

THE MAKING OF
A SOCIAL OBJECT:
COLLABORATION
BETWEEN NIKE
AND CENTRE FOR
SUSTAINABLE
FASHION

Dilys Williams

INTRODUCTION

The Centre for Sustainable Fashion (CSF) is a group of researchers, designers and communicators, brought together through shared ambitions around the possibility of fashion: a means to connect us to each other and with nature, and a means to make real our adaptability to time and place. It seeks ways for osmosis between human, ecological and technological elements to create a mixture that makes for better balance and a life well lived, as applied through fashion's personal and collective practices.

The centre's work is situated in the cross-referencing of research projects (often working with others outside of fashion), the development of innovative commercial practices (with large and small businesses), and the teaching and learning of design-for-sustainability (with undergraduate, postgraduate and PhD students). We seek ways and places to connect and be adaptable as individuals, evolving a unique sense of who we are in the world, as communities, whether location or interest based, and in our governance and political identities and actions. For this reason, we find ourselves sometimes in the House of Lords, at other times in remote villages, and always looking for space to be reflexive in our work.

Sustainability can be distinguished by its multi-dimensional, nonconformist, not readily acceptable range of change processes and practices. It can lead

us to consider fundamental qualities and characteristics of life and challenge our current habits and practices in their respect. It can question us as individuals, communities and organisations and can seek in us the qualities of imagination, interaction and sensitivity, along with practical skills of creation and communication. Sustainability is about who we are and what we do and make. This framing means a radical shift in how we experience life, quite different from many of the more easily palatable forms of sustainability within current practices, where efficiencies in existing systems form the visible changes that take place.

Designers are well placed to explore these questions and habits, especially when placed in the cross-frame of research, education and current practice. What might be deemed risk in one area can become experimentation opportunity in another. Just such a stretching was tested when Nike's Sustainable Business Innovation team approached us with a question, charged with possibility, whilst challenged by current infrastructures of global business.

HOW CAN WE DECOUPLE SUCCESS FROM THE DEGRADATION OF NATURE?

This question has enabled a bringing together of carefully collected data, seven years of meticulous work by a dedicated team at Nike with the conditions for open and cooperative innovation, and a methodology developed through a number of iterations at the Centre for Sustainable Fashion. The data counts materials according to their chemical, energy, water, land and waste dimensions; the methodology framework encourages empathic connection between people as an ideation process in fashion design. The conduit, the creation of an iOS app, was developed through cooperative processes and practices of artefact creation using the data as a means to push boundaries of design through sustainability thinking. The outcomes include a first iteration of this app, ready for others to contribute to its evolution, a social object that enables an informed discourse for designers across a broad contemporary landscape.

Over the past few decades, this landscape has changed quite dramatically, challenging some of the most established facets of our human lives, our societies, and our economies. Our perceptions of time and space, material goods and their ownership, governance and control, teaching and learning, and even our perceptions of ourselves in the world have changed. But the facets of humanity that have not changed are those at the core of our existence, our interconnected-

ness with each other and with nature. Our inherent wish is to cherish and be cherished and to be accepted for who we are and to learn who we might be. This is the constant and change that motivates us to continue to evolve, discover and learn. Our minds and our bodies, however, have not evolved at the speed at which our technology has opened up opportunity. Might we be in a flux state, enabled by new possibility yet not refining the ways in which the inflow of technology can create equilibrium in our creative and sustainable outputs? This basic premise of systems thinking and how we have unbalanced our flows is immediately visible in the fact that the average city dweller now uses 60 times more energy each day than practically the same body used as a hunter gatherer (Thackara 2013). We are changing our climate in so many respects, but our ecosystems cannot evolve to build in resilience to this new era, this current human-related geological state of the anthropocene [1] and all that it means to our ecological balance.

Design needs to be careful though. It has opened up a floodgate for the *making and discarding* of an increasing amount of 'stuff'. It has been a part of the creation of the anthropocene. As Al Gore recently noted in addressing a major world business, we are "designing in the dark" (Gore 2013).

Design can help us to navigate the world around us and better engage with its contents and its changes, through the relationships as well as the artefacts that it can create.

What might appear to be carefree design excited by the bringing together of various elements, often through technology and creating excitement in its outcomes, is actually careless, not through conscious negligence but through a linear design method that does not factor in the value of its component parts and is not resourceful in their application. This project undertaken by the Centre for Sustainable Fashion with Nike sought to explore ways in which informed decisions in design could expand design's possibility to be both creative and sustainable – the ingredients for innovation for the 21st century and beyond.

