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Design and Nature: New ways of knowing for sustainability

Kate Fletcher

London College of Fashion, University of the Arts London, UK, k.t.fletcher@fashion.arts.ac.uk

Louise St Pierre

Emily Carr University of Art + Design, Canada, lsp@ecuad.ca

Mathilda Tham

Linnaeus University, Sweden and Goldsmiths, University of London, UK, mathilda.tham@lnu.se

ABSTRACT

This paper explores how we can know in ways that promote new relations between design and nature, for futures of sustainability. The paper shares observations and reflections made over four years in the collaborative process of editing a book (*Design and Nature: A Partnership*, in press). During the process, we have synergistically tried to explore and manifest what knowing in a paradigm of a more sensitive and careful relationship between design and nature can entail. Insights include the intersectionality of gender discourse with nature and design relations, the opportunities and risks of leaving academic conventions, the centrality of collaboration in pursuing new ways of knowing.

Key Words: Nature and design, experiential knowing, feminism, care, beyond design-for-sustainability-as-usual.

1. INTRODUCTION

This paper is concerned with design's relationship with nature, and specifically how this relationship can play a significant part in futures of sustainability. We explore how humanistic lenses embedded in design cause dangerous power imbalances in this relationship. We ask what other lenses can be nurtured for design so that design actions can relate respectfully, sensitively and humbly in relation with nature. The paper draws on reflections and observations made over four years in the process of editing a book (Design and Nature: A Partnership, in press). This paper is not about the book per se, but rather it explores what we learned both about the practice and the process of design and nature in the course of its bringing it, its 25 chapters and 34 authors together. Our journey into design and nature was a journey to world outside of design-for-sustainability-as-usual, and was by turns a magical, electrifying and an itchy, uncomfortable experience. We have more than 75 years' experience of working in design for sustainability between us, yet often we felt like novices when working on the book, unsure where to begin and tentatively feeling our way into a new relationship between design and the natural world. The theme of this conference is Design For All. In this paper, and taking our lead from Val Plumwood (2009) and Maria Puig de la Bellacasa (2017), we seek to put forward a larger frame of 'All', of care in design that moves beyond human centredness and considers instead where humans are but one of many focus points. In this paper, we set out what we learned, what we enjoyed and what we found difficult in our explorations of design and nature as partnership. We try to match the ideas it conveys and the form of the text: writing in first person, revealing the relationships between things, bringing awareness of who we are, and drawing on our own experience and the evolving conversation between us.

2. DESIGN RESEARCH POSITIONING

We; Kate, Louise and Mathilda, share the position of the need for design to form new relations with nature. This stems from the, man- and in many ways design made, crisis of ecological systems (e.g. Crutzen et al. 2007). Pragmatic responses, for example product level design interventions, to this systemic and paradigmatic situation are insufficient. Therefore we locate design as synergistically in play at levels of product, systems, paradigms, with license to intervene also in ways of knowing (Tham, 2014). We work at different institutions in the global north, and we are all white women. We represent a range of social class backgrounds. We are also friends, mothers, teachers, students and makers. It is in the nature of the paradigm which we seek to embrace - ecological relationality - to also challenge epistemological hierarchies, that is hierarchies in ways of knowing. This includes standing up for the knowledge we generate through, for example, the experience of being in nature. It also means that we resist the convention and pressure to always legitimize (see also Akama, 2017) such 'less valued knowing' with 'more valued knowing', typically represented by facts and figures and white Western male academics which both dominate the sustainability discourse and emulate the paradigm that created the problems. Our journey has resulted in a rich material from which some key themes have emerged, including: challenging design's position as a hero - a legacy of the modernist project; examining the role of direct experience in design; exploring design development as slow awakenings; sensing as a core design capacity - drawing design closer to living species; experiencing awe as a way of design engagement; developing a practice of working within integrated relationships.

