

Sarah Turner – Eco-artist and designer through craft-based upcycling

Kyungeun Sung and Tim Cooper, Nottingham Trent University

Abstract

Sarah Turner is an eco-artist and designer who practices craft-based upcycling with waste plastic bottles and cans to create lighting, sculpture and decorative home interior products. Since 1998, her enthusiasm, creativity and good will have allowed her to gain several high-profile client commissions and to win awards from design, innovation and business competitions. The aim of this portrait is to introduce Sarah's work and shed light on the resources, knowledge and skills involved in her practice and on the barriers to and drivers for her craft-based upcycling. We consider that Sarah's work could be one of the stepping stones for a shift towards more sustainable craft practice, both in the United Kingdom and beyond. By exploring the right ingredients for craft-based upcycling, barriers liable to be faced and key drivers that stimulate motivation, we hope that this portrait will inspire and attract more designers and makers to embed upcycling in their future practice.

Keywords

craft

lighting design

plastic bottles

sustainable fabrication

upcycling

waste reduction

Introduction

Sarah Turner is an eco-artist and designer who specializes in creating lighting, sculpture and decorative home interior products through craft-based *upcycling*, the creation and creative modification of products by utilizing used materials in order to make a higher quality and better value product than the compositional elements. Sarah views herself as an artist, yet also exhibits ambition for growth as an entrepreneur. She may be seen not so much as a traditional craftsperson but as part of the contemporary Maker Movement, the worldwide grassroots movement through which a growing number of craft professionals and hobbyists have become small business entrepreneurs in niche or ‘long tail’ markets.¹

Sarah graduated from Nottingham Trent University in 2008 with a degree in Furniture and Product Design. After graduation, she set up a designer maker business, known as Sarah Turner Eco Art & Design (<http://www.sarahturner.co.uk/>), based in Nottingham, UK. On her website, she states that designing and making products from waste materials has always been a passion and she became particularly enthusiastic about collecting and upcycling waste plastic bottles. During an interview with *The Independent*, she said ‘Even as a child, I was making things from waste materials. I can see their value as raw materials and can’t bring myself to throw something away that could be useful’ (2012).

Sarah has been commissioned by a number of high-profile clients, including Coca Cola, The British Fashion Council, Nottingham City Council and Ecobuild. A 9-metre sculpture of a diving man made out of reconditioned Coca Cola bottles and cans, designed for the London 2012 Olympics, is one of her best-known creations (Figure 1), which she was commissioned to make alongside oversized chandeliers for the same event (Figure 3). Sarah has won awards in recognition for her design, innovation and business acumen, including the Keeseh International Design Competition (2008) (Figure 2), Innovation Nation Competition (2009) and Nottingham Post Business Awards (2013). Her works have been exhibited at shows in London, Milan, Paris and Los Angeles as well as Nottingham (Figure 4). In addition to her practice, Sarah teaches students at Nottingham Trent University as a Visiting Lecturer, works on design quality control for Co-oproduct (<http://www.co-oproduct.org/>) as a Project Guardian, and runs workshops at primary and secondary schools.

In order to understand how she approaches craft-based upcycling, the difficulties she encounters, and what drives her commitment, a one-hour semi-structured interview was conducted with her in April 2014. An interview topic guide with 30 questions was shared with her in advance. Answers to additional questions on process and methods were subsequently collected via e-mail.

¹ The theory of the Long Tail is that our culture and economy is increasingly shifting away from a focus on a relatively small number of hits at the head of the demand curve and towards a huge number of niches in the tail (Anderson 2014).



Figure 1: Sarah Turner (2012), Coca Cola 9-metre sculpture of a diving man for the London 2012 Olympics. © Sarah Turner.



Figure 2: Sarah Turner (2008), Cola 30 Lampshade awarded 2nd place in the Keeseh International Design Competition. © Sarah Turner.



Figure 3: Sarah Turner (2012), Coca-Cola London 2012 Olympics Chandeliers. © Sarah Turner.



Figure 4: Sarah Turner (2014), Nova exhibited in Magic Light Nottingham 2014. © Sarah Turner.

Ingredients for Sarah's craft-based upcycling

A number of elements have underpinned Sarah's craft-based upcycling: suitable materials and tools; self-taught practical skills developed through iterative, experiment-based design and make processes; craft and design mixed approach accompanied with good quality control; and sufficient design inspiration to offer unique creations.

