

craft + design enquiry
issue 3, 2011

Sustainability in Craft and Design

Edited by Kevin Murray



E PRESS



Published by ANU E Press
The Australian National University
Canberra ACT 0200, Australia
Email: anuepress@anu.edu.au
This title is available online at <http://epress.anu.edu.au>

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the publisher.



ISSN 2200-6931 (Print)
ISSN 1837-445X (Online)

craft + design enquiry is hosted by ANU School of Art and published annually by ANU E Press. It is a peer-reviewed, open access, e-journal promoting and disseminating the research excellence generated by and about the craft and design sector and is ERA-listed by the Australian Research Council (ERA ID: 41654).

Further information about *craft + design enquiry* policy and personnel is contained at the back of this issue.

Contact details:

craft + design enquiry
School of Art
College of Arts & Social Sciences
The Australian National University

T: 6125 7560
E: jenny.deves@anu.edu.au



craft + design enquiry receives funding assistance from the Australia Council for the Arts, the Australian government's arts funding and advisory body.

Cover design and layout by ANU E Press

Printed by Griffin Press

Originally published by Craft Australia 2011. This edition © 2012 ANU E Press

Cover image: Simone Le Amon,
Lepidoptera chair 2008, stainless steel, polyurethane, polyester, 110 x 85 x 70 cm
Collection of the artist, Melbourne
© Simone Le Amon

Contents

Sustainability in Craft and Design	1
<i>Kevin Murray</i>	
Towards a post-consumer subjectivity: a future for the crafts in the twenty first century?	7
<i>Peter Hughes</i>	
Ideological Constructs - Past Visions/Future Possibilities: evaluating the endangered subjects in the context of emerging global sustainability and environmental agendas.	19
<i>Mary Loveday Edwards</i>	
Theorising a transformative agenda for craft	33
<i>Matthew Kiem</i>	
Ecology and the aesthetics of imperfect balance	49
<i>Roderick Bamford</i>	
Craft and sustainable development: reflections on Scottish craft and pathways to sustainability	69
<i>Emilia Ferraro, Rehema White, Eoin Cox, Jan Bebbington and Sandra Wilson</i>	
Sustaining crafts and livelihoods: handmade in India	89
<i>By Sharmila Wood</i>	
About craft + design enquiry	101

Sustainability in Craft and Design

Guest Editor — Kevin Murray

Dr Kevin Murray is Adjunct Professor at RMIT University, Research Fellow at the University of Melbourne and Australian Catholic University. He is an independent writer and curator. He was Director of Craft Victoria 2000-7, where he initiated a number of programs, including the Melbourne Scarf Festival and the South Project, a four year program of cultural exchange across the south. At RMIT Centre for Design he convenes the Ethical Design Laboratory. He is online editor of Journal of Modern Craft, convenor of Southern Perspectives, ambassador for Indigo Design Network and Vice-President of the World Crafts Council Asia Pacific. His website is www.kitez.com.

Editorial - Introduction to Sustainability issue

A few years ago, in Adelaide's JamFactory Craft and Design Centre, the then director Stephen Bowers proposed a 'green thumbprint' to encourage energy-saving in the workshops. It was a perfectly reasonable suggestion. There's no reason why craft and design should be any different to other industries in seeking alternative processes that consume less unrenewable resources and emit less carbon. The sight of smoke billowing from a wood-fired kiln is no longer a comfortable sign of communing with nature. Today, we all have to remember to switch the lights off when we leave the room.

But as many authors in this issue acknowledge, the particular role of craft in sustainability is broader than a series of discrete energy-saving acts. The question is not limited to the immediate environmental impact of craft production. Rather, it extends to the symbolic value of craft as an alternative way of being in the world. An iconic work of sustainability, such as the Lepidoptera chair by Simone LeAmon, not only takes credit for its thrifty use of scrap car upholstery, it also attempts to change our aesthetic of furniture as a sealed unit.



Plate 1: Simone Le Amon, *Lepidoptera*, Chair (designers prototype), 2008, stainless steel, timber, foam, polyester, 110 x 130 x 120 cm.

Photo: Christian Mushenko, collection of the artist.

This issue can be read in the context of recent critical writing about sustainability. The work of Tony Fry (2009) has been critical in expanding the understanding of sustainability away

from purely technological solutions to more expansive ontological approaches. These look to forms of production, including craft, which reflect a more caring relation to materials.

This is the critical difference. Caring is not the same as conserving. A useful complement to Fry's approach can be found in Allan Stoekl's *Bataille's Peak* (2007), which argues that certain energy saving measures can be more a sign of the problem than a solution. Stoekl draws on George Bataille's thinking about the 'problem' of excess production. According to Bataille, traditional societies gathered the surplus resources produced during the year, which they expended in calendar rituals such as festivals or sacrifices. Under capitalism, excess is

channelled back into financial systems and is so re-invested in production. This enables economies to grow, year by year, and thus also expands the amount of energy required to sustain this system. For Stoekl, energy-saving is simply an extension of this deferment. Rather than curb excess, its purpose is to enable the system to keep growing. So how can sustainability be more than reducing resource use? This issue of *craft + design enquiry* reflects an ontological approach that attempts to consider the ways of being that frame our relation to materials. Broader critiques consider factors such as private property, capitalism, consumerism and society of spectacle as promoting the short-term exploitation that leads to longer-term environmental disasters.

While this ontological approach to sustainability is new, it resonates with the birth of modern craft, more than one hundred years ago. As noted in this volume by Peter Hughes and Mary Loveday-Edwards, the Arts and Craft movement positioned the handmade construction of beautiful objects as a moral counterpoint to the looming dominance of the machine in Victorian society. Today, climate change has served to raise parallel concerns about consumerism as an unsustainable basis on which to maintain societies. In positioning craft as an alternative to the rapid turnover of fashion and technology, it maintains its role as a counterpoint to dominant trends in modernity. Hughes extends the line of the Arts & Crafts Movement to the contemporary concept of 'emotionally durable design'. Loveday- Edwards reads the work of contemporary English craft practitioners as a link between the Victorian craft movement and contemporary phenomena such as Transition Towns. Interestingly, she remarks on the changing emphasis on craft, now understood as process rather than product.

Mathew Kiem connects this argument to contemporary sources, including Baudrillard, Bourdieu, Manzini and Fry. His paper takes the form of a call to craft practitioners to respond to the need for sustainability. Kiem considers the object not as an art work in itself but as a thing embedded in the world. Rod Bamford argues a similar logic, with reference to particular initiatives such as the craft response to 'peak clay' in Japan. The focus is not on the object itself, but its role in shaping the lives around it. This point resonates with current projects, such as the Dharpa Djama workshop set up in Gunyangara East Arnhem Land where the Gumatj clan has collaborated with furniture designer-maker Damien Wright to develop a process of using the timber left over from mining operations to make useful objects for the communities. While creating value out of waste is significant in itself, it also promises to strengthen community by facilitating self-reliance, creating employment opportunities, exchanging skill and culture.



Plate 2: Dharpa Djama workshop set up in Gunyangara East Arnhem Land, including (from left to right) Bonhula (Clayton 'Choc') Yunupingu, Djalung (Tony) Yunupingu, Namatuma (Tony), Mununggurr, Nathan Black, Damien Wright and Russell Gurruwiwi.

Ferraro, White, Cox, Bebbington & Wilson consider the situation in Scotland, where they find a craft sector with great capacity for sustainable development. And Sharmilia Wood brings to our attention initiatives in India to make the considerable craft sector there achieve environmental goals, such as the use of water in block printing. These two papers point towards the future of this debate. There is certainly research to be done on the way the sustainable craft mentality is taken up in communities. One of the lessons from the Arts & Crafts movement was how seemingly radical ideas can end up becoming commodities for the wealthy. It required a Bauhaus to transform its ideals into objects for popular consumption. A future challenge is to connect the concept of sustainable craft to products that can help shape our lives.

The aim of *craft + design enquiry* is to encourage research in creative practice. The previous issue was concerned with the role of craft in cultural sustainability. This issue strengthens our appreciation of craft and design as critical in reforming relations to the environment. Good research is essential in turning these ideas into viable practice.

Kevin Murray

Bibliography

Fry, T., 2009, *Design Futuring: Sustainability, Ethics and New Practice*. Sydney: University of New South Wales Press.

Stoekl , A., 2007, *Bataille's Peak: Energy, Religion and Postsustainability*. Minneapolis: University of Minnesota Press.

Towards a post-consumer subjectivity: a future for the crafts in the twenty first century?

By Peter Hughes

A shorter version of this paper was presented at the international conference *Making Futures: the Crafts in the Context of Emerging Global Sustainability Agendas* at the Plymouth College of Art and Design, UK, September 2009 and published on the conference website at <http://makingfutures.plymouth.ac.uk/journalvol1/papers.php#critical-perspectives>.

Peter Hughes has been Curator of Decorative Arts, Tasmanian Museum and Art Gallery since 1999. He received a Bachelor of Education (Art) from the City Art Institute (now COFA/UNSW) in 1986 and subsequently studied furniture design (Centre for the Arts, University of Tasmania). In 1995 he received a Master of Art (Research) in Art Theory from the Canberra School of Art, Australian National University for a thesis interpreting John Ruskin's writing about design, society and the natural world from a unifying ecological perspective. Peter continues to be interested in links between ecological philosophy, our relationship with 'objects' generally and the crafts as a political and social as well as artistic field of practice.

Abstract: The crafts movement has a long history of engagement with both environmental and ethical issues. In recent years, several movements have emerged—in response to environmental issues and in opposition to the dominance of the monoculture produced by globalising capitalism—that have powerful resonances with some of the crafts movement's early political and ethical heritage. As environmental issues move into the mainstream, a rising tide of concern presents an opportunity for the crafts movement to renew its engagement with social, political and philosophical issues and to contribute both to the debate and to the formation of a sustainable material and creative culture of the future.

Paper

Unfashionable though it may seem in an age of the always new yet instantly redundant, I would like to suggest that an idea about the relevance of crafts to the environmental challenges we face can be found by looking to the past. Looking, more specifically, to the intellectual legacy of the nineteenth century. Considering the birth of the contemporary studio crafts as a political and social movement rather than a merely artistic one, reveals a depth of what shall be referred to below as 'ecological understanding' that goes far beyond an awareness of environmental issues at the important, though often superficial level of nature preservation. After a brief account of the precarious position

of the contemporary crafts and of our contemporary ecological situation, this paper will examine the relevance of philosophies influential in the formation of the Crafts Movement in the nineteenth and early twentieth centuries.

In recent years, the Crafts have been engaged in an increasingly desperate struggle to remain relevant in a hyper-industrialised world. Over the last three decades the two dominant alternatives to oblivion seem to have entailed either absorption into the field of design or into that of the 'fine arts'. The three areas of practice, craft, art and design, share many concerns and should be considered overlapping fields within visual culture that nonetheless have distinct identities. The design profession separates the act of design from that of making, which is usually done in factories by people who have no, or minimal, input into the design of the objects they produce. Art has been increasingly conceptually driven for well over two centuries, during which it has been progressively divested of its associations with craft, with particular materials and their skilful manipulation. This shared valorisation of the intellectual over the material is perhaps the underlying reason for the twenty first century marriage of art and design recently described by Deyan Sudjic, the Director of the Design Museum in London (2008, pp. 167–216). The key to craft, however, is the fusion of design and making and the ongoing dialogue this establishes between maker, object, materials and processes. By collapsing, to greater or lesser degrees, the distinction between the mind and the body, object and subject and, ultimately, the material and spiritual, craft represents a challenge to the dominant conceptual framework of our civilisation.

Craft with a capital 'C' is an epiphenomenon of modernity. Its catalyst was the industrial revolution of the nineteenth century and its subsequent social upheavals. While the crafts movement that arose in the last half of the nineteenth century was in part dedicated to the preservation of skills and traditions that were considered endangered, it was also and above all else, concerned with both individual creative expression and the nature of work and its relation to life more broadly. In this it should not be considered a continuation of traditional production, nor simply a romantic dream of returning to a previous state of social organization such as that which prevailed in the Middle Ages and had produced Gothic architecture, the idea of which was so important in the movement's genesis.

The Arts and Crafts Movement arose during an epochal change in the human condition brought about by the deployment of the steam engine powered by fossil fuels. This was the first advance in the technology of motive power since the domestication of animals and the exploitation of wind and water power for that purpose. Understandably, the steam engine and the technologies that followed hard on its heels gave rise to dreams of unlimited human progress through power over nature. It also gave rise to an exponential increase in the exploitation of natural resources and of the production of an ever-expanding volume and variety of commodities. As is well known, the first phase of industrialisation caused widespread social upheaval, exacerbated by rapid, unplanned urbanisation and environmental deterioration. This maelstrom of destruction and creative potential was the ground for the emergence of the Arts and Crafts and it is no accident that the question of how we—collectively and individually—are to live was then a central preoccupation.

Towards a post-consumer subjectivity: a future for the crafts in the twenty first century?



Plates 1 and 2: 'Craftivism' in action: Marianne Joergensen's *Pink M.24 Chaffee* is a collaborative project incorporating knitted squares from hundreds of contributors. As a protest against the Danish (and the American and British) involvement in the war in Iraq, a World War II tank was covered from canon to caterpillar tracks with squares of knitted and crocheted pink yarn. The 15 x 15 cm squares were knitted by people from many European countries and the USA. The process of covering the tank was documented in a video shown at the Nikolaj, Copenhagen Contemporary Art Center, Denmark as part of the exhibition "TIME" from April 27 to June 4 2006.

Photo: Barbara Katzin, reproduced with permission of the artist.

For three decades we have been experiencing a subsequent technological revolution on a scale commensurate with that of the nineteenth century. Digital technologies have not only changed the way we communicate with one another and provided a myriad of new toys, they also have a propensity to constitute a powerful metaphor of a parallel world—cyberspace—that can make us forgetful of the concrete material reality that is the grounds for our existence. Indeed, forgetful of the hydrocarbons we are still burning, the materials we are still mining and forgetful of the distant factories producing the objects we are consuming in ever-greater quantities.

As the industrial revolution rolls inexorably on, it has been shadowed by another revolution that represents a yet greater epochal change in the human condition; this is the long-term legacy of the hydrocarbon age and the immediate product of our own way of life. As we push harder against the limits of the Earth to supply materials and energy and to absorb the by-products of industrial activity, a growing environmental crisis that is truly the flip-side of cyberspace casts a lengthening shadow over our technological cornucopia. Rooted firmly in physicality and the limits of concrete and contingent materiality, this new epoch must produce a revolution in human life, for better or worse, or destroy our civilisation. This, the current epoch, has been dubbed by the atmospheric chemist Paul Crutzen the Anthropocene, with a suggested beginning date coinciding with James Watt's invention of the improved steam engine in the late eighteenth century. Crutzen argues that by virtue of our increasing population coupled with increasing exploitation of natural resources, humanity now represents a force of nature with a significant, non-localised, impact on global natural systems and that this must be acknowledged if our civilisation is to survive (Lewis, S., 2009, p. 32).

To understand the potential role of the crafts in negotiating our way out of hyper-industrialism and turbo-capitalism, it is useful to look back to the intellectual foundations of the Arts and Crafts Movement. Rather than focus on the Movement's aesthetic contribution in the history of design or art, it can be more usefully reframed as a social and political movement that attempted to address the question of what constitutes the 'good life'. The 'good life' here refers to a philosophical tradition that, in the West, dates back to classical Greece. It is concerned with an ethical life that is at once fulfilling and lived in a manner consistent with one's values, as distinct from a life of material abundance or one that is free from fear or effort. The Arts and Crafts Movement sought to address this question under the conditions imposed by industrialisation and, more importantly, sought to examine the potential opened up by new technologies and the challenge they presented to the existing social and political order. Importantly, it put objects and their production at the very centre of these efforts.

Within the diversity of practices and beliefs that come under the rubric of 'Arts and Crafts' there is an implicit unifying theme. This is an alternative form of individuation or 'selfhood' to the atomistic conception of the individual characteristic of Modernism. This can be characterised as, in a broad philosophical sense, ecological because it emphasises relational identity and

interdependency over a sharp distinction between subjects, or indeed between subjects and objects. This alternative worldview operates on several levels and embraces both the production of objects, which was considered as the foundation of our relationship with nature and with one another, and natural and social context of this production. For the present purposes, this intellectual thread will be followed through ideas of three key individuals in the history of the Arts and Crafts: John Ruskin (1819-1900), William Morris (1834-1896) and Charles Robert Ashbee (1863-1942).

Though he provocatively described himself a 'Tory of the old school', Ruskin's thought offers a truly radical critique of some of the central values of Western civilisation. In his lifetime *The Nature of Gothic*, a chapter from the *Seven Lamps of Architecture* (1849), became his best-known work. It was considered so significant that William Morris described it as 'one of the very few necessary and inevitable utterances of the century' and his Kelmscott Press published it as a separate volume in 1892. If any one of Ruskin's works were to deserve a similar accolade today, I believe it would be a lecture curiously titled *The Work of Iron* that he delivered at Tunbridge Wells, in the English county of Kent in 1858 (Ruskin, 1904, pp. 337-8).

In the midst of an industrial revolution largely built upon iron, Ruskin asked his audience to reconsider the true work of iron in the world. Here he sets about overturning the contemporary understanding of this most common metal by arguing that its greatest value is to be found in its rusted form, where it has undergone a 'vital change', combining with oxygen to become '.....sand, lime, clay, and all the rest of the earths' that sustain plant and animal life and, ultimately, human civilisation. Here in '...permanent unity with the purest air which he himself breathes...' iron is most truly useful to man. Ruskin presents a graphic and prescient vision of the inevitable outcome of a contemporary Victorian instrumentalism that could only value iron as a 'resource':

"...but how would you like the world, if all your meadows, instead of grass, grew nothing but iron wire - if your arable ground, instead of being made of sand and clay, were suddenly turned into flat surfaces of steel - if the whole earth, instead of its green and glowing sphere, rich with forest and flower, showed nothing but the image of the vast furnace of a ghastly engine - a globe of black lifeless excoriated metal?" (Ruskin 1904, Vol. 16, p.337)

Ruskin extends his image of a world unified by the vital combination of elements rather than their separation, by asking:

"Is it not strange to find this stern and strong metal mingled so delicately in our human life that we cannot even blush without its help?" (Ruskin, 1904, Vol. 16, p. 384)

In addressing the role of iron in 'art' he uses the metaphorical image of that most typical of Victorian artefacts, the cast iron fence. Remembering that such fences were a relative novelty in the mid-nineteenth century, he contrasts a

world divided by iron fences where the people are likely to be “sophisticated, unkind, uncomfortable and unprincipled” with one free of them, in which the population will be found to be “for the most part, simple, happy, benevolent and honest”. Ruskin is making two points here. He uses iron as a metaphorical thread to unify a discussion that spans issues customarily treated within discrete disciplines such as geology, human physiology, chemistry and political economy and demonstrates the interrelatedness of all phenomena. The iron fence is his metaphor for all human artifice, by embedding it in its social context Ruskin emphasises its non-neutrality. Ruskin revisits the fence theme in a later publication, *The Crown of Wild Olive: Three Lectures on Work, Traffic and War* (1866). Here he discusses observations made during a walk through then village of Croydon. He notes that the Carshalton pools near the village have been polluted by:

“heaps of dust and slime, and broken shreds of old metal, and rags of putrid clothes; which having neither the energy to cart away, nor decency enough to dig into the ground, they thus shed into the stream, to diffuse what venom of it will float and melt, far away, in all the places where God meant these waters to bring joy and health.” (Ruskin, 1904 Vol. 18, pp. 387-390)

These, he argues, could be easily repaired: “...half a dozen men, with one day's work could cleanse those pools and trim the flowers about their banks”.

In a parallel observation Ruskin notes that a new public house in the village has a fence enclosing a narrow strip of land between the building and the footpath that consists of “as much iron and iron work, indeed, as could well be put into the space”. This he describes as nothing other than a useless ‘receptacle for rubbish’ and asks “how did it come to pass that this work was done instead of the other; that the strength and life of the English operative were spent defiling the ground instead of redeeming it?” The fence represents a triple evil as “... work, partly cramped and perilous, in the mine”; work “partly grievous and horrible at the furnace” and, finally, as work “partly foolish and sedentary, of ill taught students making bad designs” (Ruskin, 1904, pp. 387–390). His point is, of course, that all of this production is to make money without regard to the larger picture. Here Ruskin’s inevitably unsuccessful coinage “illth”, or what is now referred to, almost equally uncomfortably, as ‘discommodity’ is contrasted with the genuine life affirming wealth that would arise from a culture of care that nurtured both the land and its people.

William Morris as both a crafts practitioner and a social activist was deeply influenced by Ruskin’s thought. In his essay *How we Live and How we Might Live*, he succinctly outlines his requirements for a decent life:

“First a healthy body; second, an active mind in sympathy with the past, the present and the future; thirdly, occupation fit for a healthy body and an active mind; and fourthly a beautiful world to live in.” (Morris, 1910– 25, p. 25)

In his emphasis on occupation that nurtures both the mind and the body combined with a beautiful environment, Morris's debt to Ruskin is clear. Morris put the production of objects at the centre of his political and aesthetic theory, arguing that this determines, to a great extent how we are to live. Considering the broader, global, impacts of capitalism on peoples outside Britain, he wrote:

"...the goods are forced on him by their cheapness, and with them a certain kind of life which that energetic, that aggressive cheapness determines for him: for so far reaching is this curse of commercial war that no country is safe from its ravages; the traditions of a thousand years fall before it in a month; it overruns a weak or semi-barbarous country, and what ever romance or pleasure or art existed there, is trodden down into a mire of sordidness and ugliness; the Indian or Javanese craftsman may no longer ply his craft, leisurely working a few hours a day, in producing a maze of strange beauty on a piece of cloth: a steam engine is set a going at Manchester and that victory over nature and a thousand stubborn difficulties is used for the base work of producing a sort of plaster and shoddy, and the Asiatic worker, if he is not starved to death outright, as plentifully happens, is driven himself into a factory to lower the wage of his Manchester brother worker. ...the South Sea islander must leave his canoe carving, and his graceful dances, and become the slave of a slave." (Morris, M., pp. 8-9)

He is equally critical of the consumption side of the equation arguing against the limitations imposed by industrial capitalism and its homogenising effects:

"... the market assumes certain wares are wanted; it produces such wares, indeed, but their kind and quality are only adapted to the needs of the public in a very rough fashion, because the public needs are subordinated to the interests of the capitalist masters of the market, and they can force the public to put up with the less desirable article if they choose, as they generally do. The result is that in this direction our boasted individuality is a sham; and persons who wish for anything that deviates ever so little from the beaten path have either to wear away their lives in a wearisome and mostly futile contest with a stupendous organization which disregards their wishes, or to allow those wishes to be crushed out for the sake of a quite life." (Morris, p. 333)

Tellingly for us in this era of cyberspace and Second Life and in an era of British technological, economic and military supremacy, Morris criticised life in his contemporary industrial civilisation as enervating; arguing that "vicarious life is the watchword of our civilisation ..." (Morris, p.338)

CR Ashbee founded the Guild of Handicraft in 1888, originally locating it in a poor, working class area in East London. In 1902 it was moved to the Cotswold village of Chipping Campden. The Guild was perhaps the boldest attempt to realise the ideals of the Arts and Crafts Movement in practice, intimately uniting life and work in a utopian rural setting. Ashbee was deeply influenced by Ruskin's philosophy of art and Morris's socialism. Additionally, he was influenced by the writings of the social anthropologist Edward Carpenter (1844-1929) and his theory of homogenic love. This was based in Lamarckian evolutionary

theory, which predated the mechanism of evolution through natural selection proposed by Charles Darwin. Jean Baptiste Lamarck (1744-1829) argued that individual organisms physically changed in direct response to their environment to produce useful adaptations and that these are passed on directly to their offspring. Additionally, Carpenter believed that human beings were motivated, above all, by love of the human form. This love, he argued, led to the progressive perfection of that form itself and would eventually lead to the elimination of the physical and mental flaws that produce human greed and hatred.

For Carpenter and Ashbee, homogenic love, which was a comradeship love between members of the same sex that might or might not involve sexual intimacy, was a higher form of relationship that was not confused by the property and reproduction agendas of the socially sanctioned heterosexual marriage relationship (Eisenman, S., & Granof, C., 2008, pp. 52–4). The Guild's move to the countryside was intended to move its members from the degrading influences of the city to an environment in which the human will toward homogenic love would be freed to produce greater perfection through the process of Lamarckian evolution. Importantly, this move to the country did not entail a rejection of technology. For Ashbee, technology was a sign of dynamism and progress; it was evidence of human progress through evolution and adaptation. For him, however, this did not mean that human beings should adapt to market capitalism: rather, he argued that the worker and the machine should adapt to one another. In practical terms this meant that while the Guild members used machines, there was no division of labour and all finishing and decorative work was done by hand (Eisenman, S. and Granof, C, 2008, p. 56). The work and the worker's freedom of expression were integral to Ashbee's belief that under the right conditions humanity would evolve toward harmonious perfection. Ashbee believed that the utopian conditions established at Chipping Campden would radiate from there, in a manner analogous to Lamarkian biological evolution, and to slowly transform British society.

Economic factors made the Chipping Campden experiment increasingly difficult to sustain and the Guild was wound up in 1921. Tellingly, Fiona MacCarthy attributes the Guild's decline partially to competition both from manufacturers such as Liberty and Co whose products imitated the handmade look of the Guildsmen's work, and partially to middle class amateurs and hobbyists undercutting the Guild's prices (MacCarthy, 1981., pp. 74, 173 & 180). The distance that the Guild had put between itself and its customers was also a major contributor to its demise. Although the theory of homogenic love has limited interest to contemporary thought and despite the fact that Ashbee's theories at times drifted uncomfortably close to racism, it does illustrate how deeply Ashbee was motivated by a concern for how we are to live, for the good life. It is also important because Ashbee was able, more than any other theorist of the nineteenth century craft movement, to put his ideas into practice; he attempted to provide a meaningful life for the Guild's members that had work, the production of beautiful things and comradeship at its centre. While an admirably bold attempt to create a pocket of utopia in an ugly world, the Guild

of Handicraft experiment, also points directly to the futility of either confronting capitalism head-on or of attempting to escape from its pervasive influence to another place.

