

<b>Institution: University of Brighton</b>	
<b>Unit of Assessment: D34 Art and Design: History, Practice and Theory</b>	
<b>Title of case study: Designing for Emotional Durability</b>	<b>ICS [6]</b>
<b>1. Summary of the impact</b>	

CHAPMAN's research into emotionally durable design has radically shifted the values and practices of global businesses, helping them to cut waste and to enhance product, material and brand value. Through publications, exhibitions, master-classes and films, this research has transformed understanding of sustainable design in professional (Puma, Sony), policy (House of Lords, UN) and cultural (Design Museum, *New Scientist*) settings, propelling the field beyond its focus on energy and materials, towards deeper engagements that link psychosocial phenomena with ideas about consumption and waste. Furthermore, it has contributed to public debate and policy with the effect that the term 'emotional durability' has now entered the international design lexicon, providing valuable shorthand for complex phenomena influencing product longevity.

<b>2. Underpinning research</b>
---------------------------------

Over 40 tonnes of waste are produced for each tonne of products made, and users discard 98% of products within just six months of purchase. Sony's General Manager of Sustainability (2013) remarks on this situation, stating: 'research into emotionally durable design has a vital role to play in combating rising levels of e-waste and obsolescence. It tackles the challenge of weaning people off their desire for the new, and helps shape new sustainable business models.'

CHAPMAN first published the theory of emotionally durable design in his monograph [reference 3.1]. Initiated in 2002, this ongoing research into the behavioural dimensions of product-life extension presents strategic counterpoints to our 'throwaway society' by developing design tools, methods and frameworks that enhance the resilience of relationships established between consumers and their products. These include approaches ranging from laboratory- and workshop-based studies into the way various material surfaces age, to working with groups of users in seminars and focus groups to co-create new design frameworks, supporting not the design of durable 'products' but the design of durable 'meaning' and 'value' that the product delivers.

Unlike other research into product-life extension – such as van Hinte (1997), Cooper (2002, 2010), Slade (2007) and Walker (2007) – CHAPMAN's work originates from a theoretical position but is developed further to generate impact within broader professional settings. CHAPMAN's practical and theoretical research is underpinned by two essential research questions:

- why do we discard products that still function?
- how can we design products people want to keep for longer?

Following growing levels of citation in the journal *Design Issues*, CHAPMAN was invited by the editors to present his research to an academic audience [3.3]. In this journal article, CHAPMAN delivered a design framework for the creation of emotionally durable products, which informed and shaped new ways of designing longer-lasting products. This framework was informed by conducting the largest product-life census of its kind, staged at 100% Design, with 2,154 respondents (CHAPMAN and GANT 2006–2008). Concluding in 2008, this three-year industry funded (£125k) research used interactive exhibitions, creative workshops, seminars, product development studios and a product-life workshop formed of 22 designers, behavioural scientists and material specialists to create experimental product proposals that respond to, and test, theoretical findings.

By co-creating these propositional objects, dense and impenetrable theoretical language was translated into a format that everyday people could engage with and discuss. This led to a more direct engagement with users through focus groups and user-testing scenarios, which fostered deeper insight into the meaning and place of products in everyday life. An edited book [3.2] was also produced to capture key insights of this research.

In addition to providing a core element of the *Design Issues* article [3.3], CHAPMAN's framework was presented as both written and oral evidence to the Science and Technology Sub-Committee

## Impact case study (REF3b)

1, one of the main investigative committees in the House of Lords, as part of their Enquiry into Waste Reduction (2008). The report that followed informed a debate in the House of Commons by Members of Parliament (October 2008). This framework was also published [3.4].

With Puma, CHAPMAN researched and produced the '50 Ways of Thinking and Doing Sustainable Design' toolkit, a framework now referred to across Puma's five design centres worldwide. The research involved significant archival work and design industry surveys in order to establish an extensive catalogue of design approaches. Importantly, this was not just about sending out large numbers of e-questionnaires, but rather was conducted through a more focused form of face-to-face interviewing at carefully staged events; providing a more direct and confrontational form of engagement, which, in turn, inspired a deeper and more extended form of response. This archive was then reframed with a more accessible and direct language and distilled down to a collection of 50 annotated icons.

The Puma Sustainable Design Collective (PSDC) was established around a series of four master-class events. These events provided a critical and intellectual space to examine the '50 Ways of Thinking and Doing Sustainable Design' toolkit and generate original insight as to its application within the business. A documentary film was produced to record and share these insights across the business.

### Key researchers:

Jonathan Chapman: Senior Lecturer (Aug 2004–Feb 2009), Principal Lecturer (March 2009–Jan 2013), Professor of Sustainable Design (Jan 2013–to date).