Through her initial experimentation, Sarah discovered that plastic bottles diffuse light gracefully and disguise themselves as upmarket material (e.g. glass) when sandblasted and frosted. Noting that some trendy lampshades in the market were made of plastics, Sarah became convinced that plastic bottles could serve as an appropriate source of material.

For fabricating and forming plastic bottles, Sarah uses simple hand tools such as scissors, knives, pliers and heat guns. She heats plastic bottles with paint strippers, hair straighteners/curlers and boiling water. Her main power tool is a sandblaster for sanding. Her skills and techniques that make her work distinctive, and thus deliver a competitive edge, seem to be around colouration. She explained:

I take bottles, give them good clean, and sandblast some to make them frosted. [...] I sponge dye on the bottles to produce different colour variations. Then I cut the bottle and melt it down to change the shape or create texture. [...] I think sandblast and sponge dye are my special techniques. I have not seen anyone else who is able to colour the bottles in the way I do. It is a bit of a secret. I guess that's a good process I have developed over the years.

Building on the basic design skills that she learnt from her undergraduate degree, her practical know-how to work with plastic bottles came mostly from self-taught experimentation. Considering that the nature of knowledge in craft is often tacit, acquired and learned through experience and practice (Dormer 1997a), and that plastics as craft material, as distinct from basic industry input, has only been considered from the late twentieth century (Newman and Newman 1972), it is perhaps not surprising that much of her know-how is self-taught.

Influenced by her undergraduate studies, Sarah's design and make process seems to blend craft with design. She conceives initial design ideas based on clients' requirements or her own new product development plan but then her design is not then developed primarily through hand drawing, 3D modelling and 2D/3D rendering. Rather, she 'gets her hands dirty' and explores the possibilities of materials to create different shapes, textures and colours, and pushes the boundaries of quality by constructing several prototypes. While doing so, she masters the necessary skills until the final output satisfies her aesthetic standard. Her prototypes are a medium of problem-solving, expression and exploration (Valentine 2013), as with any other designer. What distinguishes Sarah from more traditional designers, however, is the ethical perspective she shares with many other craftspeople: getting something 'right' in making is regarded in craft as common sense (Dormer 1997b). Her prototypes are not 'beautiful

lies', promising something that cannot be delivered in actual production for sale (Valentine 2013). She uses prototypes both as a means of ideation or communication and for pursuing perfection and high-quality production. Like most craftspeople, Sarah is meticulous about quality, although she pays careful attention to balancing possible trade-offs between quality (in functionality and aesthetics) and ideal material utilization (i.e. minimizing new material use).

In describing her design style and inspiration Sarah highlighted the influence of the 1960s, indicating that a 1960s retro style is how she naturally seems to design things. She also cited Stuart Haygarth (<http://www.stuarthaygarth.com/>) and Ryan Frank (<http://www.ryanfrank.net/>) as inspirational, but added that she tries not to look at other designers' work too much in order to avoid undue influence and ensure her work remains unique.

Barriers to and drivers for craft-based upcycling

Sarah listed three main barriers that she had faced in her craft-based upcycling. First, self-doubt about the marketability of upcycled products: when she first made upcycled plastic bottle lighting she did not realize that her creation was worth selling until somebody showed purchasing intention at an exhibition. Second, the negative perception of quality and price-effectiveness in upcycled products from the general public: Sarah noticed that, for some people, upcycled products have close associations with bad finishing, reduced durability and low cost-effectiveness. Third, the challenge involved in storing her materials: plastic bottles are bulky and need to be collected and organized by different size, design and brand in advance of commencing a project; this is now Sarah's biggest physical challenge.

Aside from these barriers, Sarah is motivated by drivers such as the opportunities apparent in a business specializing in waste material utilization, and the extra design challenges that lead to more self-satisfaction both in the design journey and destination. Her work is also driven by the making habits she has developed since childhood and by her sense of environmental responsibility.

An early motivation arose when, several years ago, Sarah saw that vast quantities of plastic bottles were disposed of in the coffee shop where she worked part time. Recognizing that they were made from a fairly flexible and durable material capable of being easily cut and reformed, she created her first plastic bottle lighting. This was exhibited at her university's degree show at which she became aware of the real opportunities in upcycling design and business potential. This was not solely based on good utilization of waste material: upcycling is also a unique selling point as it provides an inimitable back story. 'My customers like to tell people the story behind the products, about me, how I've made it, and what it's made from', Sarah explained.