Raymond Williams has argued that in history sensibilities change slowly, overlapping considerably as they do so: one slowly emerging into dominance as another slowly sinks (Williams, R. 1977, pp. 121–126). John Ruskin's thought was influenced by the comparatively new sciences of biology and geology: both of which stand in contrast to the mechanical sciences that rose to dominance during the Enlightenment in the eighteenth century. While the latter emphasised abstraction and mathematical uniformity through universally acting laws of nature, the younger sciences emphasised complex interactive processes within historically determined, particular and concrete environmental contexts. It is possible that we are witnessing the quickening of a slow change in sensibility that was, in some senses, prefigured by Ruskin and the Arts and Crafts Movement. It is possible that contemporary manifestations of this epochal change in sensibility, stimulated by the accelerating environmental damage and social alienation, can be seen in contemporary developments such as the Slow Movement, bioregionalism, a growing concern for cultural heritage preservation, the valuing of resources promoted by recycling and reuse and, most recently, the notion of 'emotionally durable' design.

What these movements share is an emphasis on the historically determined particular that leads to craft approaches to lifestyle and the production of goods. This distinguishes them from the paradigm of industrial mass-production in which processes are designed to facilitate high-volume production by eliminating the kinds of particularity that requires care and attention. This can be exemplified by the manufacture of wood-based sheet materials. The manufacture of these requires that wood—a material with distinct and individual characteristics such as grain, colour and density—is ground up into pieces sufficiently small that for all intents and purposes they lose these characteristics and are recombined with the addition of glue to produce a material that is uniform and unvarying. In contrast, the working of sawn timber requires attention to the individual characteristics of each board.

Bioregionalism is an approach to sustainability that emphasises the local production of goods—food and energy in particular—within geographical limits determined by ecological and cultural considerations. Such an approach requires a deep familiarity with place: the sustainability of resources within that place requires practices that are carefully crafted to its particulars. The Slow Food movement is really a subset of bioregionalism that began in Italy as a reaction to fast food. Drawing upon traditional, regional cuisine its practitioners celebrate limits. What they eat is contingent upon what can be grown in a particular place and is available in a particular season. Slow food is, of course, an altogether different proposition in settler cultures such as Australia. Here, we cannot draw upon tradition but must invent, craft indeed, new regional cuisines adapted to the climate and geography of particular places.

The preservation of cultural heritage entails a respect for what is and a preparedness to work with and around it. Unlike 'greenfield' sites, the reuse of existing buildings and places requires gentle and considerate interventions that are essentially craft- based. This extends to all forms of reuse in which objects, often originally mass- produced, have been rendered unique and individual through their post-production trajectories and geographic dispersal (in contrast, recycling erases this history by reducing objects to raw materials, often reconcentrating them for the production of new objects). Effective reuse of redundant objects cannot be achieved through mass-production and requires an imaginative, craft oriented engagement with the things themselves. Emotionally Durable Design is an approach that seeks to prevent redundancy not through mere physical durability that has proven ineffective, but by designing objects whose lives are prolonged because people become emotionally attached to them. Craft, with its inbuilt material, process and personal narratives and unique objects has a powerful resonance with this concept.

It has been argued that the environmental problems assailing humanity should be addressed through a business-as-usual approach and the effects of unintended by- products ameliorated by technological fixes such as geo-engineering. At the other end of the spectrum, there are proposals for radical de-industrialisation and a 'return' to an agrarian or even subsistence lifestyle. Ignoring the catastrophic implications of failure, the combined difficulties of achieving global consensus on geo-engineering and the likely uneven distribution of its benefits if unilaterally deployed, make it an unpromising solution. Entailing as it does an implicit radical reduction in human populations, the return to the land ethos is equally fraught. A simple business as usual approach, however, is likely to produce both effects; an unwitting and uncontrolled re-engineering of the global weather system and a radical, involuntary, reduction of the population.

It would seem that the question addressed by Ruskin, Morris and Ashbee, the question of how we are to live and what constitutes the good life remains central to a sustainable future. It has been argued that compact, well-designed cities provide the best opportunities to reduce our collective and individual carbon footprints and hence our impact on the global environment. Such cities could enable us to reduce our impact on the countryside and wilderness while maintaining the cosmopolitan individualism that is now one of the most cherished values of our culture. This emergent urban sensibility is evident in movements such as guerrilla gardening and indi-craft. These movements are decentred and non-utopian, crafting things and places—and thereby lives—from the what-already-is rather than an imagined what- should-be. All of these movements share a rejection of the abstract idealism characteristic of modernism, embracing instead the local and the concrete in all of its historically determined particularity. It is here in the work of imagining a humane, environmentally sustainable future for our civilisation that the Crafts, drawing upon the historical legacy of its nineteenth century founders, should look to find their relevance to the twenty first century.

Bibliography

- Chapman, J., 2005, Emotionally durable design: objects, experiences and empathy. London: Earthscan Books
- Eisenman, S. and Granof, C., eds., 2008, Design in the Age of Darwin: from William Morris to Frank Lloyd Wright, Northwestern University, Mary and Leigh Block Museum of Art
- Lewis, S., 2009, A force of nature: our influential Anthropocene period. London: The Guardian, UK MacCarthy, F., 1981, The simple life. Berkeley and Los Angeles: University of California Press Morris, M. ed., 1910–15, The Collected Works of William Morris, London: Longmans, Green
- Ruskin, J., 1904, The complete works of John Ruskin: library edition. Cook, E. T., and Wedderburn, A., eds., London: George Allen Publishers
- Sudjic, D., 2008, The language of things. London: Penguin Books
- Williams, R., 1977. Marxism and Literature, Oxford: Oxford University Press

Ideological Constructs - Past Visions/ Future Possibilities: evaluating the endangered subjects in the context of emerging global sustainability and environmental agendas

By Mary Loveday Edwards

Mary Loveday Edwards is a lecturer in Critical, Contextual and Historical Studies at Plymouth College of Art, a small specialist art college in the UK.

Abstract: In searching for reasons why the applied arts might be considered 'endangered subjects', this project's research proposal hypothesised that the applied arts were endangered subjects not necessarily for reasons of progression. Other research speculates that primary and secondary schools have in the past phased out or abandoned craft subjects, and that students therefore did not think to choose crafts at tertiary level. However, this research posited that the crafts subjects were endangered not because they were off the schools' radars but because they were off the radar of a wider society: that they had lost their ideological impulse.

The single most important point to emerge from the project was the need to make explicit, to understand, and to develop, the empowering social-symbolic relationships that surround 'craft' as a construct forged between sets of practices, materials and 'communities'. This paper traces the project from inception to completion and discusses the findings.

Paper

'Ideological Constructs - Past Visions/Future Possibilities: evaluating the endangered subjects in the context of emerging global sustainability and environmental agendas' is a research project, funded by the National Arts Learning Network and Plymouth College of Art.

The National Arts Learning Network (NALN) was a four-year, Higher Education Funding Council for England (HEFCE)-funded widening participation initiative, comprised of specialist art, design and performing arts institutions, working together to widen participation in higher education. One of the areas in which NALN was involved was to look at the category of Endangered Subjects at art and design institutions in the United Kingdom (UK) and to examine the reason for their supposed decline. The Endangered Subjects were defined as 'those traditional subjects for which the overview of application data evidences a

consistent decline; for which there is a fragile employment sector; and within which continued course provision is perceived to be at risk' (Wright, 2009: 4). The definition emphasised craft but did not exclude art forms such as traditional dance and drama, and included as wide a range of disciplines as possible. Among these were bookbinding, stonewalling, jewellery, traditional song, willow work, and automata. Anecdotal evidence from higher education educators, along with other NALN-supported research, speculates that primary and secondary schools have in the past phased out or abandoned craft subjects or courses, and that students therefore did not think to choose crafts at tertiary level. This, along with the cost of providing applied arts education and the subsequent closing down of several (often prominent) schools and departments offering this provision across the UK in the past few years, is one strongly supported area of advocacy. However, it could also be that the applied arts were endangered subjects not necessarily for reasons of progression.

This research project based at Plymouth College of Art posited that the crafts subjects were endangered not because they were off the schools' radars but because they were off the radar of a wider society: that they had lost their ideological impulse. The hypothesis is that emerging environmental and sustainability socio-cultural and economic forces might lead to, and might already be supporting, the development of new socio-ideological rationales that could help redefine and reconstitute the applied arts as less marginal, more centrally productive forces in society. The central question is whether environmental and sustainability issues provide ground for a public re- engagement with applied arts practice.

There are, of course, a number of ways of examining and defining these environmental and sustainability issues. The definition of sustainability itself is contested. One widely accepted definition is that developed by the World Commission on Environment and Development (1987). This defines sustainability as designing our lives, work, products, social systems, and relationships to meet the needs of the present without compromising the ability of future generations to meet their own needs. (This is a fairly good definition, with the qualification that most people, and certainly institutions, are hard pushed to think more than two future generations in the future. Thinking seven generations ahead might allow us to think both more broadly and with more clarity about the consequences of our current actions. Certainly examining our actions with regard to the effect on even two generations ahead gives a far wider result than thinking in periods governed by the span of a term in political office.)

Breaking down the terms of reference further, and in particular allusion to this research, there are three main ways in which we might talk about sustainability: economic, social, and ecological. It can be a useful tool to examine these areas separately; however real sustainability requires environmental, social and economic demands - the 'three pillars' of sustainability - to be integrated or reconciled. This is not merely a question of a form of auditing or accounting but entails a mental, emotional, cultural and systemic shift.

Ecological sustainability can be defined as the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future. Several measures of human interaction with ecologies show that economic growth is adversely tied to ecological degradation. Though a majority of scientific opinion has, in a few short years, recognised human-made global warming, there are no serious dissenters to the notion that we cannot, globally, continue in our consumption patterns. When 'natural capital' (the sum of the earth's resources) is used up faster than it can be replenished, the situation is unsustainable. The understanding that this is the situation we face at the moment is at the implicit heart of this research.

Social sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs. This definition contains within it two key concepts:

'The concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given, and: the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.' (1987)

In other words, both the technology that we use and the social structures within which we operate can be damaging ecologically. Conversely, by paying attention to the needs of all, rather than the desires of certain wealthy sections of certain wealthy nations, and by investigating the role of technologies and of social structures, we can identify and move towards less damaging and more sustainable cultural values and behaviours.

In an economic sense, a business is sustainable if it has adapted its practices for the use of renewable resources and is accountable for the environmental impacts of its activities. Much attention is given to the need to make profits - to appease the shareholders, as it were. Sustainability in economic terms entails acknowledging that there are more stakeholders than those who benefit from the profits made by a business. Mere fiscal sustainability is often the meaning implied when companies and institutions talk about economic sustainability: that is, that they will be able to continue with current or even greater levels of economic growth, a situation at odds with ecological sustainability. 'Sustainable growth' is an oxymoron; it merely means growth in a less ecologically damaging way. This idea of growth as a concept being problematic is a debate which is often ignored, since it strikes at the heart of many Western institutions, and particularly financial ones. These have been allowed to run unchecked, unexamined, for many years now, so that they have a hegemonic hold over us. We simply cannot see how we might change them.

It is important to understand how damaging the pervasive influence of making all decisions based around ideas of market value, as if they are the only or most important notions involved. As Michael Sandel, Reith lecturer in 2009 said,

'Some of the good things in life are corrupted or degraded if turned into commodities, so to decide when to use markets, it's not enough to think

about efficiency; we have also to decide how to value the goods in question. Health, education, national defence, criminal justice, environmental protection and so on - these are moral and political questions, not merely economic ones.'

Economic reality is important. But despite over-reliance on economic measurements as indicators of success, or otherwise, at micro and macro levels, it is not the only important judgement criteria. Taking into account primary stakeholders, such as stockholders, customers, and employees, and secondary stakeholders - anyone who can be affected by the actions of a company - changes the scope of the sphere of influence of a business. If we widen the idea of stakeholder to include not only people but also environments, we are moving more towards a situation in which the three pillars of sustainability are mutually reinforcing rather than mutually exclusive. Sustainability can be a property of living systems, a manufacturing method, or a consideration as to a way of interpreting life. There are many accounts that seem to attempt to 'read' sustainability more narrowly, using only one of the three 'pillars' outlined above; but it is clear that the notion is only complete if it does take all three areas into consideration. This is also useful for looking at debates around sustainability as a lens through which we might view the applied arts.

Initially the research project was drawn towards an engagement with and evaluation of historical craft movements. People seemed to be looking to some historical periods for ideological inspiration, which appeared to validate the original framing of the research ideas. There are even today in craft many parallels with the Arts and Crafts movement, Bauhaus, and other ideologically strong (or even ideologically-led) movements. The socio-cultural nature of the research focus was underlined by Gillian Naylor's (1971: *xiv*) study of The Arts and Crafts movement:

'(It) was inspired by a crisis of conscience. Its motivations were social and moral, and its aesthetic values derived from the conviction that society produces the art and architecture it deserves...their endeavours were directed, ultimately, towards a social end, the establishment of a society in which all men would enjoy the freedom to be creative. Their concern, therefore, was not focused exclusively on end-products but on the society that shaped them, the men who designed and made them and on the people who bought them...to work towards the creation of an environment that would both serve and express people's needs...'

The social and symbolic values given to the Applied Arts forms an important aspect to their significance. Bernard Leach and Shoji Hamada made talk about integrity and the emotional pull of the handmade acceptable within ceramics, not only circumventing the more quantitative or economic debates but also providing a counterpoint to Veblen's (1899) critique of the indecorous luxury of the unique and exclusive. When we ask that difficult question, what justification do you have for adding more objects to the world(?), we might talk in terms popularised by Leach, and by those who currently reinterpret the spirit of his words (in Williams, 2002: 62).

'The term 'lasting value' ... can mean the use of high quality materials and techniques to ensure the longevity of an object. It can mean finding an afterlife for materials or components that would otherwise be discarded... But it can also mean the perpetuation of traditions and conventions valued in the past, now threatened by social, economic or other changes. Similarly, the phrase can pertain to the spiritual or symbolic meanings inherent in objects, such as their emotional associations or individual characteristics. For a discussion of craft, it must also mean the added value in a handmade object that we preserve and respect above mass-produced commodities.'

Craft, here, is about process, an approach to process as opposed to concentrating on objects produced. This approach to the notion of craft can be related to a developmental approach. Work on sustainability in education and the importance of nature on child development provides interesting findings. Many researchers across a variety of disciplines are currently absorbed in looking at the need for children to have limits in their life - the need for them to test the limits of structures such as parental authority (including physical horseplay), the limits of their physical skills (the implication being that, in an increasingly sheltered and sedentary world they do not get to do so), the limits of a safe interaction with the world around them. More and more in a health- and safety obsessed world, it is being observed that children are not being allowed to experience any of the above limits, and that this is adversely impacting their development. We may be entering a time when the only limits a child experiences are the limits of materiality: how far a piece of wood can be bent before it breaks; how clay behaves under stress. If these experiences in school are taken away, the child may not be experiencing any limits at all. As Piaget in his work on child development proved, concrete experience is necessary before abstraction can occur. Richard Sennett in *The Craftsman* writes about the effect of CAD systems on design, and yet in schools it seems we are often expecting students to work purely in abstraction without experience of the concrete. Would we expect a child to do abstract maths without concrete experience?

In fact Eugene S. Ferguson's (1992: 107) critique of modern engineering science examines this as a wider problem than just for schools. Rather than working from mathematical computation, skilled engineers with hands-on drawing and modelling experience formulated drawings in the 'mind's eye' which became three dimensional models that supplied builders with non-verbal, sensual, qualitative information - visual, tactile, muscular, and aural.'

It seems the experience of handling materiality is necessary for everyone - not just for rehabilitation or occupational therapy - it is necessary for all as a developmental urgency (in Sigman, 2008).

'In another study of 10,000 children, using a standard test of perceptions of volume and weight, considered a fairly robust indicator of cognitive development, researchers have concluded... 'the performance of students has recently been getting steadily worse. An 11-year-old today is performing at the level an 8- or 9-year-old was performing at 30 years

ago...in terms of cognitive and conceptual development ...The most likely reasons are the lack of experiential play in primary schools, and the growth of a video-game, TV culture. Both take away the kind of hands-on play that allows kids to experience how the world works in practice and to make informed judgements about abstract concepts...'

New neuro-scientific research such as *The Neural Bases of Complex Tool Use in Humans* (Johnson-Frey, 2004) is finding that using tools such as those in craft activities, involves the use and strengthening of 'widely distributed, yet highly interactive, [brain cell] networks'. Furthermore this tool use - described as 'complex, real-world behaviours' - involves and stimulates 'social, cognitive, perceptual and motor processes.' By using tools in this way, mirror neurons - specialised brain cells involved in observational learning and/or copying by example are activated. This is part of a greater civilising process, which serves 'as a critical mechanism for the cultural transmission of skills'.

In other words, without direct and sustained experience of materials - a fundamental of craft - the brain is underdeveloped. Moreover, the tacit knowledge that develops through working with materials has been the subject of critical discourse, perhaps most notably Schon's theory of reflection-in-action. Sennett (2009) extrapolates further on the social benefits of material thinking:

'The craft of making physical things provides insight into the techniques of experience that can shape our dealings with others...Material challenges like working with resistance or managing ambiguity are instructive in understanding the resistances people harbour to one another or the uncertain boundaries between people.'

In other words, material experiences and thinking can affect social experiences and thinking. This is an issue concerning sustainable societies. But there are issues for crafts beyond the socio- or human-centric.

There are some environmental philosophies, which aim to fundamentally alter the relationship of humans to the natural world. Deep Ecology is a way of looking at the natural world which recognises that humans are members of an interdependent community that includes not only humans, but, as Aldo Leopold (1987: 204) said, 'soils, waters, plants and animals, or collectively: the land.' It is a subtle but major shift in perception to see a clean environment that supports health as a right for all life forms, not just that of humans. Deep Ecology sees that all disciplines, cultures, classes, genders, communities, and species, have something to add to the design of solutions that work for everyone. If we believe in this way of looking at the world, it becomes even more imperative that we close the gap between what we believe and the way we behave in the world.

This might manifest in public sensibility (at least initially) by aesthetic values of balance; of social and ecological justice overriding concern with the generation of capital; or, indeed, with our individual concern with consumption. Corporate culture and the media machine are overwhelmingly concerned with the creation of desire. All are aware, no doubt, of this manipulation of desire; very few are

immune to it. But if people generally used sustainability as the benchmark or standard of their consumption patterns, it would certainly impact, in ways potentially both positive and negative, on applied artists. In *The Masterless Way: Weaving an Active Resistance*, Faith Gillespie (1987: 178) describes the craftsperson's position:

'There is clearly another imperative at work now in our exercise of the old crafts. It has to do with reclamation, with reparation. The world seems not to need us any more to make 'the things of life.' Machines make more and cheap. The system needs us to do the maintenance jobs and to run the machines that produce the so-called 'goods', to be machines in the consumer societies, which consume and consume and are empty. Our turning to craftwork is a refusal. We may not all see ourselves this way, but we are working from a position of dissent. And that is a political position.'

Craft as a politically resistant undertaking entails a deeper debate than that concerned with manufacturing craft out of renewable materials. Many publications emphasise the fact that the roots of sustainability lie in culture rather than materials, although it is in the area of resource use that most sustainability issues are most often and most publicly debated. Recycling, renewables, mining conditions, ecological degradation, and so on, are in the public consciousness, with, for example, ethical jewellery companies Adili, Ingle & Rhode, and The Leakey Collection all basing their marketing on the ethical credentials surrounding their resource relationships.

What does this mean for applied artists? Does it mean that we make objects to last? That we therefore perhaps make fewer objects? That we make objects that last in terms of component parts, a cradle-to-cradle stance in terms of what we produce? Does it mean that we look at the idea of re-imbuing the crafts with the values of the handmade, tracing a tradition and a value through time, history, and a shared humanity? Do we look at crafts as a political site of dissent; say that although we don't need to make any more objects by hand, we do it anyway because we reject the emptiness of endless consumption? Do we look at crafts as a process rather than place so much emphasis on the product? Or can the idea of personal development via making or consuming crafts survive the taint of the amateur? The intention of the research project was to challenge and refine positions with concrete case studies from the contemporary applied arts (initially in the UK) which exhibit practices, identities, positions and markets that strongly relate them to the environmental and sustainability fields, in order to help identify key issues, tendencies and trends, possibilities and opportunities.

One of the tools used in this project was a one-day workshop, consisting of six to eight invited participants. Each was asked to give an overview of their work, markets, and underlying ethos. There followed a discussion and debate between all the participants, based around the following closely overlapping areas:

1. Sourcing and consumption of materials. Potentially, this was the most obvious place to start: craftspeople make *objects*. In some circles that is

the definition of crafts, and making objects involves materials. Initiatives such as fair trade, recycled materials, second hand metals, safety and sustainable mining and quarrying, or even using (only) renewable materials, were starting issues for exploring the case studies.

2. Location and identity. This issue centres on ideas of localised production and consumption, as opposed to trying to operate within global markets, or focusing on global trading practices. It might, for example, encompass various tourist or other local provenance issues.
3. The role of technology. The workshop discussion was designed to look at ideas of technology as benign or evil, as useful or alienating, and to assess its place in sustainable visions of craft practice. Technology can often be un-reflexively seen within the craft world as an enemy: Sennett (for example) in *The Craftsman* identifies that CAD technologies are being used instead of, rather than as an extension of, experience with real materials. But while technologies can be alienating, they can also mean the difference between making a living and not being able to.
4. Scales and methods of production in relation to making. This issue typically revolves around the contentious binary that sees the handmade as being more spiritual or “pure”, and its opposite in industrial production as typically based upon an adulterated or soulless practice. Of course, this is not necessarily so: there are, for example, companies which, while employing industrial techniques and economies of scale, seek to encompass ethical approaches to their workforce, to their local communities, to ecological practices.
5. Individual developmental aspects of the applied arts; ways in which the developmental importance of the crafts are embodied in individuals; which links to:
6. Social values and social developmental aspects of the applied arts and ideological standpoints of practitioners in relation to the natural world. This issue centres on ideas of organization or collaboration, such as workers’ collectives, but might also encompass those who see crafts as a form of ‘social sculpture’ and those who see the practice of craft as a form of protest, political statement, or other critical response to society.

Jane Hope, a jeweller, looked at the sourcing of raw materials in the context of fair-trade and ethical mining practices. Hope’s research on artisan miners in Bolivia foregrounded the fact that when processes that are ecologically damaging are used in crafts they are very visible indeed. There are questions to be asked concerning the amount of ecological damage caused by mining when it is to be used for jewellery, a decorative item, compared with, say, agriculture, which is arguably more necessary. (This foregrounds and sharpens the arguments around agriculture rather than excusing agricultural practices as they stand; but the fair-trade initiative is common to them both.) Hope highlighted the need to work with mining companies rather than not engaging in dialogue. She pointed out that there are responsible mining companies whose goals are to improve

the health and education of local communities and to eradicate child labour. The main problem identified is the lack of transparency in the supply chain and the need to educate the customer, which is seen as a marketing problem (or opportunity). Changing the way we access raw materials can mean smaller environmental impacts - but much larger positive social ones.

Clare Moloney, project manager of “River and Cloth”, a community project centring on the River Wandle in South London and its historical association with the textile industry there (including William Morris’s workshop), addressed developmental issues and community, and had an angle on the local. The River and Cloth project is working with ten schools, training teachers, and 18 community groups, including a city farm which is being used to grow vegetable dyes which would have been used historically. This is a local arts project that is being used to promote awareness of craft sustainability through education. It is an 18-month project that trains people to use and cascade their skills in order to leave a legacy. Moloney stated that there was an observable desire of the public to contribute to making a better society by using and making sustainable artefacts and processes. (She also stated that the current economic climate had engendered a revival of interest in the art of “making do”.) The project she presented was concerned with education: to build market awareness; to build producer awareness; to build supplier awareness. The children and adults involved in the project would, it was hoped, become consumers with greater awareness also.

Abigail Thomas, a book artist who works with attention to the ideal of the handmade, was concerned with ‘slow craft’ ideals and with aspects of what might be termed spiritual dimension of practice and its manifestation as a political concern. According to Thomas, the fact is that advanced industrial societies are inherently dirty, exploitative and anti-natural; but they can be substantially improved if we decide to prioritise sustainable systems and then organise socially and politically around these systems.

How might craft contribute to this?

Jonathan Garrett, a potter with a studio that sells direct to the public, is concerned with using local clay and natural processes, and with the idea of craft as a political act or statement. Garrett was interested in the shift he has observed of people seeming to want to *get back to nature*. As he says on his website, ‘some of us never left’. Garrett talked about his introduction to, and early experiences with, craft; in his view makers are their history. (This was an important point in the wider themes of the day, since many of the practices we looked at were concerned, centrally or peripherally, with self- empowerment and education.) He uses local clay and sells to local and passing tourist trade. He started as a craftsman in the 1970s, when crafts-based livelihoods were seen as serious political acts - a way into alternative lifestyles. He thought that politically and culturally, the crafts seem to have lost their way, and that sustainability might be the way for people to reconnect in an important way to

crafts. If urban vegetable markets can take off, why not urban crafts? However, he thought that there was a serious lack of leadership in the field, and an urgent need for wider media and communications coverage.

Clara Vuletich, a printed textile designer and researcher at Textiles Environment Design (TED) Project (Chelsea College of Art & Design, London), stated that craftspeople need to be educated to see how their product operates in a whole system and how their products can be agents of social change. Social change and marketing strategies are very closely linked. She sees the establishment of creative communities, “multi-local” societies (for example, joined by interests and not necessarily only geography) as essential. (Vuletich’s blog, *Love and Thrift*, continues to chart many examples of points of contact between this research and her own).

