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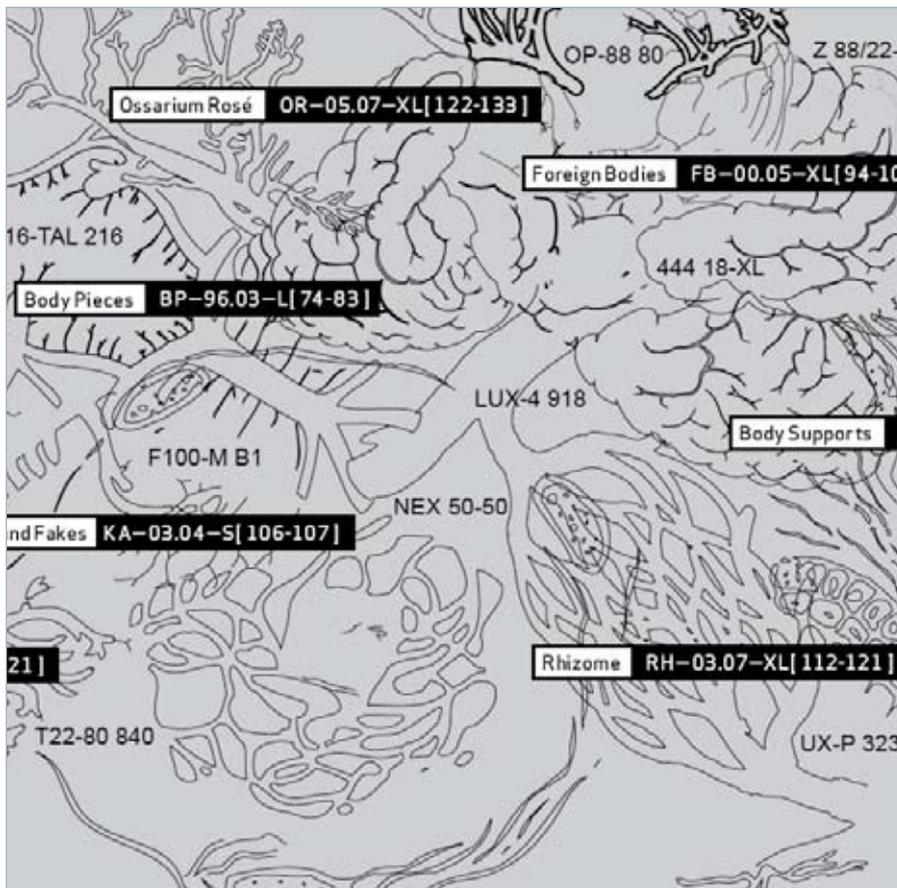
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DESIGN RESEARCH AND ACADEMIC DISCIPLINES **ALAN F. BLACKWELL**

FOREIGN BODIES / JEWELLERY AS PROSTHESIS **CHRISTOPH ZELLWEGER**



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DESIGN RESEARCH AND ACADEMIC DISCIPLINES

From keynote address, 2008 DRS conference: “Undisciplined”

ALAN F. BLACKWELL

Reader in Interdisciplinary Design, University of Cambridge Computer Laboratory

Can a person be a designer and also be disciplined? More properly, can one be a design researcher, and also a member of an academic discipline? This paper is based on an invited address to the Design Research Society, given under the title “On Being Undisciplined”. I have set out to analyse some of the fundamental tensions between the social and epistemological dynamics of contemporary academic life on one hand, and the lived experience of professionally engaged design work on the other. This has been done with a degree of rigour, including large-scale reflective design research projects, undertaken with diverse teams of disciplinary experts who are well qualified to study and understand such broad questions. However it starts with some more idiosyncratic personal and historical reflections, a privilege that is generally allowed to keynote speakers, but not so often translated into print.

Being ‘Undisciplined’ Today

My research draws on 20 years of personal experience in and around the city of Cambridge, both as an academic and as a design professional. It also draws on 20 years of earlier education and design experience from far away. New Zealand is as far as one can go from Cambridge, and still be in a university. The University of Cambridge is 800 years old, and my present department taught the first Computer Science graduate programme in the world since 1949. New Zealand is one of the youngest countries in the world. In 1989 I was only the third person to graduate with a Computer Science master’s in Wellington. However the drama in this story is not the contrast between my lives in these geographically and historically remote countries, but between my lives in two professions: as a designer and as an academic.

My professional life has encompassed a full range of design, from heavy industrial automation to software and home appliances. My academic life has led me to take degrees in engineering, comparative religion, computer science and psychology. It is perhaps not surprising for a person who moves between countries also to undertake intellectual exploration – the life of the permanent immigrant prevents assimilation within any one culture, and encourages critical reflection on one’s environment. Although hesitant to offer personal views as generic, the diversity of my experience appears sufficiently unusual that my struggles with disciplinary boundaries may be of more general interest. Indeed, despite the many differences on each side of the divide, I now

Alan Blackwell

Alan Blackwell (UK) is Reader in Interdisciplinary Design at the Cambridge University Computer Laboratory, with qualifications in professional engineering, computing and experimental psychology.

He had 12 years experience of designing industrial systems, electronic and software products before resuming academic research in 1995. He has taught design courses and supervised postgraduate design research students in Computing, Architecture, Psychology, Languages, Music and Engineering. He is a fellow of Darwin College Cambridge, founding director of the Crucible Network for research in Interdisciplinary Design since 2000, and a director of the public cultural consortium Living East. His research involves the development of technologies for home automation, visual representations and end-user programming, based on empirical and critical research into the human and social contexts of technology.

believe that it is the world views of professional design and of academic discipline that are most fundamentally opposed, rather than any individual disciplinary distinction.

The extraordinary gulf between these world views can be seen on the most local of scales. Rather than a 24-hour plane flight passing billions of people when travelling to my family in New Zealand, the whole story of the tension between design and the academy can be experienced in the distance that I ride my bicycle every day, in a city of fewer than 100,000 people. Cambridge is built on a very compact scale – I can ride from farmland on one side of the city to the other in 20 minutes. I pass through the medieval centre, with narrow streets, ancient chapels and many small student rooms. The surrounding suburbs are largely Victorian-era high-density terrace housing, then a further ring of low-cost 20th century development before the science parks and campuses on the outskirts of town. It is the last that drew me to Cambridge, and finances the luxury of this reflection. Despite its tiny size and ancient history, Cambridge has become the most prominent high-technology research and investment centre in Europe. However before investigating more closely the huge tensions that arise from the juxtaposition of medieval university and high technology, I wish to consider a particular turning point, in the life of one prominent Victorian.

Being ‘Undisciplined’ in History

Horace Darwin was the youngest son of the famous naturalist Charles. Several of Charles Darwin’s sons settled in Cambridge, where the family wealth allowed some comfort,

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to an extent that three of their houses later became Cambridge Colleges. My own college, now called Darwin to honour the family, was founded in the house built by George Darwin, who was professor of astronomy. Horace, however, was not an academic. He was rather a 'black sheep', choosing to go into trade rather than academia. After completing his mathematics degree, he spent some time as a consultant to engineering companies, which was not considered respectable in the 1870s. His future in-laws regretted that he had "no proper profession or likelihood of earning a decent living" (Cattermole & Wolfe 1987). In 1881 he founded a company that the family disparagingly referred to as 'Horace's Shop', but was formally registered as the Cambridge Scientific Instrument company.

Cambridge did not have a good record for supporting the practical side of scientific research, perhaps from the tradition that a gentleman scientist could afford to purchase his own apparatus as necessary. The first Professor of Mechanism (James Stuart, appointed 1878) was not provided with a laboratory or any technical staff, so was forced to buy a wooden shed to house his practical classes. These classes were taught by demonstrators whose wages were supplemented by building pieces of apparatus for the physiology department. It was this shed that Horace Darwin turned into CSI, moving the business to premises just across the road from my own Victorian house, where he pioneered a great variety of scientific instruments, including seismographs, cloud chambers, and many others. I often think of Horace, as my cycle route to work crosses the route that he took every day on his tricycle. He became a successful 'tradesman', as he put it, was Mayor of Cambridge for a time, and was knighted for his services to engineering as a member of the WWI Aeronautics Commission. However his relationship with Cambridge University was never so respectful.

Around the time of Stuart's appointment, Horace Darwin was writing to his brother "I should very much like to do anything I could to make an engineering school up there". Darwin never did hold an academic post, but when Stuart resigned in 1887 after sustained opposition to the creation of an engineering degree, Darwin ran a poster campaign in the town, criticising the conservative academic opposition to engineering. Eventually he was successful in overcoming that opposition, leading to proper funding for engineering at last, and was invited to serve on the committee that appointed Stuart's successor.