[1] Anthropocene can be defined as the period during which human activity has been the dominant influence on climate and the environment (Anthropocene Journal, 2013)

IMPLICATIONS OF DESIGN DECISIONS

The coming together of arguably the world's leading sportswear brand, Nike, an organisation that is led by innovation and employs over 600 designers, and the sole research centre focusing on sustainability as applied to fashion, CSF, provided us with an opportunity to offer an alternative to the dominant large-scale industry narrative of sustainability in fashion.

The narrative within large-scale fashion businesses tends to lean heavily on technical problem solving, the problem identified as 'risk' caused by over-reliance on resources that may become less stable in supply, waste and pollution produced in the creation and discard of their products, and the lives and health of their most vital resource, people, mainly women. This is hardly surprising; businesses are judged by their ability to reduce the risks. Society is also judged by this ability – the UK certainly exerts an inordinate amount of energy in measures to reduce risk. In the workplace, whether hospitals, schools or theatres, guidelines make clear what you can and cannot do, according to their risk assessment. This has developed from real and dreadful situations of danger. But despite these guidelines and rules, the reality is they are not touching the sides in the slip-sliding towards greater climate impacts, greater injustice and greater danger. The IPCC report just published demonstrates that despite

our efforts, climate change is an increasing problem and its impacts an increasing reality (IPCC 2013). Aside from our ineffectiveness in reducing danger, might this approach also be stifling opportunity? The rigid, not easily adaptable frameworks of governance, business and education, whilst seeking to protect and stabilise, do little to create the conditions needed for creativity and ingenuity to grow and seed change.

Through access to incredible data, knowledge and expertise, and by engaging design in making sense of it, this project sought to open up new conversations about the materials that we choose, the products that we make, and the ways in which our work as designers can be responsive and make a positive contribution to the world around us – surely the premise of all good design.

(See also Dieter Rams' ten principles of good design). The ambition of the project was to engage with data not as a fixed notion of 'right and wrong', or a notion of it as the leader in design decisions, but as a means to engage in a process that could be viable and doable in a clearly realisable form, whilst engaging in a longer term process of interaction between constituents that might change how they work, what they do, and

what they count. This iterative, informed process of design offers an expansive view, exploring questions over seeking answers, and might innovate for sustainability in expected and unexpected ways.

It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change. Charles Darwin (1809–1882)

COOPERATION BETWEEN DATA AND DESIGN

The interdependence of data and design informs our daily lives, whether it is through the design of objects that make data accessible to us, such as through the phones that most of us use on a daily basis, or the clothes that fit our shapes and movements. Data informs design, whilst without design, data is often inaccessible or lacks relevance to us.

The conditions for the study of this interdependence in the context of the project were set up by compiling a team of design, management and communication students to participate in an immersive design incubator. This was guided by principles of sustainability and Education for Sustainable Development frameworks (Sterling 2001; Svanström, Lozano-Garcia & Rowe 2008; UN Economic Commission for Europe 2011) and research undertaken by the author to date (Shared Talent), along with a team from Nike responsible for the collation and communication of the Nike Materials Sustainability Index (NMSI), a compendium of data that measures key environmental impacts of over 6,000 materials covering Chemistry, Energy and Greenhouse Gas Intensity, Water and Land Use Intensity, and Physical Waste.

The model for the project made reference to hybrid Problem Based Learning techniques (Bessant et al. 2013; Jones et al. 2010; Wiek et al. 2011) adapted to suit the parameters of this

live project. It involved 30 undergraduate students from the London College of Fashion, four designers from industry, and a range of Nike designers, technologists and leaders in sustainability innovation, working with a lead researcher and innovation managers at the Centre for Sustainable Fashion.

OBJECTIVES AND PARAMETERS FOR COOPERATION

Defining objectives that can contribute to innovation in industry, enhance student experience and create conditions to develop and apply research necessitates a careful balance and understanding of the risk levels involved for each constituent part. Clear parameters were agreed at the outset to embrace:

- Shared values in thought leadership in industry and education
- Development of a 'social object' through prototyping of products
- Cross-fertilisation of emerging designer creativity and ethics with industry wisdom and expertise
- Demonstration of the value of cooperation as pre-competitive business strategy and design method
- A means to catalyse the design community towards a collective approach to measuring and reducing environmental impacts through a holistic process
- A sustainability-led and knowledge-based approach to design
- Qualitative understanding in response to the quantitative data generated through the NMSI.