Richenda Macgregor, Natalie Elder and Nick Kary were members of ‘Sustainable Makers’, the craft ‘arm’ of the Totnes Transition Town grass roots initiative which is based around the idea of preparing for, and transitioning to, a post-peak oil society and a sustainable future economy and way of life. Macgregor highlighted the sets of relationship that the maker exists within: with suppliers, with the material, with the client(s) and the public, with him or herself. These relationships provide a sustaining energy and also help overcome the isolation and sense of powerlessness of the maker. She talked of the need for the master craftsperson to ‘deskill’ oneself: too much skill, she felt, can separate one from life – people can be too in awe of crafts skills, whereas everyone can participate in making. She pointed to a need for re-skilling and skills exchanges, for co-ops where people can share equipment and tools. Re-skilling is often framed as a need to reconnect to ‘nature’, but re-skilling can also be seen as a way of reconnecting to the synthetic sustainable world: it is just as necessary for urban people to learn to adapt and change the material world in which they find themselves. Kary spoke of the need to develop a personal relationship with the word sustainability in order to be a functional part of the world. He recounted an initial training that had been all about emasculating the wood with which he worked, and of a subsequent process of coming to more of a partnership with the materials. Once again, however, the need for a supportive community to enable the move towards sustainability was a cornerstone.

During the ensuing discussions the question was raised whether, instead of finding a ‘new’ ideology linked to sustainability as the way to make craft relevant again, the ‘ideology of craft’ was in fact the central problem: ‘craft’ is automatically and un- reflexively seen as meaning ‘natural’ and remains unquestioned but also undeveloped and largely irrelevant to a community further and further removed from nature. This ideological slant – and the one which says ‘craft’ means making things by hand, need to be challenged.

Relationships (with materials, with artefacts, with suppliers and buyers, and with each other) emerged strongly during this workshop as a major feature of crafts, as did the notion of developing a relationship with a local community. The importance of these relationships would seem to be central - that the ‘ideology’

of connection, of systems, could be the most important facet in the effort to make the contemporary crafts both more ecologically sustainable, and perhaps therefore more economically sustainable by becoming ever more relevant to a wider public. In fact, perhaps the single most important point to emerge was the need to make explicit, to understand, and to develop the empowering social-symbolic relationships that surround 'craft' as a construct forged iteratively (or interactively) between sets of practices, materials and communities or social groups.

These relationships come together to create what seem, in effect, narratives of belonging made up of actual and imagined elements. *Relationship* and *community* were the two words that came up again and again, providing a common thread throughout the day. It was not necessarily the thread that had been expected; perhaps, for example, more emphasis might have been expected to be placed upon physical, ecological options. But the participants all reiterated the fundamental importance of the relationships inherent in the crafts.

The obvious question is whether this concern was limited in time and place to one workshop. The 'Making Futures: the crafts in the context of emerging global sustainability agendas' International Research Conference was held on 17-18 September 2009 at Mount Edgcumbe Country House, close to the city of Plymouth. The conference was obviously closely tied to the research agenda of the project in this report. Here there was an opportunity to see if these relational concerns were widespread and international. I chaired one of the conference sessions (the socio-technological strand) and reported back to the full conference in the afternoon plenary session. Interestingly, perhaps especially for a strand, which ostensibly was dealing with technology, a real commonality was the importance and role of relationships within this strand. It has become very clear that, far from being about objects – how they look, whether they function, what aspect of aesthetics will be used to assess it – craft is more concerned with context and the relationships engendered in its practice. As Paul Harper (2009) says,

'The primary critical and theoretical focus in the crafts has become the craft object as site of meaning and main area of significance. This essentially literary approach regards the object as something to be 'read'. I believe that this focus neglects those things that define craft as intrinsically connected to the material world, to experience and to practice...the craftsperson's intimate connection to materials, process, techniques, forms, and the traditions associated with these...the context in which things are made and consumed.'

Perhaps it seems retrospective to relate craft to a theoretical principle most often used in art: but if it is a theory which only seems to reside in art because nobody knows where else to put it, or because it was first identified as an alternative to gallery-based work, it may be acceptable. Relational aesthetics is a branch of art theory, which prioritises the idea of process and people over product. Written about (and named) initially by Nicholas Bourriaud, and expanded by

writers such as Grant Kester, it can be seen as a development from the earlier 'social sculpture' work of Joseph Beuys. For example, Mary Anne Davis, a craft artist in Columbia, USA, sees her work in this way:

'What I'm doing when I make dinnerware is facilitating the people who buy my dishes to think more creatively about the way they entertain...I'm bringing people together. When I sell dishes it's to encourage people to build community and friendships by social networks, by having a lot of contact with each other...You know, buy a lot of dishes, have a lot of dinner parties, save the world.'

Davis considers the ideas of performance and conceptual artist Joseph Beuys to be truth rather than theory: 'Everyone is an artist and society is a sculpture,' she says. At the heart of the emptiness of modern life, Davis believes, is humanity's having lost track of art, of having created a disconnection by separating art from everyday life. (Piperato, 2004)

There are still many craftspeople for whom these ideas are valueless, meaningless, irrelevant. But in terms of craft and its alignment with issues of sustainability, this turn towards a social anthropological/material-cultural set of perspectives seems logical. A key objective of this project was to arrive at a clearer understanding of the performance of the applied arts in relation to sustainability agendas. If the crafts are to enact more ethically and environmentally sustainable practices, it will likely be through re-orientating and developing the relationships that surround them upon such practices. Another objective was to attempt to frame and understand the decline in public interest in applied arts. In fact it is not entirely certain that there is a decline in public interest. The focus at the beginning of the research was on studio crafts and their performance in the market place. But it has become clear through the life of the project that this is a simplistic and limited view of the role of crafts in the interest of the public. Just because people buy a cheap dinner service rather than a studio one does not mean they are disinterested in crafts: it is more likely to mean they can't afford a studio dinner service. It does not mean they are not concerned with the provenance of the clay or the rights of the workers, though there will probably always be people who are unconcerned about either. This may be more about disenfranchisement than disinterest. But people participate in crafts in many more ways than by buying them, and craftspeople can have a more exciting, more important and more central role in society than that of just making things to sell. As Johnson (1997: 93) states,

'[The crafts] are made out of a sense of touch, and invite a tactile response...a particular kind of communication for both producer and consumer...What is implied by craft production is an intimacy between producer/object, object/consumer, producer/consumer.'

One of the definitions of craft is that of a thing done well; it would be well done to remember it is not done alone. Systems theory – a key understanding in sustainability debates – sees everything in a web of relationships. If we accept that a craft practice concerned with sustainability is primarily concerned with

relationships, the question then becomes how best to facilitate and develop these relationships. This question is now the focus of several investigations, including the next issue of *craft + design enquiry*, which is to be entitled *Relational Craft and Design*. Similarly, the next conference for Making Futures is subtitled 'the crafts as change maker in sustainably aware cultures'. The focus for the conference includes a significant investigative theme called Craft as Social Process which interrogates the fundamental importance of the social relationships that are inherent in many crafts related activities. This takes us into the territory of craft as an agent in social sustainability and asks how we make explicit craft as a facilitator of positive social change within the context of ethical and ecological sustainability. And a recent UK Crafts Council publication includes an examination of the work of craftspeople in relation to various kinds of relationships surrounding their careers (2010).

It seems that the findings of this research project have fed into a further investigative focus on relationships, which provides the next area to be explored. The two areas are strongly linked. Whether implicit or explicit, whether central or tangential to the craftspeople's practice, relationships are at the heart of sustainable crafts.

Bibliography

- Bruntland, G. et al., 1987, Report of the World Commission on Environment and Development: Our Common Future. Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment. [Online] Available at <http://www.un-documents.net/wced-ocf.htm> (Accessed 10 March 2011)
- Ferguson, E., 1992, *Engineering and the Mind's Eye*. MIT Press
- Gillespie, F., 1987, *The Masterless Way: Weaving an Active Resistance*. In: Elinor, G., Richardson, S., Scott, S., Thomas, A., and Walker, K., (eds) *Women and Craft*. London: Virago
- Harper, P., *Visual Intelligences*. [online] Available at <http://www.visualintelligences.com/paul-harper.html> (Accessed 10 March 2011)
- Johnson, P., 1997, *Out of Touch: The Meaning of Making in the Digital Age*. In Harrod, T., ed. *Obscure Objects of Desire (Reviewing the Crafts in the Twentieth Century)*. London: Crafts Council
- Loveday Edwards, M., 2011, *Ideological Constructs - Past Visions/Future Possibilities: evaluating the endangered subjects in the context of emerging global sustainability and environmental agendas*

- Kester, G., 2000, Socially Engaged Practice - Dialogical Aesthetics: A Critical Framework for Littoral Art. [online] Available at <http://www.variant.org.uk/9texts/KesterSupplement.html> (Accessed 10 March 2011)
- Leopold, A., 1987, *A Sand County Almanac, and Sketches Here and There*. 1948, New York: Oxford University Press
- Plymouth College of Art, 2009, *Making Futures: The Crafts in the Context of Emerging Global Sustainability Agendas*. Vol 1. ISSN 2042-1664 <http://makingfutures.plymouthart.ac.uk/journalvol1>
- Naylor, G., 1971, *The Arts and Crafts Movement*. London: Studio Vista
- Piperato, S., 2004, *Life in the Balance: A Bohemian Martha Stewart*. Chronogram Magazine. Available at <http://www.chronogram.com/issue/2004/07/backbone/lifeinthebalance.php> (Accessed 10 March 2011)
- Sandel, M., 2009, Lecture 1, Markets and Morals. Reith lectures 2009: A New Citizenship. Transmission (9 June 2009), BBC Radio 4, transcription
- Schon, D., 1983, *The Reflective Practitioner*. How professionals think in action. London: Temple Smith
- Schwarz, M. and Yair, K., 2010. *Making Value: craft & the economic and social contribution of makers*. London: Crafts Council
- Sennett, R., 2008, *The Craftsman*. London: Allen Lane
- Sigman, A., 2008, *Practically Minded: The benefits and mechanisms associated with a craft-based curriculum*. Ruskin Mill Hill Trust (RMHT)
- Veblen, T., 1899, *The Theory of the Leisure Classes*. 1994, New York: Dover Publications
- Williams, G., 2002, *Creating Lasting Values*. In Greenhalgh, P. ed., *The Persistence of Craft*. London: A&C Black
- Wright, E., 2009, *Endangered Subjects: A Review of Practice at Seven leading UK Universities*. London: National Arts Learning Network
- <http://www.jonathangarratt.com/>
- http://www.thebrake.net/nick_kary_furniture.html

Theorising a transformative agenda for craft

By Matthew Kiem

Matthew Kiem is a session lecture/tutor in design studies at UTS: Insearch. He has also worked at COFA, UTS, and Whitehouse Institute of Design. Matthew's work as a researcher, writer, and educator focuses on issues in the theory and practice of designing for sustainable futures. He is a member of the Sydney based Project Otherwise group, and a participant in Odessy, the project of redirecting design thinking and practice towards sustainment.

Abstract: This paper examines the potential of craft to facilitate cultures of quality and social transformation in the interests of sustainability. This approach is theoretically grounded in the work of Tony Fry. It draws particularly on his concepts of sustain-ability and Sustainment to construct an argument for what is both valuable about craft as a practice of material fabrication, and what broader social goals craft practitioners might set themselves in recognition of this value. The transformative potential of craft is explored through David Harvey's dialectical theory of social transformation.

This exploration of the potential of craft is also coupled with a recognition of current constraints within contemporary craft practices. In particular, the role of craft within practices of symbolic production and exchange is critiqued through the work of Jean Baudrillard and Pierre Bourdieu. Through these thinkers we observe how crafted artifacts are denied their sustaining potential and how craft practitioners themselves may become absorbed in facilitating the negation of craft as Sustainment. By way of conclusion it is proposed that in order to realise both the sustaining and transformative potential of craft, practitioners must develop a capacity for ongoing critical reflection that informs vocational commitment to change through craft practice. In this capacity, it is a call for practitioners to both recognise and engage with the political agency of craft as a way of fabricating new, and more sustainable modes of (human)being.

Paper

Introduction

'Think of objects that are beautiful and useful as trees in your own garden, objects that endure and have lives of their own, objects that perform services and require care (Manzini 1995:239).'

The aim of this paper is to contribute to an understanding of craft as Sustainment. The theoretical background of this framing comes predominantly from the work of design theorist Tony Fry. Drawing upon the philosophical thinking of Martin Heidegger, Fry examines how the way in which we prefigure and construct our artificial environments conditions our sense of being-in-the-world (Fry 1999, 2009; Heidegger 1962). In thinking through the consequences of design as an ontological force, Fry has opened important avenues for critiquing the role of design in constructing the condition of human unsustainability.

Fry argues that contemporary practices of design and manufacture, including fashion design, planning, architecture, industrial design, visual communication, and of course, craft practices, engender unsustainability as a particular mode of being (Fry 2007a: 20). This is to say that unsustainability has been constructed and normalised through the material and symbolic effect of advertising, consumer products, infrastructure, military design, entertainment industries, and so on. The crisis of unsustainability is understood by Fry not as a question of 'saving the planet'. Rather, it is a question of how institutionalised ways of being degrade the relational ensemble of social, technical, and biological ecologies that humans depend upon. This structural negation of our condition of being dependent on people, things, and systems is a thoroughly designed phenomenon (Fry 1999).

By physically and symbolically constructing our worlds according to our current imaginative desires and dispositions we degrade both our ability to sustain and our ability to see the impact of our actions. Designing and making is therefore directional, in that it creates and negates possible futures, and political, in that it creates and negates certain arrangements of power. This makes any practice of production and consumption an important object of critical examination as it is both a product of an historical conditioning, and a way of conditioning the possibilities of future action.

This theoretical background delivers the object of my concern here with craft. Just as we may identify design as a source of ontological transformation, it is also possible to identify craft as a mode of production that gathers and shapes a particular manner being-in, of, and towards the world. In perhaps simpler terms, we can identify that craft practice generates a qualitative reality of a certain character, both in the labour itself and through the artifacts it may produce (Fry 1994: 96). In narrowing the concern towards what may be significant about craft specifically, David Pye's distinction between design and workmanship becomes helpful (Pye 1968: 1). Whereas design imaginatively prefigures and represents the future existence of a thing, system or behaviour, workmanship involves the material realisation of an imagined design. The character of this activity is discussed in terms of what it might contribute to sustaining long term human futures.

In being both directional and political craft contains the power to either prolong or transform conditions we acknowledge are unjust and damaging to the health and flourishing of human and non-human others. As such there is also a need to

examine the condition of contemporary craft practice. In this regard an argument for both the potential of craft as Sustainment and the constraints of current practice will be made. The conclusion of this argument is that the sustainability of craft is potentially significant, but this is restricted by the structural conditions within which it is practiced. It follows that in order for craft to become a transformative force, practitioners must develop a critically informed, practice based commitment to assert the sustaining value within craft. That is to say, craft practitioners must learn to facilitate the redirection of their own practice in order for craft to become a force for Sustainment (Fry 2009).

Sustain-ability and Sustainment

Before proceeding with the body of the argument it would be helpful to spend some time elaborating on some of the key concepts used in this paper that originate from Fry's work. Against the background of his critical comments on the use of the term 'sustainability', Fry uses the term 'sustain-able' to emphasise an ability to sustain that is embodied in the relationship between people and things (Fry 1999: 8; 2007c). A similar description of this relationship between people and things can be recognised in the concept of 'distributed competence', which is derived in part from actor-network theory (Latour 2005; Shove et al. 2007). These theories suggest that the knowledge we draw upon to achieve any practical objective is not accounted for by considering the capacity of only individual human subjects. Rather, practical ability exists as distributed both through social relationships and everyday pieces of equipment and technology.

For instance, Shove identifies how the projects of domestic DIY practitioners succeed not only because of individual skill, but also through the advice of friends and experts, and what may be achieved with particular tools and materials (Shove et al. 2007: 55). As a specific example, quick drying, non-drip paint that 'knows' how to go onto a door represents a technological embodiment of the skill of an expert painter (Shove et al. 2007: 55). This characteristic affords an amateur the ability to achieve a quality of finish otherwise beyond his or her level of skill. Ability should therefore be understood as the product of an assemblage of social relationships and material things.

While this concept of distributed competence in itself does not represent the same meaning of sustain-ability, as an explanation that decentres the primacy of individual human subjectivity it provides an example of the way in which an ontology is conditioned by a relation to a world of equipment. Understanding the nature of this relationship between people and things is an important feature of sustain-ability, as it avoids the pitfalls of understanding 'sustainability' as a quality that might exist in objects regardless of their context of use. 'Sustain-ability' also implies that particular materials, such as wood, cannot be regarded as essentially 'sustainable' for merely representing the possibility of a sustainable metabolic cycle (Fry, 1999: 8). Rather, by allowing us to talk in terms of the ability of individuals, groups, and their relation to the built world, 'sustain-ability' assists us in thinking beyond the mere technical specifications of objects,

and onto questions of how an endemic condition of cultural unsustainability is symbolically and materially constituted, and what kind of designing and making may begin to counter this condition.

Developing sustain-ability is a project directed at establishing a condition of Sustainment. Fry uses the concept of Sustainment to refer to a state in which the total inertia of human socio-technical existence, including cultures and economies, act to secure rather than damage the possibility of long term futures. The Sustainment may be equated in scale with the epochal shift of the 18th century Enlightenment movement which founded many of the concepts and institutions that persist into the 21st century (Fry 2004: 36). As such, Sustainment suggests an immense cultural project, encompassing changes to everything that underscores our sense of being-in-the-world, including economies, material and symbolic structures, knowledge, embodied experience, and social relations. As a concept, 'the Sustainment' works as a singular goal towards which practitioners of otherwise heterogeneous disciplines (including artists, designers, architects, craft practitioners, educators, researchers and writers) may orientate a political commitment.

While the significance of Sustainment to present craft practitioners calls for further articulation, I will delay this for a later examination of the dynamics of large scale social change. With these introductory concepts in place we can now turn to the potential role of craft within a condition of Sustainment.

Craft and Sustainment

In the chapter 'Prometheus of the Everyday', Ezio Manzini argues that addressing the challenge of our unsustainability must be, at least in part, a concern with dematerialising our economies and daily practices (Manzini 1992: 230). More specifically dematerialisation would involve a greater shift from owning products to using services; an increase in facilities of repair, upgrade, and renting; the minimisation of negative impacts in the lifecycle of products; reuse and recycling; and finally, elongating the useable lifespan of products (Verbeek & Kockelkoren 1998: 29). These changes, rather than being marginal reforms, would constitute new environments of human habitation and produce new cultures of manufacture, usage, and wastage. In concluding his article, and as a way of describing how this alternative future might be experienced, Manzini offers a brief sketch of a scenario he names the 'garden of objects' (Manzini 1992: 239). This 'garden of objects' represents a condition in which our interaction with the material things of our everyday world is like that of the relationship between a garden and gardener. This encapsulates the idea that through a practice of tending to the health of plants and things, a deep sense of wealth and satisfaction may emerge. Furthermore, the experience of this world names something more than the mere satisfaction of brute needs, economic interest, or a concern for calculable efficiency and frugality. Rather, it describes a disposition for care, wisdom, and respect towards our material/temporal existence that enables what is truly important to flourish and endure.

The line of argument in 'Prometheus of the Everyday' focuses primarily on the potential of design to facilitate a transitioning towards more sustainable modes of socio-technical being. In addressing the issue of sustainability it is appropriate that Manzini would focus on design, for design's prefigurative function is a powerful form of agency as both a driver of the unsustainable and as a potential force for future redirection (Fry 1999, 2009: 29-51). There are also reasons why design is significant to craft. Firstly, all practitioners must work with a prefigured understanding of what they have committed themselves to bringing into being, even if at times this may be a vague and emergent experience. Secondly, design not only represents the guiding image of any particular work, but, in a much more primordial sense, it is an activity that conditions our sense of being-in-the-world (Fry 1999, 2009; Heidegger 1962). This is to say that design has an ontological effect that is deeply significant for how craft is practiced. As the act of (pre)forming the character of our material and symbolic environments, design works upon us and itself in an hermeneutic fashion so that we may say that design designs (our) designing (Fry 1999; Willis 2007). Design is therefore both implicit within, and a constitutive element of any form of craft practice.

In these ways design is indivisible from craft. Yet there are particular characteristics of craft that still call to be identified and understood in themselves and in relation to Sustainment. As David Pye has demonstrated, in any material artifact there is something distinctive and significant about the workmanship involved that is irreducible to the act of it being designed (Pye 1968: 1). The distinctiveness that Pye observes is that between design as a representation of something in the ideal for the purposes of making, and workmanship as the ability to execute the fabrication of a design; 'design proposes, workmanship disposes' (Pye 1968: 1).

The significance of workmanship, that is, what it makes possible when it is either good or bad, and the ontological consequence it has for both craft practitioner and user, appears underrepresented within Manzini's vision. While we might recognise Manzini's scenario as a something like a condition of Sustainment, what would be fundamentally necessary for a 'garden of objects' to work is, firstly, a certain material quality of the things that would make up this world, and secondly, practices that would foster what we might call 'cultures of quality'. By cultures of quality I mean complex and highly attuned practices of workmanship that incorporate a deep concern for the sustain-ability of people, practices, and equipment. The claim being made here is that the health of a 'garden of objects' is dependent upon the development – and in some instances a re(newed) development – of the kinds of socio-technical modes of being that exist within various craft practices. In short, in order to enrich the interpretation of Manzini's vision of a more inhabitable everyday material environment, it is important to understand the potential of craft as a Sustainment practice, and particularly, how it might facilitate cultures of quality.

Cultures of (sustain-able) quality

Manzini has indeed argued that making the transition toward something like a condition of Sustainment we would require the development of cultures that sustain practices of sophisticated material understanding (Manzini 1992; Tonkinwise: 2004: 65). An example of this need is evident in the case of growing one's own food. Locally produced food does have potential as a sustain-able practice, but the benefits may be undercut if, for instance, a lack of experience leads to an unnecessary reliance on synthetic fertilisers and pesticides. To instill effective sustain-ability it is important to develop practices that hold, within a community of knowledge and things, the ability to produce minimally and consume fully the artefacts of labour. This is in contrast to our current condition which seeks to depress the value of labour in order to produce too many things that are impossible to fully consume, and are therefore irrevocably destined for wastage (Fry 2009: 192).

Fry outlines three ways that craft may contribute to what I mean by cultures of quality (Fry 1994: 98). Firstly, the experience and understanding developed through a craft practice can be significant in informing a more careful approach to the design and fabrication of products. Thinking this through more specifically, and in relation to sustain-ability, an experienced understanding of what certain materials are capable of, and what different forms, finishes, or other characteristics afford in terms of a thing's 'intentionality' (Verbeek & Kockelkoren 1998: 36), has implications for the useful lifespan of a thing. Furthermore, this knowledge may inform planning for end of life scenarios that makes it easier to retrieve materials for reuse or recycling.

Secondly, craft practice may facilitate 'care in use'. This means that things may be designed and fabricated in such a way that ensures as best as possible the safety and health of their users. This may include considerations for the handling of the object, finishings, toxicity, and ease of use. It would also include consideration for objects as equipment for healthy and sustain-able activities. For instance, the careful forming of a surfboard may be thought of as act of materially fabricating a concern for the safety of surfers (making sure they have adequate control, buoyancy, grip etc.) and allowing them to engage in a healthy, fulfilling, low impact activity. Similarly, an expertgardener would be able to skillfully deploy an ensemble of equipment (spaces, tools, containers, irrigation systems etc.) to produce nutritious food without recourse to excessive use of power, water, or unnecessary fertilisers or pesticides.

The final point is a consideration for aesthetics, but not an aesthetics in the sense of considering the visible form of a thing. Rather, quality workmanship may play a key role in facilitating what Cameron Tonkinwise has described as 'beauty-in-use' (Tonkinwise 2004). Originating from the philosophy of Martin Heidegger, this counterpoint to dominant Western conceptions of the aesthetic recognises that when we use things, and they are working well for us, rather than standing before us as objects to be contemplated they recede into the background of our awareness and act to mediate our experience of the world

(Tonkinwise 2004: 66). Heidegger uses hammering as an example of how a thing such as a hammer ceases to be experienced as a thing in itself (Heidegger 1962: 98). In use a hammer becomes fully incorporated as part of an individual's sense of hammering. The person using it does not consciously think they are holding a hammer and hammering, they are simply directed at driving nails into wood. Beauty-in-use attempts to understand the consequences of how to create things that, in receding from and mediating our attention, dispose us more easily towards the sustain-able. Beauty-in-use therefore stands in contrast to Platonist conceptions of ideal form which renders things as pure function or symbolic representation (Tonkinwise: 2004: 65; Verbeek & Kockelkoren 1998); a conception that is incapable of considering the ontological consequences of things as material matter. This point underscores a critique of the aestheticisation of craft which will be taken up later.

Further to simply functioning well, beauty-in-use also concerns the facilitation of practices of care that extend the useful life of products. For instance, in moments of disrepair a thing like a hammer returns as an object of our attention, namely, as something that requires either repair or disposal. In these instances good and careful workmanship may facilitate a disposition to repair things rather than throw them away, a disposition that may arise from the value recognised in a finely crafted object and sense of commitment that can develop towards things in our lives that have served us well over a long period of time.

Craft as ontological

These considerations so far have looked at how craft might facilitate more sustain-able practices of production and use of things through the quality of both design and workmanship. However it is also important to emphasise that workmanship, both in the doing and the using, has a greater effect on us than simply meeting our needs. It also engenders particular experiences of being-in-the-world that are consequential for sustain-ability (Heidegger 1962: 78). Understanding how craft fosters modes of being requires consideration of its ontological impact.

To begin with the activity of crafting itself, working a material with tools under careful, experienced direction, has a twofold conditioning effect. Firstly there is a conditioning of the materiality of the world, understood as a totality of conditioned equipment. That is, craft can be an act of materialising the equipment that forms our world. From mere resource, the act of crafting procures a thingly state of being, that is, an equipmentality which is beheld by a conditioned (human) being, against and in relation to a world of equipment. As Heidegger explains, there is never such a thing as 'an equipment'; the being of a single piece of equipment can only be comprehensible in relation to a totality: 'Equipment ... always is in terms of its belonging to other equipment: ink-stand, pen, ink, paper, blotting pad, table, lamp, furniture, windows, doors, room' (Heidegger, 1962: 97). Therefore, the work of a craft practitioner is a way of being disposed within and towards the shaping of a world of equipment.

