Sick Building Syndrome and the Problem of Uncertainty; Hertzian Tales: Electronic Products, Aesthetic Experience and Critical Design

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REVIEW

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Electronic Products, Aesthetic Experience and Critical Design

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This essay first reviews Michelle Murphy, *Sick Building Syndrome and the Problem of Uncertainty: environmental politics, technoscience and women workers*, Duke University Press, Durham, North Carolina, USA, 2006, 254 pages.

If not for the subtitle, one might think that this was a technical book on indoor air pollution and what to do about it. By the 1990s, sick building syndrome (SBS) was one of the most commonly investigated occupational health problems in the US. Certainly, internationally it has loomed large for those architects and building designers who have sought to develop more environmentally affirmative practices over the last two decades.

The author is not an architect or building scientist, but an historian, who painstakingly dissects and lays bare the multiple and often conflicting forces that created a late twentieth century phenomenon – 'sick building syndrome'. Its story is narrated as contested, uncertain and emerging out of the relations between biophysical environments, technical/professional discourses and embodied experience.

This takes Michelle Murphy on a journey across disparate territories ranging from ventilation engineering and toxicology to race relations, labour history, environmental politics and feminism. As an historian of science, well-versed in post-foundational thinking (and drawing on Foucault and Deleuze), Murphy has no illusions that her enquiry will uncover a final and indisputable truth about her object of inquiry.

While the book deals exclusively with SBS in the USA, it effectively demonstrates how the sick building was constituted as a different object by different modes of knowing and various social actors. Thus for the predominantly white, middle class, female clerical workers who spoke out on the issue, the truth of sick buildings arrived as an accumulation of physical reactions, mysterious symptoms, unexplained illnesses and observations collated in surveys, all distributed across a bounded, tightly sealed space – the remotely controlled, air-conditioned buildings in which they worked. Similarly, experienced bodily changes were made sense of as reactions to new kinds of equipment and materials (like photocopiers, toner, correction fluids, visual display terminals and synthetic materials used in office fit-outs).

Using the concept of 'regimes of perceptibility and imperceptibility' Murphy contrasts these experiential accounts with those of, for example, toxicologists, who were often called in to investigate cases of sick buildings and whose domain of knowing is based upon the measurement of specific chemicals emitted at particular levels over designated periods of time (the 'threshold limit value' as written into many workplace regulations). Then there are the 'building ecologists' who disavowed singular chemical culprits and emphasised complexity, multiplicity and a systems approach ("unpredictable health effects result when one combines numerous chemical compounds with crowds of microorganisms in busy spaces", 149). The inconclusiveness over many claimed cases of SBS (including one in the US Environmental Protection Agency's own headquarters) in large part arose from incommensurable modes of knowing.

Murphy does not naively favour experiential over scientific explanations. Instead she goes behind and beyond these and other versions of sick building syndrome, investigating further historical forces at work. These range from how ventilation engineers established a norm of 'thermal comfort' that became inscribed into the design of mechanical systems and buildings

as well as into the expectations of those who worked in them (here, Murphy draws on, and generously acknowledges, Reyner Banham's landmark history *The Architecture of the Well-Tempered Environment*[1]); how office work developed as a domain of routinised, but respectable female labour; how hierarchies and status became spatially organised; and how privilege inflects what one counts as an illness.

An interesting exposure in the book is that in the 1980s and 90s, in an effort to thwart mooted government regulation of indoor air pollution, the Tobacco Institute funded a good deal of the US research on sick buildings, this because 'sick building syndrome' accommodated the idea of *multiple* causes of indoor air pollution. The Tobacco Institute directly funded Healthy Buildings International, whose studies were frequently quoted in *Environmental Building News*, a publication used widely by progressive architects in many parts of the world.

Despite the fact that the design of buildings and building services occupies a significant part of Murphy's account, design *per se* is rarely mentioned, except in the trivial sense, like design as part of the package of 'corporate prestige' (11). This is a pity, as at many points, she acknowledges the designing power of the designed (i.e., ontological designing), such as her characterisation of the office building as a structure "giving material form to economy, and dividing people into function and rank" and which "connects with the bodies inside in myriad ways: guiding movement through space, indicating appropriate behaviours, demarcating privilege, segregating by race and gender." (11)

Because she doesn't connect this general state of ontological designing to the specific work of architects and other designers, leads Murphy to be dismissive of "environmentally minded professionals" designing "green" or "healthy" buildings (145-6); thus she closes off the possibility of seeing sick building syndrome as just one aspect of a wider condition of unsustainability, which needs to be grasped by designers and users of all kinds of buildings, everywhere. Such an opening out would make for a more affirmative conclusion than the book's rather sad and lonely ending – with a chapter analysing the self-help strategies of sufferers of multiple chemical sensitivity, a subset of the victims of sick building syndrome ('How to build yourself a body in a safe space').