There is now a large engineering department in Cambridge (in fact the largest department in the university), and

for many years it followed Darwin's observations regarding the attributes of an engineer: he observed that an engineer has "much to do with governing men" (the Judge Business School and the Institute for Manufacturing emerged from Engineering and still reside within the School of Technology), requires "a fair knowledge of mathematics and physics" (although Cambridge has a specific engineering focus, now that both pure and applied maths departments have moved a couple of miles away to a special campus isolated from engineering) and "you must work with your hands" (Cattermole & Wolfe 1987). The department still treats engineering as a practical design discipline, with a large Engineering Design Centre, design courses and research in the Institute for Manufacturing, and innovative programmes such as the masters in Interdisciplinary Design for the Built Environment. However the practical design orientation still brings tensions, and it is increasingly uncommon for either students or professors to 'work with their hands'. Their main opportunity to do this comes after they leave the University, as I explain.

The 'Cambridge Phenomenon'

Cambridge is distinctive not only for the age of the University, but for the scale of economic development that has resulted from high technology business. Cambridge housed the first 'science park' property development in the UK, and saw first hundreds, then thousands of start-up companies in science parks, business incubators, and small offices around the city. It is widely believed that this economic wealth originated from the research of the university, but this is not the case.

A now famous report on 'The Cambridge Phenomenon' (Segal Quince & Wicksteed 1985) included a family tree tracing the lines of descent as staff moved from company to company, founding new enterprises. The root of this tree was Cambridge Scientific Instruments. The first spin-off was created by Horace Darwin's shop foreman William Pye, who left CSI with his son to establish the company that later became Pye Radio, and then a major division of Philips. The next was Cambridge Consultants Limited, founded by recent graduates who went on to "... recruit a variety of highly talented individuals some of whom perhaps too easily tended to do things that interested them without regard to commercial realities." (Segal Quince Wicksteed 1985). It was CCL that first employed me in Cambridge, as a member of an Artificial Intelligence group attempting to create products based on AI technology.

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The first dramatic commercial success in Cambridge was Acorn computer, one of whose founders was a Cambridge technology graduate (now my head of department), but which otherwise originated from adventurous business people, one from Pye, as well as the kind of technologists best described as mavericks, including early contributions by Sir Clive Sinclair, a famously non-academic British technologist. Cambridge has developed a great deal of infrastructure to support entrepreneurs (patent lawyers, short-lease incubator offices, venture capital companies), and these certainly make it easy to start businesses in Cambridge, but how many of these can be attributed to the presence of the University?

Knowledge transfer and commercial success

Current UK research policy places great emphasis on 'knowledge transfer' – evidence that public investment in academic research ultimately results in economic benefit from the sale of products resulting from that research. Cambridge would appear to be the most dramatic evidence of this economic opportunity, but there are reasons to question the currently accepted model – reasons closely related to disciplines and design.

There are indeed several large and economically successful companies in Cambridge, but these have generally been spun out from other existing companies, rather than having direct origins in academic research. ARM supplies most microprocessors for mobile and portable devices, but it was spun out from Acorn. Cambridge Silicon Radio (CSR) supplies much of the world's Bluetooth communications technology, but was spun out from CCL. When I was at CCL, few staff were even Cambridge graduates. My experience of 'Silicon Fen' is consistent with the experience of Silicon Valley. As in Cambridge, most Silicon Valley companies are not spin-outs from Stanford University (although some are) but spin-outs from other Silicon Valley companies (Owen 2004).

Furthermore, it is often noted that those Cambridge companies most clearly linked to the university tend not to be successful with the kind of products that apply new research advances to an actual user market. Instead, they are successful at creating the kind of tools that are sold to other technical specialists, for use in making products elsewhere (Rosenberg 2002). This suggests an absence of user-oriented design thinking. Instead the process of knowledge transfer is often presented as if it were a pipeline, with scientific research results entering at one end, being converted into patents and licence agreements, and emerging from the other

as products and commercial enterprises. This is almost the reverse of any reasonable design process, in which it is the requirement or market opportunity that forms the starting point for design.

Cambridge has also hosted many corporate research laboratories, for product manufacturing companies including Microsoft, Nokia, Xerox, Kodak, Intel, Toshiba and so on. These labs do have close contact with the University, often employing university graduates and directed by university professors. However these labs also struggle to contribute to the products of their companies. The corporate labs of technology companies are structured and staffed according to academic disciplines and scientific endeavours, not according to market opportunities.

The mountaintop and the swamp

These observations can be related to the parable presented by Donald Schön (1983), in which design problems, in order to become scientific questions, must shake off those aspects of the problem that do not contribute to the central theoretical issue. That issue becomes a focus of attention, with the design researcher climbing out of the mass of irrelevant details, toward a far mountaintop on which the pure essence has been captured, to be described in equations and uncontested theories. From this mountain, the researcher finally has an answer that can be applied to the original problem. He looks down to the swamp he came from, where the mess of everyday design activity is in progress, where every issue is entangled with every other, and people are throwing mud at each other. He calls down that he has found an answer on the mountaintop, but the people in the swamp are not greatly impressed or even interested. Furthermore, now that he is a professor on his own mountain, he is strangely reluctant to return to the swamp himself.

This simple parable describes most of the encounters that I have experienced between design work and academic work. It explains why Cambridge companies are relatively seldom founded by Cambridge academics. It explains why Horace Darwin was the black sheep of one of the most prominent academic families in Britain, despite providing the point of origin for the Cambridge Phenomenon. It explains why Cambridge university spin-offs sell their results to other technologists (who appreciate the qualities of the mountaintop) rather than designing products for end-users. And it explains why corporate research labs happily engage in sci-

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entific pursuits that they have agreed on with their friends in the university, while finding it difficult to influence their company's new products.

It is fundamental to academic disciplines that they must address well-formulated problems, that they must agree on what kind of a problem they are addressing (i.e. which discipline it belongs to), that there are agreed methods for addressing the problem, and agreed criteria for what constitutes an answer. All of these attributes are at the centre of academic rigour, and of the intellectual 'discipline' that constitutes an academic discipline. Yet these qualities of rigour and discipline are mostly in direct opposition to the practices and values of design.

Furthermore, the research policy fiction of 'knowledge transfer' – that economic benefit can result from pursuing the best standards of academic research – has no evidence to support it. Those academic fields that are most engaged in responding to outside problems, including architecture, education, product design, are those that struggle most with the regimes of academic quality assessment. The only exceptions are those where the historical development of the profession has been able to mould society's expectation of what professionals will achieve, into a form that is compatible with academic conceptions of knowledge. And even these tend not to rely solely on academic knowledge, but to supplement it with further professional training (admission to the bar, medical registration or priestly ordination), all of which are able to counter academic discipline through encounters with real professional problems.

Commensurability, metrication and interdisciplinarity

Despite the evident truths encapsulated in Schön's parable, the policy conception of the academy as a source of exploitable knowledge is likely to remain in place. Design research fields, if they stay faithful to their true mission, are ever likely to become engaged in problems that defy conventional concepts of academic rigour. Yet academic disciplines cannot remain islands, completely isolated from each other. Product designers and start-up companies must draw on specific kinds of technical expertise (even though these 'applied' engagements are likely to harm the careers of those collaborating, who might otherwise have sought the higher status and rigour of 'pure' science). Students must choose between fields of study. Research funding bodies and universities must allocate resources across university departments in a systematic way.

All of these processes demand that disciplines be made 'commensurable' – that they can be compared and measured against each other (Strathern 2004). The research policy response is to define research 'metrics' – numbers that allow the direct comparison of one piece of research to another. Except that very few researchers, even those in pure disciplines, believe that the value of their research can be encapsulated in a number. The reason why the boundaries of knowledge must be traversed numerically is that, in contemporary consumer society, all public policy must be expressed in dollars or pounds. Academic knowledge must have a number attached to it, in order to write an equation by which society will purchase that knowledge for transfer to students and products.

But this appears to be a nonsense, if we take Schön's parable seriously. The knowledge that achieves greatest academic consensus for its disciplinary rigour and authority will be the knowledge that is least entangled with real design problems. Research metrication and knowledge transfer are equally dysfunctional policy conceptions of the role of the academy. Many academics, even those in traditional disciplines, also suspect and are uneasy about these policy trends. In response, the UK government has commissioned reassurance from consultants who wish to demonstrate that there is no problem.

Ideally, the 'best' research (from a public policy view) should have benefits beyond its originating discipline, being applied to other problems, or combining multiple forms of knowledge through interdisciplinary research. But those who undertake interdisciplinary research complain that such research is disadvantaged by research metrics, because it is not recognisable to, or commensurable with, the standards of rigour within the 'core' disciplines. A consultancy report commissioned by a UK academic funding body (Adams, Jackson & Marshall 2007) investigated this question, and concluded that there was no problem – that numerical analysis of a large scientific citations database showed no disadvantage for interdisciplinary research compared to that within single disciplines.