The benchmarks for success were agreed along the same premise of informing industry practice, teaching and learning methods, and research validity. These were based on Education for Sustainable Development benchmarks outlined in the UNESCO Five Essential Pedagogical Approaches (UNESCO 2009) and specific measures for this project:

Futures thinking

Embed a more informed and sustainable approach to design practice and education, informing policy-making relating to environmental guidelines

Critical and Creative thinking

Highlight quality, aesthetically relevant, technical and crafted products that illuminate sustainability thinking as a driver for innovation

Participation and Participatory learning

Cooperate towards a discourse of design-for-sustainability for application in open-source teaching and learning materials

Systemic thinking

Inform discourse towards creation of an 'app' through recording participants' explorative, analytical and synthetic thinking

Partnerships

Create a social object in the form of an iOS app open to the design community.

Through research gathered from participants and the wider Nike network, it was possible to draw up a list of key sustainability considerations for fashion students and businesses. These are by no means an exhaustive list but offer insights gathered through interviews, online feedback and informal discussion. These include considerations of:

- Disruption of 'habitable life' due to climate change implications (for example severe weather extremes and climate refugees)
- Cost and availability of resources (including oil, land, water, crops)
- Critical resource implications (such as the Right to Clean Water)
- Global policy decision-making relating to fashion production and consumption
- Global policy decision-making relating to climate change and economic and social development
- Relationships and power imbalances in fashion (for instance labour practices and the democratisation of accessibility to fashion)
- Culture and norms in sustainability and implications for lifestyle and consumption.

The methods and practices of the project included dynamic interaction between student teams, working closely with design mentors and Nike team guides, facilitated through the cooperative framework of the project. This included 'check-in' sessions to foster collaboration, through defined qualities and characteristics of sustainability mentoring for collaborative skills development, a filtering of ideas through discussion with industry experts to define design parameters, and techniques for engagement with a prototype iOS app. The feedback of the teams back to Nike offered an information flow that influenced the development of a second prototype app alongside the development of 3D fashion prototypes, and the ultimate presentation of process and outcomes through face-to-face presentation to an industry panel. More details of the narrative of the project can also be found at www.sustainablefashion.com.

CONCLUSIONS AND NEXT STEPS

The project evidenced some of the relationships of design, including what designers might do collectively through dialogue with each other and relationships between qualitative and quantitative design decisions. The outcomes, including an open source iOS app MAKING, freely available for download, offer possibilities for a narrative that can bridge the solutions-based approach of many commercial businesses with a more constructivist approach of design thinking and doing towards better decision-making.

In the case of this project, we were able to measure impacts of decisions made in terms of resource use, energy, waste and emissions, alongside the gathering of narratives of challenges and possibilities of a design framework based on sustainability values. The aesthetic outcomes were felt by the participants to have been in many cases enhanced by the process, whilst the short timeframe of the project was seen as the greatest barrier to innovation and creativity. This in itself can be seen as a major barrier in business, driven by speed to market, where time taken is an expense on the balance sheet.

We are however, as stated at the outset, at a time when short and longer-term considerations are a necessity for us all. If tools such as this app and processes such as this explorative cooperative process can innovate for business and

for sustainability, then we might take this non-generalisable research as a means for others to engage with the app and inform its development and further application as part of a dynamic and iterative process where sustainability draws parts together, rather than separating them. From a research perspective, this project has enabled my work, as director of CSF, to inform future design-for-sustainability practices in industry and education.

The conclusions that I have been able to draw from the project include the naming of some of the characteristics that might inform future work. These include observation of sustainability in action as:

- An active process, where each player participates bringing a visible contribution, replacing hierarchy with trusted, inter-connecting networks of collaboration and competition
- A synthetic process, where the parts in themselves lack meaning until all held together
- A self-organising process, when placed within a socially cohesive community and a larger understood infrastructure
- Creating value for those involved and for others

- Understanding materials, production processes, viability, desirability, and implications of decisions made
- Made possible when space is made for unexpected outcomes to be developed
- A building of trust through experience over reliance on certifications and auditing.

As humans, we are critical thinkers; we can question personal, business, ecological, social and cultural imperatives in our work, and we can use reflexivity to further our “understanding of ourselves and our self-location, our relationships with other humans and with the natural world” (Morrell & O’Connor 2002, p. 17).