Along with the being of equipment within the world, a second form of conditioning effected by craft is on the person themselves. To the individual practitioner, the actual labour of craft is all at once a mind/body/equipment/material involvement directed at an outcome. In action, whatever distinctiveness there is to these concepts is overridden by a practical foresight that gives regard only to the inertia of the task to hand. For instance, a master ceramist throwing a pot would be so attuned to their material and tools that they would give no conscious thought to adjusting the speed of the wheel or the pressure and position of the hand in touch with the clay. Hand and foot simply move with an embodied sensitivity that is able to guide a pot into being. While this activity can be represented as a process or series of discrete steps, this representation of the act of labour cannot capture the non-propositional elements of skill, and may only really be useful as a starting point for beginners. In order to become fully adept at a skill such as throwing a pot, practitioners must work both their material and their body until rule-like behaviour becomes a habitual disposition.

This character of acquiring a skillful relation to tools and material is present in all acts of human guided labour, and is not simply limited to the traditional conceptions of craft. As Fry has stated: 'The qualification of craft practice is neither predicated upon established hand working, machine-based skills nor new methods which employ advanced technology but rather on the articulated relation between hand and mind in making which secures a direct human presence, as the loci of power and knowledge, in the made' (Fry 1994: 97).

Craft, therefore, is an activity which facilitates a certain experience of being-in-the world as an embodied being amidst material things in a relationship with other people. As such it is more than just an activity of making functional or symbolic objects. To further this idea in relation to Sustainment, we may begin to examine how these characteristics may work with a much broader transformative agenda in mind.

Sustainment and co-revolutionary theory

So far I have outlined ways in which craft has the potential to engender sustainability. As I described earlier, for Fry, this concept of sustain-ability is directed at establishing a general condition of Sustainment. In order to more fully understand the potential of craft as a transformative force directed towards establishing this condition it is useful to return again to Sustainment as a concept of broad scale social change. The link between the intimate activity of craft and social change appear may be large, but in conceptualising the relation of how micro-scale attempts at engendering sustain-ability may lead to a condition of Sustainment, I have found it helpful to use David Harvey's theory of co-revolutionary social change.

Harvey's theory attempts to explain the dynamic of transforming social orders (Harvey 2010). Reading from Marx's analysis of the transition from a feudal to

capitalist mode of production, Harvey proposes that social change emerges as a flow of momentum that transforms seven 'moments' of social/economic reproduction. This 'assemblage of activities and practices' includes:

1. technological and organisational forms of production, exchange and consumption
2. relations to nature
3. social relations between people
4. mental conceptions of the world, embracing knowledges and cultural understandings and beliefs
5. labor processes and production of specific goods, geographies, services or affects
6. institutional, legal and governmental arrangements
7. the conduct of daily life that underpins social reproduction

While each of these moments proceeds with a certain degree of autonomy, as with the interconnected nodes of a spider's web any movement at a particular moment will provoke a corresponding change in each of the other moments. For instance, when the use of coal powered steam engines was adopted by manufacturers in England during the 18th century, manufacturers were freed from the previous constraints of human, animal, wind, and water power (Marx 1974:398). This technical innovation instigated a change in the relation to nature that also impacted on the organisation of production, the social relation of workers (particularly through the division of labour), and the factory form. Changes to the division of labour also increased the proportion and quantity of unskilled labour, and the rise of the factory system instigated new spatial dynamics, including a trend towards urbanisation.

In considering the changes that emanate from coal powered engines, even in these simplistic terms, it is important to retain a dialectal conception. The transformation of social orders under capitalism did not follow a strict causal process, but rather unfolded in a relational dynamic that had no definitive moment of beginning or end, and a propensity towards contradiction that continues to manifest in political, economic, environmental, or humanitarian crises. The dynamism of this dialectical ensemble exists not just during times of revolutionary change, but, as Harvey argues, persists as part of the ordinary conditions of a social order (Harvey 2010). In our own case, this is a social order characterised by the dominance of capitalism. What Harvey identifies as the driver of the capitalist mode of production – the provision of compound interest on investment – constantly tests the limits inherent within the production cycle, including the limits of resources, time, space, labour, technology, and finance. The pressure to grow in the face of limits fuels a constant program of innovation (Harvey 2010). As capitalism pushes against the limits of growth it exposes both its contradictions, but also its strength; a capacity to drive innovation in its own interest. Innovating in the face of limits also exposes the limits to our

thinking on limitation, as, for instance, in relation to our sense of what may be or become 'resource' (Stables 2010: 140). Always however, it reveals the power of the institutions erected to protect economic growth (government, central banks, IMF, World Bank), which have the capacity to mobilise entire social orders in service of the needs of capital accumulation.

Harvey views the contemporary condition of capitalism as fundamentally incompatible with principles of fairness and sustainability, and champions a transition towards an alternative form of social arrangement. Whether or not we choose to take up Harvey's explicitly anti-capitalist stance- Fry, for instance, argues that Sustainment might involve a redirection rather than an overthrow of capitalism (2007c: 75) - Harvey's co-revolutionary theory provides a relational understanding of how a transition towards Sustainment may unfold. To the question of where such a movement might begin, the answer lies in the dialectical relation, that is, change must be initiated by individuals and groups at each moment of social reproduction. The activities of our daily life, our understanding of the world, our relation to other people, our ordinary work practices, our exchange practices, how we own and use equipment, each of these and more represent sites in which politicised craft practitioners may intervene with the intention of redirecting the force of our unsustainability.

The semiotic trap

Having briefly examined the transformative potential of craft it is worthwhile analysing the constraints of contemporary craft practice. An important area to confront is the role of craft as a symbolic artifact – as it exists for instance in service to the tourist industry, household furnishings, gift giving, and/or 'craft as art'. Jean Baudrillard for instance has examined the manner in which the political-economy of sign value has become the dominant characteristic of our contemporary material culture (1981; 1996). He has argued that as capitalist economies matured the sign function of objects became key to practices of production and exchange, over and above conceptions of use-value or utility (Baudrillard 1981: 29). We may see evidence of this effect on craft when it is considered as a certain category of objects with symbolic attributes (for instance, as a sign of 'authenticity', 'tradition', 'the exotic', 'romantic indigenouness', 'anti-industrialism' etc.).

For example, in one social context, an antique table may stand as a reflection of the value of tradition, family, or cultural sophistication, whereas in another instance it may become the marker of a drab, conservative outlook. Under these conditions crafted things are taken up and deployed as part of a practice of symbolic representation, an activity that may thwart or deny the ability of workmanship to facilitate more sustain-able practices. Other symbolic uses of 'craft' may involve the romantic fictions that surround conceptions of indigenouness and the exotic European-Other, which are often deployed in the construction of national, or counter-(post)modernist identities, particularly within the souvenir and gift industries (Hickey 1997, Fry 1994: 90).

On this particular point, while there are serious issues relating to the damage of cultural co-option, the nature of the power dynamics involved should not be reduced to a simple case of Westernised imposition upon passive populations. For instance, in Laos, the government works with the United Nations Educational, Scientific and Cultural Organization (UNESCO) to preserve the ancient capital of Luang Prabang as a World Heritage site (Long & Sweet 2006). This includes the conversion of the old palace into a museum, and the preservation of both Buddhist temples and colonial era style buildings. Luang Prabang also hosts nighttime markets, where textile, wood, stone, and other 'craft' items are sold as gifts or souvenirs. Many of the products sold convey an aura of both exotic and traditional authenticity, even though they are designed and produced specifically for the tourist market. Beneath the romance of the tourist experience run tensions relating to the construction of a national identity following the ruptures of colonial intervention. The manufacture of Luang Prabang as a sign of Laos' past also facilitates a binary symbolic relation to the new capital, Vientiane, which, as the base for the socialist, anti-royalist state administration, becomes the legitimate locus for development agendas aimed at modernising the state (Long & Sweet 2006: 469). Despite being far more complex than I can give representation to here, the situation in Luang Prabang at least begins to reveal otherwise undisclosed issues concerning what is currently sustained by existing craft practices.

In addition to Baudrillard's consideration for how craft objects may be consumed, Pierre Bourdieu's work on what he terms 'the field of cultural production' provides a perspective on the conditions of cultural and symbolic production. Bourdieu argues that the nature of fields within which cultural artefacts are produced – such as visual arts, music, theatre, or literature – can be characterised as a dynamic between two opposing poles (Bourdieu 1983). The dominant pole, the one that attracts the most symbolic power, is the autonomous realm of production, the space of 'art for art's sake'. In this form of social game, studio artists/craftspersons are involved in producing works that may stand as material manifestations of individual creative genius. The power of this realm is maintained through the nurturing of both exclusive tastes and prices, and the important role of commentators in nurturing discourses that lend both objects and makers a mythological aura of creative genius.

The opposing pole of this field marks a space where practitioners target a mass market or popular audience. In being exposed more explicitly to the logic of economic capital, this more contingent realm gives definition to the exclusivity of the autonomous realm. Craft objects produced for mass symbolic consumption may appear tacky, kitsch, cheap and vulgar to an elite audience, but this does not affect the symbolic value of such objects within groups to whom they have appeal. This also describes the function of craft works within practices of social distinction (Bourdieu 1984).

Importantly, the descriptions of each of these poles is not intended as a moral judgement itself, but as a description of the particular social space within

which a practitioner works. Folding into this is the power of institutions such as galleries, universities, and the state, who each earn a symbolic profit as they support the 'social good' of the autonomous realm of production.

Amidst the social play of the field of symbolic production the most sustain-able characteristics of craft are obscured. As Neil Brown has argued, the dominance of semiotic theories, particularly within the world of fine arts, (mis)represent craft works as vessels of communication for ideas (Brown 1997: 14). Understanding the products of craft in terms of their sign value alone obscures the value of workmanship and denies the ontological conditioning that can occur during both fabrication and use. In a point supporting the damage done by semiotic aestheticism, Fry has also described how craft may be employed to counter 'modes of cultural and economic postmodernity, especially depersonalised post industrial corporate commodity culture and its accompanying "high" technology' – again treating craft as a reactionary form of symbolic resistance rather than something of more substance than mere sign (Fry 1994: 88).

Discourses on craft as symbolic objects have also undervalued the condition of craft as a form of industrial production. Reyner Banham for instance has argued for recognition of the craft nature of machine repair and maintenance (Banham 2008). While the wonder of 'machine precision' would appear to be based upon the elimination of human fallibility, ironically, it is the finesse and dexterity of highly skilled workers that have been key to countering the inevitable issues of wear and tear that occur within mechanised production (Banham 2008: 140). The flexible attunement of these workers is something beyond the capacity of any automated device. Banham also makes the point that the character of craft discourse often perpetuates a materials bias, arguing that an exclusive focus on 'craft' materials – such as wood, metals, textiles, ceramics, and glass – is unfounded. Banham cites the manufacture of hand-crafted fiberglass surfboards as a telling example of a significant practice of workmanship that is denied recognition despite being a highly developed tradition of skillful performance.

Craft as an agent of change

A point that underscores the arguments of Banham, Fry, and Brown, is that craft is disenfranchised so long as its value is only understood in terms of the signifying object. The virtue of an embodied involvement with a material is the sensitivity and thoughtfulness that develops as a mode of being. Considering craft in terms of embodied skill opens up a world of practices (for example, cooking, gardening, weaving, ceramics, smithing, machining, panel beating, typesetting, leatherworking, carpentry, bricklaying, cobbling, tailoring, glass working, shipbuilding, surgery, and so on) that could one day form part of a condition of Sustainment.

What then stands in the way of craft becoming a truly effective force for Sustainment? In simple terms it is that practitioners work within economic, material, and symbolic structures that deny craft its sustaining power (Fry 1994).

This occurs through the constitution of craft as a practice of aestheticised symbolic play, and an economic dynamic that prevents cultures of quality from forming the basis of our material culture. However, in working to change these conditions, there are characteristics of craft practice that, if politicised, may have potential to contribute to a transformative agenda.

For instance, craft knowledge exists as a socially conditioned form of judgement inscribed into the disposition of the practitioner and their world of equipment. This has two consequences. Being an embodied social practice, a culture of craft is developed by people who must be geographically near to each other in order to share and develop expertise. Secondly, because craft knowledge is inscribed in bodily dispositions, it is both non-propositional and time intensive. These characteristics – people, in close spatial relationship, slowly developing an expertise that is not easily dispersed – grate against the propensity of (post) modern capitalism to structure time, space, people and information into more flexible and convenient forms (Harvey 1990: 284).

These same antagonisms may also exist in relation to the consumption of craft. For instance, often the conditions for rich qualitative experiences are counter to the logic of instant or commodified gratification. If I am to appreciate a certain quality of food, clothing, or music, for instance, I must make time in my life to become a certain kind of connoisseur. While connoisseurship can foster the worst aspects of social differentiation and aestheticism (Bourdieu 1984; Fry 1988: 21), within a sustain-able culture of quality this form of expertise could become a part of the experience of pleasure, fulfillment, and the pursuit of excellence in ourselves and our everyday objects. The philosopher Albert Borgmann has developed a related concept of ‘focal practices’ (Borgmann 1984: 196). These are practices that use technological equipment to engage people in skilled but fulfilling activities, such as playing a musical instrument, gardening, or cooking, rather than simply providing easy to consume commodified experiences.

If these ideas are returned to Harvey’s dialectical schema we can start to see a semblance of transformative possibility. While craft already incorporates a relation to nature, its ability to claim something durable from mere resource is yet to be properly exploited. Craft also incorporates a particular mode of production, and a relation to technology that fosters the value of living labour, as well as itself producing technological instruments to increase the sustainability of practices. In order to be fully realised as Sustainment, craft also must be constituted as a new cultural concept and supported by the (re)formation of social institutions to more formally support and legitimise newly formed sustain-able practices of fabrication.

Conclusion

Craft practice stands in dialectical relation to the conditions within which it exists. Its nature and power is a reflection of broader social conditions, but it

must also be viewed as an agent within the transformation of this social order. Under current conditions craft is constrained from realising its potential as a force for Sustainment because it occupies a position within fields of cultural production that misdirect its sustaining qualities. These fields retain valuable aspects of craft knowledge, inscribed with the living bodies of practitioners and their equipment, however they also negate the ability of craft to engender and support practices of care at a scale required for Sustainment.

However, paths towards new conditions of practice may only be constructed from within existing practices (Fry 2009: 223). A key point is that craft practitioners must not wait for the conditions to be right in order for their work to become a force for Sustainment, as such a condition could only be the product of a sustained politicised commitment. This task is made difficult not only because of present day economic conditions, but also through prevailing cultures and discourses on craft that obscure its sustaining potential. This being the case, an ongoing critical examination of the conditions of craft practice should form part of a (re)constructive project that asserts the value of craft from within more sustain-able practices of work and living. As such a project leads to the production of new knowledge, new relations between people, new conditions of production, new technologies, new institutional arrangements, new conceptions of space and time, and a new character of our everyday lives, craft practice will have earned the genuine power to shape the character of being-in-the world in the interests of Sustainment.

Acknowledgements

I would like to express my gratitude to those who assisted me in writing this paper, particularly Tara Andrews for valuable comments on an early draft, Kevin Murray for his patience and encouragement, and my two peer-reviewers for their considered thoughts and recommendations.

Bibliography

- Banham, R., 2008, Sparks from a Plastic Anvil: The Craftsman in Technology. *The Journal of Modern Craft*, 1; 1, pp. 137-145.
- Baudrillard, J., 1981, *For a critique of the political economy of the sign*. St. Louis: Telos Press.
- Baudrillard, J., 1996, *The system of objects*. London, New York: Verso.
- Borgmann, A., 1984, *Technology and the character of contemporary life: a philosophical inquiry*. Chicago: University of Chicago Press
- Bourdieu, P., 1983, The field cultural production, or: the economic world reversed. *Poetics*, 12, 311–356.

- Bourdieu, P., 1984, *Distinction: a social critique of the judgement of taste*. London: Routledge & Kegan Paul.
- Brown, N., 1997, Theorising the crafts: new tricks of the trade. In S. Rowley, ed., *Craft and Contemporary Theory*, pp 3-17.
- Fry, T., 1988, *Design History Australia*. Sydney: Hale & Iremonger.
- Fry, T., 1994, Green hands against dead knowledge. In *Remakings: ecology, design, philosophy*, Sydney: Envirobook, pp. 87-102.
- Fry, T., 1999, *A new design philosophy: an introduction to defuturing*. Sydney: UNSW Press
- Fry, T., 2004, The Sustainment and its dialectic. In A. Willis, ed., *Design Philosophy Papers: Collection One*, pp. 33-45. Ravensbourne, Qld.: Team D/E/S.
- Fry, T., 2007a, Homelessness – a philosophical architecture. In A. Willis, ed., *Design Philosophy Papers: Collection Three*, pp. 19-28. Ravensbourne, Qld: Team D/E/S.
- Fry, T., 2007b, Redirective practice: an elaboration. In *Design Philosophy Papers*, Issue 1 2007.
- Fry, T., 2007c, Design, development & questions of direction. In A. Willis. ed., *Design Philosophy Papers: Collection Three*, Ravensbourne, Qld: Team D/E/S, pp. 66-79.
- Fry, T., 2009, *Design futuring: sustainability, ethics and new practice*. Sydney: UNSW Press.
- Harvey, D., 1990, *The condition of postmodernity: an enquiry into the origins of cultural change*. Oxford UK, Cambridge, Mass.: Blackwell
- Harvey, D., 2010, *Organizing for the Anti-Capitalist Transition*. Talk given at the World Social Forum 2010, Porto Alegre. <http://davidharvey.org/2009/12/organizing-for-the-anti-capitalist-transition/>. Accessed 31/1/2010.
- Heidegger, M., 1962, *Being and time*. London: SCM Press.
- Hickey, G., 1997, Craft within a consuming society, in P. Dormer, ed., *The Culture of Craft*. Manchester: Manchester University Press, pp. 83-100.
- Latour, B, 2005, *Reassembling the social: an introduction to actor-network-theory*. Oxford: Clarendon.
- Long, C. and Sweet, J., 2006, Globalization, nationalism and World Heritage: Interpreting Luang Prabang. *South East Asia Research*, 14; 3, pp. 445-469.

- Manzini, E., 1995, Prometheus of the Everyday: The Ecology of the Artificial and the Designer's Responsibility in R. Buchanan & V. Margolin eds *Discovering Design* Chicago: University of Chicago Press.
- Marx, K., 1974, *Capital, Volume 1*. London: Everyman's Library.
- Pye, D., 1971, *The nature and art of workmanship*. London: Cambridge University Press.
- Tonkinwise, T., 2004, Beauty-in-use. In A Willis, ed., *Design Philosophy Papers: Collection One*. Ravensbourne, Qld: Team D/E/S, pp. 63-70.
- Shove, S., Watson, M., Hand, M., and Ingram, J., 2007, *The design of everyday life*. Oxford, New York: Berg.
- Stables, A., 2010, Making Meaning and Using Natural Resources: Education and Sustainability, in *Journal of Philosophy of Education*, 44; 1, pp. 137-151.
- Verbeek, P. & Kockelkoren, P., 1998, The things that matter. In *Design Issues*, 14; 3, pp. 28-42.
- Willis, A., 2007, Ontological designing – laying the ground. In A. Willis, ed., *Design Philosophy Papers: Collection Three*, pp. 80-98. Ravensbourne, Qld: Team D/E/S.

Ecology and the aesthetics of imperfect balance

By Roderick Bamford

Roderick Bamford's practice traverses art, craft and design, with a specialization in ceramics. He works from a studio north of Sydney and lectures at the College of Fine Arts, University of NSW.

Abstract: Historically, craft values have provided a pivotal argument in the conflict between industrial and natural worldviews, concerning both the artefacts and social conditions of their creation. Today, the implications of carbon both as a fuel and a toxin demand a better understanding of the 'sign' values embedded in such dialogue, and inform responses to the dangers posed by dominant anthropocentric perspectives. Amidst the logic of a number of 'design for sustainability' arguments, craft emerges as an antidotal signifier to the combined impacts of hyper efficient production and rampant 'throw away' consumerism. Yet, in the carbon context, notions of benign impact and enduring value associated with craft can elicit contradictions. Drawing on literary arguments and examples in practice, this paper surveys relationships between craft and design as instruments of sustainability theory. Whilst recognizing the importance of qualitative factors in this context, and the increasing attention given to them in research, the critique emerges largely from a more established quantitative, or measured perspective. The relevance of this approach is attributed to the primacy of material outputs in both craft and design practice. In this context the writing aims to address a comparative gap in the discussion of practices in craft and design, and to contribute to a deeper understanding of their relationship. In seeking possibilities for craft within a discipline of sustainable culture, it explores a role for aesthetics in the context of what may be considered unnecessary artifacts.

Paper

Increasingly, the term 'sustainability' pervades our vocabulary, but is in danger of losing tangible value due to its application in multiple contexts and with various meanings. Amongst these, sustainability can be understood in terms of climate change, the practice of recycling, or the challenges of cultural or economic survival. In the broader ecological context, sustainability concerns a restoration of balance for species longevity, and for this to be realised on global and local levels, human decisions and actions need to benefit the interactive workings of natural, socio cultural, manufactured and economic systems. Such connections highlight the importance of time and scale in understanding relationships between sustainability and ecology. Macnaghten (2006) outlines differing but useful theoretical positions that inform this perspective. Firstly, there appears

the anthropocentric idea that nature is global and original, from which human activity is intrinsically separate, a commonly held conservation view. Nature can also be considered as a chain of being to which everything belongs, including humanity. In a third instance, there is the idea that nature has always been shaped by socio-cultural forces. As these arguments all identify nature as a unit of analysis and politics, decisions regarding it will be measured on human terms, with the role of nature personified. However, within the anthropocentric hegemony, concepts of dominance and co-existence continue to collide. Nature as an autonomous entity is responsible for itself, yet it is lived within, tamed and exploited for our purposes. Until recently times it appeared stable and immune to human actions.

Consistent with the ecological concept of carrying capacity, ecological footprint calculators¹ measure the amount of resources, expressed in either resource or geographic terms, needed to sustain a condition of living in perpetuity. These analytical tools help individuals and organisations analyse their impact on the environment in terms of consumption. The result of completing any one of the computations will most likely contend that, if you live in a 'developed' country, more resources are required than are globally available to support life as you have described it. With the confidence of a quarter millennium's industrial progress, refocusing human endeavours on technical innovations provides hope that new, low carbon energy solutions will prevail. Sequestering bad gas, cladding the world's desert with solar cells, encircling valleys with wind turbines or speckling the atmosphere with stratospheric wind kites (Griffith, 2010) offer the energetic prospect of supporting the globe's growing population to some degree. However, recent investigations of such a future scenario suggest limits in the capacity of clean energy production technologies to stabilize global climate (Hoffert, et al, 2002, p.981). The trajectory of climate change, even if all carbon dioxide emissions were to cease immediately, is predicted to bring, along with rising sea levels, huge population displacement and arable land degradation, compounding the shift in long standing patterns of human subsistence.

The substantial improvements in human prosperity resulting from greater control and exploitation of natural resources, largely food, fibre, fuel, timber and water, have cost more extensive ecosystem damage in the past 50 years than at any time in our history (Read, et al, 2005). By implication, old industrial models of managing of the world's ecosystems appear to have failed, requiring renewed efforts to simultaneously mitigate the current causes whilst developing protective solutions for the future. Established conceptual solutions to the sustainability problem appear to make common sense—a combination of efficiency, restraint, and repair. Humans need to moderate consumptive practices to achieve an acceptable balance between the speed with which we transform environmental resources and the rate the biosphere can renew them, whilst meeting demands of an increasing population, many of whom need, and

¹ For example, calculators available from the Environment Protection Authority Victoria, accessible from <http://www.epa.vic.gov.au/ecologicalfootprint/calculators/default.asp>

aspire to improved standards of living. This idea is the conceptual source of the most commonly accepted definition of sustainability, that proposed in the Brundtland Report (1987). However, its encapsulation within the framework of sustainable development raises questions of how this should be evaluated. Reflecting on the primacy of economic growth as a significant measure of social value, incongruity becomes evident when comparing economic and ecological forms of growth. When ecosystems evolve, they develop, growing only by an amount supported by environmental limits, belying the condition that economy is a subsystem of ecology (Daley, 1993, Ch.14). If Daly's arguments are correct, even the limits to economic growth proposed by the Brundtland Report surpass the fundamental carrying capacity of the earth's ecology.

Despite apparent conviction in this argument, the qualitative implications of sustainability are far from clear. In assuming the necessity of some type of social conformity to enforce and manage the requirements of sustainable systems, our limited understanding of the complexity involved suggests that an ongoing critical exchange of values and relationships of power is necessary to avoid injustice. This is important in both moral and practical terms. Within the human sphere, the inseparable nature of social and economic development from sustainable development requires that their treatment cannot be effectively analysed separately, a factor apparent in recent debates surrounding the implementation of a carbon reduction schemes in Australia. Barbier (1987) reminds us that in rapidly developing world economies such as India, attempts to reduce environmental degradation are likely to fail unless the needs and participation of those most affected by the changes imposed are adequately addressed, and that both alleviating absolute poverty and providing secure livelihoods are necessary to minimize resource depletion, environmental degradation, cultural disruption, and social instability. Consequently a perspective can be reached for the simultaneous dematerialization of developed economies in order to mitigate the effects of consumption and environmental damage and accelerating development of marginalised communities most affected by such actions, whilst supporting important social and cultural dimensions in both. What could this mean for craft and design in developed economies?

Scerri & James (2010) suggest that due to the increasing availability of quantitative indicators, a balance of qualitative indicators is urgently required to highlight the negotiated condition of social commitments. Nevertheless in their arguments for equivalence in identifying the values of both natural and social science viewpoints, the use of metrics is reinforced, highlighting the value of some form of accountability in the equation. The aesthetic perspective in craft and design may at first appear remote from such metrics, however in the materiality of these practices and their relationship to production and consumption, arguments emerge that instrumentally link craft and design to sustainability, in both environmental and cultural terms.