This conclusion is widely believed, and will form the basis for future policy, yet the study by Adams et. al. was deeply flawed. It considered only research in science, technology and engineering, because these were the only areas included in the citations database used. Those disciplines where real people and problems are not mediated by professional

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accreditation – design, humanities, arts, social science – were not included, and neither was any interdisciplinary endeavour between science and those disciplines. The categories of ‘interdisciplinary’ exchange considered in the study included citations across journals of statistics as one discipline and journals of engineering statistics as another.

A strategy for interdisciplinary design

My own work in the University of Cambridge has pursued a particular strategy by which the problems described above might be addressed. As a professional designer with diverse academic interests, I was open to any technique by which academic work and knowledge might be made valuable to the world outside the university. One strategy for doing this is the basis on which CCL, and the many other technology consulting companies in the Cambridge area that have spun off from CCL, manage the process of creating expert teams to address the design problems of a client. These companies usually apply a matrix management structure, in which the internal organisation groups people according to shared disciplinary knowledge, but clients experience the company in a way that cuts across these disciplines, most importantly in the construction of project teams that draw staff from multiple parts of the company in response to client needs.

After completing my Cambridge PhD in Psychology (at the Applied Psychology Unit – closed soon afterward in order to focus on more rigorous and less applied work in neuroscience), and then finding a design teaching post in Computer Science, my next action was to create a matrix organisation that could convene interdisciplinary project teams in the manner of CCL. With David Good, a colleague in the faculty of Social and Political Science, we created the Crucible network for research in interdisciplinary design in 2001 (Blackwell & Good 2008). Through the simple precaution of never seeking direct funding, never claiming the status of a department, never competing for office space or staff resources, and ensuring that project benefits went to the individual people and disciplines involved, we have managed to avoid direct opposition, despite the fact that our work seldom meets the standards of pure disciplinary rigour. Having been recently appointed to a Readership in Interdisciplinary Design, my own chronic lack of discipline has not yet been severely punished.

Nevertheless, the Crucible network does not have an easy life or receive wide recognition in the University of Cambridge. Certainly not in proportion to the scale of its activity, much of which is invisible to conventional disciplinary

accounting structures. Our 100 or so members come from many disciplines and institutions, so that the 50-60 funded projects, thousands of collaborators and participants, and millions of pounds of research funding have never appeared in any single account or set of research metrics. Administration of resources in Cambridge is carried out strictly according to the departments that admit students, train them in disciplinary specialities, define and convene publication venues, and promote the appropriate standards of rigour for each discipline. Those fields that remain committed to external problems rather than intellectual positions (architecture, education) are often the least respected departments in a university like Cambridge. Indeed the architecture faculty was recently threatened with closure after poor performance in a round of metricated research assessment. This does not augur well either for design or for interdisciplinarity.

The value of reflection

As a result of its firm base in the social sciences, Crucible has one distinctive benefit that is particularly appropriate to its design work. This is the constant habit of the social scientist to reflect on the social status of his or her own work, whether engagement with those people and cultures being described, or the structures and dynamics of the scientific discipline itself. All Crucible projects include explicitly reflective components, often involving social science observers who are incorporated into a project team purely with that role. This can be surprising to research funding bodies, and even unwelcome, where the reflective observers question the motives or working methods of the funding body. Nevertheless, it has been a remarkable resource for innovation. In the style of Schön’s reflective practitioner (1984) we conduct our interdisciplinary work as a design enterprise, and treat our research work as a design practice.

Recently, we have found opportunities to work with others in reflecting on their practice. In the Across Design project, we compared the practice of many different design professions, from a phenomenological perspective of reflection on personal experience (Blackwell et al in press). We are now completing a project investigating the relationship between interdisciplinarity and innovation, once again through reflection on the personal experience of those who are considered to be national leaders in this practice. We hope that the outcomes of these projects might influence UK public

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policy, and also the organisation of research enterprises within universities, corporate research laboratories, and design research practices.

The nature of the findings from these projects has tended to focus on the significance of the social context in which interdisciplinary design research work is carried out, and the ways of working that are effective in those contexts. On occasion, specific work processes are required as a result of material constraints or tool limitations within a particular design tradition, but on the whole, we have found ample evidence for the value of 'design thinking' as being a significant contribution across many design disciplines.

In the case of interdisciplinary innovation as an analog of traditional design, we find a particular combination of organisational resource, personal style, and organisational structure. The leaders and founders of inter-disciplines resist convention and develop a strong personal vision while also being mentors and coaches to their colleagues. For all involved in this kind of work, innovation arises from freedom for serendipity rather than targets and constraints, but the main personal 'discipline' that must be nurtured and rewarded is that of maintaining curiosity. This is both a personal and organisational challenge, because of the long timescales involved for the most valuable research. New ways of thinking and working require years to develop, rather than months.

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The Discipline of Crucible

The Crucible network has responded to this challenge by attempting to start small and move fast at the outset of projects, in order to facilitate encounters between communities. Rather than develop complex mechanisms of formal collaboration, we do our best to treat "Industry" as another discipline, rather than a munificent, threatening or exotic other as often happens in academic policy discourse. We aim to bring a wide range of creative and design practices to technology research, often in place of, or alongside, conventionally rigorous scientific perspectives. In reflecting on these ways of working we hope not only to influence and renew our own practices, and those we work with, but also to ensure that places are created within public policy to allow both design and innovation to continue within research environments.

Alan Blackwell

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FOREIGN BODIES / JEWELLERY AS PROSTHESIS

From keynote address, 2008 DRS conference: "Undisciplined"

CHRISTOPH ZELLWEGER

Professor of Art & Design, Sheffield Hallam University, Sheffield UK

With my enquiry 'Jewellery as Prosthesis', I aim to extend the definition of body adornment today. I explore the thesis, that jewellery gradually leaves behind the stage of being an accessory, in the sense of an 'appendage' or 'annex', to potentially become an integrated component of man. In my practice-based research, I find common ground, evidence and inspiration in the (post)-disciplinary fields of philosophy, anthropology or, for example, sociology. I observe medical and neurological developments, analyse advertising images, find affinities in artistic currents and in fashion trends. The everyday landscape of designed products and 'designed' news on world politics and economy offer also a continuous source of reflection and critique.

The output of my research may take the form of artistic object, installation, product (as objects to wear), or simply artefact. My practice tries to generate a debate on the new direction of social rituals, the relationship between design and science, and the problems that arise when aesthetics meets ethics.

The following paragraphs are to be read as fragments of a 40-minutes talk, which was conceived as a hyper-visual walk through my research and work. I showed far over 300 images, which ranged from the biographical ('making of' several bodies of work, associative images) to the academic (charts, field research, visual sources, my work in display context). The eminently visual lecture becomes the most appropriate medium to communicate my practice-based research.

How do you think will we bury our relatives in 20, 50 or 200 years? Some burial objects survived thousand of years as they were made from ever lasting precious material, gold and silver. In this category, jewellery is paradigmatic. For its symbolic meaning and permanence, jewellery offers a valuable means to know more about our ancestors, their value and believe-systems, their social rankings or assumed rituals.

Christoph Zellweger:

Christoph Zellweger (Switzerland/UK) is one of the most thought provoking contemporary jewellery designers in Europe. In 2007 he published *Foreign Bodies* which extends the definition of body adornment today. Christoph worked for several years in the trade in Switzerland before attending the Royal College of Art in London. Besides running his studio and exhibiting internationally, he lectures in Europe's leading Design and Art Colleges and holds a Professorial research post at Sheffield Hallam University. He has developed work at the European Ceramic Work Centre in Holland, haute-couture textile at Jakob



Image 1. *Foreign Bodies* #0008720, #0008250 and #000815. 2003. Medical stainless steel, bones

So, what will people find in tomorrow's graves? What story will the remains tell future generations about us? Instead of 'real' jewels, will they find burial sites with metal implants, hip-replacements, stents' and battery-driven pace makers? Will they find traces of silicon and botox in the surrounding earth too? Medical steel will last even longer than precious gold or platinum: it does not corrode, does not wear, it will still be around in a million years.

I come from a family of gold and silversmiths, watchmakers and entrepreneurs in textiles and fabric. As a trained goldsmith I follow a tradition in the 6th generation but I also follow an even longer tradition of makers, alchemists (now they call them 'artists' and 'scientists') and possibly 'shamans', a synonym also for witch-doctors, who dealt with the mental and psychological aspects of body worn artefacts too.

'Classic artists create timeless beauty'. This was one of the slogans for the advertising campaign by Plastic Surgery Arts, a company that I found advertising in a magazine some 16

Schlaepfer in Switzerland and work for the technology-led venture company Scintillate in London. He recently directed the Pro Pueblo Sustainable Design project in Ecuador for the University of the Arts in Zurich. His work features in museums and collections in Europe and in North America. Beside other prizes in Europe and the UK he has won the Swiss Federal Prize for Design three times.

