RSA Design & Society. *You know more than you think you do: design as resourcefulness & self-reliance* by Emily Campbell, RSA PROJECTS, July 2009. The RSA's central mission is to foster good citizenship by closing the gap between our everyday behaviour and the future to which we aspire. To close this gap, contemporary society needs to be more resourceful: its citizens more engaged, self-reliant and collective in their striving. Yet a combination of professionalisation, bureaucracy and consumerism threatens to reduce our resources of common competence and as citizens we often appear to be less resourceful than ever. At the same time our consumption has diminished the earth's resources and we now have fewer resources of energy and natural material at our disposal.

Design & Society argues that design will be fundamental to closing the gap between our behaviour and our aspirations because of the particular resourcefulness that designers represent. Ready to improvise and prototype, brave in the face of disorder and complexity, holistic and people-centred in their approach to defining problems, designers have a vital role to play today in making society itself more resourceful.

The Royal Society for the encouragement of Arts, Manufactures & Commerce has vigorously supported design since it emerged as a professional discipline in the early 20th century, and earlier. One of its best-recognised expressions of support was the Royal Designer for Industry (RDI) award established in the 1930s to recognise designers of excellence, raise the profile of the emerging profession of design and promote the contribution of design in manufacturing and industry. The second is the student awards programme, dating back to a bursaries scheme born in the 1920s and currently entitled Design Directions, that encourages and rewards the best emerging talent from universities.

Building on this history, we are developing five projects that closely align design to the RSA's core mission of progress and change today; and contain a broad range of debate and action in design under the heading of Design & Society.

In these projects we recognise the formal judgement traditionally associated with design, and design's essential optimism with respect to progress and change. We now want designers to demonstrate how the insights and processes of design can increase the resourcefulness of people and communities.

## Resourcefulness: *why and how?*

Like all professionals, designers are broadly thought of as doing something that non-professionals cannot do for themselves. Without lowering the threshold of skill and judgement that defines a designer, how can the resourcefulness of designers be shared? Is it possible for designers to redefine themselves – or expand their definition of themselves – not merely as making more beautiful resources, but as making people more resourceful?

Of course resourcefulness has many meanings. Resourcefulness is ingenuity: the ability to think on your feet; the ability to adapt one solution to another problem; the ability to make something out of little or nothing. But resourcefulness is also the confidence that comes with knowledge: having a skill or a range of skills at your disposal; knowing enough to make a wise choice; having analogous experience; having connections to draw on and knowing how to collaborate. This knowledge feeds the ingenuity, and vice versa.

Standing in the way of resourcefulness is firstly our ignorance – the opposite of knowledge – but also a plethora of ills and habits from poverty and exclusion to lack of time and concessions to convenience. We are less resourceful because we follow the crowd; while the status and gratification of consuming stops us imagining how not to.

In one classic definition of design as problem-solving, design takes problems away. Instances are well-documented and justly celebrated and many of the solved problems have been social in character. But can design do more? Can it show you how the problem is to be solved without doing it for you? A product whose design reveals how it's made might encourage you to fix or modify it [1] but what are the limits? What is the threshold at which we should expect the professional designer, architect or engineer to take our problem away? If we raised the threshold, or had more tools at our disposal, where might we expect to see changes in behaviour, and greater resourcefulness? The radical design professor Viktor Papanek famously claimed that it is natural to design, since 'the planning and patterning of any act toward a desired, foreseeable end constitutes the design process'.[2] If designers were to practise restraint – leaving the job less than fully complete – could they activate people's intrinsic motivation; their natural instinct to design?[3]

Designers are used to accommodating our behaviour, but how can they take a deeper role in influencing it?[4] Many designers study human factors and user-centred research; if they collaborated more with social scientists – psychologists, behavioural economists, ethnographers – would it enlarge their understanding of human decision making and would they design differently?

Good design in itself is not a guarantee of good citizenship. As it has evolved as a commercial, industrial, professional activity, design is motivated more frequently by commercial imperatives, personal reputation, functional economy and fine craftsmanship for its own sake than by social benefit. In many cases it is enlightened commissioners and imaginative consumers, rather than designers, who deserve commendation for their understanding and practice of good citizenship. The Design & Society programme investigates what happens to design and to society if you shift good citizenship from a secondary benefit to a primary goal of design.