With the European Energy Commission estimating that over 80% of all product-related environmental impacts are determined during the design phase (2009), design's critical role is under scrutiny. The primacy of physiological and

material measures of success in consumer economies has informed design for sustainability, or eco design responses, that are largely instruments for efficiency. Eco design is conceptually optimized in McDonough & Braungart's waste = food metaphor (2002, Ch.4), where nutrients are happily separated into re-circulating biological and technical streams. Indigestible, undesirable toxic hybrids must be eliminated from the system to facilitate up-cycling, the ideal retransformation of technical matter. This beautiful paradigm resonates with human desire to reconnect with the nature it has lost through old industrialization and provides us with an equilibrium of materialism that has been a valuable recent model for design. Despite the success of Cradle to Cradle as a model for clean, carbon neutral production, it presents a streamlined account of interaction between material flows and organisms. The Cradle to Cradle solution accounts little for the differences in metabolic rates characteristic of biological and technical cycles. Biodegradable textiles that feed the forest to renew plant fibre stocks do so at slower rates than they can be extracted or up-cycled. This differential in the speed of transformation may moderate the ecological imbalance through a waste = food metabolism, but the hunger of its high performance technical metabolism remains a threat to the biological one. Reflected in ecological terms, the dominant efficiency of one organism is altering the carrying capacity of the system.

The impact of decisions are highly leveraged in mass production systems, where small changes to the manufacture and distribution of everyday products have more far reaching environmental impacts than those associated with making of an iconic design or collectable work of art or craft. For this reason, analytical methods such as Life Cycle Analysis (LCA) and Materials Input Per Unit of Service (MIPS) are applied to manufacturing scenarios to reveal the cumulative environmental impact of manufactured products. Typically, they seek to attribute and quantify a range of pollution and resource impacts across the life of a product, from the point of extracting raw materials through to its manufacturing, use, and disposal. Through such studies we do not only learn about material efficiencies, but also their relationships to social practices. A recent study in the Netherlands (Ligthart and Ansems, 2007) compared the use of earthenware, porcelain, paper and polystyrene vessels as coffee drinking systems, concluding that ceramic cups are significantly more damaging to the environment. The surprising result appears to contradict convention that we should be designing and making things, which are beautiful, and long lasting, to extend their embedded natural capital. In the study, much of the impact was linked to the water, energy and chemicals used in washing the ceramic cup, which compounds the high-energy emission values of its manufacture. The report shows that even after 3000 uses the ceramic vessel has greater impact than the polystyrene or paper cups, and if one of the disposable cups were to be used twice, the discrepancies are more significant.

Such surprises are not confined to old technologies. Even high-tech manufacturing methods, such as solar panel production, can be far more

inefficient than some traditional industrial processes such as injection moulding or metal casting, in some cases by three or six degrees of magnitude (Chandler, 2009).

A singular focus on carbon reduction largely addresses technical causes and the efficiency of mechanisms without adequately addressing their impact on human behaviour and consumption. In many products, the benefits gained from incrementally improved versions of products and services can lead to more frequent purchase upgrades or offsets, a factor that compounds with rising standards of living. For example, recent increases in average the size of Australian suburban houses have paralleled the introduction of energy efficiency rating schemes for homes and appliances, suggesting that energy savings are being negated by the need to heat and cool larger 'McMansion' spaces (Marten, 2009). Accelerated consumption associated with cycles of 'energy efficiency improvement' also appears to stimulate net increases in energy and resource use. These rebound effects create more demand for energy and 'pit conservation against environmental goals' (Saunders, 1992).

Design's widely documented industrial partnership has distanced craft from the modernist progress paradigm, but the implications for sustainability suggests a shift in relationships between design, material and time that demand social as much as technical innovation, including a significant shift in our relationship with material artefacts. It is here that the predisposition of craft comes into focus. In the philosophy of Bergson (1911), instinct is given greater importance than the mechanistic role of natural selection and fitness ascribed to Darwin's theory of evolution. Of the instinctive and vital capacities that characterize life, the capacity to organize, control, and manipulate matter is particularly human and separates us from nature. In placing intelligence within the faculty of artifice, Bergson (1911) realigned *Homo Faber*, a creator of tools, objects and machines, with the dignity of thinking in *Homo Sapiens*. Critically, he places creation as a life force, with intellect playing a fabricating role. This mode of being reflects an instinctive origin for both craft and design, and suggests that an attachment to transforming materiality is a both a signifier of humanity and a potential flaw contributing to un-sustainability.

There is a significant conceptual shift needed to design for sustainability. When creating satisfying solutions for our every need and desire, including those we don't yet crave, design provides conditions of comfort and convenience rather than need. Ezio Manzini (2005) describes this type of design, prevalent in the mass diffusion of consumer goods, as a largely a 'dis-enabling activity' that risks creating a population of 'incapables'. Dis-enabling is, in a sense, modernist functionality upturned. As more devices become surrogates for human activity, they reduce the need for us to exercise our faculties in the area of activity they replace, and create device dependence. The electronic calculator provides an extended capacity for us to undertake complex mathematics, yet over time, it numbs our capacity to undertake more simple arithmetic. Whilst we may be freed to concentrate more effectively on non-arithmetic activities, including other productive and enjoyable ones, our functionality is limited in the process.

Consequently, it appears that as human activities become more specialised, we jettison versatility to our multifunctional devices. Certainly there is a legitimate use of technology to relieve monotonous pursuits and physical difficulties in life, but the value of its universal extension to all activities is questionable.

In the contradictory nature of humans, we may be inclined to lethargy as much as energetic motivation. We may evaluate actions in respect of opportunities presented to us and find satisfaction in completing a task for its own sake as much as for financial reward. Or it may be, in deciding to do something yourself, that both measures are satisfied. Manzini (2005) argues that design can be equally successful in 'enabling' individuals and communities to create positive impacts on society and the natural world, by engaging and exploring social and cultural worldviews, narratives, myths and metaphors in a process of creativity and re- conceptualization. Whilst he does not talk in terms of natural beauty per se, and recognizes the role of technology in achieving these aims, parallels can be drawn between his views on regenerating a social, ethical and ecological life balance and those William Morris sought to achieve through the repatriation of handwork in industrial England, a life of beauty intimately associated with the social conditions of individuals, particularly those engaged in work. Morris believed emphatically that beauty lived through work should become an intimate part of the everyday life of individuals. The drudgery of machines should be reserved only for the most distasteful and onerous tasks. The limited use of efficient machines, he considered, would liberate workers and the environment, reflecting their harmony in expanded pleasurable work (Macdonald, 2009). For makers or purchasers of craft, this coalition has remained a powerful tenet for 'well-being'.

Few exceptions can be found in 20th century design practice offering a framework for sustainability. Buckminster Fuller and Victor Papanek both championed the role of design as a more socially responsible profession; however, their approaches to achieving it differ. Fuller's 1950s proposal for comprehensive designing anticipated the need for a systematic approach based on closed loop relationship between resources, environmental capacity and human need. A decade later he called for a thorough analysis of the world's natural resources so they could be used more efficiently, and conceived of 'an electronic display that would provide a continual update of resource availability and use on a global scale' (Margolin, 1998, p.84). Fuller's ideas appear more evolved in the recent Massive Change mission led by Bruce Mau to re-design the world. Here the agency of designer leaves its familiar place between the client and consumer to occupy a sphere that encompasses both.

Within the utopian goals of Massive Change lie some valuable social insights for design linked to advancing technology, but also contradictions arising from its limitless application. This is exemplified in the book's manifesto (Mau and Leonard, 2004) which commits to housing the entire population of the earth in a safe, healthy and ideal urbanism, bringing unlimited energy to the whole world and eliminating the need for raw material by perpetually cycling products and their constituent matter. The structured arrangement of aphoristic word

bites and images inspire through graphic design, but are less convincing upon analysis, appearing to rely on the aesthetics of persuasion to communicate the idea of a globally important utilitarian design tenet. Uncertainty over whether the arguments presented in the book rest upon aesthetics or ethics is also reflected in suggestions by Levit and Levy (p.173) that the purpose of Massive Change suffers from a confusion between design 'organizing or selling' the world.

Written around the time of the first oil crisis in the early 1970s, alternate scalar perspectives of design's responsibility appear in the work of an economist and a designer. In *Design for the Real World*, Victor Papanek (1971) harshly criticized design as a damaging contributor to the environment and humanity. Schumacher's book *Small is Beautiful* (1973), essentially critiques the excess of western economies, outlining a vision for a smaller, decentralized, human scale approach to development. Schumacher's economies of scale and Papanek's design approach both reflect sensibilities that emerged with the studio craft movement around that time, although Papanek's contribution appears more widely acknowledged in design circles. He proposed a shift away from mass consumer desire towards identified, often community centred need, drawing upon values inherent in indigenous cultures, and adopting the appropriate use of (low) technology.

The division between fast and large, and small and slow development paradigms is also reflected in their aesthetic dimension. Qualities of precision, efficiency, convenience and 'customization for personal identity' are commonly associated with the branded technical artefacts of mass production. In contrast, Papanek (1995, p.236) shifts the focus towards an aesthetic in design emerging from concepts associated with real changes in society and culture— 'a new direction transcending fad, trend or fashionable styling'. Although we may doubt the capacity of design's proliferate aesthetics to undo problems of its own making, the success of aesthetics as a strategy for aligning personal identity with products and services also points to design's capacity to redirect consumption towards more 'sustainable' identities or reduce its excess. For example, developing an aesthetic identity for furniture that attractively links the notion of repair or component upgrading with visual, material and ergonomic factors, could evoke in consumers an attitude towards servicing a sofa rather than discarding it, reversing the notion of designing for obsolescence. During the 1990's Droog designers explored how to influence the way designed objects are perceived over time. Marcel Wanders proposed the use of 'age metaphors' in furniture to build respect for the way objects wear, whilst the furniture assemblies of Tejo Remy reuse recycled furniture components (Ramakers & Bakker, 1998, pp. 54-59).



Plate 1: Tejo Remy, Rag chair for Droog, 1991.

Photo: Gerard van Hees.

The idea that aesthetics may not only emerge from but become active in socio-cultural change is also a concern of Ezio Manzini, particularly in the relationship between aesthetics and technology in the design of products and services to enhance participation and social quality, and in the care of things. Importantly though, we need to understand that technology's apparatus has 'already transformed us, and has transformed what we think of as our environment' (Manzini, 1994, p.43).

Negotiating subjectivity through aesthetics is a hallmark of creative occupations; and there appears good reason to believe that this influential capacity can be applied to more complex scenarios and activate the notion of sustainable wellbeing. As an agent for responsible, participatory action in the transition towards this state, aesthetics can be directed towards the social and moral aims afforded by the visual, material and interactive qualities of artefacts. Aesthetics

can also become 'a social attractor,' in the sense that it orients the choices of a multiplicity of individuals. It becomes a way of expressing a synthetic and therefore intelligible form, the complexity of a proposal (Manzini, 1994, p.43).

Patterns of consumption based satisfaction perpetuated by the rapid, serial turnover of individually owned products exacerbates the separation of responsibilities between supply and demand. Whilst the producer and their agents take care of the newborns, consumers and their agents dispose of the departed. To manage accelerating resource use and waste, tentative steps in systematic design have tried to address the socio-technical bifurcation of production and consumption. Product service system strategies seek to shift the emphasis from supplying a product to providing product service in terms of a lease, or deposit return system, thereby providing a mutual incentive for producer /consumer relationships or stewardship that shares responsibility for maximizing life cycle benefits. From shared ownership emerges the important idea of shared responsibility and the associated de-commissioning of 'single owner', 'single solution' attitudes to broader ecological problems. These have been shown, in some instances, to increase component recycling and reduce obsolescence (Kerr & Ryan, 2001), offering a rehabilitative agency connecting the spaces between the disposing and making of things. Such 'stewardship' for things reflects a notion of care familiar to craft practice in the way it nurtures spirit and value in material through the human senses, and offers an opportunity for craft to fulfil those concerns in a cradle to cradle context, particularly at local or regional level. This would however require an expansion of craft's existing horizons regarding both the character and scale of occupation, in some ways similar to that which has occurred in design.

Csikszentmihalyi reminds us that in the construction of our identity from the artefacts we choose to surround us, aesthetics reflect the values exchanged, and that 'by actively appreciating the object, the owner joins in the act of creation, and it is this participation, rather than the artist's creative effort, that makes the artefact important in his or her life' (Csikszentmihalyi, 1991, p.26). This perspective supports an interactive social role for aesthetics as a factor contributing to the idea that artefacts prescribe social relations (Latour, 1992). In a semiotic study of everyday technical artefacts, Latour outlines how we have delegated competences to thousands of technological 'lieutenants', such as seat belts, door closers and hinges, so that our social relations are largely, but silently, prescribed by these non-humans. He concludes that 'knowledge, morality, craft, force, sociability, is not a property of humans but of humans accompanied by their retinue of delegated characters. Since each of those delegates ties together part of our social world, it means that studying social relations without the non- humans is impossible' (Latour, 1992, p.169).

One visible gesture in recent sustainable design and craft approaches concerns the procedural aesthetics of materials. In both the empathetic expressions

of original, natural materials and ‘debrouillard’² traditions that recycle post-industrial or post-consumer waste; craft conveys a sense of necessity and an empathetic, adaptive expression. Marlin Lundmark’s teacup lamp (part of the ‘Object Factory’ exhibition at the NY Museum of Arts & Design) (Lundmark, 2003) is an eloquent example of the three R’s of rematerialized sustainability - reduce waste, reuse finite resources, and recycle. In this work, the displacement of an industrial object’s form with a new craft narrative of use ushers a second life, creates new meaning and appears to invoke associative empathy. Perhaps ironically, in an aesthetic deferment to the original object’s memory of time and place, the work appears to incorporate a low efficiency incandescent bulb.



Plate 2: Malin Lundmark, Tea-cup-lamp, 2003, porcelain.

Photo: Stephan Lundberg, courtesy of Malin Lundmark.

Another prescriptive approach to sustainable social interaction with objects is to enrich the emotional attachment of an artefact, thereby extending the object’s useful life, or at least delay its obsolescence. The interplay between human factors and functionality has received increasing attention since Dreyfuss (1955) introduced ergonomics to design. Norman (1998) revealed insights about the

² A French term indicating someone who is skilled or resourceful at handling any difficulty.

psychological relationship between humans and designed objects, and more recently Chapman (2005) has explored the role of emotion in the relationships that develop. In seeking to develop a commercially viable sustainable design approach that acknowledges the functional and physical transience of products, Stuart Walker re-constitutes discarded or unwanted products or things into a new, but ephemeral whole. Remarkably, in discussing the philosophy of this design, he draws on one of the tenets of craft practice for validation, stating that 'the artefact must illustrate the philosophy of sustainable design that I have been exploring. It must be achieved without mediation, drawings, or models, but rather through direct engagement' (Walker, 2003, p.191). Walker proposes a closer level of engagement in designing where ongoing, caring relationships are developed between people and the things they buy and use, replacing a more distant, objectified experience of product purchase. Walker ascribes to the essential characteristics of craft, not only a formative role in design, but iconic significance as a philosophy for sustainable practice. For those familiar with craft practice, the latter notion may also be intuited as nothing particularly new. Stuart Walker's earlier research (1994) also draws on aesthetics familiar to craft. By exploiting the visual and tactile complexity of natural surfaces, designers could furnish brand new products with pre-worn surfaces to lessen the surprise that occurs, for example, when a shiny new kettle becomes tarnished. However in using 'wear patina' as an active bonding symbol between person and object, the design strategy could equally deny the transitional experience that forms the bond. The implications arising from Walker's explorations are significant in that they not only legitimize craft practice within industrial design, but also offer an opportunity for craft to broaden its conceptual framework for practice.

Utility can contradict the value of emotional capital accrued in things. In use, an object may enhance personal attachment through sensorial familiarity and shared experience, whilst simultaneously increasing the potential for malfunction or breakage. For those objects in regular, everyday use, there is little categorical evidence that the crafted type outlive their industrially produced counterparts, emotionally or physically. The local bric-a-brac shop, the mantelpiece, and the museum reflect a re-use retail economy for artefacts, and, together with land fill sites, they acknowledge both their temporality and perpetuity. During the life of an artefact there are a range of exchanges between the creator and user that may be characterized as information, or a story. We are familiar with the range of strategies used to advertise brands, establish the credibility of what is for sale, or calibrate its use. In this exchange, the artefact's advertisement becomes a surrogate for the story of its creation, a qualification of its value and identity. However, following the initial purchase honeymoon, a satisfying ongoing relationship with the artefact may depend upon shared stories associated with its everyday engagement, as much as its designed or crafted providence. Although people develop emotional attachment with daily objects, there is no consistent pattern to its occurrence. For example, different age groups may favour objects differently, with older generations selecting artefacts for their memorial value and younger people attracted to the activity potential of objects (Csikszentmihalyi, 1991, p.27). Furthermore, the type of perennial attachment

associated with a close emotional bond is linked to contextual experience, something that can only be vaguely proposed in the object's design. Examples include an heirloom that has been passed from one generation to another, or a chair that becomes special through being shared with the family. There is also the opportunity for people to contribute to the story of artefacts through their own personalization of them, such as the selection and arrangement of clothing, limited customization of products and accessories such as skins for mobile phones, or buying new homes. It also happens on a more crafted level, where people decorate backpacks, renovate the interior spaces of their homes or create gardens. A Delft University study of bicycle owners (Mugge, Schifferstein, and Schoormans, 2009) found a positive correlation between the level of energy individuals invested in personalizing a bicycle and their emotional attachment to it. They concluded that the corresponding self-expression had a positive impact on creating the emotional bond. In a sense, this self-expression builds a bond through narrative. As Walter Benjamin observed,

'the value of information does not survive the moment in which it was new. It lives only at that moment: it has to surrender to it completely and explain itself to it without losing any time. A story is different. It does not expend itself. It preserves and concentrates its strength and is capable of releasing it even after a long time.' (Benjamin, 1992, pp.89-90)

In this essay, Benjamin tells of an affinity between the pottery, weaving and storytelling, the oldest forms of craft. He casts the small, pre modern craft workshop as the home of storytelling, in which the travelling journeyman and resident master craftsman, also once a journeyman, work closely together. Here they combine 'the lore of faraway places, such as a much travelled man brings home, with the lore of the past, as it best reveals itself to natives of a place (Benjamin, 1992, p.85). Craft's long history of materializing relationships between humans, their place and time, connects us with the physical experience of environment, as opposed to an intellectual or virtual one. These stories offer a felt relationship, an experienced one, as opposed to many newer, designed relationships, often removed from tangible encounters with materiality or technology. For Benjamin, the storyteller is the artisanal form of communication, where 'traces of the storyteller cling to the story the way handprints of the potter cling to the clay vessel' (Benjamin, 1992, p.91).

In the rhythmic practice of crafts, listening is also enhanced, and as with reading an engrossing novel, the satisfaction of dwelling in the present involves an experience of time that integrates aspects of the past and the future within the scope of present thought. It is perhaps at this point of precarious balance in present time that an ecological aesthetic is best reflected. However, the aesthetic of balance, order, and harmony ascribed to nature is rarely static. It is a temporary equilibrium amidst the dynamic interaction of living species and non-living forces that is constantly negotiated. Whilst our highly technical objects reflect aesthetics of comfort, uniformity and systematic control, they rarely reflect this aspect of the ecosystem supporting us. As we continue 'sustaining

the unsustainable' (Fry, 2001, p.190), a point is reached where moderation and conservation are insufficient remedies, leading to the need for remediation and repair.

Tangible realizations of sustainability are likely to occur, uncomfortably, in the context of crisis. During the 1990s, a 'peak clay' condition in Japan threatened the social and cultural balance of a community that had grown dependent upon local material supplies. Faced with a shortage of quality local clay and exploration sites, the Historical Ceramics Centre of Gifu was faced with a problem of how to maintain the economy, industry and community wellbeing without becoming dependent upon imported raw materials. In 1997, the Green Life 21 (GL21) project responded (Watanabe, Kato, Hasegawa & Hideki, 2000) by engaging local design and crafts, scientific research, government and businesses to collaboratively develop a network of shared solutions that stabilized and reinvigorated the community's deep cultural relationship with ceramics. The initial result included a system for recycling and re-manufacturing ceramic tableware, reduced carbon dioxide emissions, landfill, and extraction of some mineral resources associated with industrial activities. Against current global manufacturing trends, the deliberate introduction of craft strategies in the design, production and distribution of tableware appears to be a factor in the success of GL21. Minor visual and tactile imperfections in the finished

items arise from the variable qualities of post-consumer ceramic tableware collected from businesses such as hotels, and households. The characteristic variegation imparts a recognizable 'transitional' quality, yet the product is stronger and generates lower carbon dioxide emissions than comparable tableware made from imported materials. The meticulous attention to detail of 'Re-shokki' tableware, designed by Yoshikazu Hasegawa and Nobuo Sato, is directed towards improving product life, wash-ability and exchange serviceability. The 'One Dish Aid' range of confectionery containers, also made from recycled ceramic and designed by Hasegawa, is Japan's first product incorporating a deposit system for container reuse, replacing disposable plastic pudding containers. The 're-tableware' ceramics, including the Oliva dinnerware range designed by Prue Venables, became part of Japan's first 'resources circulation' system, a collaboration of 32 local companies linked through an integrated recycling, manufacturing and service supply network. The recycled clay is also supplied to schools, universities and smaller ceramic studios (Hasegawa, 2009).



Plate 3: Recycled-Tableware “Re-Shokki-saisei-001”, 2001, recycled porcelain.
Designers: Nobuo Sato - Yoshikazu Hasegawa. Manufacturer: Green Life 21.

Photo: courtesy of Yoshikazu Hasegawa.

The mediation of environmental impact achieved through this industrial ecology is further transformed qualitatively in the integration of community practices that foster a local cultural ecology. GL21 deals with time in a new way that reflects and older parsimony, where repair and redirection are as important as seeking improved efficiency. At its centre are the rich traditions of Japanese craft that contribute in an iconic fashion to regional community benefits. The product is not exported, allowing the story of Re-shokki to circulate regionally, a living metaphor for the long-standing traditions of local Kintsugi that emerged from ancient frugal bowl stapling origins in China. Kintsugi celebrates the beauty of imperfection associated with the physical vulnerability of ceramics, the highly prized tea ceremony vessels visibly proclaiming the evidence of repair, powerful attractors that elicit devotion and care. Care, as a barometer of our morality, can be differentiated from fetishism. It includes not only our capacity to experience sensitivity, sympathy, and understanding of other people (or things), but extends to the responsibilities for our actions based upon them, and may involve a degree of constraint.



Plate 4: Teabowl (chawan), 15th century, Tokoname ware (yobitsugi-repairs with 18th century porcelain). Photo: Tomasz Samek, courtesy of Museum für Lackkunst, BASF Coatings GmbH & Backmann/Eckenstein.

Although much responsibility rests with consumers, the emerging design approaches discussed in this paper highlight the important role creators can play in fostering care. It has also been argued that a number of these have their origins in craft, such as ‘ecosocialist’ thinking in the Arts and Crafts Movement (Macdonald, 2009). This suggests that craft practice has much to offer by clearly articulating its fundamental values.

The close socio-technical relationships historically reflected in craft practice could inform new, intimate understandings about our relationships with things outside of the singular object. There are opportunities for craft practice to more actively engage the social and technological particularities of the contemporary every day. In re-evaluating the epistemology of a sustainable self, craft could, for example, sensitise us to consumption by engaging in ways that activate, perhaps like the coalmine canary, the direction of our energies toward equilibrium in ecological exchange. In these interactions, directed by an ecological ‘duty of care,’ craft could produce ‘change that, anthropocentrically, ‘gives time’ (Fry and Willis, 2004). Two apparent caring trajectories emerge from the possible future directions for craft. One, more watchful, responds adaptively and locally to the impacts of climate change, population pressures and resource limits. The other, at least in near future, is a more activated craft practice that

builds transformative links with individuals and other professions to mitigate damaging ecological impacts, drawing on the role of the storyteller. In either case, extending our time will require, before making, more than contemplation. It will need systematic, interactive thinking, and acts of care inspired by ethical, ecological imagination.