While the apparent business opportunity provided an initial motivation, there have been other drivers such as meeting the specific challenges involved in upcycling and the satisfaction and sense of fulfilment during and after the making. Sarah explained:

I think there is an extra challenge in taking old products and turning them into new ones. It is an additional design limitation I have to deal with. Normally when you use raw materials in the design process, you choose particular materials appropriate for your design. [...] However, in this case, I am stuck with one material, plastic bottles. I've got to try to make it work for the design: it's the other way around. Overcoming this extra design challenge, it is very satisfying to take unpleasant waste material and make it look attractive. [...] When I exhibit my work, people often can't tell that my products are made of plastic bottles. But at some point they are told what it's made of, then they have this pleasantly surprised shock on their face! When I see those people being amazed, I feel excited and happy. (Turner 2014)

Not explicitly, but in a more subtle way, Sarah's enduring making habit from childhood, largely upcycling (though before the term was in popular use), seems to be another central influence. She recalled early memories:

I always had a project on the go. Nothing was thrown away. Everything was kept in a garage for me to make something. I used to make jewellery, piggybanks, and all sorts of things. [...] I watched TV programmes in which people demonstrated making stuff and I was following the instructions. One of them was a Tracy Island (from *Thunderbirds* (1992, UK: BBC2; 1965, UK: ATV)) with yogurt pots and toilet roll tubes from *Blue Peter* (1958, UK: BBC). I tried making that many times. I also remember making things with my mum especially, cross stitching, making tapestries and knitting since I was five. (Turner 2014)

Environmental responsibility is perhaps the foremost driver for Sarah as an eco-artist and designer. She showed her concern in an interview for BBC Radio Nottingham (2009): 'A lot of plastic bottles in the UK don't get recycled. I live in an area where they are not collected by the council'. From such environmental consciousness, her ideal upcycling project is to use the least amount of new, virgin materials, and she hopes that her work will make people think twice before throwing things away.

Sarah's aforementioned drivers for upcycling also fit within the ethos of the historic Arts and Crafts Movement and its understanding of what craft stands for: improving the environment, generating psychologically fulfilled people, and creating beauty (Greenhalgh 1997; Metcalf 2002).



Figure 5: Sarah Turner (2014). © Kyungeun Sung.



Figure 6: Sarah in her workshop (2014). © Kyungeun Sung.

Concluding remarks: Scaling up?

The concept of craft-based upcycling in affluent industrial countries such as the United Kingdom is not very common, whereas reuse and upcycling are everyday practices in developing countries due to their financial restrictions and limited access to resources (Szaky 2014). In theory, however, the crafts exist in various ways to promote lasting value – including finding an afterlife of materials and components that would otherwise be discarded, timeless design, using high quality materials and techniques to ensure the longevity – while increasing the meaning and physical quality of objects (Williams 2003; Woolley 2010). According to Valentine (2010: 81), craft is also ‘a constant variable; its meaning, purpose, aesthetic and economies are forever moving and transforming’. If so, it is our hope that new meaning, purpose, and direction of craft in both theory and practice head towards ‘eco-effectiveness’ in which designers and makers utilize more of the ‘technical nutrients’ – metals, plastics and other materials not continuously created by the biosphere (McDonough and Braungart 2013) – that arise at the end of products’ lifetimes, thereby helping to eliminate the concept of waste.

Sarah Turner identified ‘more and more people doing upcycling’ as the most essential requirement for a shift in craft. She reasons that unceasing awareness-raising by a growing number of initiatives, such as her business, is needed to make upcycling not only more trendy but a routine part of craft rather than a special practice. We believe that upcycling professionals like Sarah can, collectively, create stepping stones for the shift towards more sustainable craft practices in the United Kingdom and beyond. We hope that this portrait will inspire and attract more designers and makers to embed upcycling in their practices in future.

Acknowledgement

This work was funded by Nottingham Trent University with support from the RCUK-Energy Programme’s funding for the UK INDEMAND Centre, grant reference EP/K011774/1. We would like to acknowledge scholarly discussions with and insightful inputs by Sarah Kettley.

References

- Anderson, C. (2014), ‘About Me’, Longtail.com, <http://www.longtail.com/about.html>. Accessed 16 September 2014.
- Anderson, G. (1965), *Thunderbirds*. United Kingdom: BBC2
- ____ (1992), *Thunderbirds*. United Kingdom: ATV
- Anon. (2012), ‘Shining light: Sarah Turner’, *Independent*, <http://www.independent.co.uk/property/interiors/shining-light-sarah-turner-8152329.html>. Accessed 13 May 2014.
- BBC (2009), ‘Design heroes: Sarah Turner’, http://www.bbc.co.uk/nottingham/content/articles/2009/05/18/sarah_turner_design_heroes_feature.shtml. Accessed 13 May 2014.

