

Tony Fry

Design Education in a Broken World*

As I will set out to show, getting to the issue of what design education needs to become requires a passage through three determinate contexts. The first is to acknowledge that the world we humans have created is broken (by us for us). The second is to place design education within the framework of higher education (as a broken servant of a now broken institution). And the third passage seeks to grasp the changing nature of what design now is as elemental to the broken and as an agent of breaking.

A Broken World

Unsustainability breaks the world – the world of our dependence: the anthroponcene. The more of us there are, the more the resources of the planet are utilised and in many cases squandered. Of course, this situation is not new, but it is being amplified by the desires and conduct that have come with globalised mass consumption and associated impacts. The demonstrable forms of unsustainability have been made structural and as such are now beyond moral judgment – they simply are pure negation and intrinsic to the extant mode of human beings.

As the five major extinction events of planet Earth evidenced, the biomaterial world remakes life out of post-destruction remnants. Some two hundred and fifty-three millions years ago, over ninety percent of all living matter was destroyed. “We” are a product of the left-over life. It is with some irony then that there is now talk within science, based on the rapid rate of the loss of biodiversity, that the start of the sixth extinction event has begun – this as a result of the sum of our own defuturing actions. We are the breakers of our own future, as our collective actions negate time, thus defuturing the duration of our being. By implication, we anthropocentric beings are the essence of the unsustainable. While we and other species may, and in many cases will, become extinct, life on this planet will continue in some form.

World as evoked here is the locus of our being and those conditions that must be sustained in order for us to exist. It is the Anthropocene – the world-within-the-world of human creation that continually designs human beings. World is plural, not singular. Of course, we humans not only live in the world-within-the-world but equally in the biophysical world of our animality – our first and last condition of being.

In our “dwelling in the world”, we all occupy ecologies of mind, image and dislocated

* ‘Futuring the University’ in *Sodobna Pedagogika* (Journal of Contemporary Educational Studies, Slovenia) Vol. 63, Issue 3, 2012

exchange (misnamed as consumption). What in fact human beings do is mostly to expend the use/functional and aesthetic value of things and then abandon them.

Thus, not only are the things themselves broken but also so is that metabolic process of transformation – effective the process of consumption becomes arrested. If things were actually consumed, there would be no problem, but mostly they are not. The word, the economic category, lies.

As said, unsustainability comes from the unchecked consequences of anthropocentrism. We, as “the most dangerous of animals”, are without constraint. The more of us there are, the more technology has accelerated the speed and volume of the appropriated resources, and the more our destructive power has increased. Somehow for all our “cleverness” an essential stupidity endures. Knowledge gets miscast as understanding, and wisdom, if recognised at all, is elevated above the everyday. In this respect, contrary to the trappings of material development, we “moderns” are not necessarily superior to the ancients and indigenous peoples of another time.

In sum, all those manifestations of a broken world that design so often assisted in bringing into being – environmental and climatic damage, proliferating conflict, hyper-consumption, mountains of waste, excesses of wealth and extreme poverty – are not causes of the unsustainable but its symptoms. The cause, once again, is “us”. In so many ways, humanity has been, and continues to be, destructive by design. There can be no resolution to this problem until there is an unqualified willingness to confront it and accept the enormity of the challenge before all of us. In fact, the problem will not be solved unless there is a dramatic and involuntary reduction in the size of the human population (which might happen). More realistically, in terms of directed and thus designed human action, a significant mitigation of our defuturing propensity through redirective practices, environments and knowledge is needed. Realising the scale and complexity of this objective cannot be over-estimated – the challenge is gigantic.

Higher Education

The first institutions of higher learning came out of Asia and the Middle East a millennia ago. For example, Shangyang, "higher school," in China was established sometime during the Yu period (2257-2208 BCE); the Imperial Central School was founded during the Zhou Dynasty (1046-249 BCE). The world's first University, it has been claimed, was established in Takshila (or Takshashila) – which is now in Pakistan – in 700BCE. Two hundred years later, Nalanda University in India was created. It was destroyed by the Turks in 1193 but has recently been recreated – opening in 2014 with the economist and Nobel laureate Amartya Sen as its chancellor.¹ These centres of learning covered many areas of knowledge, including military strategy, agriculture, astronomy and medicine. By contrast, the first European University – the University of Bologna – was not founded until 1088. Its *raison d'être* being: theology and the development of canon law (the law of the church). Slowly the knowledge appropriated particularly from the Middle East and Greece started to create and establish (a) hegemony of reason. Learning became secular. In 1694, the

¹ See Tony Fry, *City Futures in the Age of a Changing Climate*, London: Routledge/Earthscan, 2015, p 134.