Bibliography

- Barbier, E., 1987, The Concept of Sustainable Economic Development. *Environmental Conservation* 14, pp. 101-110
- Benjamin, W., 1992a, *Illuminations*. London: Fontana, pp. 89-90
- Benjamin, W., 1992b, *Illuminations*. London: Fontana, p. 85
- Benjamin, W., 1992c, *Illuminations*. London: Fontana, p. 91
- Bergson, H., 1911, *Creative Evolution*. London: Macmillan, Ch. 3
- Brundtland, G. (Chair), 1987, Report of the World Commission on Environment and Development: Our Common Future. [Online]. Available at: <http://www.un-documents.net/wced-ocf.htm> (Accessed 10 November 2009)
- Chandler, D., 2009, Manufacturing Inefficiency MIT TechTalk. Volume 53, Number 19, March 18, 2009. [Online]. Available at: <http://web.mit.edu/newsoffice/techtalk-back-2009.html> (Accessed 7 April 2009)
- Chapman, J., 2005, *Emotionally Durable Design: Objects, Experiences and Empathy*. London: Earthscan
- Csikszentmihalyi, M., 1991a, Design and Order in Everyday Life. *Design Issues* (8)1, p. 26
- Csikszentmihalyi, M., 1991b, Design and Order in Everyday Life. *Design Issues* (8)1, p. 27
- Daly, H., 1993, Sustainable Growth: An Impossibility Theorem in Daly, H and Townsend, N., *Valuing the Earth: economics, ecology*. Cambridge: MIT Press, Ch 14, p. 268
- Dreyfuss, H., 1955, *Designing for People*. USA: Simon & Schuster. Viking, 1974
- European Energy Commission. Eco-design of Energy-Using Products [Online] (updated 20 April 2010). Available at: http://ec.europa.eu/energy/efficiency/ecodesign/eco_design_en.htm (Accessed 20 April 2009)
- Fry, T. and Willis, A.M., 2004, Openings into the Ecology of Information Technology: Impacts of Information Technology Briefing Paper Part 1 [online]

- Available at: <http://www.changedesign.org/Pathfinding/Archived/IIT/IITMain.htm> (Accessed 8 July 2010) Fry,T., 2009a, Design Futuring: Sustainability, ethics and new practice. Oxford: Berg. p.120
- Fry,T., 2009 b, Design Futuring: Sustainability, ethics and new practice. Oxford: Berg. p.190
- Griffiths, S., 2006, Saul Griffith. Kites Tap Wind Energy: TED. [Online] Available at: http://www.ted.com/talks/lang/eng_saul_griffith_on_kites_as_the_future_of_renewable_energy.html (Accessed 17 May 2010)
- Hasegawa,Y., 2009, Personal correspondence and discussions (July 2009)
- Hoffert, M. et al., Advanced Technology Paths to Global Climate Stability: Energy for a Greenhouse. Planet, Science, 1 November 2002, (298) 5595, pp. 981-987
- Kerr, W. and Ryan, C., 2001, Eco-efficiency gains from remanufacturing. A case study of photocopier remanufacturing at Fuji Xerox Australia. Journal of Cleaner Production (9)1, pp.75-81
- Latour, B.,1992, Where are the Missing Masses? The Sociology of a Few Mundane Artifacts, in Shaping Technology Building Society: Studies in Sociotechnical Change. USA: MIT Press, pp. 225-258
- Levit, R. and Levy, E., Design Will Save the World! On Bruce Mau's Massive Change and the Mediatization of Culture. In: Saunders, W. ed., 2007. The New Architectural Pragmatism. Minesota: University of Minnesota Press. Ch 12, pp. 162-174
- Ligthart,T. and Ansems, A., 2007, Single use or Reusable (coffee) Drinking Systems: An Environmental Comparison, TNO Built Environment and Geosciences Publications, NL, [Online](updated October 2007). Available at: http://tno.nl/downloads/2006-a-r0246e_b_summary.pdf (Accessed 20 June 2010)
- Lundmark, M., 2003, Cup Lamp. [Online]. Available at: http://collections.madmuseum.org/code/emuseum.asp?emu_action=advsearch&rawsearch=exhibitionid/,/is/,/47 2/,/true/,/false&profile=exhibitions (accessed 15 July 2010)
- Macdonald, B., 2009, William Morris and the Vision of Ecosocialism, In Contemporary Justice Review, (7)3, pp. 287- 304
- McDonough, W. and Braungart, M., 2002, Cradle to Cradle: Remaking the way we make things. New York: North Point Press, pp. 92-117
- McGinnis, M.V., ed., 1999, Bioregionalism. London: Routledge, p.2
- Macnaghten,P., 2006, Nature. Theory, Culture & Society, (23)347, pp. 2-3

- Manzini, E., 1994, Design, Environment and Social Quality: From “Existenzminimum” to “Quality Maximum”. *Design Issues*, (10)1, pp. 37-43
- Manzini, E., Enabling Solutions - Social innovation, creative communities and strategic design. Dis-Indaco,
- Politecnico di Milano. [Online](updated 6 March 2005). Available at: <http://www.dis.polimi.it/manzini-papers/05.03.06-Enabling-solutions.doc> (Accessed 20 October 2009)
- Margolin, V., 1998, Design for a Sustainable World. *Design Issues*, (14)2, pp. 84
- Martens, P., 2009, Home truths: Australia trumps US when it comes to McMansions. *Sydney Morning Herald*, November 30, 2009 [Online] Available at: <http://www.smh.com.au/national/home-truths-australia-trumps-us-when-it-comes-to-mcmansions-20091129-jyva.html> (Accessed 7 July 2010)
- Mau, B. and Leonard, J., 2004, *Massive Change*. London: Phaidon
- Mugge, R., Schifferstein, H. and Schoormans, J., 2004, Personalizing Product Appearance: The Effect on Product Attachment. Delft University of Technology. 2004 [Online]. Available at: <http://static.studiolab.io.tudelft.nl/gems/mugge/MuggeDE2004.pdf> (Accessed 27 June 2009)
- Norman, D., 1998, *The Psychology of Everyday Things*. New York: Basic Books
- Papanek, V., 1971, *Design for the Real World: Human Ecology and Social Change*. New York: Pantheon Books
- Papanek, V., 1995, *The Green Imperative: ecology and ethics in design and architecture*. New York: Thames and Hudson. p. 236
- Ramakers, R. and Bakker, G., 1998, *Droog Design : Spirit of the Nineties*. Rotterdam : 010 Publishers
- Read, V., et al., 2005, Living Beyond Our Means : Natural Assets and Human Wellbeing. *Millennium Ecosystem Assessment. Ecosystems and Human Well-being*. (Online) Available at: <http://www.millenniumassessment.org/en/BoardStatement.aspx> (Accessed 17 May 2010)
- Saunders, H., 1992, The Khazzoom-Brookes Postulate and Neoclassical Growth. In *Energy Journal*, (13) 4, pp. 131- 148
- Schumacher, E., 1973, *Small is Beautiful: a Study of Economics as if People Mattered*. London: Sphere Books, Ltd
- Walker, S., 1995, The Environment, Product Aesthetics and Surface. In *Design Issues*, 11, 3, pp.15-27
- Walker, S., 2003, Light Touch-The Design of Ephemeral Objects for Sustainability. In *The Journal of Sustainable Product Design*, 3, p. 191

Watanabe, T., Kato, K., Hasegawa, Y. and Hideki, I., 2000, Development of Recirculation System for Tableware,

Transactions of the Materials Research Society of Japan,2, pp. 661-663

Willis, A.M., 2000, Sight Unseen. Making and Unmaking Conference, University of Portsmouth, (updated 9 September 2000) [Online]. Available at: http://www.teamdes.com.au/whatsold_main4.htm (Accessed 15 July 2010)

Craft and sustainable development: reflections on Scottish craft and pathways to sustainability

By Emilia Ferraro, Rehema White, Eoin Cox, Jan Bebbington and Sandra Wilson

Dr Emilia Ferraro is a social anthropologist; a self-taught jeweller, and a Lecturer in Sustainable Development, School of Geography and Geoscience, University of St. Andrews.

Dr Rehema White is a Biologist and a Lecturer in Sustainable Development, School of Geography and Geoscience, University of St. Andrews. *Eoin Cox* is a craft practitioner and the owner and a director of Buy Design Gallery Ltd.

Jan Bebbington is Professor of accounting and Sustainable Development, and the Director of St Andrews Sustainability Institute at the University of St Andrews.

Dr Sandra Wilson is a contemporary jewellery practitioner and Programme Director of the Jewellery & Metal Design department at Duncan of Jordanstone College of Art & Design, University of Dundee.

Abstract: Sustainable development is more than a concern with climate change and/or recycling. It is a concern for the longevity of all forms of life, for social equity and for the environment conceived as a context of relationships that exists and take on meaning in relation to the beings who inhabit it. It thus calls for the explicit acknowledgement that the transition to more sustainable societies requires a major change and reorientation of ways of thinking; lifestyles; consumer patterns and values.

This paper, based upon data from Scotland identifies a number of “leverage points” where, through the application of theories on the nature of craft and philosophies underlying strong modes of sustainable futures, links between craft economic and educational models, and pathways to sustainability through building resilient communities, emerge. In this way, it contributes to current debates on the “persistence” of craft in “modern” societies (cf. Greenhalgh, 2006) not against or in spite of modernity but, on the contrary, as “a modern way of thinking otherwise” (Adamson, 2010:5).

Paper

1. Introduction

This paper discusses the potential contributions of craft to the transition to more sustainable societies. Craft, we argue, offers a number of leverage points where links between its economic and educational models and pathways to sustainability emerge. The paper, thus, contributes both to alternative and more creative definitions of “sustainability”, and to current debates on the “persistence” of craft and its role in “modern” societies (cf. Greenhalgh, 2006). Craft, we believe, can be seen no longer as existing against or in spite of modernity; on the contrary, in the context of sustainable development, it clearly emerges as “a modern way of thinking otherwise” (Adamson, 2009:5).

We begin with an introductory debate on the definitions of craft and the changing meaning of sustainable development over time. Using the data of a scoping study we undertook on the craft sector in Fife, East Scotland, we then discuss the common ground and leverage points between craft and sustainable development and make some concluding comments.

A remark about the authors is in order here. ‘We’ are three scholars in sustainable development, one scholar in art and design and the owner of a craft gallery. ‘We’ are at the same time two professional craft practitioners (one in jewellery and metal design and the other in furniture design), one ‘novice’ and two ‘hobbyists’. All of us share interests in and multiple engagements with sustainable development and craft that range from mainly theoretical to very practical involvement. It is this interdisciplinary background and array of different personal experiences that inform the discussion of both craft and sustainability put forward in this paper.

2. Definitions of craft and sustainable development

Definitions of what constitutes “craft” have given rise to a large body of specialised literature that debates its nature over time and across disciplines (e.g. Adamson, 2009). In this paper, we define craft as “the application of skills and material-based knowledge to relatively small scale production” (Adamson, 2009:3). The craft objects which arise from such production, however, “may or may not be culturally embedded in the country of production, and which is sold for profit” (McAuley & Fillis, 2002, p. 10).¹

Craft has increasingly been discussed as a trope that is, as an idea that includes several different threads creating a heady mix of romantic idealism, the politics of work and notions of the vernacular (Dormer, 1997; Venkatesan, 2006). It

¹ Craft as discussed in this document does not include traditional or heritage crafts such as thatching, greenwood working or masonry, which imply a different set of issues and thus require a different discussion.

is important to acknowledge this within the context of this study if we are to recognise that there are often significant differences between the idea of craft as conceptualized by key actors who command power in shaping craft practices and the diverse realities of life as experienced by individual craft practitioners.²

The recent resurgence of interest in ideas about craft and its role in modernity (e.g. Greenhalgh, 2006; Sennett 2009; also the “Making Futures” 2009 and “Neocraft” 2007 Conferences), are only just starting to pay attention to the possibilities that craft and craftsmanship represent for sustainability at least in the West (cf. Ferris, 2010). Yet both craft and sustainable development are intricately connected with the way human beings create and interpret life; with culture and social relations; with use of and relationship with natural materials; and with livelihood and broader economic opportunities.³

As with craft, sustainable development is also subject to contested definitions. It emerged as a theoretical concept and field of practice from the merging of the interests and actions of the environmental and the social justice movements (e.g. Dresner, 2002). Concerns for the environmental integrity of the planet and the need to achieve equitable development outcomes for all humans alive today and for future generations are inextricably linked. While sustainable development is a notoriously contested term, common aspects of existing definitions include:

A concern for the longevity of the planet and of Life in its multiple forms (hence the capital “L”);

- A concern to live in an ecologically sustainable manner, within environmental limits;
- A commitment to equity and socially just outcomes;
- A concern with the needs of future generations;
- A commitment to democratic and inclusive processes that allow all people to have a say in decisions and actions that affect their present and future life.

In 1987 the United Nation's Brundtland Report defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, pp.8). The Earth Summit of Rio in 1992 moved the debate farther along with the release of the Agenda 21 programme of actions for Sustainable Development. Since then, a wide academic debate and a variety of environmental initiatives from around the world - from NGOs, corporations, international agencies and governments - have taken place. The parameters of the debate have become more complex as

2 Whilst not considered within this study, exploration of the nature of this trope as a reflexive phenomenon merits further study.

3 Discussions of links between craft and sustainability have occurred before. In the global South, craft is often still a part of everyday life as well as a livelihood opportunity. The intersections between craft and sustainability discussed there tend to focus around sustainable utilisation of natural materials, financial benefits as part of livelihoods, particularly for tourism markets, and debates on culture and craft e.g. in South Africa see Cawe and Ntloko (1997); Shackleton and Shackleton 2004; and Cocks et al (2006). For India see Venkatesan, 2006 & 2009.

scientific knowledge demonstrates more clearly human impacts on the planet and as high levels of poverty remain. In 2002 the Johannesburg World Summit on Sustainable Development acknowledged the interdependence of the three pillars of society, the economy, and the environment, and encouraged us to see sustainability as a long-term, strategic thinking that promotes effective stewardship of the world's resources. Over the past thirty years debates on "sustainability" have shifted from "weak" interpretations, in which natural capital can be exchanged by other forms of capital, to "strong" conceptions of sustainability, in which absolute environmental constraints are acknowledged but the importance of social and human aspects are also highlighted (Dresner, 2002).

Scholars and practitioners in sustainable development are in agreement about the evolution of sustainable development as a fundamental recognition of the interconnectedness of environmental integrity and social justice. However, there is a growing body of debate suggesting that this concept also challenges our perceptions of the role of humanity. As the global ecological crisis accelerates at an unprecedented rate and despite the huge governmental and private investments in the past five years, a number of emerging voices within the field of sustainable development are pointing at the urgent need to widen the terms of the debate on the sustainability of the Earth to include critical analyses of the economic, social, and humanistic project that lies at the core of this crisis (Orr, 2002; Speth, 2008; Jackson, 2009; Assadourian, 2010). These voices insist that together with major changes and reorientation of lifestyles; consumer patterns; modes of engaging with one another, and societal values, the transition to more sustainable societies in the North of the world can be achieved only in the context of a new understanding of human existence on Earth (Speth 2008; Orr, 2002 among others).

In this paper, we adopt David Orr's definition of sustainability as "the arts of longevity" (Orr, 2000), that is, as both an enquiry and a course of action into the meaning, making and maintenance of Life in the long term. Compared to more conventional notions of "sustainable development", we understand that the "arts of longevity" emphasise the irrevocable interconnection of both the natural and human worlds, and of theory and practice. In fact, it postulates that the need to research and theorise the "whats" of life (e.g. what are the causes of climate change?) cannot be separated from neither the "whys" (e.g. why we have reached this crisis point?) nor the more practical search for the "hows" (e.g. how to maintain a decent level of livelihood for all in the long term without further depleting the planet's resources?). Thus, it challenges us to think about Life in radically different terms. An essential part of this "new" thinking is the explicit acknowledgement of the need for a deep change of the kind Albert Einstein was referring to when he said that it is impossible to solve a problem within the same framework of thinking that gave rise to it in the first place (Orr, 2002).

Defined in such terms, sustainable development is more than a concern with climate change and/or recycling. It is an emerging field of studies that pushes

the boundaries of our thinking and action towards a paradigmatic shift in the way we look at the world, at nature and at humankind, raising awareness that the physical, social and intellectual worlds are interconnected and interdependent. It calls for a redefinition of the “environment” no longer narrowly defined as “nature” but instead conceived as a context of relationships that exists and takes on meaning in relation to the beings who inhabit it, with the awareness that these beings are human and non-human entities who, through their presence and activities, contribute to its shaping (Gibson, 1979; Bateson, 1973; Ingold, 2000, pp.20-21). This broad view of sustainable development compels us to see our lives and ourselves as a part of a larger entity, and to look at the world in a holistic way.

3. A study of the Scottish craft context

There was a lack of empirical study on the craft sector in Scotland, and a need to understand perspectives of craft makers and policy makers on potential links between craft and sustainable development. We thus conducted a scoping study to explore this topic, obtain baseline data and provoke questions for future research.⁴

Beside gathering basic data on the demographics and economic parameters of the craft sector in Fife, our objectives in the scoping study were to identify the current policy context of sustainable development and of craft in Scotland; explore the understandings that individuals involved in the craft sector in different capacities have of sustainable development; and understand some makers’ perceptions of craft as a social, economic and cultural contributor to Scotland and Scottish cultural identity(ies). We used a mixed method approach that combined the review of relevant policy documents with informal conversations and semi-structured interviews. We reviewed existing grey literature that addresses issues of craft, culture and sustainable development, as well as craft demographics in Scotland and in Fife. We held meetings with policy makers in the Scottish Government, in order to test the ideas being developed and investigate if an interest in sustainable development could be usefully translated to craft concerns. We attended various craft meetings where the present and future of craft were discussed, as well as makers’ events (such as the North Fife Open Studios⁵ and Fife Contemporary Arts and Craft Forum)

4 To date, the only such study is McAuley & Fillis, 2002. However, their definition of craft is problematic in so far as it conflates with definitions of “creative industries”, thus leading the debate towards a different (although related) pathway that would look at the evolving definitions of “creative industries” over time, and the limits and links with “craft”, both of which are beyond the scope of this paper.

5 The Open Studios Fife is a periodical event throughout the year when makers of the region open their studios to the public. The event is partly self-funded and partly financed by public (Fife Council) and private funds. Fife Contemporary Crafts & Arts is Fife’s leading visual art and craft agency supporting makers’ events, exhibitions and residencies. It organises the annual Fife makers Forum.

where we held informal conversations with makers. We conducted informal semi-structured interviews with 28 makers and 18 institutional representatives, who were identified through the snowball technique.

We focused on the region of Fife, in East Scotland, for a number of reasons. Fife is clearly defined by the river Tay in the North and by the Firth of Forth in the South; it is predominately rural with small concentrations of population in towns such as St Andrews, famous for being the birthplace of golf and site of Scotland's first University. Its relatively small size would allow us to achieve both a good spread of data, enough to reach general conclusions, as well as some individual cases. The area presents a wide array of social and economic situations, thus providing a good representation of the inequalities of income, health and wellbeing associated with Scotland as a whole. Last but not least, the area has a well established 'craft community' with a developing infrastructure of craft development programmes created by national and regional government agencies providing training and access to resources in addition to some umbrella organizations created by craft practitioners themselves to address their own needs. This is an important distinction to make if we are to acknowledge, as Venkatsan (2006) has identified, that notions of what constitutes a 'craft community' are constructed in both 'the state and public sphere', often in 'idealised' ways and based on 'romanticism', and therefore may bear little relationship to the lived experience of craft practitioners.

The most relevant results of the scoping study for this paper's argument are provided in the sections below. The analysis, of course, has been influenced by our academic understandings of sustainable development and by our own individual experiences.

3.1 Policy context

The craft sector in Scotland has been characterised by confused surveys and strategies, and the question arises as to how, if at all, debates in sustainable development can provide support and strategic alliance in such an environment. Part of the reason for a confused national strategy is due to the varied make up of craft businesses as discussed below. Further, a great deal of activity in the craft sector is supported by subsidies and the 'control' of craft still remains in the hands of the administrators.

Creative Scotland (based on the recent merger of the Scottish Arts Council and Scottish Screen) is one of the main financial supporters of professional craft practice. Through grants for business start up and creative development awards, it plays an important role in dictating what is considered the 'best' in Scottish contemporary craft, most often servicing an 'elite' audience. The total Scottish craft budget for 2009/2010 was £740,000. Very little exists by the way of financially supporting what might be considered more traditional or vernacular craft.

Policy on sustainable development is proliferating. The UK Government recognises a framework for sustainable development (DEFRA, 2005), which is meant to guide but is not binding. The critical aspect of this framework is that a sustainable economy, good governance and responsible use of science are seen to be enablers to achieve the overall goals of living within environmental limits and ensuring a strong, healthy and just society (Fig. 1). There have been numerous legislative acts related to sustainable development, for example, the Climate Change (Scotland) Act (2009) which demands ambitious changes, but each addresses only a part of the overall goals.

3.2 Demography of craft in Scotland and in Fife

Whether producing traditional or more contemporary work, in Scotland the craft sector is now significant in its own right, with annual turnover of approximately £150 million (McAuley & Fillis, 2002)⁶ and makes an important contribution to other areas of government policy including regional development, tourism and social policy.

Studies on the craft sector in Scotland are scarce and fragmented. The only comprehensive study is McAuley and Fillis (2002), commissioned by the Scottish Arts Council, Scottish Enterprise and Scottish Enterprise Glasgow. Table 1 outlines the key findings from this study. The data supports the contention that the craft sector has structural issues to address with regard to economic viability.

In combination, this data and the data in Figure 2 reveal the highly unequal distribution of the average annual turnover, and suggest that for many craft practitioners in Scotland, turnover is not sufficient to sustain someone who has no other source of income or support (either from other family members, additional personal income streams or via subsidy). This data would lead to the suggestion that the very small craft businesses are likely to lack the capacity to make a significant impact in the Scottish economy either in turnover or employment terms. This would explain why individual craft enterprises are often perceived as not making much of an economic contribution

within the enterprise landscape.⁷ However, such small, flexible businesses, often not requiring significant capital, may have the capacity to contribute to incomes, providing a safety net (cf. Shackleton and Shackleton 2004) which can support individuals, families and communities at critical times. In addition, the existing data on the buying audience for Scottish craft suggest that the sector contains considerable opportunities for business growth (McAuley & Fillis, 2002).

In terms of demographics and spread of craft practice, our study shows that Fife is broadly representative of Scotland as a whole (Figure 3), with a predominance

⁶ The combined turnover in England and Wales £450 million (see Oakley, 2006).

⁷ Likewise, looking at averages only also masks the existence of a small number of makers who have extremely high turnovers, normally associated with leading edge, high-tech companies, and who become internationally renowned.

of women makers over men in all the main discipline. ⁸Figure 3 also shows that both in Scotland and in Fife textiles and ceramics are major contributors, with jewellery and glass (especially in Fife) and wood (especially across Scotland) also being significant contributors.

Table 1: Summary of the demographics of the Scottish craft sector

Category or parameters	Craft sector
Mediums	Ceramics, textiles, wood and jewellery dominate total activity
Gender of craftspeople	Female 61%, Male 39%
Age of crafts people	35% aged 45-54 years old
Employment pattern	77.6% of participants only work in craft
Business start up dates	11% began in last ten years, 50% in 90's, 23% in 80's
Business longevity	24.8% males and 12.6% females working for > 20yrs in their craft
Previous occupation	68.6% had previous occupations before working in craft
Education	70% of makers have a further education qualification
Ethnicity and disability	2.1% other than white, 2% recorded disability
Methods of training	50.7% self taught, 34.7% arts schools, 21.4% learning on job
Turnover (but see Fig. 2)	£44,000 p.a. (average)
Size of business	83% 1-2 person businesses
Business form	77.5% sole traders
Premises	68% from workspace at home
Growth aspirations	73% wish to grow
Market channels	64.9% commissions, direct from workshop 51.3%, trade fairs 43.7%
Promotion	65.6% via leaflets, 57.8% personal selling, 44.6% registers/directories

Table elaborated using data from McAuley and Fillis (2002: 10-13)

The scoping study revealed that despite the perceived lack of economic contribution, the craft sector in Fife has a functioning multi layered approach and is dynamically active. For a small geographical area, craft in Fife has a relatively high number and range of craft practitioners who make a significant cultural contribution to the region. This is largely due to a willingness between the governing bodies and practitioners to find ways of making craft more viable. However, little debate emerged in our study about the 'nature of craft' or the relationship between craft practice and 'nature' and consequently any understanding of how 'nature' is conceptualised within the craft community. Environmental issues did not feature highly and, for example, there were few

⁸ For example, in the 271 makers mailing list of FCA&C, women figure in the following numbers: 91 out of 145 visual artists; 18 out of 21 ceramicists; 15 out of 19 jewellers; 23 out of 24 textile artists; 11 out of 13 glass artists.

comments about the sustainable sourcing of natural materials. Practitioners' concerns were overwhelmingly about livelihood issues and the economic needs of the sector.⁹

4. Intersections between craft and sustainable development

In studying the theoretical and practical intersections between craft and sustainable development, we adopt Donella Meadows' "leverage points" perspective¹⁰. "Leverage points", this author explains, "are places within complex systems where a small shift in one thing can produce a big change in everything else" (Meadows, 1999: 1). Within this framework, we now look at the mutually beneficial leverage points between craft and sustainable development.

As revealed by our scoping study, despite the presence of a concern about sustainability, the craft sector in Fife lacks a clear understanding of what sustainable development means and of its possible benefits and opportunities for the craft sector. Nonetheless, we have identified a number of points of leverage where the economic and educational models of craft practice and pathways to sustainability merge.

4.1 Craft Economic Model

Many of the concerns raised by interviewees in our study related to livelihoods and to the economic power of the craft sector. However, if we consider in new ways the (now old) concept of *prosperity* currently under debate in the field of sustainable development (Jackson, 2009), craft has the potential to

⁹ Makers' main concerns with respect to their businesses were largely practical in their nature. They relate to: (i) a need for creative and professional skills development, (ii) the availability of low cost workshop space, (iii) the availability of advice and funds for business development and (iv) a desire to reduce isolation. In general, makers felt they had no control over the supply or demand for craft; believed there is a lack of a wholesale market for craft and a weak commercial market; and that there is little sense of the worth of craft as collectable in the UK. Pressure coming from central buyers of 'visitor attraction' retail outlets for high volume, low value products that increase retail profits and also arises from/feeds into cultural expectations of craft being relatively affordable. The weak commercial sector is further compounded because of the dominance of subsidy in the sector in combination with a generally high level of risk aversion. The craft sector is generally perceived to be conservative in its approach to developing new markets. Exposure to markets and greater market penetration were seen as key to raising the income of makers and increasing the turnover of the sector as a whole. These actions would require a greater focus on design and marketing skills for the individual businesses, the cost of which would need to be recovered through greater income and product placement opportunity. Likewise, there is a need to create greater cross fertilization of existing successful business models, practices and organizations within the designer/makers, craft, heritage, arts and community sectors. At the same time customers/visitors could be made more aware of the worth of what they are buying. All this needs to be underpinned by market structures that create more robust business models as well as educational programmes that allow for craft practitioners to make products that are culturally appropriate and commercially viable. It was manifested by makers and institutions representatives that taken together, this may create a more resilient sector

¹⁰ We thank one of the anonymous reviewers for drawing our attention to this perspective.

contribute to redefining and shaping a new economic model based not only on economic growth but also on notions of self actualisation, fulfillment and levels of happiness.

The current crisis has only reaffirmed the awareness that the economic model based on continually increasing growth is not only unsustainable, but it has already exceeded the ecological limits of the planet (Jackson, 2009). The sustainable development framework recognises that our well-being and survival ultimately depend on transforming the profit-driven model of the economy based on growth/consumption into a more equitable model of relations among people, between people and natural resources, and between society and nature. It puts forward an alternative model of society in which people do not relate to the environment in an extractive way but on the contrary are an integral part of the environment. It is this perspective from 'within' and the relational mode of engagement that lies at the core of craft practice that can contribute to a new way of conceiving of the economy as a *means* rather than as an end in itself. The end being the satisfaction of the human need of self-realisation and finding a balance between 'making a living' and 'living a creative life'.

