

“Does sustainability localise networks of design?” in proceedings of “Networks of Design” Design History Society International Conference, Tremough, September 2008.

Does sustainability localise networks of design?

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In what follows I hope you will forgive a certain hybridity in language and thought; I have used the challenge of addressing you this day as a welcome opportunity to explore the ideas of Bruno Latour and it will be obvious that the density of his insights are only partially adapted to the exposition of my thoughts.

“Designing is not a profession, but an attitude. Design has many connotations. It is the organisation of materials and processes in the most productive way, in a harmonious balance of all the elements necessary for a certain function. It is the integration of technological, social, and economical requirements, biological necessities, and the psychological effects of materials shape, colour, volume and space. Thinking in relationships.” (Moholy-Nagy, 1969, 42)

Note the productivism, the balance and the pluriversity in this. Clearly design and its history has to be one of our texts, or as Latour would have it, a ‘matter of concern’. (Latour, 2005, 87)

I have identified four preliminary matters of concern, starting with the idea of the texts that give the paper its place in this strand. They are Texts, Sustainability, History (especially as evidenced in design history networks), and as becomes clearer later, Localising actants

Texts

As a teacher of cultural studies I am as prone as others to the solidification of thoughts, the stabilisation of my ideas. And when I review the history of communication I am as guilty as many in the point I want to make to graphic design students – much of the impact of the development of writing (of text) was in the permanence it induced in its readers’ thinking. Such is this power that even the diversity of texts induced by the Gutenberg revolution was still predicated on this original power of the text. I often have resort to the epithet – ‘Beware the authority of the printed word’.

Latour suggests that much of Science (capital S) struggles with this - the idea that facts, like texts, have a permanence and a Kantian existence. The texts I want to talk about today are, by contrast are the result of process; Latour uses the term ‘reports’. My texts are therefore processual, rather than factualising entities. And how are texts to be applied in our focus today? What is my report?

Reading back into design history we hear Neville Brody and Stuart Ewen, at a conference in 1989...

”We must find new languages; and rethink the world according to the needs of individual human communities. (...)

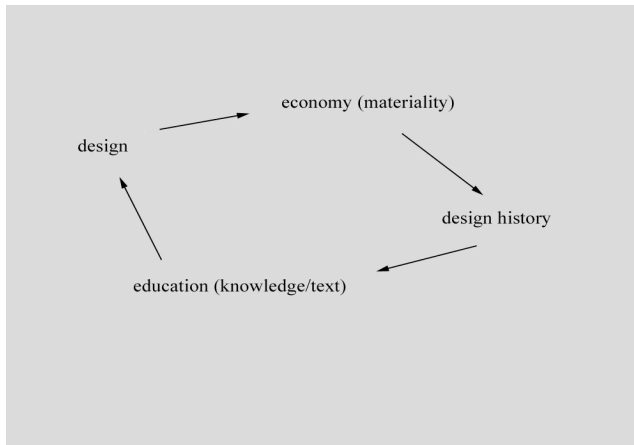
This can not be left to the wiles of “experts” or “specialists.” As long as design is defined as a profession — an insulated commercial priesthood — the public will be seen as little more than fodder for the market.

The requirements of community, the preservation of human and material resources, the liberating powers of education — not indoctrination — should stand at the center of the design process, guide its development.

True education must encourage social criticism, vision, creative self-expression, questioning, dangerous ideas... even subversion, where necessary.” (Brody & Ewen, 1990, 121)

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Design history is obviously integral to the educational process. From the above you’d be forgiven for expecting history to be liberating, (especially in 1989!).



(Figure 1) Economy and education in the network of design

So this study focuses on texts as impacts – on what I suggest are *the impacts of knowledge/texts within the knowledge economy as it creates transactions within the economy of things* (which include, of course, people).

In this report, at this Networks of Design conference, do we see knowledge itself as created by the network, dematerialised from its origins in the design process in a digitising world, extracted from its expression in material media such as the book and even now from the static databases of Berners-Lee’s original conception of the World wide web - Web 1.0 as we should now call it, I suppose? This knowledge economy relies on the cycle of reports, and the production of design history as an element of that.

But increasingly (digitised) knowledges in the knowledge economy become that which is expressed by the network at the point of materialisation – the concatenation of actual design needs, concepts and realisation. Text becomes the instance of the network upon that design demand made of it. The browser realises your actual demands. You could call it Design 2.0, you plug-in your demands, and your network gives forth your answer.

For design demands that are made in the material world, and this makes local the activity of texts, localising the network of design. And if we go back to trace the impact in the network of the relations between education and design we can see again that the text is the impact that education had upon the instance of design. But we move too fast, we should return to our matters of concern.

