Made in Criticalland: Designing Matters of Concern

Matt Ward & **Alex Wilkie**

Department of Design, Goldsmiths, University of London

Paper prepared for Networks of Design:
Design History Society Conference, September 2008

Abstract

Critical and theoretical concepts and theories are now firmly embedded within design education, but to what goal? How will the practice of design develop and change under the ethos of critical inquiry? Indeed, what version of 'critique'? Taking inspiration from Latour's essay 'Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern (2004), this paper will outline how we are introducing concepts and methods derived from science and technology studies (STS), principally developments in actor-network theory (ANT), as part of the BA and MA design programmes at Goldsmiths. To begin, we provide a brief reading of Latour's essay, discussing its relevance for design education. In doing so we aim to propose an alternative version of critical practice: a criticality that is oriented towards a non-reductive empirical realism tracing the complex messy entanglements of societies with all their strange, weird and wonderful hybrid objects. At the core of the paper, then, is the question of how designers might adopt a realist empirical approach towards the research of societies, actors and networks, whilst allowing for creative speculation. To address this question we present two case studies to highlight the benefits and shortfalls of an STS and ANT inspired approach to design. The first describes a series of workshops with which we encourage our students to adopt the concepts and methods of STS and ANT as part of their design practice. In the second case study we present a design brief in which we ask students to seriously address fictional futures through the associative mingling of statistical entities. In doing so we are exploring how design can address the mediation of expectations and temporality: how, for example, designers might act with 'matters of concern' to prospect futures. Each of the case studies highlights a problematic found within both ANT and Design: the first issue is one of truncation. How, in accepting an empirical logic of connectivity, designers delimited and edit their networks of observation and influence. The second case study focuses on the issue of temporality, or more specifically 'future orientation', 'potential' or 'prospect'. Here, design can be seen as a means of 'departure' in the material-semiotic lives of objects.

Introduction: Towards a Critical Practice

When starting a paper taking its cue from Bruno Latour's 2004 paper *Why Has Critique Run Out of Steam? From Matter of Fact to Matters of Concern* we have to clarify our position with regard to the context in which we write; where do we aim to act and what do we wish to achieve? Our position here is one of design educators, charged with the development of the next generation of designers. We are interested in how the concepts and methods of science and technology studies (STS), particularly developments in actor-network theory (ANT), can be fruitfully utilized within the teaching of design processes: in design 'means' not ends. The aim of this paper is to sketch out how we have been encouraging novel STS informed design practices, whilst reconsidering the role of critical theory in design education, research and practice.

Over the last two decades UK design education has embraced the conceptual orientation of poststructuralism and the implications of postmodernity. Throughout the UK Critical and Contextual Studies in Art and Design tout the wares of thinkers such as Baudrillard, Derrida and de Certeau. The word 'critical' has been thoroughly integrated into the vocabulary of young designers and has become the banner under which non-normative design practices are taught. Taking our cue from Latour and the cohorts of STS scholars we argue that an emphasis on realist empiricism within design education provides an alternative version of critical practice: a criticality that is oriented towards tracing the complex messy entanglements of societies[1] with all their strange, weird and wonderful hybrid objects.

On the one hand there is intense interest emerging within STS in topics such as product design (Verbeek, 2005; Shove, 2007), architectural design (Yaneva, 2005), human-computer interface (HCI) design and computer-supported cooperative work (CSCW) (see for example: Danholt, 2005; Jensen, 2001; Suchman, et al. 2002).[2] More broadly, scholars are also exposing the significance of design as a 'creative' industry of serious significance within western capitalism (Thrift 2008, p.33). On the other hand design is starting to take interest in STS, not least testified by the theme of this conference, but also the contribution of Latour to Domus (see for example: 2004, June) suggesting a nascent courtship between design and STS. One early example of interdisciplinary work between design and STS is the work of govcom.org, in particular studies involving the issuecrawler search engine and visualization tool (see for example: Rogers, 2000; Marres, 2005). Moreover, in the commercial realm, industrial social scientists are increasingly drawing upon STS (see for example: Nafus and Anderson, 2006) in the inventive ethnographic production of societies.