The data reported above for both Fife and Scotland more generally, show that a person who works in the craft sector will normally work for themselves or within a small organisation, and may be in a network of collaborators and associated practitioners. They will probably be working on several different things at the same time and many of these projects and products will be one-offs. Despite the small size of many craft organisations, and the fact that the Scottish craft sector is economically subsidised, the concept of people living in a vibrant society where the goal is wellbeing rather than economic growth suggests that the existing economic structures of craft acquires more value. At a more conceptual level, craft can therefore contribute to theorising a new model of "social" economy, of an economy embedded *within* society and social relations rather than detached from it.

4.2 Craft models of knowledge and education

Where craft contribution is perhaps more evident, is in the debate and practice of education for sustainable development (ESD), especially in promoting transformative learning and thus contributing to the paradigm shift that is part of what UNESCO (2010) call 'learning to transform oneself and society'. In the interviews in our study, the need for the education of practitioners and of buyers, and issues such as apprenticeships emerged as important concerns of both crafts practitioners and policy makers alike.

Education is also a critical aspect of sustainable development thinking. "[Education] enables people to develop the knowledge, values and skills to participate in decisions about the way we do things, individually and collectively, locally and globally, that will improve the quality of life now without damaging the planet of the future" (UNESCO 2011). Education can be described as an open ended process that helps people to make sense of an increasingly complex

world (Sarkissian et al., 2009). In its simplest form, it raises awareness but it can also be related to the transfer of skills and the production and sharing of knowledge. In its most radical form, it is a transformation of paradigms. In order to build capacity for a shift towards sustainability, the UN launched the Decade of Education for Sustainable Development (ESD) (2005-2015), which defines ESD as aiming “to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions” (UN DESD-UNESCO 2010). According to the UN, ESD supports five fundamental types of learning that provide quality education and foster sustainable human development: learning to know; learning to be; learning to live together; learning to do; and learning to transform oneself and society.

For craft practitioners, learning a craft, that is, the practice of a manual skill embedded within a creative process, intimately bound up with its materials and tools, and located within an established tradition, entails more than the acquisition of a set of techniques. It is a training of the mind as well as the body, indeed of a person’s entire way of being and knowing (Harris, 2005; Marchand, 2001 and 2007; Kondo, 1990; Herzfeld, 2004). Hence, craft is also a “way of knowing” in its own right that contributes to opening new ways of reconfiguring the relationship around knowledge while at the same time expanding the debates on the nature and modes of the learning process.

There is a growing awareness that at the core of our current environmental, social, and financial crises lies a worldview that has established a radical discontinuity between humans and non-humans; that considers nature as resources to be exploited; that justifies the bestowal to humans of all rights over them. This is a concept of the human being that is segmented to fit into a segmented society and a segmented model of knowledge.

The view of knowledge entailed within craft education and practice overcomes a series of classical divisions between teaching and research; theory and practice; and intellectual and practical knowledge, showing the artificiality of such hierarchy that Western modernity has established between intellectual and practical knowledge; that lies at the core of the traditional division between craft and art, and that grants craft no intellectual authority. Here we advocate that practice and theory can only go hand in hand, and that one does not necessarily precede the other.

Craft therefore has the potential to contribute significantly to the theory and practice of ESD. On the other hand, ESD offers a framework in which the different forms of education required in the craft sector can be conceptualized and integrated within and beyond craft. Within craft, this broad view of education offers the opportunity to recognise and encourage specific skills training; sharing of knowledge; the learning of craft to such a level of skill and expertise that it promotes a change in the craftsperson. The principle of sustainable development that promotes democracy and inclusiveness also promotes a respect for different kinds of knowledge. Interviewees in our study indicated

a need for both recognition of crafting skills and marketing and business skills. They also manifested the need to improve communication, including educational discussions, between makers and buyers.

Building Resilient Communities

The craft education model also proves relevant in relation to the emerging discussions within sustainable development contexts about building resilient communities. Building resilience is an essential aspect of this transition. The concept of resilience has been borrowed from the discipline of botany, but its use has been modified within sustainability debates. More recently, it has been utilised in relation to social change (Adger et al. 2001), institutional diversity (Ostrom 2005) and social- ecological systems (Folke 2006). Social-ecological resilience acknowledges adaptation, learning and self-organisation within a system (Carpenter et al 2001). If we take craft production and distribution to be a complex system, this offers a mechanism for understanding how the promotion of craft and the pursuit of sustainability may connect.

There is clear evidence that 'building communities' at a local level lies at the core of channeling action for change towards sustainability (Thackara, et al 2008). Re- localisation, therefore, is increasingly recognised as fundamental in building resilient communities, and 'localism' has become part of the current political discourse (cf. LGA, 2008; The 'Coalition', 2010). Craft in Scotland (including Fife) is dominated by home-based production practices, with 68% of crafts people working from their home (Table 1). This not only helps reduce the carbon footprint of travel but also potentially creates the conditions for socially connected and sustainable places, connecting and strengthening local communities.

In Fife many practitioners can be perceived as relatively autonomous individuals, however, their connection to their geographical community is strengthened through initiatives such as the Fife Open Studios, organised by local practitioners themselves and supported financially through Creative Scotland as part of their audience development strategy. Interviewees in Fife reported thinking of themselves as key players within their local community in terms of making an artistic, cultural and aesthetic contribution to its social fabric (cf. also Douglas & Freemantle, 2009). Some of the practitioners also felt that they were making a contribution to the local economic and community regeneration. It should be acknowledged here, that much of the work that contributes to building the profile of craft is generally undertaken by volunteers.

Regeneration in the East Neuk of Fife over the last decade has been stimulated by active support of art and craft in the region, with the explicit promotion of craft by the local government. Regeneration in this sense implies the development of resilience as 'adaptability', but can also be interpreted as stimulating a positive feedback response within the socio-ecological system. For example, the emergence of more craft and art enterprises in the area have promoted

marketing of the area as a tourism destination for art and craft; the East Neuk Open Studios weekends; the East Neuk Art Festivals, which have in turn led to more craft activity in the region.

The emphasis on building resilient communities and re-localising has brought to the fore the importance of skills and skills-training. Craft education is based upon a model of “engagement” with the materials, the tools and the wider context where the creative process takes place (e.g., Ingold, 2002 and 2007). In the process, both the raw materials and the practitioners are transformed. Hence, as in education for sustainable development, craft education is also transformative rather than “transmissive”.

Concluding remarks

Craft, then has the potential to contribute to more sustainable futures. Craft offers a fertile alternative way of thinking about the world, and could be a catalyst for the re- assessment of how we chose to relate to the natural environment and with each other. In this sense it can challenge our current concepts of the role of humanity. It is this kind of consciousness, the awareness of one’s own humanness that is essential to achieving the transformation that sustainability requires.

The emphasis on “making” opens up new channels for transformative educational experience. The uniqueness of the transformative process creates space for practitioners to respond with flexibility and openness to the wider environment, to be “led” by the materials so that the final product *emerges* from the situated relationship between maker, materials and the wider environment of production. It is this capacity to creatively engage with the ever-changing conditions of the wider environment that also lies at the core of resilience. And it is this very inherent characteristic of craft practice that moves it from the margins of modernity (where it was supposedly relegated) to its very core. A new recognition of and respect for different forms of knowledge and skilled practice, if nurtured, could raise the profile

of craft as a ‘way of living’ and potentially improve earning capacities. Education as described above will play a key role in the future shape of craft and its engagement with sustainable development.

Craft can also provide leverage in practical ways towards sustainable development. In our scoping study the concerns of craft practitioners were more in relation to economic issues than to environmental or equality concerns. It provides opportunities to display concerns for material sourcing and the relationship of the maker with the natural world. It also offers the opportunity to build re-localised, resilient communities, thus contributing to the new models of “prosperity” being debated.

The conceptual framework of sustainable development also offers potential support to craft. The potential to reconfigure our economic system towards

a new understanding of prosperity that includes elements other than just the economic ones, provides funding opportunities for craft that aim beyond the development of full time enterprises.

The recognition of the ability of craft practice to increase community and regional identity and resilience in local areas chimes with broader policy goals. We have already seen a focus on the art sector, including the support of craft contributing to regeneration in the North East of Fife. Clearer understanding and articulation of the relationships between craft and sustainable development would enhance the success of such initiatives elsewhere. In addition, with the increased focus on sustainable development, we may see more people at least try craft-making and hence a re- integration of craft into mainstream life, a growing appreciation for craft skills and a consequent increase in the purchase of craft objects. Our data is specific to Fife and Scotland and we use this area as a case study to explore specific points of engagement. The statistics presented in this study, although limited, suggest a pattern of low individual income, income substitution through grant funding and under capitalised businesses. If this is the case, economic sustainability is a key challenge to the sector. While the craft sector is not a large identifiable economic sector from a national perspective, it may still have a contribution to make at a local level, particularly in the building of sustainable communities, as described above. While it obviously makes an important contribution to the re-skilling that resilience requires, craft can offer part time flexible working conditions, possibly home-based. Craft thus occupies a central place in the new debates on 'prosperity', and will be crucial to the debates on scale that are emerging from the focus on re-localisation and devolved, participatory governance.

The new Creative Scotland body brings screen, drama, literature, crafts, arts, dance and theatre activity in Scotland under one roof. This leads to several possible conclusions. First, as craft is gathered up under a broader framework it may suffer from having less access to funding that is specifically focused on its activities. At the same time, a broader framework may allow greater support for the art sector across the board. Second, in a tightening fiscal regime all activities that rely on public funding are likely to be vulnerable to cuts with obvious knock on effects. Finally, subsidy regimes cannot be expected to support activity indefinitely and any subsidy must at some stage translate into a commercially viable craft industry. In this latter context it may well be that there is more public/policy support for some elements of the art sector compared with others. In such a competitive environment craft could lose out; but by linking with the sustainability agenda it has the potential to perform much better in the forthcoming policy context. Such an alliance would require significant conscious effort and communication on the part of policy makers and craft practitioners.

To conclude, it is our belief that craft practice has a role to play in the transition to more sustainable societies. It offers contributions to sustainable development theory particularly in terms of developing an awareness of the role of humanity, (re)gaining of a sense of purpose and connection in life. At a more local level, it

offers opportunities to reduce environmental footprints; enhance social equity; build resilient communities; develop prosperous, vibrant enterprises; and identify new pathways to develop education for sustainability.

Illustrations

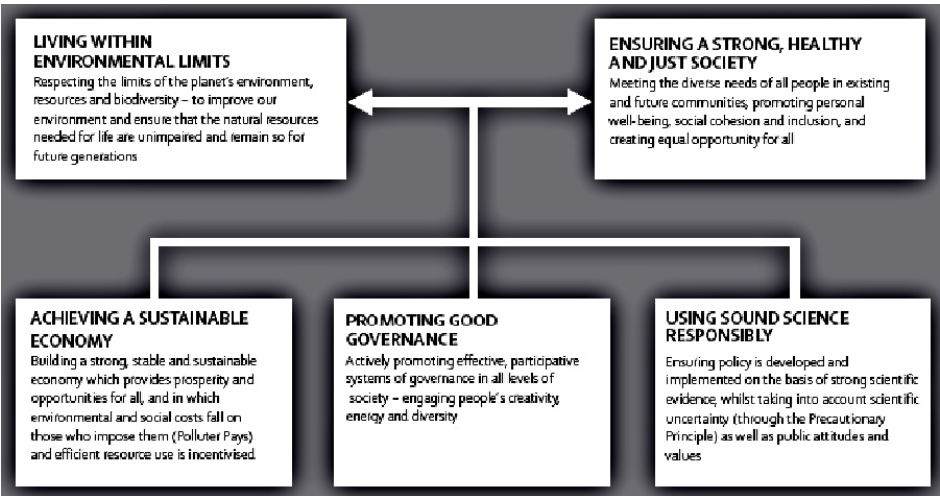


Figure 1: From DEFRA (2005: p16) The shared UK framework for sustainable development.

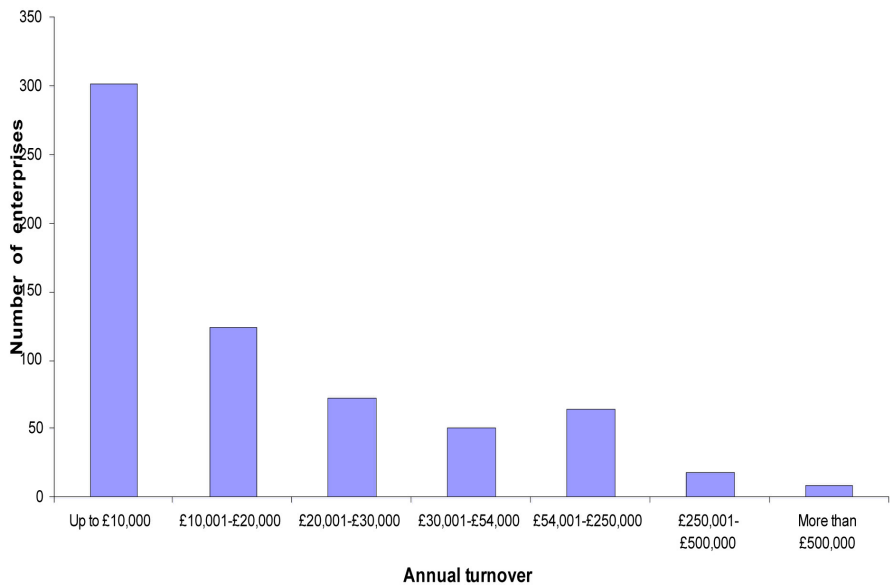
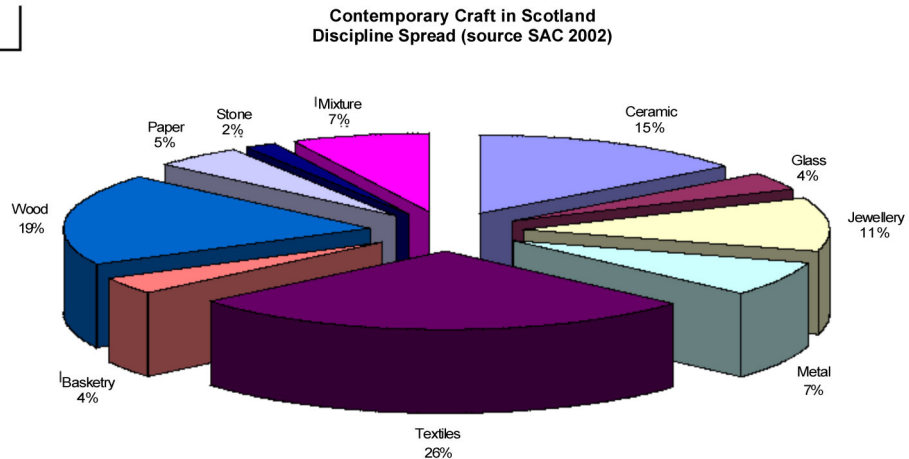


Figure 2: 2002, Scottish Arts Council, *Distribution of turnover of craft businesses in Scotland*

a



b

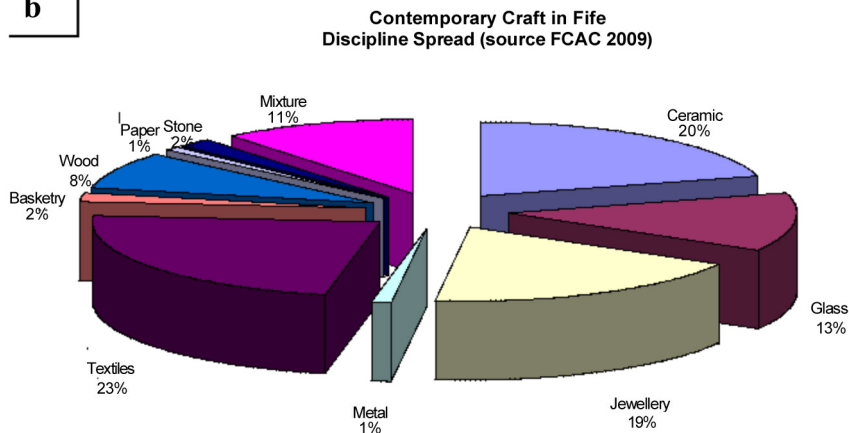


Figure 3: Forms of craft enterprise discipline in Scotland (a) and in Fife (b)

Bibliography

Adamson, G., 2009. *The craft reader*. Oxford: Berg.

Adger, W. N., Benjaminsen, T. A., Brown, K., and Svarstad, H., 2001. Advancing a political ecology of global environmental discourses. *Development and Change* 32 (4): 681-715.

Assadourian, E., 2010. *The rise and fall of consumer culture*. World Report 2010.

Bateson, G., 1973. *Steps to an ecology of mind*. Fontana, London.

- Carpenter, S., Walker, B., Anderies, J.M. and Abel, N., 2001. From metaphor to measurement: resilience of what to what? *Ecosystems* 4 (8): 765-781
- Cawe, S.G. & Ntloko, S.S.T., 1997. Distribution, uses and exploitation patterns of *Flagellaria guineensis* Schumach. with particular reference to Port St Johns, South Africa. *South African Journal of Botany* 63(4): 233-238.
- Cocks, M.L., Bangay, L., Wiersum, K.F. & Dold, A.P., 2006. Seeing the wood for the trees: the role of woody resources for the construction of gender specific household cultural artefacts in non-traditional communities in the Eastern Cape, South Africa. *Environment, Development and Sustainability* 8:519-533.
- Department for Environment. Food and Rural Affairs, 2005. *Securing the Future: the UK Government Sustainable Development Strategy*. London.
- Dormer, P., 1997. *The culture of craft: status and future*. Manchester: Manchester University Press.
- Douglas, A and Freemantle, C., 2009. *The artist as Leader*. Research Report. Grey's School of Art, The Robert Gordon University, Aberdeen; & Arts and Humanities Research Council UK.
- Dresner, S., 2002. *The principles of sustainability*. London
- Ferris, M., 2010. Introduction. In *Making Future. The crafts in the context of emerging global sustainability agendas*. Vol. 1 [online] Available at: <<http://makingfutures.plymouthart.ac.uk/journalvol1/papers/Making%20Futures%20Paper%20Edit%20or%20Introduction.pdf>> [Accessed 11 March 2011].
- Flood, R., 2008. What can design add to the sector? In E. Thomas ed. *Innovation by Design in Public Services*. Pp. 44-47. London: Solar Foundation Imprint; Design Council; Public The Guardian. [online] Available at: <<http://www.solace.org.uk/documents/sfi/SFI%20-%20Innovation%20by%20design%20in%20public%20services.pdf>> [Accessed 14th March 2011].
- Folke, C., 2006. Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change* 16(3): 253-267
- Gibson, J.J., 1979. *The ecological approach to visual perception*. Boston: Houghton Mifflin.
- Greenhalgh, P. (ed.), 2006. *The persistence of craft*. A & C Black Publishers Ltd
- Harris, M., 2005. Riding a wave: Embodied skills and colonial history on the Amazon floodplain. *Ethnos* 70(2): 197 – 219.
- Herzfeld, M., 2004. *The body impolitic: artisans and artifice in the global hierarchy of value*. Chicago: University of Chicago Press.

- Ingold, T., 2000. *The perception of the Environment. Essays in livelihood, dwelling and skill*. Routledge: London.
- Ingold, T., 2000. Making culture and weaving the world. In: P. M. Graves-Brown, ed. *Matter, materiality and modern culture*. London: Routledge, pp. 50-71.
- Ingold, T., 2007. Materials against materiality. *Archaeological Dialogues*. Cambridge University Press 14(1): 1-16.
- Jackson, T., 2009. *Prosperity without growth: Economics for a finite planet*. London: Earthscan.
- Kondo, D., 1990. *Crafting selves: power, gender, and discourses of identity in a Japanese workplace*. Chicago: University of Chicago Press.
- Local Government Association. (LGA). 2008. *The future is local* [online] Available at: <<http://www.lga.gov.uk/lga/core/page.do?pagelid=45868>>
- Marchand, T.H.J., 2001. *Minaret building and apprenticeship in Yemen*. Richmond: Curzon.
- Marchand, T.H.J., 2007. Crafting knowledge: the role of “parsing and production” in the communication of skilled-based knowledge among masons. In: M. Harris, ed. *Ways of knowing: new approaches in the anthropology of knowledge and learning*. Oxford: Berghan, pp. 57-181.
- McAuley, A. and Fillis, I., 2007. *Crafts Businesses in Scotland. A study for the Scottish Arts Council, Scottish Enterprise and Scottish Enterprise Glasgow*. The Scottish Arts Council/Scottish Enterprise.
- Orr, D.W., 2002. *The nature of design: Ecology, culture and human intention*. Oxford: Oxford University Press.
- Ostrom, E., 2005. *Understanding institutional diversity*. New Jersey: Princeton University Press.
- Scottish Climate Change Act. 2009. [online] Available at: <<http://www.opsi.gov.uk/legislation/scotland/acts2009/pdf/asp20090012en.pdf>> [Accessed 24 June 2010].
- Shackleton, C. and Shackleton, S. 2004. The importance of non-timber forest products in rural livelihood security and as safety nets: a review of evidence from South Africa. *South African Journal of Science* 100: 658-664.
- Sennet, R., 2008. *The craftsman*. Allen Lane.
- Speth, G., 2008. *The bridge at the edge of the water*. New Haven & London: Yale University Press.
- Sterling, V.A., 2009: *Earthscan*. Fife Contemporary Arts & Craft,

The 'Coalition'. 2010. Our Programme for Government. [online] Available at: <http://www.cabinetoffice.gov.uk/media/409088/pfg_coalition.pdf>

Thackara, J., 2008. Transforming public services. In: Thomas, E. ed. *Innovation by Design in Public Services*. Pp. 26-30. London: Solar Foundation Imprint; Design Council; Public The Guardian. [online] Available at: <<http://www.solace.org.uk/documents/sfi/SFI%20-%20Innovation%20by%20design%20in%20public%20services.pdf>> [Accessed 14 March 2011]

Venkatesan, S., 2006. Shifting balances in a "craft community": the mat weavers of Pattamadai, South India. *Contributions to Indian Sociology* (n.s.) 40 (1):63-89.

Venkatesan, S., 2009. Rethinking agency: persons and things in the heterotopia of "traditional Indian craft". *Journal of the Royal Anthropological Institute* 15(1):78-95.

UNESCO. 2010. *Education for Sustainable Development (ESD)*. Available at: <<http://www.unesco.org/en/esd/>> [Accessed 24 June 2010].

UNESCO. 2011. Education for Sustainable Development. UK National Commission for UNESCO. Available at: < http://www.unesco.org.uk/education_for_sustainable_development> [Accessed 14th March 2011].

World Commission on Environment and Development. 1987. *Our Common Future*. Oxford: Oxford University Press.

Sustaining crafts and livelihoods: handmade in India

By Sharmila Wood

Sharmila Wood has worked in the creative and cultural industries in India, the USA, and Australia. She is currently working as a consultant in New Delhi. She recently wrote and edited *Co-Creating: Designer meets Artisan* for UNESCO and Craft Revival Trust. Prior to her time in India, she managed an Aboriginal Art Centre in Western Australia. Sharmila holds a Master of Art History & Curatorship with Merit from the University of Sydney. She has been published in The Australian newspaper, and DRONAH, the Context Journal, India.

Abstract: This paper examines the current state of the craft sector in India, exploring how a growing interest from consumers in ethical and sustainable materials, processes and objects, is impacting Indian artisans and craft workers. To illustrate how those in the Indian craft sector are dealing with issues related to sustainability and craft, the paper discusses the work of AVANI in the Himalayas, and Khamir Craft Resource Centre in Bhuj, Gujarat.

Paper

Over the last century, industrial production has steadily replaced traditional handmade production in countries around the world. In India, this has meant the loss of traditional markets for artisans and craftspeople, who struggle to compete against the economic and production efficiencies of volume manufacturing, ushered in by advanced technology, and mechanization. However, in recent times, new markets have emerged, particularly amongst urban consumers, who have ascribed craft, and the handmade, with ethical, environmental, and socio-cultural value. Indian artisans are well positioned to tap into this emerging market, as consumers develop more of an understanding about the externalized environmental and social costs of a product, as it moves from extraction to production, to distribution, to consumption, and disposal.



Plate 1: Handloom weaver using bicycle parts to help with spinning silk in her backyard in rural Assam.

Photo: Sharmila Wood.

As the link between consumption, and resource depletion, industrial production and environmental degradation, enter the mainstream discourse, craft provides a framework for explorations of how ethical, sustainable and environmental principles are manifested in, and through, particular materials, processes, and objects. The term, ‘conscious consumption’ is used to describe this ethically driven consumer movement, where shopping is conducted in a critical or analytical way.¹ Jatin Bhatt in *Philosophy and Practice of Crafts and Design*, argues that not only do handcrafted objects form an important part of the creative cultural industries, they also occupy a space to counter techno-aesthetic dominance, for crafts inherently represent, to the patron of sustainable practice, a connect and concern with material, and the environment.²

The perceived connection between craft and sustainability has provided an opportunity for employment in the crafts sector. As markets open up in urban metros within India, and abroad, craft producers are able to continue selling their products and generating livelihoods. In India, craft is the second largest employer of people living in rural areas after agriculture, and the sector, has employment requirements for millions of people, whose livelihoods and income

1 Dr Alex Nicholls & Charlotte Opal, *Fair Trade: Market-Driven Ethical Consumption*, Sage Publications Ltd, 2005.

2 Jatin Bhatt, 2007. *Philosophy and Practice of Crafts and Design*, *Seminar Magazine*, [online] Available at: <http://www.india-seminar.com/2007/570/570_jatin_bhatt.html>[Accessed 30 April 2010].

are dependent on selling their craft.³ As Ramba Ben, a mirror work craftswoman from the Madotra Village in Banaskantha stated: 'Our lives hang on the thread I embroider.' Maggie Baxter has worked with artisans in India, and through her work with the craft enterprise NGO, Shrujan, observed the benefits of providing women, in particular, with a regular income from their craft production. In her article, *Threads of Life*, which observes the work of Shrujan, she writes:

'On a material level, the women have been able to improve the lives of their families. They can invest in land, afford good health care and provide better nutrition by purchasing cows and goats, and they can do this at their own pace, from home and without leaving the village. On a personal level, economic empowerment has transformed these women into confident and competent business women.'⁴

For women, craft is not only an important source of supplementary income, it also has implications for increased bargaining power, and socio-economic status.