Sustainability

Current views of sustainability expect digital ecologies, advances in the creation of networked knowledge to be translated into biomaterial ecologies of consumption or applied design. This emerges as a *regulation* of the current extended networks of production, that have been brought about by twentieth century or ‘modern’ networks of design. Such earlier networks of design, however, are characterised by their attachment to the materialities of design; both in the collective appreciation of ‘design’ in our material world, but also in the physical links that bind ‘designers’ together; co-study, co-practice and co-presence in studio. Garry Stevens’ review of the social foundations of architectural distinction gives a good Bourdieuan analysis that can underpin a critique of some the networking process of social capital involved. (Stevens, 1998) Thinking relationships indeed!

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However, it seems that the ‘more modern’ knowledge economy is explained as the separation of design from its material expression, exemplified most coherently in the process of branding. In this separation process the industrialisation of emergent economies proceeds through the migration of production into less developed economies, leaving design activity in the developed economy. This history is important for what it induces in terms of the role of the design network as an indicator of current impacts in the global economy. Is the growth of creative industries more the manifestation of this dissociation of design and material rather than the growth of designed economies?

How is it that such contemporary networks of design become dematerialised? What epistemologies of design can be translated beyond the perceptual collectivity of the typeform, the material and economic functionality of the design process or the co-presence of designers or design historians?

Can we reveal something new in the history making of new knowledges about sustainability? And they need to be new. I suggest this is because they are implicated in what Stern has called the ‘greatest market failure of all time’. Our economy and materiality has blindly ignored the overflows (Michel Callon’s term) or externalities of its activity.

Let me introduce a further text to illuminate my thesis. I apologise to those of my audience who have been brought up to anticipate design history texts – but I found this so compelling that I am going to give it an extended analysis.

Sustainability is such a transcendent narrative (not least because it dislocates, chaoticises, refuses to sit down, won’t be ignored). It is provocative term, its meaning really unknown in these times, reduced to a dull economism by the thrust of the innovation-centric and accounting rhetorics that govern the political ecology of our time. Yet it is here. This week I followed a link to a blog critical of all this, pointing to the immediacy of the text. We have Chochinov’s 1000 words (Chochinov, 2008), we have the Design Council’s Good Design Plan, we have

The Design Accord, which reads

- “1) Initiate a dialogue about environmental impact and sustainable alternatives with each and every client. Rework client contracts to favor environmentally responsible design and work processes. Provide strategic and material alternatives for sustainable design.
- 2) Undertake a program to educate your teams about sustainability and sustainable design.” (Design Accord, 2008)

Even the current London Design Festival is going sustainable (Design Week, August 13, 2008).

Within this burgeoning contemporary engagement one can identify some of the threats and the responses that range from denial to reframing. This is what has made Latour so interesting for me; the identification of the political project that the modernist separation of nature and culture has brought us. Most evident of this process has been containment of sustainability within Science – especially by the universities. It was David Orr that first remarked that it was the people with the qualifications that have most contributed to bringing us all to this sorry pass.

History

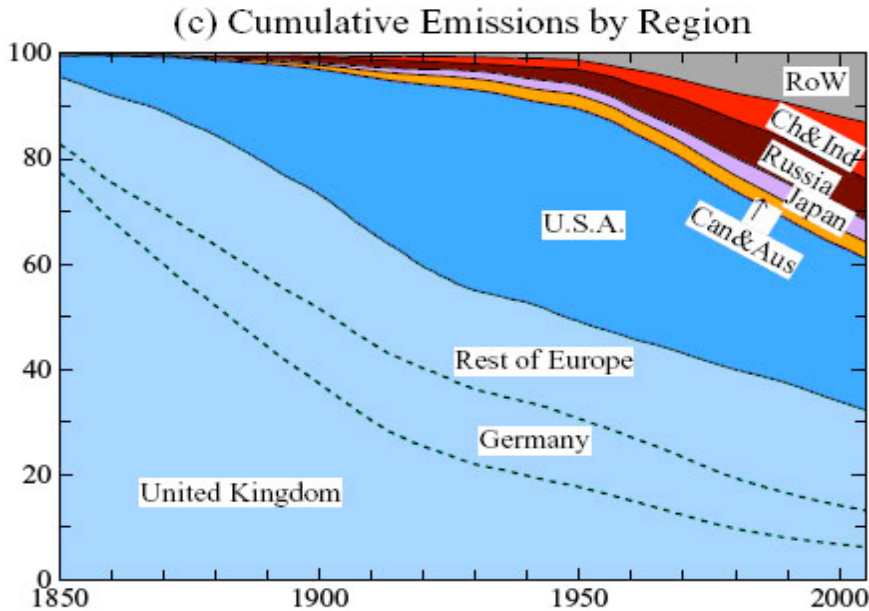
But now I want to ask whether we should rely on Science for the realisation of sustainability – can design history play a role? Can we see design history and its networking variously

- not as hot air, but as CO₂e emissions
- as the emission of totalising narratives
- contributing to sense-making amongst designers

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- revealed graphically in a continuing process of history-making?