What, then, does STS provide designers? Moreover, what form of criticality does STS afford students of design? We'd like to sketch out a response to this question by drawing out some pertinent points from Latour's essay (2004). First, Latour calls for a renewed empiricism, a realist attitude (Latour, 2004, p.231) to what, after Gabriel Tarde and A. N. Whitehead, he names societies. Second, Latour further specifies that this form of empiricism approaches objects as heterogeneous ensembles that are irreducible to single analytic categories, whether human, natural, social, technological and so on. The reductive nihilism of other forms of critique, argues Latour, is that they are incapable of taking the complexity of real objects seriously.[3] Put another way, being critical in the Latourian sense is about an empirical

---

[1] It is important to note that in using the plural of society we are recognizing that there is not a homogenous 'social' but rather a diversity of emergent collectives and societies that do not necessarily bind together in unity.

[2] HCI and CSCW have a longer history of involvement with STS since the turn of attention of scholars in science studies to technology.

[3] Latour also argues against this form of empirical and theoretical approach in Irreductions (Latour, 1988). We might also say that being critical in the Latourian sense is set against the distancing and reductive acts of critical discourse. Being critical, in the non-Latourian sense, can be understood as the practice of setting up empirical distance by reducing a technology or an object of concern to an underlying ideological programme or pre-given normative capacities and as such it comes to be understood as a channel of negative force and singular agency. Latour's empiricism, on the other hand, calls for a proximity to objects of concern, and in doing so acknowledging the complexity of objects and their inherent multiplicity.

attention to and fascination with ontological multiplication.[4] Arguably, Latour's essay can be read as part of his continued critical shift from the judgment of ontological difference as made in early forms of ANT towards an ethos of ever-more connectedness. In what follows we will present two examples of how we are translating this additive version of empiricism into design education.

Mapping societies

The first example is from a series of workshops entitled *Mapping Societies* (MS) run with design students at both BA and MA level at Goldsmiths. The workshops were first developed as part of the *Methods and Processes* course within the BA Design program. This course is comprised of a series of workshops where design students are taught the practical and material skills associated with the practice of design: drawing, modeling and other practical ideational techniques. With the MS workshops, we acknowledge that societies, or assemblies, are another necessary material for design students. In doing so we believe design students must become cognizant of and engaged in our technosocial, technoscientific world. To this end the MS workshops have been conceived of and composed as an introduction into the instruments of qualitative social research, and more specifically the methods and research objects closely associated with and inspired by STS, particularly ANT.

We currently run four MS workshops with the students. Each workshop focuses on a different research method and, consequently, a different research object. Students are provided with an introduction to the method and an introduction to how to approach the particular object they will be working with. So, for example, during the workshop *Mapping the User* students are introduced to the semi-structured qualitative research interview and to the notion of the user as an assemblage co-constituted with, but not limited to, an object of use. *Re-scripting Artifacts* addresses consumer products and here the students are asked to utilize Akrich's script theory (Akrich, 1992) as a means to explore the ensembles of heterogeneous entities, their roles and relations that constitute an artifacts program of use. For the workshop entitled *Mapping Controversy* the students are asked to bring newspapers, choose an article reporting on a topical issue and then diagram the relations within and between actors, entities, claims, counterclaims, stakes and so on. In doing so the students are exposed to, what we believe is, a novel means of topic selection: from matters of concern that have not been settled and publics they may not have previously considered to the contestation of futures in the present. After each mapping activity the students are asked to imaginatively interfere and intervene with the societies that they have mapped: to start making design decisions. The overall goal of the workshops is to equip our design students with the techniques and tools with which they can approach societies without pre-conceived notions about the identity and capacity of actors, and the kinds of processes and relations their societies might consist of. In short, to liberate them from 'naturalized objectified' accounts of the social and 'ideological biases' (2004, p.227) and to encourage the students to acknowledge that there is no received 'sure ground' (2004, p.227). To this end we encourage our students to go out, open the black boxes (Latour, 1988, p.2) and untangled the complexities and novelty they encounter and in doing so provide their own situated and partial descriptions and new design contexts.

