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Aesthetics, Cosmopolitics and Design

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Abstract: The scope of this theme is to explore the burgeoning interest in interdisciplinary engagements between the domains of design research and science and technology studies (STS). On the one hand, design has, for some time, been a topic for scholars in interested in the role of science and technology in 'society' where the discipline's practices and technoscientific 'objects' have been studied as a newly recognized source of knowledge production, expertise and politics. On the other hand, design scholars and practitioners have exhibited a sustained interest in STS in order to inform and theorize their own practices and analysis, notably the conceptualisation of technology-user relations by way of actor-network theory, the historical analysis of design, the symmetrical acknowledgement and inclusion of human and non-human actors in participatory research and the engagement of publics in democratic processes. Against this complex and variegated backdrop, design and STS scholars have also been engaging in interdisciplinary collaborations that productively combine aspects of practice-led research and process thought. Here, for example, designed devices (e.g. web-based visualization tools, cultural probes, computational appliances, software roBots) are designed, deployed and studied in-situ as part of inventive and so called speculative methods that acknowledge the active role of such techniques in shaping and manifesting the researched. As such, this theme explores engagements between design research and STS as topic, critical resource as well as interdisciplinary efforts where the crafting and experience of aesthetics is foregrounded as both a practical and theoretical concern and part of the reformulation of politics as cosmopolitics i.e. the modification of the social through designs and design research interventions.

1. Theme Introduction

The fields of design research, design studies and science and technology studies (STS) have, in recent years, become increasingly interwoven, entangled and variegated. The Design Research Society theme 'Aesthetics, Cosmopolitics and Design' seeks to explore a particularly salient nexus of such interdisciplinary engagements where practice-led design

researchers and STS scholars collaborate in productive dialogue in order to study the social in the making, including the novel technoscientific entities and objects that are brought into being through inventive research techniques and methods. The combined take-up of the conceptual and analytic resources, offered by STS, with the inventive methods typically employed by practice-led design research necessarily involves a preoccupation with both epistemic and ontological questions: about the knowledge that such research practices yield in relation to design, science, technology and the social as well as the nature of the elements that compose these socialities, including the active role of the research devices and instruments used therein. In foregrounding the notions of aesthetics and cosmopolitics the aim of this theme is to signal a nascent and shared concern with the aesthetic qualities of experience and knowledge (manifested through aesthetic research practices) that are intimately tied to the reformulation of how the social is made and what is is made up of and the political implication of these ontological compositions. In what follows, I briefly review some of the noteworthy points of interface between between design and STS before moving onto to a discussion where I sketch out a redefinition of aesthetics which, in contrast to classical sociology and social theory, shifts from matters of taste and judgement to questions concerning aesthetic experience. Crucially, the shift to aesthetics entails the bracketing out of the normative epistemic criteria of truth, validity and foundationalism. Drawing on the work of of Isabelle Stengers and Bruno Latour, I point to how interdisciplinary research collaborations between design and STS that involves the introduction of new research entities (designs, research instruments and devices) produces new social associations and arrangements which can be productively thought through using the notion of cosmopolitics.

For scholars in STS, the discipline of design and its associated practices has emerged as an increasingly explicit and important empirical topic where the irreducible interrelations between science, technology and society play out. Although the history and sociology of technology has long held an implicit interest in the design of sociotechnical systems (Hughes, 1983), how the success of designs are determined by the meanings attached to them by social groups (e.g. Bijker, 1995; Pinch & Bijker, 1984) and the failure of transportation design projects (Callon, 1986a; Latour, 1996) it is, perhaps, in conjunction with the disciplinary uptake of actor-network theory (ANT), the intervention and application of ethnomethodology in the design of ICTs (Suchman, 1987) and the insistence of feminist scholars of technoscience to expose gender relations embodied in designs (Cockburn & Fürst-Dilic, 1994; Rommes, Van Oost, & Oudshoorn, 2003) that design practice – and 'design' as a distinctive domain of expertise – has emerged as a substantive empirical topic. Here, empirical analysis of design practice has included studies of advertising (Hennion, Meadel, & Bowker, 1989), industrial design (Dubuisson & Hennion, 1996), participatory design (Callon, 2004), architectural design (Yaneva, 2005; Yaneva & Zaera-Polo, 2015), user-centered design (Garrety & Badham, 2004; Wilkie, 2010), healthcare design (M. Berg, Langenberg, & Kwakkernaat, 1998; Danholt, 2005) as well as specific design practices, such as prototyping (Wilkie, 2014), and sites where design expertise is enacted, such as studios (Farías & Wilkie, 2015; Wilkie & Michael, 2015).

Meanwhile, scholars in design studies and design research have drawn on STS to provide theoretical and analytic resources with which to critically reflect on the social shaping and life of design artefacts (Woodhouse & Patton, 2004) as well as conceptualise the doing of design research and inform design pedagogy (Wilkie & Ward, 2008). Notable examples, here, variously address the role of public participation and citizen engagement in governance and democratic processes. Here, participatory design is undergoing reconceptualization where participation is (symmetrically) broadened to include the active involvement of humans and non-humans (Binder, Ehn, De Michelis, Jacucci, & Linde, 2011; Ehn, 2008) in deliberative design processes, thereby acknowledging the ontological diversity of political collectives. Similarly, design researchers have developed a sustained interest in the public accountability of science and technology and the ways in which practice-led research can mediate public engagement (DiSalvo, 2009; Kerridge, 2015) with the risks posed and controversies precipitated by developments in technoscience. Such techniques have also inspired a reciprocal take-up of design by STS as part of experiments in exploring the relations between laypersons and experts enacted in science communication (Horst & Michael, 2011).