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years ago. Interesting to me at the time was that the trade of medical and plastic surgeons positioned themselves as artists and, not less surprising, that they claimed the creation of 'timeless beauty'. Ten years later I found myself invited to be a member of a panel discussion at the Design Museum in Frankfurt with Dr. Panvilov, a current authority in plastic surgery art. Presenting himself as an artist and sculptor he stated: 'Plastic surgeons learn operative techniques from teacher surgeons, but the anthropometrical harmony they pick up from sculptors: from Phidias, Michelangelo, Leonardo, Rodin or Dalí.' When preparing for this talk I checked several web sites of plastic surgery companies and came across Plastic Surgery Arts again. A picture of the team shows three ladies (doctors? artists? muses?) with obviously customised bodies and incredible smiles and one of the doctors, also 'wearing' that particular smile. There was something uncanny about it Do we really want to leave it to them? And, yes, it is true, it is us scientists, medics, designers and artists who alter, create and beautify the world for good or worth.

One could ask critically why someone has his/her nose straightened or fat removed or have a hip replaced for prevention, but any answer will have to count valid. Today people seem to have accepted that the body does not have to stay as it is and they are willing to invest in improving their body's functions and cultivating its appearance. Historically, this has often been achieved through various forms of more or less permanent body alterations, such as head-bindings, wearing tight corsets or scarification, just to mention a few.

Recent developments in medical science, reconstructive and plastic aesthetic surgery offer endless new possibilities on changing a body's visual features, its feel and overall look. It is to be assumed that a chosen appearance may also irreversibly change our view on how we define a person's identity or how we create identities.

'trade marks on the body' is a hypothesis that reflects on the advancements made in medical and surgical science in recent years. It points at the development of an increasing market for plastic aesthetic surgery and other invasive and irreversible body altering technologies. It is concerned with the lasting impact on the development of identity for the contemporary individual.

homo sapiens invents himself

- the human body can be / will be designed
- the desire to improve the body and to specify it's functions rule the way we customise it
- following the mechanisms of a liberal market, the human body becomes a luxury item, a commodity

...which will ultimately lead to **a new species**

<p>homo faber the man who makes, the craftsman, designer and artist</p>	<p>homo sapiens the thinking (wise) man</p>
<p>homo ipsi faber the human who is the 'creator of the human's self'</p>	

homo sapiens (as we know it) **becomes obsolete**

~~**homo sapiens**~~

homo ipsi faber™

Somewhere, nowhere, far away from even a small village, I once sat on the bank of the Mekong river in the very north of Thailand watching the vast flowing water. Beside entire trees and other bits of jungle drifting down this amazing stream I also saw clean white pieces of polystyrene passing by. The sight of this material made evident to me that

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there was civilisation up the river. The material also told me about all kinds of products that had been traded and by now consumed up the stream but the polystyrene packaging itself had been disregarded. Nobody found good use of it. That afternoon I identified expanded polystyrene as a no-material. Expanded polystyrene is omnipresent, it refers to the world of commodities and consumption but to me, it was never recognised for it...so I started thinking how to make its meaning visible.

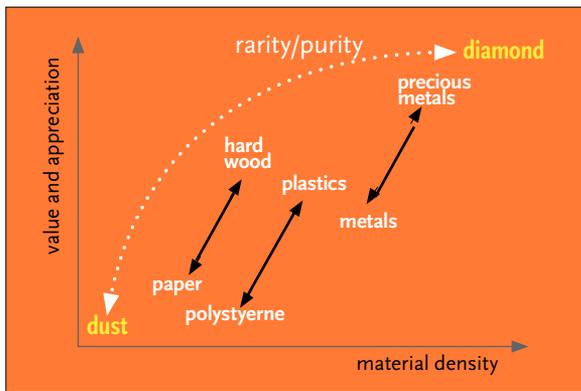


Figure 1. Material chart: the more dense the material the higher its value

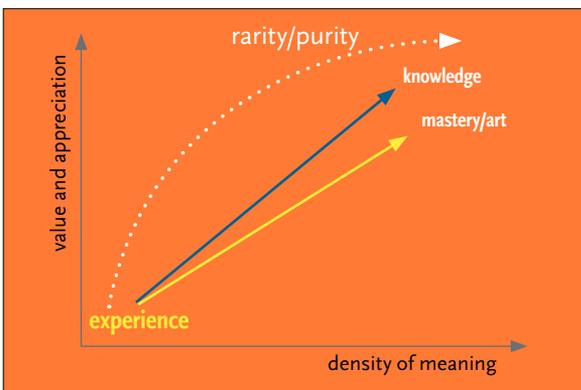


Figure 2. Information chart: condensed information increases meaning

Over years I kept contemplating about this mysterious material and saw its conceptual possibilities when relating the material to the human body. I discovered its unique cell-like structure and on the ‘material chart’ (on the scale of density and value) I draw out at the time (fig.1), it was exceptionally low. It therefore appeared suitable for me to make a

point about value and the body and looked at possibilities to make work from expanded polystyrene; but how to manufacture it?

Raw polystyrene consists of tiny gas filled beads. These beads are expanded in two stages with the help of steam and pressure. After a year of technical experimentation and progressing through trial and error I found a way of adapting a complex and bulky industrial process to fit my small studio environment. Industry uses aluminium moulds in which the material expands to receive its final shape. I produced copper moulds in a self-built electro-forming unit to lower the costs. In my kitchen, a customised pressure cooker was finally used to expand the polystyrene in. In the resulting series *Body Pieces* I subverted the conventional dialectic between material and meaning: Through exhibiting the *Body Pieces* as wearable jewels, the polystyrene became precious in order to embody a discourse about fragility and emotion.



Image 2. *Body Pieces*, 1997-98. Expanded polystyrene

In a body of work, entitled *Foreign Bodies*, I focused my research on the increasing amount of highly refined bio-compatible objects that are being inserted as implants into the human body for medical or aesthetic reasons. Although visually referring to implants, *Foreign Bodies* are worn traditionally, as adornments, on the outer surface of the human body. Executed in medical steel and mirror polished they show no trace of the handmade craft process. Looking like hi-tech artefacts, they set up parallels between body organs and luxury items.

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The conceptual and critical design approach of making body-related objects led me to reconsider how to meet and increase my audience. The departure from displaying jewellery works in specialised contemporary jewellery galleries into exploring more versatile spaces, has become a crucial way for me to create and extend the discourse I anticipate through my work within and beyond my field. The following public exhibition events and installations exemplify how I went about it.



Image 3. *Fluids*, 2002. Medical stainless steel. 45 x 45 x 50 mm.

Medical Grade 316 was an intervention in the Metalwork Gallery, a precious room inside Sheffield's Millennium Gallery. I replaced the content of several drawers, displaying the permanent collection of precious 19th and 20th century silver cutlery, with a large number of Foreign Body pieces in bio-compatible medical grade 316 steel. Alongside these pieces commercial orthopaedic components of the same material were on display. In the context of the Metalwork Gallery the display reflected on the definition of preciousness and value today and cast a new light on contemporary metalwork today. The intervention aimed to shift the concept of value and luxury towards a debate on medical science and body design. Some time later I was invited to talk at the Orthopaedic Congress, *Orthopaedica Belgica*, in Gent (2006). In 2008 I displayed my work in medical showcases at the same biannual orthopaedic event, this time at a conference centre in Antwerp. Next to my presentation about twenty industrial producers of real medical components showed their latest developments to the orthopaedic community. My display was provoking a kind of 'interference' and there was debate about the nature of my inquiry.



Image 4. *Fluid*, 2002. Bio-compatible medical steel, leather. *Medical Grade 316* intervention, Metalwork Gallery/ Millennium Gallery, Sheffield 2006

In the Swiss National Museum *Foreign Body* pieces (this time ancient bone fragments combined with 'made to fit' medical grade steel elements) were shown as an additional layer on top of the permanent exhibition display of the archaeological museum of a burial site. As burial objects from the future and imaginable implantable artefacts the installation enhanced the ambiguity between the autonomous contemporary art object and the applied, historical artefact.



Image 5. *Foreign Bodies* #0008720, 0008250 and 0008150, 2003. Medical stainless steel, bones

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The National Museum of Natural History in Lisbon, Portugal, provided a perfect space to show a body of work entitled *Ossarium Rosé*. Here I displayed over one hundred artefacts in one old Museum's cabinet that was hidden in a side room of the museum. It was the only original showcase left after a big fire some forty years ago and it connected well with my aim to link the reading of the pieces with history. On closer observation the natural bone-like objects appeared as if altered, suggesting new or imaginary functions or mutations.