Nicholas Gant: Senior Lecturer (Sept 2000–July 2006), Principal Lecturer (Aug 2006–to date).

## 3. References to the research

- [3.1] CHAPMAN, J. (2005) *Emotionally durable design: objects, experiences and empathy*. London: Earthscan. [Quality validation: submitted to RAE2008 – RAE2008: output profile 81% 2\* and above.]
- [3.2] CHAPMAN, J. and GANT, N. eds. (2007) *Designers, visionaries and other stories: a collection of sustainable design essays*. London: Earthscan [Quality validation: submitted to RAE 2008 – Output quality profile for RAE 2008: 81% 2\* and above.]
- [3.3] CHAPMAN, J. (2009) Design for (emotional) durability. *Design Issues*. 25 (4) pp.29–35 [Quality validation: submitted to REF2014; see Output 2, and also double peer reviewed.]
- [3.4] CHAPMAN, J. (2010) Subject object relationships and emotionally durable design. In COOPER, T. ed. *Longer lasting solutions: alternatives to the throwaway society*. pp.61–76. London: Ashgate. [Quality validation: submitted to REF 2014 see Output 3, and reviewed by the editor and three independent reviewers.]

## 4. Details of the impact

**Changed the values and practices of global businesses:** The theory of emotionally durable design has shaped policy discussions and transformed the thinking, practices and values of some of the world's largest consumer brands. With Sony (2012), for example, CHAPMAN's research advanced their sustainability journey by informing a 'one device for life' approach to modular mobile technology (source 5.1). Sony's General Manager of Sustainability reports: '(CHAPMAN's) research into emotionally durable design has helped shake up the way designers, researchers and futurologists think about the relationships between people, technology and sustainability. It has shifted the language in this space and contributed directly to the Sony FutureScapes project and development of the Wandular concept' (5.2). The outcomes of the Wandular project were then exhibited at the London Design Museum (July 2013) as part of *The Future is Here* show, in partnership with the Technology Strategy Board (TSB). A section of the show was dedicated to professional design work that responded to the theme of 'Emotionally Durable Design' (5.3).

Working with Puma (2009–2013), CHAPMAN developed the '50 Ways of Thinking and Doing Sustainable Design' toolkit, a visual framework that aims to enhance the ecological performance of products and processes at Puma. This visual toolkit was blown-up and mounted on the studio walls of Puma's five Global Design Centres, providing inspiration, support and guidance to

**Impact case study (REF3b)**

designers during the design process. CHAPMAN conducted a series of sustainable design master-classes (2012), with attendees from Puma along with designers from leading brands in the sector such as SeymourPowell, Adidas, Dragon Rouge, IDEO, Wolff Olins, H&M, Marks & Spencer and ASOS. A documentary film was developed from this that presented the key findings from the sessions (5.4). This was disseminated across the Puma Global Network and to the rest of the PPR group, which own brands such as Gucci, Stella McCartney, Alexander McQueen and Balenciaga. The documentary film that resulted from these critical sessions was broadcast across PUMA, worldwide, receiving over 900 full views (start to finish), within just two weeks of it being posted online. The film was launched on a large outdoor cinema screen at the '360 Global Meeting' in Germany 2012, which was attended by Puma staff, including senior executives, and representatives from Puma's parent company. According to Puma's Head of Global Sustainability Strategy: 'CHAPMAN's research has advanced our thinking on sustainable design and made a considerable contribution to our quest for enhanced resource efficiency, and increased product and brand value. His lectures, master-classes, workshops and training films have helped to move our sustainability story forward by shaping the attitude and approach of our designers and management teams' (5.5).

**Contributed to public debate and policy:** Research into emotionally durable design has generated significant levels of attention in the media and ignited policy debate, with examples including: BBC Radio 4 *Today* programme (2013), United Nations (2013), The Royal Society for the Encouragement of Arts, Manufactures and Commerce (2013), the *Guardian* (2013), ITV (2013), BBC Radio 4's *Material World* (2011), the *Telegraph* (2011), BBC Radio 4's *Click-On* (2009), The House of Lords (2008), and the *New York Times* (2008). BBC Radio 4's *Today* programme introduced Chapman's research as 'the birth of a social movement', while articles about him in *The New Scientist* refer to him as 'a new breed of sustainable design thinker' (2007) and one of the key 'movers and shakers' in the development of new approaches to sustainable living (2008) (5.6).