There are pressing reasons for design to be reconsidered in this way:

— *A prevailing political agenda of inclusiveness, personalisation, participation and co-production, in which the autonomy of the professional is incongruous*

— *A corresponding interest from the private sector in choice, customisation and the creativity of consumers, which professional designers are asked to accommodate and enable*

— *A downturn in the big, commercial market, which will force designers and architects to apply their skills in a smaller, local context more likely rich in social than financial resources*

— *The depletion of the earth's natural resources of energy and raw material which shifts some of the responsibility of designers away from production towards reduction*

## — *Inclusiveness, personalisation, participation and co-production*

The challenge posed to design by today's social and political agenda of inclusiveness is to ease the distinction between the professional skill of designers and the insights of users; to make these complementary and integral to the solving of problems.[5] But the popular narrative of design history stands in marked contrast to the agenda of inclusive process. The Designer – in fiction and often in reality – is famed for his or her passionately pursued, authentic and unique visual language. The designer is known by his or her mediated icons. The designer is famously unbending in his or her choices and only ever wears black.

Although inclusive design has been common parlance for a decade, there are particular factors now that make this stereotype – the designer excluded from conspicuous public responsibility – disreputable today: the global financial downturn, the agenda of public service reform and the rise of the new discipline of transformational 'service design'.

The austerity necessitated by the contraction of financial markets will affect public services: there will be less to spend while the scale and complexity of public need increases all the time. It is widely acknowledged that the heavy, paternalistic, hierarchical and bureaucratic post-war model of public service provision now needs radical revision. A revision that mobilises the values of self-reliance and self-management is the one most frequently invoked; a public service system that motivates and supports citizens to do more for themselves.[6] Framed in contemporary terms as a new 'relationship' between service providers and their users, the discourse focuses on the experience and participation of users as the tactic that ensures quality; rather than a managerialist approach of targets, regulation and inspection.[7]

The Government's public service reform discourse repeatedly invokes the idea of collaboration:[8] between parents and schools, patients and doctors, residents and police. Designers are particularly competent in mediating between suppliers and users for a good reason. Their function is intermediary rather than autonomous: designers operate in the service of someone else's needs or 'brief'. They need to understand the problem in order to give it a solution. For this reason designers can aid the process of collaboration.

Because of their appetite for solving problems, designers are often able to apply their visual and spatial fluency to systemic problems and services as well as to the material world, as if systems and services were things. Variously known as service design,[9] design thinking,[10] or transformational design, designers take a seat alongside social scientists, anthropologists, engineers, civil servants, entrepreneurs and other contributors including, most importantly, service *users*, in a process with outputs that, while not intangible, are metaphysical: new services that respond flexibly to users and customers; new value built into social networks; new tools and confidence for citizens to do for themselves; new ways to get something done without buying anything.

This neo-discipline of service design makes the inclusive motivation of design explicit and inevitable. The outcome or solution is owned by all members of the community that created it; this corresponds with a political climate seeking greater social equity and an enhanced sense of citizenship.

## — *Accommodating consumer choice, customisation and creativity*

Our ability to make things as individuals, and to manufacture as a nation, are touchstones of our resourcefulness and self-reliance. Although amateur and local production was abundant in the pre-industrial period, we have stopped making many things as individuals, and it has become economically unfeasible to manufacture as we once did. But technology and austerity both have the potential to encourage consumers to be less passive, and raise the prospect of a new manufacturing paradigm based on local supply.

We know that local production has the capacity to create and sustain local supply chains. It can mitigate the consumer-passivity that markets induce by promoting the notion that problems are not only solved by mass, industrial means; that customised and local solutions are possible for citizens to invent.

But technology has diminished our ability to make things as much as it has enhanced it: technology has led us to expect global brand standards that the local cannot match. Consumer habit and labour economics make it challenging to conceive of the conditions that would foster a new culture of small scale manufacture. What technical and business frameworks would encourage entrepreneurship; and what collective resources would foster a culture of common artisanship among non-commercial individuals? What changes to education and common experience would give us robust confidence in our ability to make and repair and the will to do it?

Business language today betrays a conflation of product and service, to the extent that a train ride or a dental appointment or a language exam are all 'products'; while at the same time manufacturing and services continue to be presented as antithetical

alternatives rather than complementary factors in any successful enterprise. How could a deeper integration of product and service make society more productive, and how can design help this integration?