Image 6. *Ossarium Rosé* installation 2005.
National Museum of Natural History, Lisbon

Some of the *Ossarium Rosé* pieces, which had been previously displayed as autonomous contemplative artefacts in the museums context, I had now made functional to become wearable objects, jewellery, newly re-titled *Relic Rosé*. These works were shown in the Belgian Art Deco Villa, Villa de Bondt, a space for contemporary jewellery. In a specialised jewellery gallery, the work was perceived differently and triggered off contradictory feelings of attraction and rejection because of its new body related function. The play between distance and closeness to the body became an issue and often the visitors were demanding answers on what the material underneath the flocked surface would be. This had been a key question to the understanding of this work that was not meant to be answered.



Image 7. *Relic Rosé* pendant, 2006. Mixed media, flock, silver

Porcelain is a material not dissimilar to the substance bones are made from. I applied for a three months working period as artist-in-residence to the European Ceramic Work Centre (EKWC) in Hertogenbosch (NL) with this in mind. The intense confrontation with the substance clay and porcelain and the working processes lead to a body of work concerned with vulnerability which made reference to bones, genes and seeds. To me, the choice of a material to work with is already a statement in itself. It can be about value, preciousness or a particular associative chain of thoughts, more or less dependent on the intrinsic meaning of the material.



Image 8. *Seeds*, porcelain, 2001.
Work developed at the EKWC, Hertogenbosch (NL)

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The ProPueblo Sustainable Design project was a collaboration between the Design Department at the University of the Arts in Zurich and the Foundation ProPueblo in San Antonio, Ecuador. Ten industrial design students alongside local craftspeople worked together for several weeks with the aim of sharing skills and developing products to be fabricated locally. The experience was intense and the knowledge-transfer heterodox. As a project leader, the vivid and complex crossover of mentalities, standards and cultural differences made me reflect critically about the activity, both fragile and bold, of making and interpreting objects.



Image 9. *Bones*, 2006. Tagua nut
Reconstructing a bone out of several pieces

One day Mercedes, one of the ProPueblo members we worked with, came with a match-box and showed me its contents. We touched upon the subject of death in a side conversation the day before. Inside the box was a tiny bone, the only remains of her father, whose grave was washed away during an El Niño related flood. The woman's intensity and seriousness touched me and at the end of that week I found myself carving and constructing little bones out of the local tagua-nut, an organic material also called the Ivory of South America because of its precious ivory-like qualities. This incident led me to develop a new body of work that I called *Fakes*, a new interpretation on the (re) construction of the body with a strong narrative attached to it.

The series *Body Supports* in natural rubber has been designed to support and extend the functioning of the fragile body. When I designed them I thought about them as emotional prostheses. I saw them as communication devices, and this, to me, links them to all jewellery, of the present and of the past.



Image 10. *Body Support*, 2006. Natural rubber



Image 11. *Skin*, 2006. Natural rubber.
Computer generated drawing (detail)

I would like to sum up my presentation with the following thoughts:.

As a designer of jewellery and body related objects I see jewellery as a form of body extension, which oscillates on multiple levels between foreign body and ones own body and mind. Thereby, it raises questions: What does bodily integrity and the integrity of identity mean? How far can and will human beings go in determining their own body and its identity? What are the implications on the individual and on the mental constitution of a society as a whole that has taken its physical and mental make-over into its own hands? These questions are to be raised at the threshold between design, art, fashion and science.

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My work as a designer does not provide answers, nor is it meant to be immediately understood. Last year, a monography about my work was published (Actar, 2007). For this book I involved theorists on bio-politics, design and art historians and colleagues of different design practices in order to open the discussion in a cross-disciplinary way and involve a wider audience. It is not only about speaking out loud these questions of mine but proposing work that can trigger off not only emotional responses but critique, reflection and ground for theory and debate on something beyond my own understanding.

My engagement with the artificial, the constructed world of objects, bodies and identities also implies taking a critical stance to reflect on that essential human activity of 'making', of designing the world. Developing the appropriate means for a self-reflective design practice has become a challenge in itself.

I conclude in the expected undisciplined way with a reflection on body design. Please enjoy the You-Tube clip 'Poodle Exercise with Humans'.



http://fr.youtube.com/watch?v=vdX_OBUeHb4

Christoph Zellweger

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INKLINGS: FROM MIND TO PAGE IN RESEARCH

Adapted from President's Column, Spring 2005 Newsletter of the Association for Consumer Research

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Of all those arts in which the wise excel, Nature's chief masterpiece is writing well

*John Sheffield, Duke of Buckingham and Normandy
Essay on Poetry (1682)*

In recent years, researchers have represented data, analyses, ideas, and knowledge contributions in refreshing new ways. These innovations have ranged from three-dimensional photography and photographic collages to film making and poetry (see, e.g., Belk et al. 2003; Kozinets 2002; Henry and Caldwell 2004; Holbrook 1997; Sherry and Schouten 2002).

Notwithstanding, text writing (or prose) remains the primary mode of communicating scholarship. It also remains a nerve-racking challenge to do well, for the novice as well as the Nobel Prize winner in literature. Refusing the challenge, however, is out of the question, and settling constantly for satisficing or mediocre outcomes is hazardous. The unavoidable reality is that writing effectively is not just a necessary condition for getting published. Better writing propels an academic's influence and reputation, and the finest writing is more often found among the most distinguished researchers.

Unfortunately, editors of the *Journal of Consumer Research* (e.g., Ferber 1979; Lutz 1990), for example, have consistently observed that writing skills across that field are embarrassingly underdeveloped. There are many readily available books and articles on how to improve one's writing, though it appears that few researchers are committed to mulling them over and doggedly implementing the guidance. My goals in this essay are to encourage and facilitate increased attentiveness to the critical task of putting mind to page successfully. I will share some of the viewpoints and tactics I have learned about higher quality writing during my prior editing experiences and my own struggles to ascend from the amateur author leagues to the prose (oops).¹

Three Features of Excellent Writing

Excellent writing reflects excellent thinking (Summers 2001). When writers stumble and stall, it is more often due

to foggy and disorganized thinking than merely having a bad writing day. Just as it often occurs in our university classes, when students grumble that "I know what I want to say but I am having trouble writing it," many struggling writers are prone to engage in a common evasion of a deeper truth: their impasse is most likely mind-based, not pen- or keyboard-based. Resolving the mind makes quality writing easier to accomplish.

Excellent writing also balances accuracy and clarity with ingenuity and panache. Emphasizing one side to the detriment of the other is dangerous for different reasons, as in boring versus impenetrable. Scientists have historically stressed accuracy and clarity to such a degree that they "actually discount any fortuitous stylistic acumen among their colleagues as an irrelevant snare, casting suspicion upon the writer's capacity for objectivity in presenting the data of nature" (Gould 2004, p. 132). Admittedly or not, we have tended as a field to adopt this same perspective. But nature and events—human or otherwise—do not tell us their qualities and processes themselves. The researcher-writer does, through interpretation and writing. And he or she makes numerous stylistic choices at every moment in crafting a manuscript (more on this point below). Inevitably then, most scholars oscillate between precision and creativity in the earliest drafts of their papers. However, a successful author does not forget that, even when the goddess Muse is whispering encouragement toward inventive writing, the reader's comprehension of the ideas necessarily precedes the evaluation and use of the ideas. Thus, I mostly agree with Bem (1995) when he argues that in the final efforts to revise a manuscript, as submission for review is imminent, accuracy and clarity must take priority.

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Excellent scholarly writing, consciously or not, also adheres to a philosophy espoused by prominent French novelists of the late 19th century (e.g., Flaubert, Zola), known as *le mot juste* (the right word). They believed that in every word choice that the author makes, from start to finish, there is one and only one best option. Now, one can argue this point in various ways, including its ostensible assumption that the functions and meanings of words are so determinable for the given audience that an optimal selection is achievable. Due to space constraints (on the page and in my head), I will conveniently squeegee aside this mushy pile of problems. But I will argue, nonetheless, that the philosophy of *le mot juste* is an inspiring value and a pragmatically sound goal that helps writers far more than it hurts them. Moreover, this philosophy applies well beyond word choices and semantics to all stylistic matters. These include sentence length, voice (passive versus active), and other apparently mundane, but actually significant, grammatical gear such as commas, semi-colons, dashes, hyphens, parentheses, capitalization, footnotes, and the like. Daunting though it is, every mark on the page matters. Excellent writers accept that weighty responsibility at all times and strive mightily to fulfill it.²

Expecting Expectations

Readers, individually, have needs. They require the writer to help them understand and appreciate what the writer has in mind, and these requirements take the form of expectations about what the writer should do (or not) when generating a particular text.

The reader's expectations are many, complex, and commonly nonconscious until they are violated. Since active writers are also typically ongoing readers of many works—including we researchers—active writers should presumably be astute at knowing what readers expect and at avoiding breaches of those expectations. But often they are not. Gopen and Swan (1990) provide one of the best discussions of the reader's expectations in the context of academic prose. They focus on a primary mode of reader expectations that relates to structural principles, of which they identify seven and supply several convincing illustrations. In outline, the seven principles are:

1. Verbs should follow their grammatical subjects as soon as possible.
2. The end of a sentence is the key stress position where the reader anticipates what the writer is drawing attention to.