I want to suggest today that this graphic, that shows the cumulative emissions of CO₂e by region, is one of the most compelling panoramas of contemporary life (See Figure 2)



(Figure.2) Dangerous man-made interference with climate (Hansen et al., 2007)

This summarises the unsustainable activity of the design economy based on the use of fossil fuels over the past 150 years. It is a design history in that it enables us to picture the developing impacts of assumptions made about those ‘harmonious elements necessary for certain functions’ in Moholy-Nagy’s terms.

But let’s think in terms of historical phases – the 19th century, early twentieth or inter-war, the post-war settlement and late capitalism. In these tropes can we see Victorian industrial development, technology transfer, the emergent economy, path dependency? It’s difficult – this is cumulative emissions – we cannot see the tremendous overall growth.

I want to introduce a particular lens, (or actant,) to reveal more about the processual that might be indicated in this panorama. The UK housing stock is categorised in terms of age into four bands, having associated design considerations:

UK Housing Stock		
	age	% stock design considerations
<1919	24%	solid brick walls; coal
<1944	43%	suburban cavity with fuel choice
<1964	65%	post-war energy productivity until oil shocks

Evidence of the statistician’s hand may be discerned in the width of such bands but we can trace some of the considerations that threaten our sustainability today. If we think about energy and its use in the built form we can certainly trace the emissions. (And thinking energy we must also

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include embodied energy – most particularly in the form of concrete. A real design consideration!)

If we accept energy as an actant, we can observe

- its impacts on initial design form
- its impacts on subsequent design interventions –including such impacts as path dependency
- that design is therefore a major impact in a political ecology
- that it may be easy to see at global level, much harder work at local level – the devil being in the detail.

If we accept that actant (energy), can we observe further actants within this panorama?

Could we point to a process of globalisation, supported by design and networks of design? Could we trace the impacts of design across the global economies and materialities after 1950? (Fig. 3)

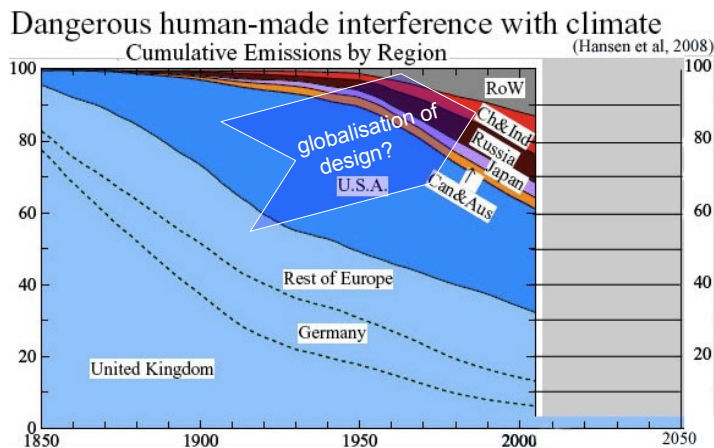


Figure 3 Design as an actant in a global emissions history (after Hansen et al., 2007)

Furthermore as sustainability is a matter for concern what could we imagine as the political ecology of the transition to a cumulative emissions future based upon a per capita index, perhaps, or some other distribution not so influenced by the design heritage of our western design histories? (Figure 4)

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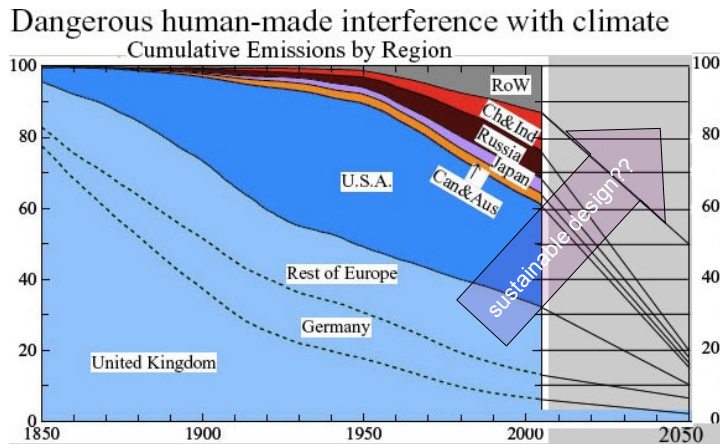