High tech post-industrial manufacture facilities like rapid prototyping and digital printing open up manufacturing possibilities for specialists – designers and manufacturers – but what of everyone else? In an obvious sense, the exponential growth of electronic tools allows ever greater amateur participation in design, especially in publishing and the customisation of interactive products like games and websites. Desktop publishing gave the exciting prospect of page layout to anyone with access to a computer. Now software and electronic templates allow us to design our own greetings cards, websites, gaming environments and even visual data displays. But how do we enlarge access to technology? How do we match technology with the judgement necessary to use it effectively?

Furthermore, the increase in amateur design provoked by electronic design tools breeds quantity more than quality; it adds to the complexity and abundance of our world, rather than producing clarity. Likewise, news stands and television schedules are bursting with home-makeover and cooking titles. Although both genres represent a high-amateur convergence of design, craft and styling, they fuel consumption rather than decisive and lasting acts of design. How does the professional designer both increase access to design tools, and raise the quality threshold of the amateur?[11]

## — *Commercial downturn: more social than financial resources*

If it is true, as Design & Society argues, that designers are especially resourceful, then in a new climate of austerity, in which less might be done to us or for us, or available to buy, it is expedient to make everyone more like a designer in their readiness to improvise. Charles Leadbeater, in his essay *Production by the Masses*, argues that the future role of professionals (designers, for example) is to guide non-professionals into a condition of self-reliance, rather than to 'do' for them: "Professionals should become campaigners, counsellors and advocates…", he writes.[12] In a similar vein, Richard Sennett's book *The Craftsman* contains a passage on what he calls 'sociable expertise'; comprehensible, transparent, shareable knowledge among all professional groups: "the sociable expert… capable of mentoring".[13] Although non-experts might not put the knowledge into practice, they understand its aims and standards by virtue of the experts' 'sociability'. Design & Society will investigate how these new vocations of counsellor or mentor might be interpreted for design in order that people and communities are able to be more resourceful.

Leadbeater has also observed that "professionals create a distribution bottleneck". The professional world of design certainly has some of this locked character since for a century designers have been not only the doers but largely also the critics of their own work. While it is easy enough to identify amateur artists and photographers, gardeners, cooks, wood and metalworkers, embroiderers and needleworkers, amateur *designers* are not very visible as a category.[14] There are DIY, crafts and hobbies, typography of the 'Lost Kitten' genre, the improvisation of tree-houses and dens among family members, but we tend not to edify these things with the lofty, form-giving designation of design.[15] Furthermore, design has acquired an indivisible association with industrial production, and since individuals and social communities are unlikely to have access to more than a domestic sewing machine or a power drill, we don't call what they make design. Design also tends to presuppose volume production, whereas amateurs in near-analogous crafts and DIY are likely to be improvising a unique solution.

If analogies for the resourcefulness and skill of designers are hard to find among non-designers, this is particularly true of architecture: the scale, cost and permanence of buildings excludes anyone but the technicians from a sense of ownership and competence; a situation provoked further by the gulf that exists between the critical terms of reference available respectively to architects and everybody else.

Professionals in design have their resourcefulness to share with non-professionals; but what can the design industries learn from amateurs? The amateur model of social organisation is self-electing, self-regulated, collaborative, critically networked and necessarily light-handed in terms of administration; above all it is motivated by a magic combination of personal growth and positive shared outcomes. How can the professionals in design and the amateurs of other disciplines nourish each other's resourcefulness?

## — *Environmental degradation: not production but reduction*

Design has a special responsibility for abetting climate change, and a corresponding opportunity to contribute to its arrest. The profession of design grew out of the industrial capacity for mass-producing goods during the late 19th and the 20th centuries. Design has therefore been principally associated with value added to goods by skilled aesthetic judgement, an understanding of materials and manufacturing processes, and the embodiment of technology in

objects that are useful and pleasing. This was revolutionary when it was new and particularly in the early, ideological period of Modernism: wider access to quality goods was an explicit principle of a fair society shaking off centuries in which only the rich had deserved beautiful things of high craft and applied art.

In the 21st century, however, the association of design and architecture with material production has become less glorious because of the over-abundance of goods and rampant growth of consumerism, and because of the degradation of the natural environment through manufacturing and construction. Many designers are conscious of their complicity in consumerism since so much of their work is intended to coerce the acquisition of more and more goods and products. Design used to be known as commercial art, and it has been the handmaiden of consumerism.