Jaya Jaitly stresses the importance of sales channels for ongoing survival of the sector. She points out that the history of crafts in the past 100 years indicates that wherever industrial goods competed with local ones, the latter died out and craftspeople turned to other occupations. Similarly, as old cultural practices were supplanted by new technologies, the craft person lost their traditional source of income. Jaitly argues:

'The most crucial component to ensure employment, i.e. sustainable livelihoods in craft occupations is the market. Without this there can be no security. If the crafts person is sure of selling his/her goods, the motivation and confidence needed to access raw material, give time to ensure a fine quality finish, seek funds through loans to fulfill orders and finally, to pass on skills to the next generation, comes automatically.'⁵

Craft is not only an important source of livelihood; it is often connected to socio-cultural traditions, and elemental to the preservation of cultural diversity and identity. Lucy Donkin describes this relationship between craft and the social fabric, in *Crafts and Conservation*, 'Crafts are not simply a particular way of making objects, but are inextricably bound up with the structures, values, history and identity of the communities in which they are practiced.'⁶

Indian handicrafts are, historically, part of a generation to generation learning, passed down along a line of inheritance, and the transfer of tacit knowledge. Craft has multiple meanings, and functions, ranging from personal consumption,

3 Jaya Jaitly, 2007. Employment in the Craft Sector, *One India, One People*, [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=176>> [Accessed 20 April 2010].

4 Maggie Baxter, 2003. Threads of Life, *Seminar Magazine*, [online] Available at: http://www.india-seminar.com/2003/523/523_maggie_baxter.htm [Accessed 25 April 2010].

5 Jaya Jaitly, 2007. Employment in the Craft Sector, *One India, One People*, [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=176>> [Accessed 20 April 2010].

6 Lucy Donkin, 2001. Crafts and Conservation: Synthesis Report for ICCROM. [Online] Available at: http://www.iccrom.org/eng/02info_en/02_04pdf-pubs_en.shtml [Accessed 28 April 2010], p.7.

to ritualized, and religious significance, and, or economic activity, which has a commercial outcome. It plays a role in defining regional, national or ethnic identity and culture.⁷

In India, craft has also been connected to the construction of nation hood and formation of identity in the country during post-independence. This is articulated by Ashoke Chatterjee, who writes, 'For almost 60 years, the Indian Government has been unique in its commitment to the craft sector, a legacy of the *swadeshi* movement and the ethos of a national identity fostered during the freedom movement. Unlike most developing countries in India, crafts have been given a place in national planning.'⁸ Paradoxically, within India, there remain deep rooted perceptions that craft technologies and processes are backward, and even primitive, by present standards. Laila Tyabji says that for the craft person, craft is a profession that neither gives adequate economic returns or social status. She writes:

'While craft traditions are a unique mechanism for rural artisans entering the economic mainstream for the first time, they also carry the stigma of inferiority and backwardness, as India enters a period of hi-tech industrialization and globalization. Craft and the ancillary aspects of design and tradition are considered by activists and economists, bureaucrats and business strategists as decorative, peripheral and elitist – rather retrograde ways of earning a living. Craftspeople are always seen as picturesque exhibits of our past, rather than dynamic entrepreneurs of our present and future.'⁹

Despite the efforts of government, and the implementation of policy designed to strengthen the sector, artisans themselves continue to be marginalized, their average earnings often well below the stipulated minimum wages.¹⁰

Furthermore, the push towards modernization and mechanization of the sector has crippled some sectors of the craft industry. For instance, it has been well documented that across the hand loom sector, the increase in power loom products has had a negative impact on the livelihoods of weavers. Mayank Kaul Singh notes that, whilst mechanization is an inevitable part of the evolution of crafts, the implications of introducing technology, in the current context and in the future, should not be ignored. Singh argues; 'We have seen that in most parts of the country, power looms have entered the manufacturing scene by their ability to provide handloom replicas at much cheaper cost. The mushrooming of power looms across the country has rapidly begun to shrink

7 Lucy Donkin, 2001. Crafts and Conservation: Synthesis Report for ICCROM. [Online] Available at: http://www.iccrom.org/eng/02info_en/02_04pdf-pubs_en.shtml [Accessed 28 April 2010], p.12.

8 Ashoke Chatterjee, 2006. The Indian Craft, Sunrise or Sunset in the Global Market, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=106> > [Accessed 18 April 2010].

9 Laila Tyabji, 2007. The Problem, *Seminar Magazine* [online] Available at: <http://www.india-seminar.com/2007/570/570_problem.htm> [Accessed 28 April 2010].

10 *Ibid.*,

the production, consumer and aesthetic base of handlooms.¹¹ There are many instances, where imitation by machine processes, has adversely impacted small crafts communities, for instance, the impact upon weavers in Varanasi, with the production of imitation, Benares brocade, or, the screen printing of Ikat, has been observed.¹² As Jaya Jaitly has observed; 'In the area of handmade goods, both crafts and textiles, even as countries like India are learning to convert their weaknesses into strengths, in China mechanization is efficiently organising itself to imitate the hand work of India to encroach upon the market for India's special skills.'¹³

In contrast to industrial production, the handmade qualities of craft, suggest a deeper engagement between, the maker and his or her product, a relationship in which the artisan has a personal history, and is materially aware of the processes, and techniques of production. Jaitly argues that this aspect of craft should be emphasised in marketing discourse. She says:

'Handicraft and handloom bazaars should not be popular just because we get 'arty' things at a fairly inexpensive rate but because health, environment, education, self value, exposition of cultural diversity and other such vitally important areas are linked to the need for sustaining crafts.'¹⁴

Jaitly uses the example of how, if the government adopted a policy where the *kulladh* – the earthen cup made by potters all over India, was to be used in all government institutions, and services, has both employment and environmental benefits. She writes: 'The mud of the kulladh goes back into the earth without harming it. Hygiene is maintained by ensuring that it cannot be reused. Paper is saved and non-degradable plastic is avoided.'¹⁵ Proponents of the Indian craft industry, such as Jatin Bhatt argue: 'Handicraft is a production process and a wonderful, indigenous technology, not an outmoded tradition. The raw materials (cane, cotton, clay, wood, wool, silk, minerals) are not only indigenously available but also environmentally friendly.'¹⁶

However, it would be wrong to assume that craft practices are, 'innately' ecologically responsible; in many cases, there has been an active intervention in which, sustainable practices and processes of production are introduced. For instance, AVANI, a craft and development NGO, located in the Kumaon Hills of

11 Mayank Kaul Singh, 2005. Evolution in Crafts: Negotiating the Handmade and the Machine Made, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=115>> [Accessed 30 April 2010].

12 Mayank Kaul Singh, 2005. Evolution in Crafts: Negotiating the Handmade and the Machine Made, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=115>> [Accessed 30].

13 Jaya Jaitly, 2005. Crafts as Industry, *Craft Revival Trust* [online] Available at: <<http://www.india-seminar.com/2005/553/553%20jaya%20jaitly.htm>> [Accessed 29 April 2010].

14 Jaya Jaitly. Make Crafts for Everyday Life for Growth, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=18>> [Accessed 20 April 2010].

15 Jaya Jaitly, 1993. The Indian World Arts and Crafts Journal, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=18>> [Accessed 22 April 2010].

16 Jatin Bhatt, 2007. Philosophy and Practice of Crafts and Design, *Seminar Magazine*, [online] Available at: <http://www.india-seminar.com/2007/570/570_jatin_bhatt.html> [Accessed 30 April 2010].

the Himalayas, has been actively involved in 'greening' their production. AVANI has implemented sustainable processes, and has made a conscious effort to work on greening their production processes. They have applied new green technologies, and combined them with traditional techniques. All of AVANI's products, made from wild silks, pashmina and Tibetan sheep wool are spun on drop spindles and traditional spinning wheels called Bageshwari Charkhas. In order to help alleviate the physical hardship of their craft tradition, AVANI have developed prototypes of solar powered spinning wheels.¹⁷ Therefore, the need to improve working conditions for artisans, and at the same time, make them more efficient, has not compromised the low environmental impact of AVANI's traditional craft practices, which, did not consume electricity, or other resources.

AVANI has also instituted bioregionalism, which, is a key response to environmental degradation and resource depletion; that seeks to minimise resource consumption, through the encouragement of practices that draw upon local materials and energy sources.¹⁸ AVANI has encouraged the cultivation of eri and mulga silk by the farmers of the area, ensuring that the raw material base required for craft production is locally available. People also grow, and collect wild plants like turmeric, myrobolan, and pomegranate rind and walnut hulls, to use as natural dyes. These are also sold for natural paints, textile dyes, food colourants, and organic soaps.¹⁹ There have been many flow-on benefits from this initiative, for instance, the plantation of host trees required to produce eri and mulga silk, has led to the conservation of local fodder species, and the re-forestation of wastelands, as the trees are native species.²⁰

Furthermore, AVANI's practice of bioregionalism has provided livelihood support to over one hundred farmers who have adopted sericulture, as a source of supplementary income for their families. All the farmers have also been taught simple techniques, like mulching and vermin-composting for better survival and growth of the plants. Such investment in local resources reduces costs, eliminating the need to transport goods and materials over long distances, which, also minimizes energy use. AVANI also conserves fuel, through using green energy alternatives, such as solar power, and rainwater harvesting. For instance, rainwater, used for natural dyeing is pre heated in solar water heaters. The wastewater is then recycled and utilized for irrigation to grow vegetables. A wastewater recycling plant is presently under construction, this will recycle 80 % of all the water used at the centre.

Many Indian craft enterprises are also adapting traditional skills to create eco products, by reclaiming waste, recycling it and extending the life of a material, and, or object, by 'up- cycling', discarded material to create new products. Often, these recycled crafts, have emerged as a result of the creative use of

17 AVANI, 2010. Available at: <<http://www.avani-kumaon.org>> [Accessed 2 April 2010].

18 Alan Drengson & Yuichi Inoue, *The Deep Ecology Movement: An Introductory Anthology*, North Atlantic Books, 1995.

19 AVANI, 2010. Available at: <<http://www.avani-kumaon.org>> [Accessed 2 April 2010].

20 AVANI, 2010. Available at: <<http://www.avani-kumaon.org>> [Accessed 2 April 2010].

waste in urban areas, and are the result of craft innovators, working with what is available. Jan Sandesh, a small NGO working from a slum in West Delhi, make beads from rags, as well as found, or donated newspaper and magazines, transforming them into personal accessories. They make hair clips fashioned into elephants, flowers, caterpillars, stars, and butterflies, from rags that are collected from local tailors. The women who make these objects have been able to respond to changing and irregular resource supplies, by imaginatively using different materials, and turning waste into a product with aesthetic value.

Similarly, Khamir Craft Resource Centre located in Bhuj, Gujarat, has begun a project making bags, and home ware items, such as cushion covers, from discarded plastic bags, re- interpreting traditional craft products and using a small frame loom for new products. The project was initiated by ART D'ECO, an enterprise that provides product and design development support to artisan groups in India. The project with Khamir employs local rag pickers who collect plastic bags from the nearby town of Bhuj, these are then sorted by colour, washed, and cut into strips. The weaver uses these strips as a warp and weft pattern on a loom, to make yardage. Khamir also make bathroom mats with plastic bags, which are cut and stitched narrowly, on a cement bag, with an inner tube from a car, on the inside, to give the mat grip, so that it does not slip away. Khamir are fusing new materials, with traditional skills, recycling discarded cement bags, which, are embroidered with brightly coloured wool, with typical Kachchh design.

This project provides new opportunities for weavers, whilst simultaneously generating employment to rag pickers, a community that is particularly vulnerable to the conditions of extreme poverty. Rag pickers continue to earn a very low income, and live in poor conditions, lacking access to water, sanitation and other basic infrastructure. As documented in, *Livelihoods With Dignity*, by the Alliance of Indian Waste Pickers, rag pickers face health and safety risks: exposure to dangerous waste, including toxic substances such as lead and asbestos, as well as faecal matter, broken glass, metal objects; exposure to diseases transmitted by vermin, flies and mosquitoes. Common complaints include back and limb pain, skin irritation, rashes, and high risk of tuberculosis, bronchitis, asthma, pneumonia, dysentery, and parasites.²¹ Similarly, there is a range of occupational health and safety concerns related to traditional craft processes. As identified in a report from the Hazards Centre New Delhi, commissioned by the All India Artisans and Craftworker's Welfare Association (AIACA), *Baseline Study on Environment, Occupational Health and Safety Issues in the Crafts Sector*, there are a range of complaints regarding body aches, sores, cuts, burns and calluses, lung and eye problems, deafness, fatigue and sleeplessness.²² The report looked at environmental and occupational health impacts in six different cottage industries: Hand Block Printing in Jaipur; Blue

21 Kagad Kach Patra Kashtakari Panchayat (KKPKP) & Alliance of Indian Wastepickers (AIW), 2010. *Livelihoods With Dignity* [online] Available at: <http://www.wiego.org> [Accessed 2 April 2010].

22 TraidCraft, AIACA and Co-optex, May 2010. Sustainable Textiles for Sustainable Development, Environmental, Occupational Health and Safety in the Craft Sector in India Baseline study of

Pottery in Jaipur; Leather in Ajmer and Jaipur; Bell Metal in Orissa; Dhokra in Orissa and Ikkat in Pochampally. The findings of the report indicate that access to affordable technology can reduce drudgery, and improve the overall health indicators for artisans. In some instances, there is a requirement for mechanization; however, with technical interventions, the complex terrain of culture, tradition, and maintenance of skills needs to be negotiated.²³

Despite efforts of fair trade businesses and others, both within India, and abroad to promote crafts that use sustainable practices and methods, many artisans have not been able to reach the export market. Often artisans, and, or craft enterprises lack marketing expertise, and distribution methods. All India Artisans' and Craft worker's Welfare Association's, (AIACA), market access program, Craftmark- Handmade in India, provides a platform for artisan products to be marketed. The Craftmark is a certification seal that verifies genuine, handmade products. The Craftmark helps to denote genuine Indian handicrafts, develop sector-wide minimum standards and norms for labelling a product as a handicraft, and increase consumer awareness of distinct handicraft traditions. Under this initiative, AIACA licenses the Craftmark logo for use by Craft-based businesses, cooperatives and NGOs for use on product tickets and labels. AIACA undertakes a program of marketing activities through participation in international trade fairs, such as Ambiente, Frankfurt, and the circulation of a commercial product catalogue, to link artisans with the market.

On the domestic front, opportunities for Indian artisans to sell their products are improving. Artisans can sell to mainstream consumer directly at annual markets, such as Dastkar's Nature Bazaar, which takes place in India's main cities, or at permanent markets such as Dilli Haat in New Delhi. There are established large retailers, such as, FabIndia, who promote, and sell handcrafted items, and new players, such as Mother Earth. This latest addition to the retail scene has been founded by Industree Crafts Foundation and has opened a flag ship store selling, 'green' home ware, and personal accessories, including apparel, over 11,000 square feet and across three floors in Bangalore. This department-like store was funded through investment by Future Group, India's largest retail chain, heralding the mainstreaming of craft goods.

However, this increase in demand has created a troubling paradox, with many artisans beginning to grapple with balancing new economic opportunities, and environmental sustainability issues. For instance, in regions of India, such as Kachchh, an arid area, where drought is not uncommon, the intense use of water required in block printing, has already impacted local production, as ground water resources continue to deplete. It is estimated that Kachchh's block printing sector draws up to 25 lakh litres of water a day during peak season.²⁴ Many

selected Craft Clusters [Online] Available at: <<http://www.aiacaonline.org/pdf/research-baseline-study-environment-occupational-health-safety-issues-the-crafts-sector.pdf>> [Accessed 25 April 2010].

23 Ibid.

24 Khamir Craft Resource Centre, 2010. Available at: <http://www.khamir.org> [Accessed 5 May 2010].

artisans do not have access to sources of water, and the majority of printers must rent *wadis* or farms with water access, and bear the resulting expenses, transportation challenges, and pollution.²⁵ The water scarcity issue has been further exacerbated, by the transition from natural dyes to chemical dyes, which has meant an increase in pollutants that are absorbed into the water table. Currently, Khamir is working on technologies to reduce contamination of the local environment, as well as water and energy consumption.

The negative environmental impacts from production processes, will impact the long term sustainability, and competitiveness of Indian textiles and craft in the long term. Currently, there are a number of projects, designed to minimize the risks associated with environmental collapse. AIACA, in partnership with the Traidcraft UK and COTEX, Rajasthan, with support from the European Union, is in the first stages of the four year SWITCH Asia Project (Promoting Sustainable Consumption and Production). The project will support the production of sustainable textiles in India, pioneering low cost technologies that can be used for water conservation, treatment and re-use.²⁶ Under the sustainable production element, the project will assist the creation of an eco friendly textile park in Bagru, Rajasthan. This park will use environmentally friendly technologies for production; part of the project, includes building the necessary infrastructure, for water harvesting and conservation. This park will be used as a model, for best-practice environmental processes, which, it is hoped, will be adopted in 29 other textile parks across the country.

For some crafts, it would seem that volume production cannot provide a sustainable environmental, and livelihood option, and therefore, mainstream markets are not a viable option. For instance, there is Ajrakh, a resist block printing craft, from the Thar Desert region, that has a taxing environmental and production process. The process is laborious, involving a total of sixteen stages and large quantities of water are used. Ajrakh begins with the preparation of the material, this involves soaking the fabric in a mixture of camel dung, seed oil, and water, and it is then dried in the sun, with oil that has been curdled with carbonate of soda. The cloth is then washed and re-soaked in a home-made mixture of dried lemons, molasses, castor oil and water. After the proper preparation of the material, the Ajrakh is printed, usually with several different blocks of geometric shapes, layered over the textile, giving the Ajrakh its characteristic patterning. The cloth is dyed in stages, in different natural dyes, depending on the colour that wishes to be achieved, which include crimson, indigo, and yellow, created by the use of myrobalan, madder, indigo, root of rhubarb, and pomegranate

25 Khamir Craft Resource Centre, 2010. Available at: <<http://www.khamir.org>> [Accessed 5 May 2010].

26 All India Artisans and Craftworker's Welfare Association, 2010. Available at: www.aiacaonline.org [Accessed 1 June 2010].

peel.²⁷ Despite this high level of specialization, Ajrakh continues to be traded, like many Indian handicrafts, as a low value commodity item on the global trade network that can be bought and sold in volume.

The Khatri community has been engaged in the making of Ajrakh for an estimated three thousand years, and the technique has been traditionally passed down through the generations with only a handful of artisans, possessing the knowledge, skill and expertise required to make Ajrakh. In recognition of his skills, and expertise, an Ajrakh artisan from Ajrakhpur in Kachchh, Professor, Ismail Mohammad Khatri, was awarded an honorary doctorate in textiles from De Montfort University of Leicester. Yet, despite these accolades, Ajrakh does not command the kinds of prices, ascribed to a valuable, high end art. An intellectual separation, between craft and art continues to impact prices, with fine art continuing to be regarded as superior. A constricted market for high end crafts, places market-driven pressure on artisans, forcing them to create low cost handicrafts, which could mean the loss of particular skills, and traditions. The devaluing of crafts is further exacerbated by the limited opportunities for Indian artisans to exhibit their work in a fine art context. There are efforts to promote excellence in craft, set quality standards, and recognize the talents of craftspeople, via the UNESCO Award of Excellence, along with the Government of India's National Award for Master Craftsperson, yet, these have not gone far enough in supporting artisans to achieve status in the mainstream community.

Indian crafts would be assisted by a permanent space in India's cities, which could elevate the work of talented, and or, master craftspeople, to a transcendental and exclusive object. The Crafts Museum in New Delhi has the potential to operate as a space for showcasing the best of Indian design and craft. The National Gallery of Modern Art could function as a space to position Indian craft in a modern, contemporary context, and, at the same time, raise the value attached to craft, in general. Both need to employ curatorial practices and strategies that can facilitate a real engagement with craft, where craft can be explored, discussed and valorised. With the lack of a national public space in which, craft can be exhibited and displayed, with sensitivity to its history and materials, there exists little opportunity to change perceptions that associate with craft with a low aesthetic standard, and little chance of developing Indian craft into an elite genre. The state needs to support such an endeavour, to define and construct a place for craft that places it within a contemporary context. By providing a framework for generating value around craft, there is the potential to create a more sustainable livelihood base for artisans and craft workers, particularly given the growing environmental pressures, and issues related to the depletion of resources, that could make volume production untenable.

The concept of 'sustainability' in relation to Indian crafts is connected to environmental, cultural and economic concerns. Craft provides employment opportunities, and the ability to earn an income from craft contributes to the

27 See Emma Ronald, *Ajrakh Patterns and Borders*, Anokhi Museum of Hand Printing, AMHP Publications, Rajasthan, 2007.

longevity of cultures, and craft communities. In the current context, a review of the ethics around consumption, and a desire for an alternative to industrial production, has opened up the market for Indian craft.

In particular, craft enterprises that utilize, and, or adopt environmentally responsible practices, are well positioned to tap into emerging markets. AIACA's market access

initiative, Craftmark-Handmade in India, provides market linkages and valuable marketing support for craft groups to tap into urban consumer markets. However, demand for crafts needs to be properly managed, as an increase for particular types of craft, such as block printing, carries environmental challenges. There must be an ongoing effort to support crafts that are ecologically responsible, and, to encourage artisans to institute environmental management practices, and natural resource management, to ensure their ongoing survival. Similarly, there must be an effort to elevate crafts to desirable, high end fine art products, and to recognize their cultural, social and economic contribution to modern India.

Bibliography

- Baxter, M., 2003. Threads of Life, *Seminar Magazine*, [online] Available at: <<http://www.india-seminar.com/2003/523/523maggiebaxter.htm>> [Accessed 25 April 2010].
- Bhatt, J., 2007. Philosophy and Practice of Crafts and Design, *Seminar Magazine*, [online] Available at: <http://www.india-seminar.com/2007/570/570_jatin_bhatt.html> [Accessed 30 April 2010].
- Chatterjee, A., 2006. The Indian Craft, Sunrise or Sunset in the Global Market, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=106>> [Accessed 18 April 2010].
- Donkin, L., 2001. *Crafts and Conservation: Synthesis Report for ICCROM*. [Online] Available at: <http://www.iccrom.org/eng/02info_en/02_04pdf-pubs_en.shtml> [Accessed 28 April 2010].
- Drengson, A., and Inoue, Y., 1995. *The Deep Ecology Movement: An Introductory Anthology*, North Atlantic Books.
- Jaitly, J., 1993. The Indian World Arts and Crafts Journal, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=18>> [Accessed 22 April 2010].
- Jaitly, J., 2005. Crafts as Industry, *Craft Revival Trust* [online] Available at: <<http://www.india-seminar.com/2005/553/553%20jaya%20jaitly.htm>> [Accessed 29 April 2010].

Jaitly, J., 2005. Make Crafts for Everyday Life for Growth, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=18>> [Accessed 20 April 2010].

Jaitly, J., 2007. Employment in the Craft Sector, *One India, One People*, [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=176>> [Accessed 20 April 2010].

Wood, S., 2011, Sustaining crafts and livelihoods: handmade in India craft + design enquiry, vol. 3

Kaul Singh, M., 2005. Evolution in Crafts: Negotiating the Handmade and the Machine Made, *Craft Revival Trust* [online] Available at: <<http://www.craftrevival.org/voiceDetails.asp?Code=115>> [Accessed 30 April 2010].

Nicholls, A. and Opal, C., 2005. *Fair Trade: Market-Driven Ethical Consumption*. Sage Publications Ltd.

Ronald, E., 2007. *Ajrakh Patterns and Borders*, Anokhi Museum of Hand Printing, AMHP Publications, Rajasthan.

Tyabji, L., 2007. The Problem, *Seminar Magazine* [online] Available at: <http://www.india-seminar.com/2007/570/570_problem.htm> [Accessed 28 April 2010].

About *craft + design enquiry*

Focus and scope

craft + design enquiry is an open access, peer-reviewed, online journal promoting and disseminating the research excellence generated by and about the craft and design sector. *craft + design enquiry* investigates the contribution that contemporary craft and design makes to society, establishing a dialogue between craft and design practice and cultural, social and environmental concerns. It interrogates and expands the international recognition of Australian craft and design.

craft + design enquiry welcomes submissions from across the field of craft and design including artists and practitioners, curators, historians, art and cultural theorists, educationalists, museum professionals, philosophers, scientists and any others with a stake in the future developments of craft and design. Issues of *craft + design enquiry* are published annually.

craft + design enquiry is published annually. Specialist guest editors are appointed to each issue of *craft + design enquiry*. Calls for papers are announced once a year on specific themes and research areas for future issues. Submitted papers are peer-reviewed and selected papers are published.

Peer-review process

craft + design enquiry is a peer-reviewed journal. *craft + design enquiry* uses an Editorial Advisory Panel, comprised of internationally recognised experts and academics, to provide reviews in the fields of their expertise. Each paper is reviewed by at least two peers. The process uses a double-blind, review process where contributors and peer reviewers remain anonymous throughout the review process. Reviewers may request changes to papers. If favourably reviewed, and at the discretion of the editors, the paper will be published.

Open access policy

This journal provides immediate online, open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

Editorial Management (2009-2011)

Published by Craft Australia, the editorial management of *craft + design enquiry* is overseen by the Craft Australia Research Centre Committee: Anne Brennan (ANU), Patsy Hely (ANU), Louise Hamby (ANU), Kevin Murray, Peter McNeil (UTS), Grace Cochrane, Avi Amesbury (Craft ACT), Catrina Vignando (Craft Australia), Alex Gillespie (Craft Australia) and Jenny Deves (Craft Australia).