3. WHAT IS DESIGNING FOR ALL?

One possible interpretation of designing for all is that of literally shifting design practices to determine and attend to the needs of other than human 'clients': cedar trees, red foxes and monarch butterflies. But this assumption of knowing what is needed, even knowing of a process to apply, falls within the conventions of modern thought, a convention that we are questioning. We are wondering what design really is, when we think about designing with, for and within nature. How do we know and how do we learn? The conventional design process, which has been developed for industry, in the context of modernity, needs to be disrupted. Recently, design researchers at Emily

Carr University initiated a project with the primary aim to explore design with nature (Desis Lab n.d.). The secondary and more public aim was to enhance habitat for a local species of rockfish. Rockfish, including Red Snapper, are found around the world. On the Pacific West Coast of Canada, species are declining. During early research in windblown rain on rocky shores the team explored questions of how to connect with the natural world, but within a few weeks the momentum of the design process began to steer the project. Our primary aim of designing with nature became obscured by the more familiar activities of design. The three faculty members and thirty-eight students interviewed biologists, collected facts about rockfish, observed the area (some even went diving), did nature journaling, all to culminate in prototypes of modular habitat. Rockfish exist within a complex and fragile ecosystem: single fix artefact solutions derive from a fragmented view of the natural world rather than a holistic one. Pressured by deadlines, we found it took conscious effort to maintain the holistic and spiritual perspectives that we began with. Design is inherently a modernist act, and without careful attention, design gravitates to what it knows, even when attempting to 'design for all'. Design for all is not a matter of transposing existing design practices onto a new type of client. Design itself needs new methods, ways of knowing, and ways of understanding the world if we are to support other-than-humans. Finding ways to collect ourselves during the design process, retuning regularly to spiritual and holistic ontologies as an ongoing practice throughout the project can therefore be an important part of designing for all.

4. PROCESSES AND PRACTICES OF A NEW PARADIGM OF DESIGN AND NATURE

What are the ways in which we can go about designing with and within nature? In the course of compiling the book, we used a number of design, research and writing methods for the sometimes dirty, sometimes delicate, work involved. These included autoethnography, drawing, making and reflexive practice, among others. Further, the work foregrounded collaboration. The book was only possible because it was, quite literally, done together. The collective mind was more surprising, richer and unpredictable than any of our individual ones. This is not to say we always agreed with each other, but we explored our viewpoints and grew understanding with debate, jokes and laughter along the way. The collaborative ethos was also extended to the contributing authors through the set up of collaborative writing groups and process. In the collaboration, we draw on action research (e.g. Heron and Reason, 2001); participatory design (e.g. Binder et al., 2015); research traditions which recognise the intrinsic value of working with others to affect change. Another process that we invited the book's contributing authors to focus on was direct experience. Some authors were nervous about this, because writing in first person and using our own finite experience as the basis from which to develop understanding sit at odds with academic traditions. In fact, we took the reluctance to write from direct, sensory experience as an indication of the ongoing power of the academy to privilege certain sorts of knowledge. At one point, we asked some of our contributors to limit their academic sources and refocus their writing on their own experience. A few asked us to clarify publicly that we had requested this form of writing, so that it would not appear that they were stepping 'out of bounds' without due cause. For some people writing outside of the conventions of academic writing was a liberation, a gift to move freely; but for others, it was scary. It is hard to know how to proceed when the usual way that things are done in is thrown out of the window. Life writing or autoethnography was also a feature that we encouraged in our contributing authors' work. We wanted to take up the challenge set out by Rainer Maria Rilke in his poem *Archaic Torso of Apollo*, "... for there is no place that does not see you. You must change your life" (1908). That is, we wanted to challenge design to be concerned with the places we inhabit, to be present there and to honour all living species. We were inspired by Husabe et al. (2009) who position life writing as a subversive praxis and part of the building of a counter narrative to modernity on which sustainability depends. "Writing autobiography is a self-reflexive and self-critical act; it enables the writer to critique and theorize within the autobiographical text rather than outside of it. Through autobiographical writing, the writer can educate her attention to the lifeworld, where she dwells and with whom she dwells in that world; she can develop her direct sentient engagement with that world and all its ecological relations." (op cit: 29). In life writing, the writer describes and reflects on individual experiences so that her audience sees their relevance beyond that one instance, to all