This ability can be overwhelming at times, and we need the tools of design and accessibility to data in a digestible and flexible format in order to navigate the complexity of our world. The human body is evidence of the complexity of nature, yet we navigate its complexity as a matter of course. Our cities are an example of the human ability to construct and navigate complexity, as well as to balance flexible and fixed elements. At a time when so much is changing, and for designers who are constructing for an uncertain world, imagination, ingenuity, improvisation and empathy must cooperate with technological opportunity, through tools for accessibility and appropriate use.

The MAKING app offers an unprecedented opportunity to access data directly relating to ecological imperatives in materials that we can use in our work. I encourage you to use it and inform it, through feedback online to Nike and the Sustainable Apparel Coalition, with whom it is linked. It can be developed and enhanced through engaging in a parallel fostering of collaboration and cooperative working practices. This might then offer us possibilities not only to reduce our un-sustainability, but also to create restorative practices in human connection within ourselves, with others, and with nature. As you might expect, our collaborators at Nike have visualised this call to action in engaging ways, in their words, reminding us that great things can happen when 'Makers of the World Unite' (Nike 2012).

*Image from Nike x Centre for Sustainable Fashion project
(Photo: Kerry Dean)*





Image from Nike x Centre for Sustainable Fashion project (Photo: Kerry Dean)

REFERENCES

- Bessant, S., Bailey, P., Robinson, Z., Bland Tomkinson, C., Tomkinson, R., Ormerod, M. & Boast, R.** (2013). *Problem-Based Learning: A Case Study of Sustainability Education Higher Education Academy*. A toolkit for university educators.
- Jones, P., Selby, D. & Sterling, S.** (2010). *Sustainability Education: Perspectives and Practice across Higher Education*. London: Earthscan.
- Morrel, A., O'Sullivan, E. & O'Connor, M.** (eds.) (2002). *Expanding the Boundaries of Transformative Learning: Essays on Theory and Praxis*. Hampshire, UK: Palgrave Macmillan.
- Sterling, S.** 2001. *Sustainable Education Re-visioning Learning and Change*. Schumacher Briefings. Bristol: Schumacher Society.
- Svanström, M., Lozano-Garcia, F.J., & Rowe, D.** (2008). Learning outcomes for sustainable development in higher education. In: *International Journal of Sustainability*. Vol. 9:3, pp. 339–351.
- UNESCO.** (2009). *Education for Sustainable Development; United Nations Decade (2005–2014)*. Paris: UNESCO.
- Wiek, A., Withycombe, L. & Redman, C. L.** (2011). Key Competencies in Sustainability: A Reference Framework for Academic Program Development. *Sustainability Science*. Vol. 6, pp. 203–218.

ONLINE REFERENCES

- Anthropocene Journal.** 2013. Anthropocene Definitions. <http://anthropocenejournal.com/2013/05/27/anthropocene-definitions/> Published May 2013.
- Darwin, C.** http://thinkexist.com/quotation/it_is_not_the_strongest_of_the_species_that/7533.html
- IPPC (Intergovernmental Panel on Climate Change)** (2013). *Climate Change 2013: The Physical Science Basis*. (Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change). <http://www.ipcc.ch/report/ar5/wg1/#.UrLMxZEU6Y>
- Nike** (2012). *Makers of the World Unite*. <https://www.youtube.com/watch?v=tmmPIISETJg> (accessed 3 December 2013).
- Nike.** Nike Materials Sustainability Index. <http://www.nikeresponsibility.com/infographics/materials/index.html>
- Rams, D.** Ten principles for good design. <https://www.vitsoe.com/gb/about/good-design>

CONFERENCES AND TALKS

- Thackara, J.** *The Design Museum And Puma Annual Sustainable Design Lecture*. 8 November 2013. London, UK.
- Gore, A.** *Marks and Spencer Plan A Conference* 13 June 2012. London, UK.
- Economic Commission for Europe.** Learning for the future: Competences in Education for Sustainable Development. *Committee on Environmental Policy: United Nations Economic Commission for Europe Steering Committee on Education for Sustainable Development*. Sixth meeting, Geneva, 7 and 8 April 2011.

PROJECTS

- Shared Talent** <http://www.sustainable-fashion.com/projects/shared-talent/> and <http://www.shared-talentindia.co.uk>
- Nike x Centre for Sustainable Fashion x London College of Fashion “Mobilize Makers”** <http://www.sustainable-fashion.com/projects/nike/> and <http://www.sustainable-fashion.com/resources/publications/> 8 Nike project publications