Accelerating environmental deterioration joins the global financial crisis in provoking austerity: we'll have to consume fewer of the planet's resources of energy and materials and to use what we do use more thoughtfully. Arresting or slowing down the rate of climate change depends as much on the aggregate effect of individuals' restraint and resourcefulness, and the moral pressure they exert, as on massive, government-scale regulation and technology initiatives. There are already masses of individuals attempting to practise restraint in their use of energy and materials. Car-sharing schemes, seasonal organic box deliveries and real-time home energy displays are all tools designed to equip non-specialists with the means to reduce their carbon emissions. Design can help to give more tools to people concerned about the environment so that their community grows in confidence, influence and numbers.

While designers' commitment to reducing the environmental effect of designed products increases gradually, there are two prominent symptoms of design's heightened consciousness: the emergence of a discipline – service design – that does not aim at material production at all, and a groundswell of interest in how design can change people's behaviour and 'nudge'[16] their decision-making.

1. The Morris Minor, for example, is regarded by enthusiasts as the ideal classic car because the engine is of a simple design that is straightforward to strip and re-build. It is remarkable to recall today that the 1970s Bang & Olufsen Beolit 600 radio came with the circuit diagram, allowing resourceful people to mend it.

2. Victor Papanek: *Design for the Real World: Human Ecology and Social Change*, 1969

3. Chilean architect Alejandro Aravegna saw a solution to the economic realities of housing provision in residents' tendency to improvise extensions. The Quinta Monroy housing development consists of 'half-houses' to be completed through self-build.

4. See Robert Fabricant: *Design With Intent* at www.designmind.frogdesign.com/articles

5. See Jane Fulton-Suri/IDEO: *Design for People? Design with People? Design by People? Who is designing now?* in the Proceedings for the Include 2007 conference

6. See *Beveridge 4.0* by Hilary Cottam *et al* at www.participle.net: "Beveridge [the architect of the British Welfare State] voiced his concerns that he had both missed and limited the potential power of the citizen."

7. See Sophia Parker and Joe Heapy: *The Journey to the Interface*, Demos 2006

8. See *Excellence and Fairness: achieving world class public services*, Cabinet Office, September 2008. The published approach includes "citizen empowerment with stronger relationships between service users and professionals."

9. See www.livework.co.uk/articles/servicethinking/

10. See Tim Brown/IDEO: *Design Thinking* Harvard Business Review, June 2008

11. Pascal Anson's collection of YouTube films *The Kaboodle*, *The Kitchen*, etc. are valiant attempts to raise the quality threshold of the design amateur.

12. Charles Leadbeater: *Production by the Masses*, Demos 2006; Chapter 15 of *Production Values: Futures for Professionalism*

13. Richard Sennett: *The Craftsman*, Allen Lane 2009; Chapter 9 *Quality-driven work*

14. Although see *Professionalism, Amateurism and the Boundaries of Design* for examples collected by Paul Atkinson and Gerry Beegan; Journal of Design History, Vol 21, Issue 4

15. Design is conspicuously absent from Charles Leadbeater and Paul Miller's account, *The Pro-Am Revolution*, Demos 2004

16. See Richard Thaler and Cass Sunstein: *Nudge: Improving Decisions about Health, Wealth and Happiness*, Yale 2008

## RSA Design & Society: *projects*

Five Design & Society projects test the ability of design to increase people's resourcefulness. Drawing on the RSA's 27,000-strong Fellowship, the projects combine research with the creative resourcefulness of designers in the context of the RSA arena of debate and provocation.

### *1 Design Directions*

The education of professional designers traditionally prepared them to design functional and pleasing objects for commercial, industrial manufacture. As the market for design has expanded into branding, business consultancy and service innovation, and as young designers have become increasingly eager to personify social or ethical value, many design schools have incorporated the study of business and social science into design education. But still design schools are left unsure how to provide a complete education to emerging professionals today.

With the right specialist education, professional designers can combine high levels of formal judgement and technical competence with behavioural understanding, political engagement and a commitment to increase the resourcefulness of others.

Activities and outputs:

— *An awards scheme challenging professional designers-in-training to apply their skills to difficult social issues*
— *An annual workshop for design tutors*
— *Work placements for new graduates in charities, public service teams, service design consultancies and other agencies*
— *Published reports on briefs that experiment with new teaching and learning methodologies*

### *2 Design & Opening Minds*

The purpose of education is to give young people the ability and desire to learn throughout their lives because the world changes so fast. Encouraging young people to believe themselves capable of action in the face of shifting circumstances and problems is crucial to productive, co-operative and fulfilled adult life. Many schools struggle to reconcile the potential to generate social capital in young people – the citizens of the future – with the duty to teach discrete skills and knowledge which education has traditionally instilled.