lives. This makes possible new ideas and forms of action. Lusabe et al. go on to ask, “Where might these stories come from? The ones that conduct our attention deeper and deeper into the world where we dwell, the ones that help us to do what is appropriate for where we live, to do what is right for those with whom we live?” (op cit: 43). We contend that the stories come from a closer relationship with ourselves and the world around us. This requires a different sort of writing than that which passes for academic design writing. Sometimes it is personal reflections, other times it is poetry, other times still it is sharp, grounded, cited text. Indeed we embarked on the project on making this book with a patchworked vision of new – or new-old – relations between design and nature. We realized that how we know is very much core, not what we know, or how many sources we can collect. The whole editing process -- which started out with the drafting of a book proposal, then a call for abstracts of possible contributions, then selection of submissions, multiple rounds of editing and final compilation into a book, took place through skype and email, across three time zones, and a difference of nine hours. Through this process, we always sought to locate ourselves in dailiness and specifics; whose children were ill, the scent of the *Daphne odora* on Louise’s walk to work, the spring that Kate saw the swallows arrive early, the brutal noise of ambulances and police cars in Mathilda’s busy street. We chose to work from the ground up, always maintaining it within its context. For to do its opposite: to strip away the background, we reduce design to a practice that has few consequences and for which we absolve ourselves of responsibility. By holding the context, we maintain that design can fulfil its ethical duty in terms of responsibility to others. In the following section, the paper weaves from specific moments of revelation and cruxes that we encountered during our recent experience of collaborative book editing to asking questions about what it means to know and act in a paradigm of a partnership between design and nature.

4. HIGHLIGHTS AND CRUXES

4.1. Changing physical things in order to change what we think

When we started out making a book about design and nature that sought to promote multiple perspectives in design, not purely human centred ones, there was a good deal of work that we had to do to first throw off old habits of thinking and writing. Some of these we shed quite easily and with pleasure. Others proved more difficult to overcome. For instance, when we embarked on the drafting process for the book proposal, we found that the only way we could do this was to write with our eyes closed. We had to, quite literally, block out the world-as-usual in order to start writing about the world-as-unusual, a world in which design activity is based on a differently encoded relationship with nature. Indeed, it was only when we worked to switch off the thinking mind and allowed the senses to intuit what needed to be said -- to work from what needed to be felt and done -- that we made progress. Interestingly perhaps, frank discussion of such challenges is rarely had in public. Yet it is an important part of the process of designing for all because it raises to the surface all manner of epistemological questions, about what it is to know about this area. For us, knowing about nature and design meant untangling the default thought processes in which we were schooled and shedding our skins of modernity. It meant recognising both how little we know and the role of humility in building new understanding. It took us down a different path, and one which finds little correspondence with the academy as it is currently run. What does academic work look like when it is reliant on direct experience, when it is written on in first person, when it puts forward no grand universal ideas or theories of how to act, of how to design? We don’t know the answers to these questions. We would like to ask you, what do you think? We also included spending time outdoors as part of the writing process. While getting up from a desk and stepping outside is often not recognised as productive work in a strictly ‘accounting for your time’ work-efficiency sense; we found it to be a predictable source of changed perspectives and rich ideas, albeit ones that were typically hard to pin down. Whatever was happening outside, in the real world of rushing air and changing light conditions (for we are not talking here about places of wilderness or especial beauty, but outside in alleyways, between buildings or at the edge of a muddy path), forced us to enter the world more physically, and this made a difference. Being less ‘in your head’ and more ‘in your body’ precipitated a change in experience that kept spinning a thin thread between reality (and all its