Though heuristic and certainly schematic, the above highlights just some of the interplays between the two fields that serves as a backdrop for another, more interdisciplinary, mode of engagement. In this mode we can discern a more explicit 'mutual imbrication' (Barry, Born, & Weszkalnys, 2008, p. 25), or reciprocal capture (Stengers, 2010, p. 36), where distinctive knowledge practices and interests intra-act, co-producing mutual obligations and requirements. An early (1998–2000) and particularly noteworthy example of design and STS collaboration began as the 'Web Geographies' project, a collaboration between Science Dynamics at the University of Amsterdam and members of the Computer Related Design Department at the Royal College of Art, London, which grew into govcom.org as part of the Design and Media Research Fellowship at the Jan van Eyck Akademie in Maastricht. Here, the web was viewed as a novel and active site for knowledge politics (Rogers, 2000) and as an experimental setting for the deployment of research devices, such as the Issue Crawler (Marres & Rogers, 2005), a search engine-like application for tracing and disclosing issue-networks and publics, around debates such genetically modified food and climate change. Arguably, this collaboration pre-figured and informed the more recent sociological pre-occupations with big data (Kitchin, 2014; Ruppert, Law, & Savage, 2013), digital instruments for social research (Marres, 2012; Ruppert, 2013) and digital sociology more broadly. More recently, the RCUK funded Energy and Co-Designing Communities (ECDC) project involved an interdisciplinary collaboration between designers and scholars of STS in which a more-than-human (Tsing, 2013) and cosmopolitical approach to design was pursued. Here, the researchers sought to explore the nature and composition of energy-demand reduction practices and problems by way of engagement workshops, cultural probes (B. Gaver, Dunne, & Pacenti, 1999), Twitter bots (Wilkie, Michael, & Plummer-Fernandez, 2015) and the Energy Babble research device (W. Gaver et al., 2015), all of which were specifically designed to investigate the research milieu of local community engagement with climate change. Common to both projects I have described above, is the involvement of design researchers

in devising and shaping the visual, material and auditory (in the case of the Energy Babble) qualities and therefore the specificity of the aesthetic form and experience of the various research instruments and materials that were deployed in their interdisciplinary research practices. Arguably, the rationale for such efforts, briefly put, is that such research instruments are an active addition to the settings in which they are deployed and, rather than being downplayed, bracketed out or rendered invisible as is often the case, their functional and aesthetic roles are situated and reflexively acknowledged.

If one of the key lessons of STS is to open up and investigate the black boxes and hard cases that contribute to the dynamics of sociality and its manifold modes of existence whilst keeping an open mind as to the (ontological) contents of said boxes and nature of cases, it follows, then, that aesthetics might hold much promise with such a perspective. At first glance aesthetics might appear to be beyond the pale as a practico-theoretical concern, as the preserve of philosophy, art theory and cultural sociology (De la Fuente, 2000) arguably predicated on, following Kant, reflexive judgements, reasoning and appreciation concerning taste and nature (e.g. the sublime). If, however, aesthetics precedes cognition this raises the possibility of a non-human centered and practical approach to aesthetics (Binder et al., 2011) in which both humans and non-humans undergo uncooked (Dewey, 1934/2005, p. 207) or pre-esthetic aesthetic experience. In other words, the principle of analytic symmetry (Bloor, 1976; Callon, 1986b) can be extended to that which produces and experiences feelings rather than reducing aesthetics to and inflating is as a human-only privilege. For interdisciplinary engagements between design and STS, aesthetic practices and experiences can thus become a shared concern for the kinds of entities that are researched and elicited during research events. As Steve Shaviro (2009, p. 47), citing A.N. Whitehead (1933/1967, p. 176) puts it: "Aesthetics is the mark of what Whitehead call our *concern* for the world, and for entities in the world".

The move to (generic) aesthetics as part of research practices, proposed by this theme, therefore includes a commitment to the nature and quality – the modes of existence (Souriau, 2015, p. 131) – of all those involved and composed in the research process: researchers, researched, research devices and a commitment to what they become in the research process. This move necessarily involves a move away from the normative politics of design (Garrety & Badham, 2004) where what counts as human and what counts as the technological is pre-given, to an unfixed, heterogeneous and emergent political ontology where design and design research practices, for example, occasion novel ontological possibilities as well as the eligibility to participate in collective life (cf. Marc Berg, 1998; Wilkie, 2010). The wager of this theme, then, is that research practices (in this case linking design and STS) involves, following Stengers (e.g. 2005), a cosmopolitical commitment to working with those affected by a (research) issue as well as a speculative obligation to those entities (users, collectives, communities etc.) who emerge by way of research practices.

With the above in mind, the papers included in this theme explore the notions of aesthetics and cosmopolitics in different (implicit and explicit) ways. In almost all, however, there is a

distinct preoccupation with aesthetic processes and the nature and composition of participation in the empirical settings of the research and during the enactment of research practices. Substantively, and in no particular order, the contributions variously explore how common worlds and collectives are fashioned (or not) in a diverse array of empirical settings, including but not limited to: Scandinavian furniture design (Gasparin and Green), the Chilean National Zoo (Hermansen, Tironi and Neira), the Internet of Things (Reddy and Linde), computational (Forlano) and wearable fashion (Widle), the web (Mauri and Ciuccarelli**)** and social media (Alshawaf), Eselek village, Gokceada Island, Turkey (Cheung-Nainby), cultural institutions in Copenhagen (Olander), the Berlin Laboratory for innovative X-ray Technologies (Marlen Dobler), the Mellunkyla neighborhood in Helsinki (Koskinen) as well as various UK-based biomedical institutes (Kerridge). It is in this emergent ecology of design research practices (visual, material, speculative, critical, ethnographic, diagrammatic etc.) that the interplay between aesthetics, cosmopolitics and design is beginning to play out.

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