Next I review Anthony Dunne, *Hertzian Tales: electronic products, aesthetic experience and critical design*, MIT Press, Cambridge, Massachusetts, USA, 2005, 174 pages.

Right at the end of *Sick Building Syndrome and the Problem of Uncertainty*, there is a note about the Feral Robotic Dog project in which cyber-provocateur, Natalie Jeremijenko worked with teenagers from the Bronx, hacking toy store-bought robotic dogs,

fitting them with environmental sensors and then letting them loose on potential contaminated sites. This could easily be dropped into *Hertzian Tales*, a book which very much celebrates aberrant uses of technology, 'users as protagonists' and the re-purposing of electronic objects for subversive ends.

Opening up a space between avant garde art and industrial design, *Hertzian Tales* discusses and illustrates many examples of design concepts and projects with a critical or playful take on the electronic products that populate everyday life. More than this, *Hertzian Tales* seeks to lay the ground for a new kind of practice – that of a critical, speculative product design. Anthony Dunne wants industrial designers to move beyond their service role. In particular he wants to prompt the use of design as a means of critique of the culture of "relentless innovation for its own sake" that characterises the electronic product domain. He advocates "the design of conceptual electronic products as a way of provoking complex and meaningful reflection on the ubiquitous, dematerialising and intelligent artificial environment we inhabit."

The book was first published in 1999 by the Royal College of Art, London, where Dunne is Professor and Head of Interaction Design. Its re-publication by MIT Press brings it to a much larger, particularly American, audience and its observations are still relevant, according to Dunne because "design is not engaging with the social, cultural, and ethical implications of the technologies it makes so sexy and consumable".

The roots of the kind of conceptual design advocated (which is to be clearly distinguished from the 'concept design' stage of everyday commercial practice) is traced to the speculative work of Ettore Sottsass, Memphis and Andrea Branzi (two works by the latter are illustrated). Dunne defines conceptual design as being more like a genotype than a prototype, containing the germ of an idea that remains constant while its final form, if it were to go into production, might be very different from that first envisaged.

The book comprises seven chapters of rather sketchily developed arguments followed by discussion of many illustrated examples. But because speculative industrial design has hardly arrived (especially relating to electronic products), most of the examples are drawn from fine art and architecture, with their long traditions of conceptual and socially critical projects. Here lies the book's weakness. Dunne appears more closely beholden to cultural avant-gardism than to a new kind of design practice. It can be argued that would-be critical practioners in fine arts and architecture are as much in need of new contexts, projects and forms of practice as are industrial designers. Some, in fact, are developing such, loosely under the banner of 'redirective practice'.[2]

Dunne wants designers to eschew simple functionality and instead, develop aesthetic possibilities for electronic products and to design things to engender poetic experiences in everyday life.

What he has in mind is not what currently dominates – aesthetics as product styling and the poetic as clever copywriting or the orchestration of product-centred emotional experiences. His reference points are avant-garde tropes such as provocation, estrangement, juxtaposition, inversion of hierarchies, and so on. While these can be important elements of any critical practice, the issue of context is vital. But this is not addressed. If only presented in exhibitions and books, speculative industrial design will become little more than a sub-branch of the fag-end of avant-garde art. Who tries anymore to argue for art's radical transformatory power?

However, it is possible to bracket out this predilection for ineffectual culturalist transgression and find what is of value in Dunne's analysis, such as his critique of the dumbing-down, normalising work done by a good deal of 'user friendly design', resulting in products that prompt a limited range of interactions and behaviours. His ideas like user-unfriendliness, para-functionality, post-optimal objects, psycho-social narratives and users as protagonists, have potential to be taken up and developed by others, which is their intention.

Overall, *Hertzian Tales* presents a worthwhile challenge to the market subservience that dominates industrial design, indicating some of the ways of turning design towards more speculative, critical possibilities. But don't take too much notice of the examples to which so much space is devoted. Certainly, they're not to be treated as exemplars – of course, the author would probably agree with this.

Notes
1. Published by University of Chicago Press, 1969.
2. See Tony Fry & Clive Dilnot 'Manifesto for Redirective Practice' *Design Philosophy Papers* 2/2003 and Tony Fry 'The Dialectic of Sustainment' *Design Philosophy Papers* 5/2003. Both available in back-issues at www.desphilosophy.com to subscribers.