attendant environmental challenges) and the abstract world of ideas. This split over in an important way in the book. It kept us bringing design back to actual natural conditions. Over time and with frequent trips outside, this thin thread of direct experience becomes a string, which then becomes a rope. It is what we used to haul ourselves up and back into the real world where natural systems are the context for all design actions. We realised that the work of design and nature is never just the work of the logical mind. And perhaps for this reason -- because it is also the work of the physical real world, the body and the senses -- that it has particular ramifications for design. It is also an example of 'staying with the trouble' (Haraway, 2016) instead of seeking fast and neat solutions. The realisation that design needs to be situated and draw on many senses is, of course, not new, but easily forgotten when deadlines kick in and when quantifiable points award prizes.

4.2. Diversity of contributors to the book

We had hoped for a great diversity of contributions to be submitted when we made a call out for prospective chapters to the book; from the Global South, for racial diversity and gender diversity. On many counts, we simply failed. Specifically on gender, Mathilda recalls counting down a column of self-declared genders, and finding the number of males outnumbered by females by 5:1. We could find no way to balance the genders in this book: this discourse is currently dominated by females. Had we somehow increased the likelihood of the gender imbalance in our call to contribute? We note that in the field of fashion and sustainability in particular, a field that Kate and Mathilda know well, the gender imbalance is even more acute. There may be many reasons for this. Within design, work with nature is considered fringe activity, on the edges of credibility, probably partly because it goes against biases towards intellect and productivity. Historically nature has been perceived as female: earth is a mother, wild, emotional, fecund, of service to men (e.g. Merchant, 1982). However, when Louise researched the history of design's relationship with nature, she found that the early discourse was dominated by males. Only when the terms of the engagement of the design and nature debate began to shift to practices of care, decentering the human, and slowing down the design process, did women begin to lead the conversation. That of course, is the context of the book; to move away from academic norms, to focus on new ways of sensing and knowing. The question of gender is interesting, given Carolyn Merchant's scholarship about the twinned oppression of women and nature in history (1982).

4.3. Encountering privilege

At one point in the writing of this book, we became acutely aware of our own privilege. Louise wrote: "...we are each writing about nature from very privileged positions. There we are: I am meditating on a mountainside, Kate is taking breakfast in a meadow, and Mathilda is on holiday in the woods". We wondered if acknowledgement of this and apology for it, an expression of our earnest desire to learn was enough. Was this acknowledgement an attempt to 'move to innocence' (Ford and Blenkinsop 2018) to leverage own humility as evidence that we are not part of the problem? These questions demand serious personal reckoning for all of us; a deep facing of ourselves. They are questions that cannot be answered quickly or easily, and instead must surface again and again. How is my privilege playing out in this project, in this research, in this initiative?

4.4. The need to find keys to unlock doors to the new paradigm

Working in new territory is always hard. Often we get hijacked by habitual ways of thinking. These can lead us to stumble and by the time we stand upright again, we have already lost our bearings are no longer sure of which way to head. We found that particular phrases acted as useful keys to unlock doors to a new relationship between design and nature. Terms like human centredness/mastery/exceptionalism, mechanistic thinking, rationalism and control sharpen our critique of the dominant lens through which design activity is viewed. Other terms, such as interdependence, humility and relationship, act as guides to a different sort of understanding. Language is not neutral. It is a constitutive part of how we see the world, including the natural world. Basic concepts of our

worldview determine what we see and the way that we see it. Changing concepts changes what we perceive. And so it is with design and nature. We are refocusing our lens onto design for all.