In 2008, the Science and Technology Sub-Committee 1 of the House of Lords called upon CHAPMAN to present his theory of emotionally durable design as written and oral evidence. This formed a central part of their Enquiry into Waste Reduction (February 2008) arguing for reductions in the generation of e-waste, by increasing the lifespans of a range of domestic electronic products in accordance with the EU WEEE Directive. The report that followed was later discussed and critiqued in the House of Commons by Members of Parliament (October 2008). The report informed the Government's latest Waste Policy Review (2011), which proposed an economy where resources are used sustainably 'through design for longer life, upgrading, re-use or repair' and encouraged companies to 'design and manufacture goods that are more efficient, durable, repairable and recyclable' (5.7). Building on this, CHAPMAN was asked if he would like to contribute to a document for the UN Industrial Development Organization (UNIDO) emphasising the importance of this research. The article was prefaced by a statement saying: 'emotionally durable design presents a robust economic model for creating products, services and brand loyal customers – driving future sales, upgrade, service and repair' (5.8).

CHAPMAN's book is core reading at many of the world's leading design schools (Parsons, The Royal College of Art, Stanford, TU Delft, Seoul National University). Due to the sustained international success of the book, a subsequent 2<sup>nd</sup> edition has been commissioned (Routledge, 2014), with editions in Chinese (2012), Spanish (2010) and Korean (2009) (5.9). In addition, the theory of 'emotionally durable design' now has a specific entry in Warwick University's *Glossary of Design, Education and Cognitive Science* (5.10).

## 5. Sources to corroborate the impact

- 5.1 Promotional film for Sony's Wandular project. The film locates emotionally durable design at the heart of the Wandular project. This project has enabled Sony designers to question and rethink the way in which technology is 'made' and how emotionally durable design can create new emotional, sustainable, and financial benefits to people and businesses alike. Supplementary evidence includes discussion of Wandular and emotionally durable design in Sony's 2012 Editorial Plan. Available at: [http://m.youtube.com/watch?v=BTY\\_HP5YQOA&desktop\\_uri=%2Fwatch%3Fv%3DBTY\\_HP5YQOA](http://m.youtube.com/watch?v=BTY_HP5YQOA&desktop_uri=%2Fwatch%3Fv%3DBTY_HP5YQOA) [Accessed: 11 November 2013].

**Impact case study (REF3b)**

- 5.2 Testimonial available from Sony Europe's Sustainability Manager. The testimonial highlights CHAPMAN's contribution to sustainable development projects and the way in which this has affected the way in which Sony think about and engage with sustainable design.
- 5.3 Data from the Design Museum on *The Future is Here* exhibition that includes the press release for the exhibition, visitor figures, and webpage statistics. Complementary evidence includes reviews discussing the exhibition (and specifically the Wandular concept), and the permanent webpage on emotionally durable design that was added to the Design Museum website in July 2013.
- 5.4 Film produced by Puma's Sustainable Design Collective based on CHAPMAN's master-classes and lectures. Supplementary evidence includes visual documentation of the way in which Puma has incorporated the Toolkit into its working landscape, and an attendee list for the Puma Sustainable Design Master-class Series (the list includes interior designers, textile designers, account managers, ecologists, design engineers and corporate heads of design strategy). Film available on request.
- 5.5 Testimonial available from Puma's Global Sustainability Strategy Lead. The testimonial highlights how CHAPMAN has advanced Puma's thinking on sustainable design and made a considerable contribution to its quest for enhanced resource efficiency and increased product and brand value.
- 5.6 Recording of, and webpage dedicated to, the interview on BBC Radio 4's *Today* programme. Supplementary evidence includes a selection of newspaper and magazine articles and interviews that discuss emotionally durable design. Available at: <http://m.bbc.co.uk/news/science-environment-21393404> [Accessed: 15 November 2013].
- 5.7 Report from House of Lords Science and Technology Committee, *6th Report of Session 2007–08, Waste Reduction: Volume 1*. Report available on request. Supplementary evidence includes the full details of evidence submitted and the Government's subsequent Waste Policy Review. Available at: <http://www.publications.parliament.uk/pa/ld200708/ldselect/ldsctech/ldsctech.htm> [Accessed: 15 November 2013].
- 5.8 Email showing the UN's interest in the idea of emotionally durable design. Complementary evidence includes the August publication of *Making it Magazine*. This includes an article on CHAPMAN's work, which highlights its importance and relevance globally.
- 5.9 Testimonial available from the Reader in Sustainable Fashion at the University of Arts London that highlights how the theory has permeated learning and teaching in design for sustainability in fashion and become an important point of reference.
- 5.10 A copy of Warwick University's *Glossary of Design, Education and Cognitive Science*, in which CHAPMAN's concept of emotionally durable design has a dedicated entry. Available at: <http://www2.warwick.ac.uk/fac/soc/wie/courses/degrees/docs/who/students/edrvah/glossary/#e> [Accessed: 11 November 2013].