Martin-Luther University of Halle was founded in Wittenberg – this was first secular modern university. It abandoned the practice of Latin being the sole language of instruction. Other European universities quickly followed its lead.

Drawing on the advancement of thought prior to and during the Enlightenment, the modern university became the epicentre of the production of modern knowledge and as such played a major role in the creation of the modern world. It was deeply implicated in the formation of the modern mind, the individuated and social subject, civil society and the state. Likewise, the preoccupation with the advance of reason and the sciences was a key factor in establishing industrial production and its products as well as civil society as directive of way of life and cultural institutions. Accompanying these developments was an age of colonial conquest. Not only did it put in place the inequity and appropriative material conditions of unsustainability as global norms, but also the associated excesses of colonialism caused deep psycho-social and cultural damage from which very many nations have yet to recover. Moreover, this damage underscored many geopolitical problems that still remain unresolved in the contemporary world.

In this context, and for all the claims of higher education being an affirmative force of civilisation, its darker side was fully engaged in the advancement of processes of “world breaking”. New learning gave impetus to the unsustainable, as it was used to delegitimise much traditional knowledge that had sustained the relations of native peoples in their environments for eons. One can say that both the attainments and horrors of the mind of the modern university were extraordinary, but fundamentally its age is over. So while there have never been more people attending university, the spirit of modern university is dying and is now almost dead.

One can say the modern university carried a foundational flaw. It failed to comprehend and accommodate that which the dialectic of sustainment makes evident, which is that destruction is indivisible from creation and that once recognised decision has to be bound to an ethical imperative. The dominant focus of education, not least design education in all its forms, has been upon creative innovation without due regard for what was destroyed in the process, be it material, values, ideas, cultures, knowledge or practices. Moreover, so often the past has been laid to waste, forgetting inscribed and traditional and informal knowledge erased without any informed critical interrogation.

Education has been, and is still being, totally instrumentalised: reduced to economic utility and made totally vocational. The key metrics of attainment are not based upon levels of understanding of socially critical knowledge, the exploration of radically new world views or the contestation of extant systems of belief but upon the number of jobs filled, the size of industry focused research budgets and the advancement of service to support the economic status quo.

If the global undercurrent is any guide, the “good” news of the “bad” news of the state of the world for education is that humanity is on the edge of the third epoch of the university – by necessity, the university has to be based on the imperative of producing more than just the practical knowledge that circumstances demand. It also has to deliver social and cultural

knowledge capable of dealing with the worlds the modern university helped bring into being – that is the broken world: the world made unsustainable; the world of hegemonic technology and design.

Design

Design almost totally pervades the environment in which we live. How we make the world-within-the-world, the anthroponcene, how we use this world, how we see this world – this is all a product of design. More than this, in so many ways we as humans are a product of design, for the world of design equally designs us.

Our ontology, physiology and psychology significantly arrive out of our being in a designed world. What we do, how we live and for how long, how we appear, our habits, taste and health – these are but some markers of our emergence out of, and our being in, a designed world.

There is a huge disjuncture between the extreme complexity of the presence of design in the world-within-the-world and what is taught by design education. Effectively, design education bypasses this complexity and in so doing fails to educate the designer about the designed world. It does this because of its complicity with an instrumental division of knowledge and practice that is dominantly subordinated to learning how to design within a restrictive division of labour.

Put simply, design education is about how to design in and for a market economy, rather than it being first of all about what design is and does in a global sense. Bluntly, designers are not adequately educated about the nature of design, its presence in the world and its futural consequences. I would even go as far as saying that in a real sense design education is not an education about design. Specifically, designers are taught how to bring things into being *without* any real understanding of how what they have designed has been prefigured by design and how what they have designed goes on designing in time.

Design Education as an education in design

Step one of this transformation centre is about unlearning the mischaracterisation of design as a particular valorised mode of creative aesthetic expression (the culturally popularist way design is presented). The idea “design” has to be destroyed, so that its meaning may be recovered/remade.