3. The beginning of the sentence is the topic position where the reader anticipates the main person or chief thing in the “story” of the sentence to be identified.
4. Information provided earlier in the discourse should also be placed in the topic position for linkage backward and for contextualization forward.
5. Verbs of active voice should be regularly preferred over those of passive voice.
6. The reader needs context before being asked to consider something new.
7. The importance of the substance of the sentence should coincide with the relative expectations for the emphasis raised by the sentence structure.

Gopen (2004), Larocque (2003), and Trimble (1975) also discuss these and other principles of sentence structure that emanate from the reader's expectations. But these expectations do not stop there. They are also imperative to recognize and adhere to at the organizational tiers of paragraphs, sections, and manuscripts as a whole (see, e.g., Bem 1995; Sawyer 1988; Summers 2001; Trimble 1975). In general, writing with constant sensitivity to the reader's expectations leads to a more fluid and satisfying communication process.

There is another essential mode of expectations that the writer must deal with, and it is revealed through the recognition that skillful writing is skillful teaching (Bem 1995), which together serve to extend knowledge to a substantial degree. When that extension occurs during the reading of research, it typically involves learning something fresh or different in relation to what was previously believed about topics such as preferences, product use experiences, advertising, word of mouth recommendations, branding, and consumption communities. In general, readers expect to be taught as a result of their efforts.

Murray Davis' (1971) article on what constitutes interesting research is a classic statement on readers' expectations at the level of theory and substantive content, and on the preconditions and experience of being taught. To reach a judgment that a piece of research is particularly interesting, Davis argues that scholarly readers expect to have their prior beliefs challenged in a manner that is not only convincing, but is also practicable in terms of their own subsequent research. For example, readers may expect to learn that what was thought to be simple is instead complex (or vice versa); what was thought to be unrelated is instead related (or vice

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versa); what was thought to be positively related is instead negatively related (or vice versa); and so on (see Davis 1971 for numerous other examples). Outstanding scholarly writers accurately gauge the existence and the importance of their audience's prior beliefs about the given topic before they compose. They further recognize that their readers expect to have those beliefs considerably changed as a consequence of reading the writer's manuscript.

In sum, readers have expectations that writers must know and honor. These expectations range from the levels of sentence, paragraph, and section structure up to the level of knowledge structure. Higher quality writing takes a more conscious and deliberate advantage of the availability of those expectations.

Some Tips for Better Inklings

First and foremost, to become a more effective researcher-writer, one must read and periodically re-read the leading sources of insights on writing, which I suspect most consumer researchers do not. Too busy I suppose. But if some of my points above are worth heeding, there are few tasks more important to a scholar than improving his or her writing ability. I highly recommend articles by Bem (1995), Sawyer (1988), Sternberg (1993), and Summers (2001), in addition to excellent books of varied breadth by Cheney (1983), Gopen (2004), Larocque (2003), Strunk and White (1979), Trimble (1975), Williams (2002), and Zinsser (2001).

Second, to become a better writer one must become a much better reader. Pick out some of the top researcher-writers in our field and then re-read their works slowly and savoringly, as if sipping a fine wine, rather than skimming and skipping, as if gulping a diet soda. Read portions or the whole of their works aloud. Pause to appreciate the rhythm of sounds, the flow of phrases and sentences, and the stirring expedition of thoughts. This exercise exposes the purposeful and learnable intricacies of impressive writing.³

Third, after identifying first-rate authors and reading them aloud, set about to emulate them in a customized manner. This basic strategy is what many of the renowned composers, painters, athletes, architects, inventors, and social and religious leaders did in their formative years and afterwards. They appreciated and imitated the pre-eminent performers in their fields, while creatively modifying what they learned to take advantage of their own strengths and

the current contexts of their lives and work. Consumer researchers who follow that same path in their writing will produce texts of higher quality and impact.

Fourth, there are different strategies for writing. Inexperienced and middling authors seem to lock onto one strategy, knowingly or not, and then never master it sufficiently. Outstanding authors recognize they have choices in their strategies for composing, and they often develop expertise in one or two approaches. Outstanding authors also tailor their plans and efforts to meet such exigencies as page limits, manuscript deadlines, the involvement and role of co-authors, the characteristics of their audience, and so forth. Chandler (1993, 1995) identifies five different writing strategies: architectural, bricklaying, oil painting, watercolor, and mixed. For example, the architectural strategy is a conscious, rationalist, and linear effort at planning-writing-editing that does not accept the view that writing itself is a mode of thinking. In contrast, the oil painting strategy encompasses little planning other than initial interconnected insights, a crude first draft through which writing is used to better understand the author's thinking on the topic, and then intensive revising. None of these writing strategies is inherently superior to the others, and it is not unsound to rely solely on one, as long as the writer grasps the trade-offs of that reliance and can make the most of it. Probably the most fruitful route to becoming a superior writer is to gain familiarity with diverse writing strategies and then to implement them at different times to meet the goals and conditions of the writing at hand. That meta-strategy is far better than having a rigid writing strategy that remains unrecognized and haphazardly adopted.

Fifth, excellent writing is more likely to occur when the mind and body are refreshed. This advice seems so much common sense that it hardly deserves mentioning. But in our harried lives we often do not properly prioritize our duties and tasks, or we feel compelled to complete key activities at times when we are not psychologically or physically well prepared to do so. Some scholars reflect and write better in mornings, others at night, and others at staggered times across the day. The best authors know their tendencies, talents, and shortcomings well, and they strive to make sure that when the most crucial periods of their writing are upon them, that they prepare themselves and their surroundings to optimize their concentration and progress.

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In closing this essay, I offer a summary list of additional suggestions for exceptional writing in consumer research. Start the process by identifying only one or two mega-themes for knowledge contribution (usually reflected or condensed in the title), stick very closely to them throughout the entire manuscript, and explain how all sub-themes fit precisely within the mega-themes. Strive overall to write a manuscript that any neighbor or relative could understand. Work especially hard on the opening and the closing of a manuscript because these are decisive for attracting and catapulting the reader into enthusiastic judgments about the manuscript's insights. Keep the links between ideas short and direct, with few detours or complicated routes of logic. Accept the fact that persistent cycles of revision work are almost always more consequential than the construction of the first draft. Read a nearly completed manuscript aloud in order to find the more subtle, but still important, glitches to be fixed. And last but hardly least, seek the counsel of a professional copy-editor whenever the magnitude and the difficulty of the writing necessitates.

Conclusion

Writing is rarely undemanding, and it does not necessarily get easier with experience, because the writer's standards rise. Hemingway once confided that he had painfully struggled in writing the ending to one of his great novels 39 times. The interviewer then asked, "Was there some technical problem there? What was it that stumped you?" To which Hemingway famously replied, "Getting the words right." In our field, a substantial differentiating characteristic of eminent researchers is their writing. They are committed to honing their writing skills and to never pronouncing a writing task done until they are unshakably confident they've gotten it right. Write on.

David Mick

Endnotes

1. I thank Jane Carlson (copyeditor), Daniel Chandler, Chris Janiszewski, Ed McQuarrie, Marsha Richins, and Linda Scott for comments on a prior draft of this essay. As usual, I remain solely responsible for all its ups and downs, including poor puns.
2. *The Good Soldier: A Tale of Passion* by Ford Madox Ford has been hailed as the finest French novel (i.e., *le mot juste* novel) written in English. This elegant work begins with a gutsy first line: "This is the saddest story I have ever heard."
3. Opinions surely vary on who are among the leading writers in our field. It would be a natural question to ask of me, nonetheless, since I have dared to raise the issue in this essay. I focus here on a few names that are salient to me and who have published solo articles at some point in the *Journal of Consumer Research* (making it straightforward to know their complete role in the writing). Accordingly, I would nominate these individuals (in alphabetical order) as being among our best writers: Russ Belk, John Deighton, Morris Holbrook, Chris Janiszewski, Grant McCracken, Marsha Richins, Deborah Roeder-John, Linda Scott, and Itamar Simonson.