Lets look briefly at an example of one group of student's outcome during a *Re-Scripting Artifacts* workshop. As we mentioned earlier, the students are asked to diagram the identity and capacity of actors and their mediation embodied by a consumer product. One group of students chose a digital camera as their object of analysis. The students mapped out how the scripted end-user is encouraged to perform the role of an amateur photographer in combination with the camera. How particular photographic, aesthetic and bodily norms are enforced through instructional prompts, user-interface elements and ergonomics. How the

---

[4] To explain this form of empiricism Latour draws on A. N. Whitehead's concept of bifurcation where entities are separated and diminished into artificial categories. This form of non-reductive empiricism is analogous to Gilles Deleuze's description of an additive and relational empiricism (Deleuze and Parnet, 2002, p.57).

'best' results conform to norms of amateur photography and certain aesthetic expectations. Concentrating on camera control the students re-scripted the artifact by imaginatively allowing the camera to take photographs at the wrong time, not when instrumentally operated, thus circumventing the conventions of photographic production. Here, the students were interested in promoting aesthetics of chance.

To bring this into context: the MS workshops consist of two key pedagogic goals. First, is the acquirement of understanding and experience in the tracing, mapping and diagramming of societies through different contexts and media. Second, is the development and awareness of the designer's ability to intervene and interfere with the societies they have assembled. In doing so the students are creating new alliances, new actors, but they are also doing this with the potential for alliances afforded to them by the societies they have described.

Mediating futures

So what are the problems and limitations of ANT for designers, how does an ANT approach to an understanding of societies fail the needs of designers? One that we wish to focus on for the remainder of this paper is that of temporality, or more specifically 'future orientation', 'potential' or 'prospect'. One critique of ANT is that it does not help to understand the future of an actor (Harman, 2007, p.166). That is to say, what potential lies within the web of alliances that constitutes an actor and what futures are possible? This is a problem for design: the potential, hope and expectations that are at work in the present need to go through a transformation in order to create new material forms.

To develop this issue we turn to a studio brief run at Goldsmiths entitled *PEST*. The project takes inspiration from the macro environmental analysis framework also referred to as STEP, DESTEP, STEEP, PESTE, PESTEL, PESTLE. It is a form of business analysis that breaks down external market influences into Political, Economic, Social and Technological factors in order to give a 'big picture' of any given business context. [5] The brief was separated into three sections; 'find your facts', 'describe your world' and 'design for the future'. The first section asked the students to find four statistics: political, economic, social and technological. Once found, the students were required to project each statistic ten-years into the future; tutors encouraged the selection to be diverse, allowing tensions and unusual contradictions to emerge. Armed with their four projections the second part of the brief asked them to 'paint a picture' of the world where their projections were considered fact. Students were asked to consider the minutiae of people's everyday lives and represent their 'future world' through words, film, drawing and montage. The final section of the brief asked the students to design a new artifact to meet the requirements and fulfill the desires of the actors that inhabit their fictional worlds.

The *PEST* project sets out to build an understanding of the complex negotiations and mediations that designers are required to act within. It aims to aid the students in the development of a critical eye in the reading and presentation of statistical data. It also promotes an ideational process with a derivation in the empirical world, whilst understanding designs role in the projective act of world shaping and building. The project brief encourages students to regard contemporary controversies as a resource for design action, building on Dunne and Raby's notion (2002) that our 'challenge is to blur the boundaries between the real and the fictional, so that the conceptual becomes more real and the real is seen as just one limited possibility among many' (Dunne and Raby, 2002, p.65).