Figure 4 Imagining the impacts of sustainable design (after Hansen et al., 2007)

Localising actants

Sustainability also induces a pressure to localise in our existing networks of design. We have extended the generalised application of Design; have commodified Design to a globalised economy. If Design is the achievement of the developed economy; sustainability makes us review the role of such development, questioning the role of the network in that development, and with that the physical impacts of such networking.

Has ‘Design’ ever been abstracted, and can it be within the knowledge economy? Is this what design history is trying to do, enabling us to see the action of design as it leaves its traces in the materiality of our world? Do our design histories celebrate the local and actual emergence of design as a general phenomenon, as the action of an epistemology having a general application?

If we accept such localising actants, pressures build upon the network of design to minimise its external costs. We must reduce the tendency of economic activity within advanced economies to be based on ‘free’ transactions partaken within the bounds of what are increasingly unknown material costs, because of the ultimate costs we are discovering. Sustainable knowledge/text processes make demands on each and every impact; the review of design elements becomes more frequent, more actual and more local.

This is the impact of what Stern has called the ‘greatest market failure of all time’ (Stern, 2008) – what I’m suggesting is a failure of globalised design. What we should be doing is exploring the impacts on the local as they change the nature of design. We should explore some of the difficulties in the use of such totalising panoramas, interrogate our design histories and their networks as they globalise. We should in Latour’s terms ‘redistribute the local’, and I have taken the opportunity of this conference to point this out, using what he would call a ‘plug-in’. (Latour, 2005)

My plug-in is an instance of conference carbometry, a review of the impact of a network of design based on the carbon emissions of delegates in their travel to the conference. It raises questions about the nature of networking, and the carbon path dependencies formed our understanding of communication and knowledge. As I have suggested earlier these are being broken down by the internet, and other localising actants that affect carbon impacts of the networking of design.

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My research showed that with 167 speaking and almost 200 involved in creating the dialogue, the overall the total carbon burden of travel to this venue of that dialogue is 385 tonnes CO₂e. (Figure 5)



Figure 5. Carbon impacts of networking (conference carbometry)

The 1.9 tonnes per delegate is at the upper limit of what Stern is now calling a sustainable per capita carbon budget for 2050, in his attempt to elucidate the kinds of actions needed to create a global deal on climate change (Stern, 2008). As we decarbonise networks the impacts will be felt, but not by all - the analysis shows that 25% of delegates produce 88% of carbon footprint. Surely if a design network is to take account of its impacts, it must look to the sustainable.

The localising impacts generate some real questions.

- what will a design history look like in 2050?
- what function has the network of design in the creation of future design histories?
- how do design networks function as more than favored circles?
- do they localise sufficiently?

Surely sustainable transactions will be knowledge-led, minimising overflows/externalities at each and every instance. I see design becoming the recustomisation of increasingly digitised networked knowledges at the point of application. A more sustainable design is particular in its solutions, bounded by the constraints of real time material conditions in its contractual exchanges, in the localising knowledges of such exchanges. A design network will have to redesign its conferencing, re-evaluate the role of reassembling the social. My guess is that design will lead the way, implicated as it is directly with the material problems we face.

Conclusion

Finally some examples to give rise to some discussion. As Thackara has suggested recently in the Design Observer – we are emergent economies now (Thackara, 2008). Local knowledges and networks are the key.

Design becomes particular, local, actual. For an excellent recent case study one can see the work of Rose, M., Love, T., & Parsons (2007). Among their contributions to the knowledgebase of design we find “the potential for significant design advantages in drawing on existing socially-situated communities of practice and knowledge and design skills where these can be redirected

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toward new product and service pathways,” and “it is important to identify and understand how successful designs and design-based commercial enterprises can often be created by those who are not professional designers.”

The search for sustainability will seek to utilise networks of design in new ways, as the pressure to localise, to contain costs, to bind in knowledge from the knowledge economy into its transactions. These (I assume increasingly digital) ecologies will make texts local - binding the expressions of the network, its designs, to their localised impacts.

Localised networked design economies question assumptions about twentieth century innovation and economy. They offer the possibility of redefining the knowledge economy as one that embeds its economy in networked knowledge, rather than understanding knowledge economies as those that service and manage productive ones.

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