with Laura, and to provide a different kind of medium for the one-sided dialogue, Laura invited the wives to embroider while they tried to or wished they could exchange emotional stories about the past, present and future with their loved one. One particular work of embroidery shows the couple on a trip to the coast that the wife had imagined with her husband, conveying through the material an emotional story of preparing for loss.

In concordance with contemporary psychological research (e.g. Testoni and Sposito 2010), the hospice nurses confided that they too, once in a while, needed someone to talk to, to unload heavy professional experiences. In response Laura created a small research tool to gently prompt nurses to talk more about this in situ. It consisted of a small bag, carefully crafted with three pebbles and a miniature notepad,

entitled 'Three events as heavy as stone in your work. Remove a pebble from the bag when you overcome one'. This research tool for dialogue allowed the nurses to symbolically handle their difficult emotions, jot down a few words about them in or after the situation, and open the possibility of sharing them with the researcher.

The issue of communicating indirectly also surfaced in conversations that followed about other aspects of nurse practice. One nurse explained her particular way of giving patients the space to communicate without talking directly about death if the patient did not want to, and yet without lying. She called this her 'small contract' with the patient, which is a precondition that allows her for example, to say to them: '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 have access, any direct indication of proximate death is avoided. A small butterfly magnet is used to indicate when a patient's condition worsens to the point where life is expected to end within days.

From the various research techniques, a more general insight was formed: that the palliative care team develops specific strategies and linguistic tools to talk about forecasts and deteriorating health conditions with one another, with relatives and with patients. In 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 aspect of communication in palliative care was consistent with other accounts and experiences recounted in the Copenhagen workshop 'Life and its ending across virtual and realistic spaces' (Elsass 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.

Even when patients are surrounded by family and friends, some conversations can seem superficial and impersonal. A more spatially oriented observation that emerged from observation in the patient rooms and from interviews with nurses, was that physically leaving the confined, clinic-like room, which connotes hospitalization and illness, and moving away from 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, gone deeper into analysis mode, and contextualized the insights in broader socio-historical terms. However, for a researcher trained in interaction design, this is not the default. Rather, 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 communication and sharing of their experiences with deadly disease, loss and sorrow?



# Staging Elusive End-of-Life Relationships: A Design Intervention

Two months after the initial fieldwork (August 2010), Laura returned to the hospice for two days with a set of three designed, but open-ended, objects 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.<sup>1</sup>

The proposed concept for symbolic communication and meaning creation supporting patients, relatives and the palliative team in sharing individual representations of the disease and nurturing meaningful relationships at the end of the patient's life consisted of:

- (1) Hollow matryoshka dolls for developing the alliance between patient, relative and staff. The matryoshkas can contain and present each person's experience of the deadly disease using a collection of pre-designed symbolic objects.
- (2) A message station hanging in the tree outside in which to start new conversations outside the 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. Granted that people often do not talk about death directly, but through various workarounds and coping strategies, 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 the 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 detach 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 the bed.] Ciao Luigi, good morning! I filled my matryoshka with three 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 as soon as possible... (transcript from field video, translated from Italian).

The same object, the matryoshkas, are also employed in conversation with Nilde, a friend of a patient named Laura, who has died some days before the interview.



Nilde imagines what would happen if she had put symbols inside 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 for the things I put in my matryoshka. [...] Maybe a person put the symbols in 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 go out again ...

[...] A relative of a patient can still have some kind of hope, so the symbolic objects you put inside the matryoshka could be symbols of hope. Maybe it could have been ... But I think it could work because it's 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 matryoshka could be a key to opening doors that are difficult to open (transcript from field video, translated from Italian).

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



**Figure 6.1** Laura, a nurse, is using a partly imaginary, partly mocked up, messaging station in the garden of the hospice to write a message to her patient © Laura Boffi

Margot, a nurse, has used it to write to her patient, and reflects on the experience:

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 (transcript from field video, translated from Italian).

*The third object* suggests the leaving of an open channel of communication during the last moments of life. It is a blanket, which resembles the large living tree with the communication station in the garden. The body of the blanket is brown and long as a tree trunk; the top of the blanket is green and shaped like the contours of a tree crown.

A nurse, Lorena, is in a patient room and imagines herself with a dying patient under palliative sedation. She holds the blanket tight in front of her with both arms:

The palliative 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



**Figure 6.2** Lorena, a nurse, is using a blanket symbolically representing the tree in the garden. She has draped it over the imagined body of a patient, and enacts a moment of caring for the dying © Laura Boffi

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 tuck a person in]. If this was the face ... hmmm ... It's too big, this face [Lorena tries to form the pillow as if it were 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 it. And I sit like this ... At the bedside [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 [Lorena points 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 me here to watch over him, and ... Have a nice journey [smiles gently] (transcript from field video, translated from Italian).

The sensitivity of the researcher has been crucial for establishing this kind of intimacy grounded in the field encounter around an issue as serious and delicate as end-of-life-relationships. But just as important for the effect of the design intervention has been the interventionist stance of the designer, who dares to propose and put forward in material specificity three artefacts to sketch out new modes of interaction, despite the uncertainty about what constitutes 'good' end-of-life-communication. This short account of the project Weaving Relationships has shown both ethnographic methods for exploring hospice practice and designerly methods of prototyping early ideas. However, what we are really after in this chapter is where they blend. There are strong components of material sensitivity and expression within the ethnographic exploration, just as open-ended curiosity and empathy is guiding the designerly staging of a prototypical practice. The design intervention is a material way of trying out a hypothesis regarding what the important features of end-of-life relationships and hospice care are, but also, and just as importantly, it is a way of bringing their alternative forms into corporeal reach and practice.