Step two, even more fundamental than step one: the “educational” pathway of induction into the restrictive *habitus* of design has to be blocked. What this means is not allowing the taken-for-granted actions, values and tropes of design unthinking to arrive and be occupied and carried by notions and assumptions of for instance: designers owning design practices and making the most important design decisions, design meeting needs, solving problems, adding value, being creative, having a special relation to taste making, of “incremental improvement” being improvement.

Step three is to commence learning the complexity of the designed world, what design now does and what it needs to do if humanity is to have a viable future. De facto, “Designers need to learn just how important design is, because humanity will now only get to have a future by design.”

New, non-productivist within the status quo openings into design can be contemplated, talked about, developed and embraced. In all cases, this action means that a far more developed understanding of practice be deployed – one that goes well beyond it being-in-the-world viewed simply a “doing” (instrumental action).

Practice is a compound activity in time. What this means is that all the ways in which it will now be outlined can be understood as folding into each other – thus the whole is greater than its disaggregated characterisation indicates, but it is actually unable to be described without this dismemberment.

The first thing to point out is that practice is the means by which something (material or immaterial) becomes what designs destined it is to be. Practice is thus always prefigured and therefore always directed toward an intended end (be it the realisation of an object, the development of a skill or the advancement of a process). As such, while theory can lack a practice other than itself, practice cannot be without theory, be it that the basis of that theory is embodied or experientially grounded in tacit knowledge. By implication, practice implies an inchoate *praxis*, understood here as a concern with the application of what one knows. It follows from this that the advancement and exercise of practice requires a process of continual repetition (practice in another sense).

Practices are not finite – they are not of a fixed number but continually being created and abandoned. What this means is while they always come out of a situated context, they can and are created to return and transform that context. This is exactly how redirective practice invites being understood, both in its relation to extant design practice itself and as a futural design practice.

There can be no real advancement of design or design education without a transformation of practices. The theoretical impetus to do this comes from a critique of design practice and is generative of a re-formed *praxis* seen as, but more than, “mere practice”.

The ten examples to be presented now are informed by such thinking on practice as well as being underpinned by an acknowledgement that designing in time is: designing in the medium of time with a strong sense of urgency.

1. Learning to see via the animal that we are in a world of animals (imagine!). There is no assumption here that the anthropocentric perspective can be transcended. There is a view it can be made present and thereby taken responsibility for. What becomes so experientially apparent (at least to me) is how materially out of control we humans have become when viewed from the viewpoints of our residual animal selves and all other animals. One can think this realisation, but its profundity comes from looking at one’s own world and feeling it.

2. Learning to think how to become the being we need to be – the post-human – that is if “we” are to continue being (the contest is on between the post-human, the human beyond current limits of humanity and the Kurzweilian technoid, the human erased).

As will be remembered, Kurtz is a central figure in Joseph Conrad’s *Heart of Darkness* – he was a man totally without constraint, as is Ray Kurzweil, director of engineering at Google and champion of “singularity” (which at its most extreme is the ambition to download the human brain and render the human body redundant).

3. Learning how to understand and live by the dialectic of Sustainment – living the fact of destruction as indivisible from creation (and thereby rejecting a myopic view of creativity and “creative practice”) – means that the designer has to ever walk the ethical line dividing creation from destruction, recognising the designed evidences on what side of the line designer has fallen

4. Learning to understand the nature of exchange as the primary foundation of design (the essence of the general economy in which all matter exists in a condition of exchange) rather than service being provided to the dislocated restricted economy (of capitalism) as it exists disconnected to exchange at large. What this means is that anything within the restricted economy cannot function with a fundamental sustaining ability. This is not a matter of form but of location. It mattered not a jot if the deckchairs on the Titanic were made sustainably from a sustainable material and could be recycled or even up-cycled or not for they were being carried by a doomed vessel.

5. Learning how to stop designing most of what is currently designed – that is, learning how to stop being designed as designers of illusory needs! Simply put, the assumption that “the solution” to “solving” the unsustainable is to bring something into being by design as elemental to the ontology and practice of the designer has to be totally discredited. By implication, this means ripping design from “capital logic” and embedding it in another kind of economy. Asserting this is not to claim a solution but to identify a hugely complex long-term task.

6. Learning how to repair what has already been designed and is broken. The broken can announce itself, but mostly it does not. Neither is it restricted to the singular, system, technical, functional or operative. We are design, we are broken, and this manifests itself in almost everything we metaphorically touch. The broken breaks.

