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DRS2020 Editorial: Design for Sustainability SIG

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Editorial: Design for Sustainability SIG

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Introduction

The need to shift the vision, and the rules and processes to support that vision, is palpable in times of crises. As the current global coronavirus pandemic demonstrates while there is the capability and capacity to shift perspectives, actions and outcomes, what is also required are the visions and agreements to work collaboratively, holistically and carefully to achieve these. The DRS Sustainability SIG champions design research that resonates with, and responds to, environmental crises. The relationships between people and planet are central to this focus and research aims to explore design responses to the unsustainable practices of these relationships that have resulted in the deep rooted impacts of climate change, biodiversity loss, soil erosion and land use change, ocean acidification, biogeochemical flows and the inequitable access to natural resources. Proposed solutions to such impacts often reflect current norms and values which can result in an additive mode to improving what exists rather than challenging practices that need to fundamentally change. Creating products, services and systems that deliver greater levels of global, multi species wellbeing may be a long way off if such challenges are not addressed in more critical ways. The current focus on circular resource flow for example can only be holistically effective if it addresses current consumption as well as production practices. Such conversations are tricky: they deeply question how we generate and measure economic wealth and development; how that wealth is better distributed; and how new systems of living and working might arise. Design, in these contexts, is both a philosophical and structural agent as well as a practical one. As design researchers we need to imagine difference, instigate debates, locate new synergies and effectively collaborate in order to broaden the scope of what it is *to design* sustainable futures.

The papers presented at DRS2020 represent a range of research linking to responsible design, transdisciplinary and sustainability agendas. They are split across two sections although other papers in other sections also resonate with these broad debates. In the

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first section three papers are presented. The first paper, 'Setting the stage for responsible design' (paper 116), explores the influence of design on the world through the products and services created and draws on human-technology interactions and user-centred approaches to design to support responsible design practices – or more specifically, the way in which design/ers respond to the needs and challenges faced by society. Design interventions also raise issues around inclusivity, evaluation and unintended consequences. In a transdisciplinary workshop the authors explore issues of responsibility in academic work and more specifically the issues related to a responsible design approach. Ongoing work represents an emerging multi-disciplinary approach to responsible design that aims to develop a much wider understanding of 'responding well' in design terms. The second paper, 'Multispecies Cohabitation and Future Design' (paper 402) presents a sobering overview of human impact on the environment. Here is a more radical call for alternative solutions that celebrate a greater degree of coexistence between species. The author positions designers as the necessary imaginaries of new visions of cohabitation that are diverse, inclusive and multi-temporal. The paper proposes that this new environmental imagination has, at its roots, 'more-than-human' ethics, aesthetics and politics. The paper integrates a multi-disciplinary literature in establishing the otherness required to develop and sustain multispecies togetherness at all scales and in all places. The final paper of this section, 'The HfG Ulm and Sustainable Design: a comparative analysis' (paper 186), presents a historical analysis of the contribution of the Ulmer Institution (mid-20thC) to the development of contemporary sustainable design discourse and practice. The paper's comparative narrative uses a transportation context to illustrate examples of language and practice that reflect the forward thinking HfG Ulm contributions. The use of systemic approaches as integral to the Ulm Model of problem-solving, combined with ideas of resource optimisation (challenging the then emerging norms of planned obsolescence), ecological care and social equity all illustrate a design programme attuned to societal and planetary needs. It highlights that significant cultural and ecological challenges were recognised by some, early on in design education and practice. It is perhaps striking that where this comparison shows so much commonality with contemporary sustainable design, it also demonstrates a lack of progress in design research to imagine other ways to effectively respond to the ecological and social crises.

The second section also presents three papers. The first of these 'Over the Rainbow: Sharing a cross-disciplinary philosophy of waste through spectrum visualisation' (paper 285) usefully reviews a number of representations of resource flow and asks pointed questions of when waste is waste and when it is not, almost philosophically asking us to consider whether waste is a state of mind! The authors create a 'waste rainbow'; a useful visualisation of states of resource and how those states are ascribed waste descriptions at different stages of lifespan e.g. pre-waste, waste and post-waste. Each 'waste stage' has a number of interventions associated with it: from those that aim to prevent or postpone waste, to ways to transform waste (recycle or conversion) to post waste strategies that repurpose resources. With discussions of circular resource flow prevalent today, it is important to reflect on traditional hierarchies and representations of waste and how it, as a 'construct', is

positioned in complex systems of resource flow. The second paper in this session, 'Designerly Living Labs: Early-stage exploration of future sustainable concepts' (paper 307), address the complexity inherent in encouraging behavioural shifts towards more sustainable lifestyles. The Designerly Living Labs method used is based on empirical findings from four living labs to inform the development of concepts that nurture sustainable everyday practices in society. Through these living lab experiments the authors have developed eight characteristics that define the living lab approach and that enable design for behaviour change interventions to be trialled in creative and exploratory ways. Whereas sustainable lifestyles may sometimes be viewed as choice limiting and inconvenient, the living lab approach perhaps allows for more radical and structural interventions to be explored and played with in different spaces with engagement from a wider range of actors. The final paper, 'When behaviour change is about hot air: home systems should change behaviour to fit practices' (paper 401), explores the everyday practices of residents in differently ventilated housing and specifically the range of feedback required by people to understand how zero energy home ventilation operates and how it achieves effective air quality. Comparing behaviours of those living in controlled ventilated zero energy environments with those in more traditional housing stock shows that expected feedback signals are still relatively universal and behaviours are influenced by those norms. For example, feeling fresh air coming in through an open window as opposed to trusting a control switch to function and to provide the additional air flow needs in a more controlled ventilated environment. The paper looks at various examples of design for positive feedback to support and improve residents' understanding of new systems of heating and air flow and that encourage new practices of ventilation in zero energy homes.

About the Author:

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For more information on the Sustainability SIG, please visit the SIG's webpage at <http://drs.silkstart.com/cpages/sustainability-sig>. To find out whether the SIG is organising a satellite event to the DRS2020 conference, or just to get in touch with members and see news on the SIG, please visit the SIG webpage.