To illustrate the work arising from the brief we'll look at a project entitled *Sexual Health for the over 55s* by Liam Healy. Healy's project started from the following statistics; "*Over 55's spend £195M a year on improving their sex lives*", "*Almost a quarter of men and women in England are now obese and the proportion is forecast to grow to 60 per cent by 2050*" and "*By 2050 one third of Europe's population*

---

[5] Additional taxonomies of Environment/Ecology, Law and Education have also been included.

will be over 60" [6]. Healy's work took discrete trends found within demographics and the sex industry to find a novel site of biopolitical practice. By 'following the actors themselves' (Latour 2005, p.12) and connecting unexpected networks of alliances he prospected a potential policy initiative, market, use and culture surrounding sexual activity. His work paints a picture of a world were the search for longevity and the battle against obesity leads to an exercise-centered form of sexual intercourse. By making new associations and connections between previously discrete actors, he imagines a new form health care motivated by publicly funded sexual advice. With the intention of creating a convincing narrative, Healy designed the NHS literature together with proposals for new sex aids.

Healy's fictional world, although strange and unfamiliar, resonates with current practices and issues. Through the juxtaposition and assimilation of two very different views of sexual practice and health care he created an alternative possibility. In order for the work to be considered a success it is necessary to examine and evaluate how the fictional scenario resonates with the target audience. This therefore points towards a mode of analysis for speculative design practice, one that assesses the resonant qualities found in between the fictional and the real, where the material produced acts as a means of persuasion or enrolment in order to build bridges and propel the imaginations of the actors involved.

It is important to note that the design of Healy's sex aids remains unresolved; they exist as an image in order to provoke the reader into questioning current values and practices, they remain as 'gaps' (Dolezel, 1995) in the projects narrative, waiting for interpretation and inference within an ambiguous network of actors (Gaver et al. 2003). At this point it maybe useful to draw from Fictional Worlds theory (see for example: Dolezel, 1995; Pavel, 1986), by viewing speculative design in the same way that we would read literary fiction. In the construction of fictional worlds, the designer has some control over the level of detail that they complete, like a fiction writer the designer connects, sometimes-disparate, actors in order to create new events or narratives. However, following Dolezel (1995) it is the gaps, ruptures and voids that act as 'stimuli or propellants for the reader's imagination' (Dolezel, 1995, p.2). With this approach it calls into question the need for careful selection of the routes and traces we make throughout the network, how we stay silent in the our representations of tomorrow.

Conclusion

What we have sketched out is an approach to design education wherein empiricism and multiplicity are foregrounded as practical resources for designers. Whether it's through sociologically inspired research techniques or through the play and association of statistical entities that expose the mechanics of possible future social vectors. In both cases we ask our students to follow the actors (Latour, 2005, p.68), trace the networks and assemblages and thus provide their own accounts of *states of affairs* – responding as designers, not as social scientists – and, crucially, participate in what Donna Haraway calls materialized refiguration (Haraway, 1994, p.5).

Although ANT has been accused of god tricks, accounts of heroic and centered action (Haraway, 1994, p.64-65), gender blindness (see for example: Wajcman, 2000, p.453), partisanship to the 'network' as an organizational metaphor (see for example: Mol and Law, 1994, p.643) and the problem of truncation (Haraway, 1991; Strathern, 1991) we would like to conclude by offering some thoughts about how our design students participate in the production of future, fictional networks. One way to do this is to consider designers as material-semiotic storytellers. Actors who produce fictive scripts (De Laat, 2000, p.176) in which propositions about the future are articulated in the present. In this way design can be seen as 'starts' (Law, 1999, p.110) or 'departures' in the material relationships of objects:

---

[6] Unfortunately, the sources of Healy's statistics were not available, except for the following: <http://www.independent.co.uk/life-style/health-and-wellbeing/health-news/obese-people-will-be-paid-to-lose-weight-773155.html>. After writing this paper, it was clear to the authors that the research practices of second year undergraduate students needed improving.

trajectories of a conceptual life and propellants for the imagination. The problem here is the balance between the fictional and the concrete actual. As material-semiotic storytellers designers adopt a role in which the construction and communication of possibility is wound into the generation of belief and hope, where new worlds are made and remade in order to persuade, convince and challenge pre-established norms and whereby, temporality becomes a medium for our practice, where not only relations between actual objects, actors and entities are bound together but also the mediation between the existing and the yet to exist.