5. CONCLUSION

This paper has shared insights from the collaboration of editing a book which explores new partnerships between design and nature. Throughout the process of editing the book, we have tried to synergistically explore and manifest a new paradigm of knowing, which we sense that this partnership requires. We cannot know this paradigm, but we can discern dimensions of it, and we can take part in designing it. Key principles of such a framework of design and nature include challenging: human centricism and human exceptionalism in design; bias towards theoretical knowing, in order to embrace many ways of knowing; solutions and answers focus in design, in order to hold many layers of complexity and support humble learning together. The current dominant features of design that we seek to challenge are such strong legacies of modernist, progress and growth oriented design that they can be hard to see and harder to transcend. Our journey of during the process of editing demonstrate many stumbles. Especially when under time pressure (and when are we not), we tend to turn towards the tools, processes that we know well. Yet, we also have experienced moments when we feel that we have transcended a dominant paradigm of designing. These have arisen out of earnest meetings in our collaboration, particularly when we have found the courage to speak up about awkwardness and shame of, for example, our own privilege. They have also arisen when we have concertedly positioned ourselves outside the reach of dominant knowing, such as with our eyes. Throughout this journey, we have reflected that the work emerging around a new partnership between design and nature is interwoven with feminist ways of knowing, and is dominated by self-identified female researchers. We discern early conceptualisations of nature as female, with later hierarchies in knowledge production as probable and at least partial reasons for male dominance throughout modernity. Yet, we see the contemporary bias towards female participants in this work as an important area of investigation. Design for all, design *with* all, needs all species, disciplines, genders, sexes, ages, ethnicities – and more. The process of editing the book *Design and Nature: A Partnership* has provided us, along with the many contributing authors, a temporary space and license to venture beyond conventional academic boundaries and conventions. This has been liberating, hard, joyful, and awkward. We see an important remit for design education, design research and dissemination ahead to open up many such spaces of exploration. This entails also opening the academic institution to broadening world making and ways of knowing.

BIBLIOGRAPHY

- Akama, Y. 2017, 'Kokoro of design: Embracing heterogeneity in design research', *Design and Culture*, vol. 9, no. 1.
- Binder, T., Brandt, E., Ehn, P. & Halse J. 2015. Democratic design experiments: between parliament and laboratory. *CoDesign: International Journal of CoCreation in Design and the Arts*, 11, (3-4). 152-165.
- Crutzen, P. J., W. Steffen and J. R. McNeill. (2007). The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?. *Ambio* 36 (8): 614–621.
- "DESIS Lab | Emily Carr University of Art + Design." (n.d.) Accessed February 27, 2019. <http://desis.ecuad.ca/>.
- Fletcher, K., St Pierre, L and Tham, M. (Eds) (forthcoming), *Design and Nature: A Partnership*, London: Routledge.
- Ford, D., & Blenkinsop, S. (2018). Learning to speak Franklin: nature as co-teacher. *Journal of Outdoor and Environmental Education*, 21(3), 307–318. <https://doi.org/10.1007/s42322-018-0028-3>
- Haraway, D. (2016). *Staying with the trouble. Making kin in the Chthulucene*. Durham: Duke University Press.
- Hasebe-Ludt, E., Chambers, C. M. and Leggo, C. (2009), *Life Writing and Literary Métissage as an Ethos for Our Times*, New York: Peter Lang Publishing.
- Heron, J. and Reason. P. (2001). The Practice of Co-operative Inquiry: Research with rather than on people in Reason, P & Bradbury, H (eds). *Handbook of Action Research: Participative Inquiry and Practice*. Sage Publications: London.
- Merchant, C. (1982). *The Death of Nature: women, ecology and the scientific revolution*. London: Wildwood House.
- Plumwood, Val. (2009 [2013]). Nature in the Active Voice. In G. Harvey (Ed), *The Handbook of Contemporary Animism*, Durham: Acumen Publishing Ltd., 441–53.
- Puig de la Bellacasa, M. (2017). *Matters of Care: Speculative Ethics in More Than Human Worlds*. Minneapolis: University of Minnesota Press.
- Tham, M. (2014). Creative Resilience Thinking in Textiles and Fashion. In Jefferies, J., Clark, H. and Wood Conroy, D. (eds.) *The Handbook of Textile Culture*. London/New York/Sydney: Bloomsbury.