## How is a Design Intervention a Form of Inquiry?

The account of a passionate encounter around end-of-life relationships serves here as an excellent example of the concept and practice of design interventions as a form of inquiry. In getting closer to a delineation of design interventions as a form of inquiry, let us briefly distinguish them from a number of related forms of intervention.

Design interventions are related to what Harold Garfinkel named breaching experiments (1984 [1967]), where commonly accepted, but unwritten, social norms are deliberately broken, in order to generate reflections about what 'counts' in any given social situation. A breaching experiment is both an intervention and a form of inquiry. But compared to the methods discussed here, where the design researcher cares deeply for the people in the situation, an important distinction is that Garfinkel was

essentially not interested in the particular people whose norms he or his students were breaching; the concern was with the general patterning of social norms.

If we compare design interventions as a form of inquiry to other forms of intervention with a more violent engagement, like injecting a medical drug under a compulsory treatment order, or a lethal military strike on the enemy, we are here concerned with intervening by proposal rather than dominant force. In the cases we discuss, design interventions are seeking to create local actionability in a reflective way, despite ambiguity, inaccessibility and uncertainty. Agency is thus a dear achievement, a hopeful outcome of the intervention, rather than a necessary precondition for it as in the case of medical and military interventions.

There are no clear demarcations of when design interventions as a form of inquiry 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. These methods assume that we can *at the same time* learn about the socio-material practices around dying and appreciate that these same practices are being unsettled, re-imagined and reinvented. Design interventions deal with something that resists full articulation; what they circle around is messy, ephemeral and only almost possible. They aim to expand the scope of possibilities, and to situate these empirically by bringing them into corporeal reach for a larger audience.

We do not wish to distort this ongoing mess into clarity. Rather, we propose design interventions as a particular form of messy inventive inquiry that has little in common with the experimentation of the randomized clinical trials that set the current standards for scientific approaches to hospice practice. The methods demarcated by the notion of design interventions as a form of inquiry are not standardized, nor are they rigorous, and notably, they do not produce clarity, which are all distinguishing them from the scientific ideals of Dewey's inquiry (2007). Design interventions as a form of inquiry are highly contingent and locally invented or adapted, they are employed opportunistically and unsystematically, and most importantly, they produce complexifications, bifurcations and multiplicities.

Design interventions as a form of inquiry generally share this orientation towards difference and multiplicity with many researchers of anthropology and STS who are identified (by themselves or by others) with the 'ontological turn', as exemplified by Annemarie Mol's famous ethnography of atherosclerosis (2003). The 'ontological turn' has brought an important insistence on the integrative relationship between representations and what they represent. But this does not mean that all representations are equally effective instantiations of ontological change. The authors' re-labelling ethnographic analysis and description as intervention, recounted above (Vikkelsø 2007; Winthereik and Verran 2012; Jespersen et al. 2012) is concerned with re-establishing links between their ethnographic representations and the worlds they represent. With design interventions as a form of inquiry we are more concerned with the opposite, to re-establish links between corporeal interventionist practice and the knowledge production entailed in this. We are not suggesting a radical counter steering, as in a designerly 'turn to the epistemological', but we *are* seeking

to qualify design interventions as an epistemological practice. Design interventions is a practical means of generating knowledge around emerging social and cultural issues, akin to Hans-Jörg Rheinberger's concept of 'epistemic things' hovering between material and conceptual entities (1997). By this onto-epistemological manoeuvring, we may not obtain solid scientific knowledge of our field, but we will be able concretely to explore a wide range of realities, and engage consciously in their contested making and remaking.

The brief account of Weaving Relationships begins with concrete usage of photography, embroidery, pebble stones, textile bags and diaries, alongside interview and observation techniques that together constitute a kind of multisensory ethnography. But let us reconsider the design intervention: staging of three empirical encounters at the hospice around 3D printed matryoshka dolls, a messaging station mocked up in cardboard and string, and a sewn textile blanket. What should we make of them? Are they ethnographic encounters about everyday hospice practice? Not exactly. Are they staged prototype tests of fictitious future products? Not quite that either. Our proposal is that they are both. As an open experimental moment between modes of existence, this is a design intervention playing with situated possibility and constraint in the present.

This design intervention and the issue it explores are deeply implicated in one another. Understood as a research method, the design intervention does not afford a transparent representation of the issue, free from personal interpretative bias. On the contrary; the researcher's personal experiences with loss are arguably an important precondition for establishing this kind of empathic exploration in such a sensitive field, normally so difficult to access. The specific artefacts are suggestive of a particular direction, but at the same time exposed to critical assessment by the people they concern.

In sum, design interventions can fruitfully be employed as an exploratory design anthropological research device that stages qualitative empirical dialogues about possibility, and deploys evocative probes, props and prompts to inquire into people's concerns, aspirations and imaginative horizons.

## Note

- 1 All the patients participating in the initial field study had in the intervening period passed away. However, the niece of one of the patients who had taken photographs contacted Laura to see the last pictures her aunt had taken, thus extending the reciprocal conversation between researcher, patient and relative on memories.

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