7. Learning how to redirect what has already been designed to extend its life, use and value. Redirecting is posed against the production of the new; it does, or can, enfold repair. It embodies the recognition that there is an enormous need to deal with what already has been brought into existence. Cities, industries, institutions as well as a “things” need to be covered by its remit.

8. Learning how to eliminate designed things by design. This again is a huge task and challenge. There are a huge number of things in the world that would improve the sustaining ability of the biophysical and socio-cultural world if they were just completely emanated.

9. Learning how to act in time. Design predominantly has focussed on designing in space and neglected to design in the medium of time. Consequentially, the effects over time of what design brought/brings into being are neglected. What has to be learnt here is how do design back from well informed possible design futures. Likewise, design in time also implies designing what actually “needs” to be designed with a sense of urgency.

10. Learning how to sustain oneself and survive in the borderlands of design. What all these points add up to is a recognition that the critical designer who takes them seriously will unavoidably be placed between design as it is and design as it needs to be. This implies existing in this borderland culturally and economically, redirecting commissions, finding funding and projects and creating strategies. Motivation is as much, if not more, a determinate and means.

Finally, against the backdrop of this paper, it is important to make clear that I am not only just advocating change and new ways to approach design but that I strive to act on what I propose – this as a designer/thinker/writer/educator, as the two examples below aim to illustrate.

As a designer, I now work on rethinking cities and a concept called metrofitting as a way of thinking and addressing the city as a central figure of the anthroponcene and as such a domain of the broken that requires repair on numerous levels and in many cases on a huge scale. Crucially, the task is one that is primarily about learning what needs to be learnt.

What undertaking this task means is exploring the concept and practice of retrofitting in order to take it beyond a way of engaging the functional and instrumental operation of structures and the city. In this way, it becomes a starting point to develop metrofitting, this initially as a pathway of critical inquiry that is able to consider the transformation of the social and cultural fabric of cities as well as that of their material fabric.

Thereafter, this activity can link metrofitting to narratives and complexity that can take approaches to design beyond their existing and formal characterisation. It can do this by recognising the growing significance of informal urban processes of construction and built forms together with changing modes of economic and cultural life as they accompany, overlap and engage environmental, political and social problems. By implication, this means that metrofitting strives to displace Eurocentric assumptions of what constitutes a city, how cities are understood and who or what can transform them. Moreover, it is now clear that in both new and old cities, especially in Asia, Africa and Latin America, rapid urbanisation, informal construction and economies are making many existing ideas of the form of the city redundant.

Likewise, there is an increasing need to understand that internal perceptions by diverse urban populations frequently do not correspond with the external projections of cities’ local authorities and elites. Equally, there is a need to acknowledge that megacities and megaregions are now arriving in ways that dramatically change the political and economic urban landscape, especially in relations between large and small cities and states. Yet another contemporary factor of growing

importance is the arrival of “multi-levelled and relational risks” like climate change, civil unrest, conflict, economic breakdown and disease. All these risks have the potential to converge in different configurations. Seen against this backdrop, the existing agenda of sustainability is inadequate. It cannot articulate with such issues on a sufficient scale, with sufficient complexity or over a sufficiently long timeframe. By implication, metrofitting implies: a very long term project, but one that needs to commence now; that urban transformation cannot any longer just be engaged and delivered instrumentally or within a Eurocentric sensibility.

As a writer, I work on issues of importance, aiming to communicate them in new ways in order to advance better understanding of and links with metrofitting. In this context, I recently published *City Futures in the Age of a Changing Climate*. Currently, I am contracted to write a book on *Remaking Cities* to be published in 2016.²

As an **educator and researcher**, I work globally with universities but in a position of independence. For instance, most recently I worked with a group of master’s students in Hong Kong looking at the impact of rising sea levels on the Pearl River Delta (one of the most at risk regions in the world) in order to better understand the environmental, socio-cultural and economic problems that this situation poses.

What I am now setting out to do is to bring all these activities together in my recently formed design think tank and learning studio – **The Studio at the Edge of the World**, which is based in Tasmania. As the nearest landfall to Antarctica, this Australian Stare is geographically on the edge of the world. Metaphorically, it also recognises that humanity is increasingly living on the edge of its world. The studio project was formed in partnership with the Creative Exchange Institute of University of Tasmania and with twenty associates from around the world.

² Additionally, in 2015 I co-authored *Design and the Question of History* with Clive Dilnot and Susan Stewart as well as *Steel: a Design, Cultural and Ecological History* with Anne-Marie Willis.