The RSA's Opening Minds curriculum replaces subject-based teaching with interdisciplinary, project-based modules and pursues the development of five areas of competence. Design comprises a range of fundamental skills: problem-finding and problem-solving; improvisation and adaptation, visualisation, drawing and making, order, sequence and a sense of the parts and the whole. The tools and processes of design have unique potential to be integrated across the curriculum and contribute to a sense of practical competence and resourceful optimism in young people. Not only this, but the approach of design-thinking can help to synthesise civic and pedagogic aims of the curriculum; the needs of the community and the needs of individual learners.

Activities and outputs:

— *A seminar organised jointly by RSA Design and RSA Education investigating the potential of Design & Technology to cross the curriculum and enhance competency-based learning*
— *Commissioned teaching resources to help and encourage Opening Minds schools to integrate design into project-based modules*
— *A competition for the best use of design in the Opening Minds curriculum*
— *A curriculum design collaboration between schools and service designers under the RSA's Schools Without Boundaries initiative*

### *3 Design & behaviour change*

We often end up behaving in ways that are inconsistent with the sort of society in which we would prefer to live. Sometimes the effect of these actions is immediate (like anti-social behaviour) and sometimes it is delayed (like wasting energy). Methods of encouraging behaviour change have emerged from research in psychology and behavioural economics, but are powerless to encourage sufficiently widespread behaviour to combat large problems until they reach and are accepted by enough people. The theory of 'persuasive technology' is a recent development that shows promise, but how it can be widely deployed is not clear.

Designers are in a unique position to advise on policies that encourage behaviour change. For example, they understand the importance of involving people when designing rather than imposing decisions on them, and are experienced in thinking about how technology should be used by society.

Activities and outputs:

— *Published research into 'persuasive technology': behavioural economics, cognitive and social psychology and social marketing*
— *Behaviour change policy seminars that link designers with policy makers*
— *A series of design meetings that develop and apply a creative methodology to encourage more healthy behaviour, more civic participation, and more pro-environmental behaviour*
— *Action research that prototypes this methodology*
— *Final public policy recommendations*

### *4 Manufacturing, making & repair*

The decline in British manufactured goods has resulted in a severe imbalance of trade. While consultancy and financial services compensate to some extent, the United Kingdom is very far from self-sufficient and is consuming more goods that it is able to pay for without selling assets. While in the private sphere DIY and home decorating, gardening, crafts and cooking thrive, these activities, albeit productive, do not have the effect of significantly reducing consumption or creating employment, wealth and social capital.

A combination of new small-enterprise frameworks, shared local facilities for manufacturing and repair, skills development and service understanding is needed to foster an environment in which manufacturing can flourish. Design has a critical role to play in linking these elements, since nothing can be manufactured which has not first been designed.

Activities and outputs:

— *A commissioned pamphlet and debate on the conditions necessary to foster a renewal of local manufacturing in Britain*
— *A public affairs seminar and public debate on the future of manufacturing in Britain and the economic potential of small, distributed manufacturing facilities*
— *Research into the effect on consumption of increased community access to facilities and expertise for making and repair*

### *5 The designer in everyone*

The evolution of professions and the march of bureaucracy and consumerism have led us to forget how much we can do for ourselves. As citizens we now expect problems to be solved by a variety of professional problem-solvers and goods to be supplied by industrial producers. But production and provision by both the private and public sectors struggle to meet the needs of society at a time when credit is short and the earth's resources are dwindling.

Design can re-awaken citizens' own resourcefulness. The profession of design is common resourcefulness refined by a technical education. It is possible to share aspects of this technical education with non-professionals to increase their resourcefulness, and persuade them that they know more than they think about how problems might be solved.

Activities and outputs:

— *A commissioned pamphlet and debate on 'design-hacking' by which designers' and producers' authorship is corrupted, often by amateurs*
— *A commissioned pamphlet and debate on the role of professional designers in the 21st Century*
— *A public affairs seminar on emerging models of public service design which aim to increase the design capacity of public service delivery teams*
— *A public debate on new models of consultancy, practice and commissioning in which design and architecture practices act as guides to resourcefulness*
— *A summer school created by the RSA's Faculty of Royal Designers – representing the highest levels of professionalism in design – as a transformative experience for people who would not otherwise be exposed to the benefits of design*

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