- Blair, J. H. (1958), *Blue Peter*. United Kingdom: BBC
- Dormer, P. (1997a), 'Craft and the turning test for practical thinking', in P. Dormer (ed.), *The Culture of Craft*, Manchester: Manchester University Press, pp. 137–57.
- ____ (1997b), 'The language and practical philosophy of craft', in P. Dormer (ed.), *The Culture of Craft*, Manchester: Manchester University Press, pp. 219–30.
- Greenhalgh, P. (1997), 'The history of craft', in P. Dormer (ed.), *The Culture of Craft*, Manchester: Manchester University Press, pp. 20–52.
- McDonough, W. and Braungart, M. (2013), *The Upcycle: Beyond Sustainability – Designing for Abundance*, New York: North Point Press.
- Metcalf, B. (2002), 'Contemporary craft: A brief overview', in J. Johnson (eds), *Exploring Contemporary Craft: History, theory & critical writing*, Toronto: Coach House Books/Harbourfront Centre, pp. 13–24.
- Newman, J. H. and Newman, L. S. (1972), *Plastics for the Craftsman*, London: George Allen & Unwin Ltd.
- Szaky, T. (2014), *Outsmart Waste*, San Francisco, CA: Berrett-Koehler Publisher Inc.
- Turner, S. (2014), private interview, Nottingham Trent University, 15 April.
- Valentine, L. (2010), 'Past and present craft practice: A frame of reference for mindful inquiry research and future craft', in L. Valentine and G. Follett (eds), *Past, Present & Future Craft Practice*, Edinburgh: NMS Enterprises Ltd, pp. 72–83.
- ____ (2013), *Prototype: Design and Craft in the 21st Century*, London: Bloomsbury.
- Wikipedia (2014), 'Tracy Island', Wikipedia, http://en.wikipedia.org/wiki/Tracy_Island. Accessed 13 May 2014.
- Williams, G. (2003), 'Creating lasting values', in P. Greenhalgh (ed.), *The Persistence of Craft*, New Jersey: Rutgers University Press, pp. 61–72.
- Woolley, M. (2010), 'The making: Value and values in the craft object', in L. Valentine and G. Follett (eds), *Past, Present & Future Craft Practice*, Edinburgh: NMS Enterprises Ltd, pp. 136–50.

Suggested citation

- Sung, K. and Cooper, T. (2015), 'Sarah Turner – Eco-artist and designer through craft-based upcycling', *Craft Research* 6:1, pp. 113-122.

Contributor details

Kyungeun Sung is a Ph.D. candidate in the School of Architecture, Design and the Built Environment, Nottingham Trent University, UK. Her research broadly deals with waste management, sustainable production and consumption while paying close attention to upcycling. Kyungeun received her Master's degree in Strategic Product Design at Delft University of Technology in the Netherlands, and Bachelor's degree in Industrial Design at the Korean Advanced Institute of Science and Technology in South Korea. She has industrial work experiences in Samsung Electronics, LG Electronics and Enviu; and academic work experience in the Industrial Design & Technology Department, University of Botswana.

Contact: School of Architecture, Design and the Built Environment, Nottingham Trent University, Burton Street, Nottingham NG1 4BU, UK.

E-mail: kyungeun.sung2013@my.ntu.ac.uk

Tim Cooper is a Professor of Sustainable Design and Consumption at Nottingham Trent University. Tim's research interests are multidisciplinary, embracing design, consumer behaviour, public policy and environmental ethics. He has a specialist expertise in product longevity and is Contributing Editor of *Longer Lasting Products* (Gower, 2010). Tim has managed and contributed to a wide range of research projects, funded by the European Commission, Council of Europe, EPSRC, ESRC, Defra, WRAP and industry and third-sector organizations. He is currently Co-Director of UK INDEMAND, a £6.2m RCUK-funded Research Centre that aims to explore potential reductions in materials use. He has acted as research evaluator for the Research Council of Norway, Irish Environmental Protection Agency and Belgium Federal Science Policy.

Contact: School of Architecture, Design and the Built Environment, Nottingham Trent University, Burton Street, Nottingham NG1 4BU, UK.

E-mail: t.h.cooper@ntu.ac.uk

Kyungeun Sung and Tim Cooper have asserted their right under the Copyright, Designs and Patents Act, 1988, to be identified as the authors of this work in the format that was submitted to Intellect Ltd.