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CURRENT RESEARCH IN DESIGN

TABLES OF CONTENTS FROM LEADING DESIGN JOURNALS: SPRING-SUMMER, 2007

ARCHITECTURAL DESIGN, 78:6
SPECIAL ISSUE: NEOPLASMATIC DESIGN
NOV.– DEC. 2008:
ISSN: 0003-8504 [WEB LINK](#)

Neoplasmatic design: design experimentation with bio-architectural composites (6-15)

Marcos Cruz, Steve Pike

Manipulation and control of micro-organic matter in architecture (16-23)

Steve Pike

- how, with the merging of the design studio and laboratory, the manipulation and control of micro-organisms themselves have to take precedence in any successful design and production process

Contaminant (24-29)

Steve Pike

- a structure of monitor cells and monitor vessels that set out to apprehend and develop locally present microbes....a significant investigation into the monitoring capability and responsiveness of the structure,...[and]...an emergent, morphological aesthetic

Growing semi-living structures: concepts and practices for the use of tissue technologies for non-medical purposes (30-35)

Oron Catts, Ionat Zurr

- pioneering “new ways of growing tissue for artistic purposes outside the ethical strictures of medical laboratories, while also subverting and questioning scientific tools and techniques”

Synthetic neoplasms (36-43)

Marcos Cruz

- cultural precedents for the evolution of synthetic neoplasms - artificial matter and bio-synthetic flesh composites...ranging from the hybrid forms of 16th-century Breugel to Patricia Piccinini's more recent mutant creations

Density fields in viscous bodies (44-45)

Tobias Klein

- reimagining “the body in a new viscous stage where the body's inner and outer layers are irrelevant and it becomes a fluctuating variable in concentrated mass and matter”

Designer surgeons (46-51)

Marcos Cruz

- The advances of ever more complex visualisation and 3-D modelling techniques in medicine have brought a new emphasis to surgery in which the surgeon's role has become more concerned with design than reconstruction....Marcos Cruz looks at some art projects that have questioned and extended this application of surgery and design, as well as asking what the implications are for architecture.

Human cloning clinic (52-55)

Nicola Haines

- Human cloning is positioned at the edge of the real and the imaginary, proving the extreme scenario for the possible and the acceptable. Here, Nicola Haines' proposal for a human cloning clinic situated in the Arsenale in Venice goes beyond traditional modes of representation, suggesting new codes and thus a new drawing language that combines scientific with architectural data.

Cyborgian interfaces (56-59)

Marcos Cruz

- A synthesis of organic and synthetic parts, the cyborg in film and fiction provides an important means in the digital age by which to question and explore the difference between human and artificial intelligence....William J Mitchell's vision of plugging the individual's nervous system into electronic organs hastens. Here, Marcos Cruz breathes life into the cyborg in his Cyborgian Interfaces and In-Wall projects.

Comfo-Veg Club (60-61)

Peter Cook

- Comfo-Veg Club builds on the biological theme and aesthetic of...earlier works. A garden and definitely green, the space is amorphous and ambiguous in every other way.

Minimal surface geometry and the green paradigm (62-67)

Sulan Kolatan

- projects...that create a new biological or green paradigm through minimal surface geometry, reinterpreting and reinventing the notion of urban ecology, as defined topologically

Bodies without organs - BwO (68-69)

François Roche

- a means in which biological effects in architecture...have the potential to transform architectural and urban space

Uto-purification (70-71)

Yukihiko Sugawara

- a new dynamic process for transforming derelict post-industrial sites into a fertile natural habitat

Continued p. 22 →

Algaetecture and nonsterile (72-77)

Steve Pike

- the potential of a microbiological-responsive architecture at a human scale

Living buildings (78-79)

Bill Watts, Sean Affleck

- Plants and buildings may not naturally assimilate, but...there are many benefits to their integration.

Wonderwall (80-81)

Ton Venhoeven

- how landscape architects Copijn Utrecht's development of the Wonderwall system enabled him to realise his design for this growing structure

Artificial evolution: a hands-off approach for architects (82-85)

Rachel Armstrong

- how developments in molecular biology and genetics...are set to revolutionise design through the genesis of artificially evolving architectures

Designer materials for architecture (86-89)

Rachel Armstrong

- nanoparticles' relationship to biological processes and the subsequent implications for the development of new responsive materials for architectural design

Design for debate (90-93)

Anthony Dunne

- Advances in biotechnology shift not only the potential skill and knowledge set required of designers, but also...the thinking about applications to ethics.

Ethics, architecture and little soft machinery (94-97)

Neil Spiller

- a cybernetic world of reflexive spaces and symbolism

ARCHITECTURAL DESIGN, 78:5 SPECIAL ISSUE: NEW URBAN CHINA

SEP.— OCT. 2008:

ISSN: 0003-8504

[WEB LINK](#)

'Leaping forward, getting rich gloriously, and letting a hundred cities bloom' (6-15)

Laurence Liauw

The taxonomy of contemporary Chinese cities (We make cities): a sampling (16-21)

Jiang Jun, Kuang Xiaoming

- Jiang Jun...and Kuang Xiaoming highlight the unified diversity and complexity of contemporary urbanism.

The institutional and political background to Chinese urbanisation (22-25)

Sun Shiwen

- how today's urbanisation process is still informed by the city's uniquely Chinese characteristics

Urbanisation in contemporary China observed: dramatic changes and disruptions (26-31)

Huang Weiwen

- the background to China's unrivalled urbanisation, which is unmatched in terms of both its speed and intensity

Urbanisation in China in the age of reform (32-35)

Zhang Jie

- how a market-driven process has resulted not only in uneven regional development across the country, but also in a lack of coherency in planning at the local level

Leaving utopian China (36-39)

Zhou Rong

- how China has learned, earned, consumed and ultimately suffered from this idealisation of the urban

The Chinese city: a self-contained utopia (40-43)

Neville Mars

- self-contained utopias: walled-off, slick cities that are dormitory, satellite towns rather than independent urban settlements

Street life and the 'people's city' (48-51)

Shi JianWang Jun

- The ambition to accommodate public life in urban space...goes against the grain of a long tradition of landownership in China. Given this background, can the original notion of the People's City ultimately survive the current wave of property privatisation?

Unknown urbanity: towards the village in the city (52-55)

Yushi Uehara

- The popular portrayal of the Village in the City (ViC) is as a threatened anomaly... The ViC represents a significant form of dynamic resistance created in an exceptional bottom-up process.

Urban villages (56-59)

Meng Yan

- Is the Village in the City (ViC) potentially an urban scar or a vibrant community?... the vitality of the social conditions they provide and how they might, with some intervention from designers, prove a ready-made solution to China's housing problem

Post-event cities (60-63)

Zhi Wenjun, Liu Yuyang

- how the 2008 Beijing Olympics and 2010 Shanghai World Expo are redefining urbanism in China and raising significant questions about the sustainability of the post-event city

Continued p. 23 →

Dongtan, China's flagship eco-city: an interview with Peter Head of Arup (64-69)
Helen Castle

- Dongtan as a model scheme has become synonymous with the very notion of the eco-city, representing China's commitment to sustainability to the world... Find out more about their masterplan for the city and the design process behind it

After China: the world? three perspectives on a critical question (70-81)

Kyong Park, Laurence Liauw, Doreen Heng Liu

- Are China's cities now poised for global influence?

Emerging Chinese architectural practice under development: MADA s.p.a.m., URBANUS Architecture & Design, Atelier Zhanglei, standard architecture, MAD (82-93)

Laurence Liauw

- five nascent practices...who...have come home to build cutting-edge designs that harness new technologies, creative processes and critical thinking

Chronology of main government policies affecting urbanisation in China: 1970-2007 (94-96)

Sun Shiwen

**DESIGN ISSUES: 24:4
AUTUMN 2008**

INTERACTION DESIGN RESEARCH IN HCI

ISSN: 0747-9360

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A bitter pill to swallow: the rise and fall of the tablet computer (3-25)

Paul Atkinson

Where the future doesn't come from: on the logic of naturoids (26-37)

Massimo Negrotti

"Models of man" in design thinking: the "bounded rationality" episode (38-52)

Rabah Bousbaci

Slap: The posters of Santiago Pol (53-60)

Humberto Valdivieso

De-scribing design: appropriating script analysis to design history (61-75)

Kjetil Fallan

The policy of design: a capabilities approach (76-87)

Andy Dong

New pragmatism and the vocabulary and metaphors of scholarly design research (88-101)

Gavin Melles

**DESIGN MANAGEMENT REVIEW, 19:3
THE FUTURE OF DESIGN LEADERSHIP
SPRING 2008**

ISSN: 1460-6925

[WEB LINK](#)

Bottom-up design leadership as a strategic tool

Ki-Young Nam, Mi-Jin Jung

- a case study of a collaborative project shared by industrial designers at KAIST and Coway...to help Coway to discover a new market for its products

Brand-driven innovation

Erik Roscam Abbing, Christa van Gessel

- great opportunities in the growing convergence between the domains of branding and product/service innovation....(BDI) as an approach to help businesses benefit from and manage this convergence

Creating smart designing questions

Richard Kielbon Gerald Nadler

- Designers "practice their art of designing differently than the way it is traditionally taught and practiced in their domain."