References

Akrich, M. (1992). The De-Scription of Technical Objects. In *Shaping Technology/Building Society: Studies in Sociotechnical Change*, edited by W. Bijker and J. Law. Cambridge, Mass.: MIT.

Danholt, P. (2005). *Prototypes as Performative, Proceedings of the 4th decennial conference on Critical computing: between sense and sensibility*. Aarhus, Denmark: ACM Press.

De Laat, B. (2000). Scripts for the Future: Using Innovation Studies to Design Foresight Tools. In *Contested Futures: A Sociology of Prospective Techno-science*, edited by N. Brown, B. Rappert and A. Webster. Aldershot: Ashgate.

Deleuze, G. and Parnet, C. (2002). *Dialogues II*. London: Continuum.

Dolezel, L. (1995, Summer). Fictional Worlds: Density, Gaps, and Inference. *Style*. 29(2), 201-214

Dunne, A. and Raby, F. (2002). *Design Noir: The Secret Life of Electronic Objects*. Basel: August/Birkhauser.

Gaver, W. W., J. Beaver, and Benford. S. (2003). Ambiguity as a Resource for Design, *Proceedings of the SIGCHI conference on Human factors in computing systems*, Ft. Lauderdale, Florida, USA, 233-240.

Haraway, D. (1994). A Game of Cat's Cradle: Science Studies, Feminist Theory, Cultural Studies. *Configurations*, 2(1), 59-71.

Haraway, D. (1991). *Simians, Cyborgs and Women: The Reinvention of Nature*. London: Free Association Books.

Harman, G. (2007). *The Prince of Networks: Bruno Latour and Metaphysics.* Unpublished manuscript.

Jensen, C. B. (2001). CSCW Design Reconceptualised through Science Studies. *AI & Society*.

Latour, B. (1988). *Science in Action*. Cambridge, Mass.: Harvard University Press.

Latour, B. (1988). *The Pasteurization of France*. Cambridge, Mass.: Harvard University Press.

Latour, B. (2004). Why Has Critique Run Out of Steam? From Matter of Fact to Matters of Concern. *Critical Inquiry,* Winter, 30, 225-248

Latour, B. (2004, June). Which politics for which artifacts? *Domus.* 50-51

Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Clarendon.

Marres, N. (2005). No Issue, No Public: Democratic Deficits after the Displacement of Politics. Amsterdam: University of Amsterdam.

Mol, A. and Law, A. (1994). Regions, Networks and Fluids: Anaemia and Social Topology. *Social Studies of Science,* 24(4), 641-671

Nafus, D. and Anderson, K. (2006). The Real Problem: Rhetorics of Knowing in Corporate Ethnographic Research. Paper read at Ethnographic Praxis in Industry Conference (EPIC), at Portland, Or.

Pavel, T.G. (1986). *Fictional Worlds*. Cambridge, Mass.; London: Harvard University Press.

Rogers, R. (2000). *Preferred Placement: Knowledge Politics on the Web*. Maastricht: Jan Van Eyck Akademie.

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

Strathern, M. (1991). *Partial Connections*. Rowman and Littlefield.

Suchman, L., Randall T., and Blomberg, J. (2002). Working Artefacts: Ethnomethods of the Prototype. *British Journal of Sociology*, 53(2), 163-179

Thrift, N. (2008). *Non-representational Theory: Space, Politics, Affect*. London: Routledge.

Verbeek, P. (2005). *What Things Do: Philosophical Reflections on Technology, Agency, and Design*. University Park, Pa.: Pennsylvania State University Press.

Wajcman, J. (2000). Reflections on gender and technology studies: In what state is the art. *Social Studies of Science*, 30(3), 447-464

Yaneva, A. (2005). Scaling Up and Down: Extraction Trials in Architectural Design. *Social Studies of Science*, 35(6), 867-894