Creating the right environment for design

Julian Jenkins

- several cultural mindsets that are endemic within the modern organization and which are enemies of design, and...ideas about how best to combat them

Design in business: views from the nucleus and the periphery

Turkka Keinonen

- six categories covering designers' collaborative roles and how they differ depending on the strength of the companies' design orientation

Developing products with a holistic process

Aidan Petrie

- A more [non-linear] holistic approach limits "transfers" across phases and to new stakeholders, and makes it easier to incorporate changes in reaction to competitors' moves, new technologies, new government regulations, and so on.

Funcastle: creating a business opportunity from a design consultancy assignment

Prashant Singh Kutaula

- India's National Institute of Design (NID) developed a national design business incubator. The very first customer... [mentioned]...a very successful project he had recently done for a client. Funcastle... met with enough success to boost...[the customer's] consultancy to a new entrepreneurial level and to create jobs for more than two dozen people.

How to make sure a brand behaves itself

Mark Churchman and Thomas Marzano

- how the people-focused and research-based approach used at Philips Design has played such a major role in...orchestrating the brand

Continued p. 24 →

Scripting a collaborative narrative: an approach for spanning boundaries

Tom Flanagan

- a graphic outlining process that enables narrative management for collaborative action

VOL. 3, NO. 1, DESIGN MANAGEMENT JOURNAL 2008 EAST/WEST PERSPECTIVES ON DESIGN MANAGEMENT ISSUES

An evaluation of the positional forces affecting design strategy

Cai Jun

- Design strategy involves the long long-term planning and direction of brand and product development, whilst design management focuses on the implementation of design strategy...The positional forces of design strategy refer to branding, culture, costs, technology, and services, all of which have an important role in strategic design decision-making.

An investigation of the transferability of design management education from the UK to China

Philippa Ashton

- the nature of problems and challenges faced in design management education when transferring from the UK to China... [and] a program of research set up to explore these issues

Development of a customer experience-based brand strategy for the Lenovo Group to explore the UK market

Yuanyuan Yin, Dr. Ray Holland, Weicheng Wu

- how Lenovo uses customer experience design as a basis for creating an effective brand strategy to fully understand customer needs and develop a share in the UK market

In-house design: how do design managers manage change?

Naomi Gornick

- potential opportunities for new design roles and the advanced education needed to train effectively for those roles

Innovation, branding, and organization: what international design managers think about their performance

Frans Joziassse, Tim Selders, James Woudhuysen

- findings of a survey on how designers interpret their tasks in the current climate combining "an international revival of interest in innovation...corporate interest in branding...and...a world of cost-cutting, off-shoring, and IT...[forcing]...focus on organization

Reflections on design management education in China

Jikun Liu and Manxian Zhan

- The paper...[shows]that...foreign-partner programs can be an immediate and efficient way of developing Chinese design management education, and concludes by outlining opportunities for further research.

Strategic new product development in Chinese organizations: a case study in the high technology sector

Xiaohuan Zhang, Alex Williams

- whether a Western interpretation of [new product development] NPD is appropriate to indigenous Chinese enterprises engaged in high technology sectors

The role of design in the development of the Made in Italy brand in China

Massimo Bianchini and Marina Parente

- The goal was to identify critical areas and opportunities within which design can develop policies, strategies, and tools to consolidate or renew the Made in Italy brand on new worldwide markets.

DESIGN STUDIES, 29:6

Nov. 2008

INTERACTION DESIGN AND CREATIVE PRACTICE

ISSN: 0142-694X

[WEB LINK](#)

Designing for creative engagement

(525-540)

Zafer Bilda, Ernest Edmonds, Linda Candy

- This paper addresses the problem of understanding creative engagement with interactive systems. A model of engagement is proposed which represents modalities and phases of interactive experiences.

Emergence and the art system 'plus minus now' (541-555)

Jennifer Seevinck, Ernest Edmonds

- Emergence is discussed in the context of a practice-based study of interactive art and a new taxonomy of emergence is proposed. The interactive art system...uses a novel method for instantiating emergent shapes.

Designing and evaluating virtual musical instruments: facilitating conversational user interaction (556-571)

Andrew Johnston, Linda Candy, Ernest Edmonds

- An interaction design strategy which uses on-screen objects that respond to user actions in physically realistic ways is described. This approach allows musicians to 'play' the virtual instruments using the sound of their familiar acoustic instruments.

Continued p. 25 →

Our Content: generative montage methods for multimedia data (572-586)

Shigeki Amitani, Zafer Bilda, Ernest Edmonds

- Research “of a semi-automatic system with which groups of distributed users interact, primarily by exchanging multimedia data such as short sound recordings, photographs or video clips taken with mobile phones”

Exploring design options for interactive video with the Mmemovie hypervideo system (587-602)

Mike Leggett, Zafer Bilda

- The custom-designed software toolset is used to build a series of experimental interactive models from which three models were subsequently developed for initial user experience testing and evaluation.

Embedding expert users in the interaction design process: a case study (603-622)

Tania Humphreys, Linda Leung, Alastair Weakley

- three-dimensional interaction that enables the search, display and filtering of email data beyond the standard functionalities available in conventional email software

DESIGN STUDIES, 29:5

SEP. 2008

ISSN: 0142-694X

[WEB LINK](#)

Design as communication: exploring the validity and utility of relating intention to interpretation (425-457)

Nathan Crilly, David Good, Derek Matravers, P. John Clarkson

- This article asserts the validity and utility of relating intention to interpretation by exploring the nature of that relationship in design practice and consumer response.

Product personality in physical interaction (458-477)

Pieter M.A. Desmet, Juan Carlos Ortíz

Nicolás, Jan P. Schoormans

- the possibility of designing physical human-product interactions with predefined personalities...explored in two studies

How different? comparing the use of design in service innovation in Nordic and American new technology-based firms (478-499)

Marina Candi, Rognvaldur J. Saemundsson

- This paper explores differences in the use of design in service innovation in Nordic and American new technology-based firms...based on a systematic qualitative comparison of case data collected on eight service innovation projects in each of the locations.

Developing organisational design capability in a Finland-based engineering corporation: the case of Metso (500-520)

Ulla-Maaria Mutanen

- Expert-centred, tool-centred, strategy-centred, and process-centred approaches to developing design are not optional methods but rather phases in the broader capability development process, which bases on the transforming object of the business activity

INFORMATION DESIGN JOURNAL, 16:2, 2008

ISSN: 0142-5471

[WEB LINK](#)

Coping with complexity: reconfiguring the navigation system for Santiago's new transportation plan

José Allard

Space & navigation: workshop, using visual contrast for effective, inclusive environments

Veronika Egger and Keith Bright

Space & navigation: measuring effective map design for route guidance: an experiment comparing electronic map display principles

Thomas Porathe

Performance-based design – how measuring a design's performance can accelerate the design process and deliver superior design outcomes

Alex Tyers

Measuring the quality of information about medicines: is design really benign?

Karel van der Waarde

An interview with Rune Pettersson

Lennart Strand

Robot communication – human contact with androids

Johan F. Hoorn and Matthijs A. Pontier

Cure4Kids: research challenges in the design of a website for global education and collaboration

Yuri Quintana

Continued p. 26 →

INTERNATIONAL JOURNAL OF ART AND DESIGN EDUCATION
27:3, Oct. 2008
ISSN: 1476-8062 [WEB LINK](#)

Pedagogy against the state (226-240)
Dennis Atkinson

- research on children's drawing practices which considers the ingenuity of learning and meaning-making through drawing...to the language of assessment to consider how art practices, such as drawing, as well as learner and teacher identities, are constructed and regulated within such linguistic practices (discourses)

The praxis of art's deschooled practice (241-250)
John Baldacchino

- approaches art education from three positions. The first is that art is a construct that is neither natural nor necessary. The second is that there are no aesthetic or pedagogical imperatives, but that art education is the recognition of groundlessness where paradox facilitates learning. The third approach is to reposition art with regards to its relationship with learning, education and schooling.

Taking a long look at art: reflections on the production and consumption of art in art therapy and allied organisational settings (251-263)
Andrea Gilroy

- the influence of social context on the production and consumption of art... Professional socialisation profoundly influences how practitioners look and think about what they see.

Carnival in the curriculum (264-278)
Steve Herne, Celia Burgess-Macey, Maggie Rogers

- a carnival in the curriculum project designed to revitalise the arts in the experience of students in Higher Education preparing to become primary school teachers...carnival as a complex, inclusive, multifaceted and multidimensional cultural practice with deep historical and social roots

Problems of interdisciplinarity: evidence-based and/or artist-led research? (279-292)
Rachel Mason

- the status of research in the specialist field...and...ways forward for improving training in art education research

More than a Body's Work: widening cultural participation through an international exploration of young people's construction of visual image and identity (293-308)
June Bianchi

- the rationale, methodology, and selected outcomes from More than a Body's Work... interactive research project... [exploring] the ways in which young people construct and 'perform' identity through the construction of their body and its appearance

Visual arts declarative knowledge: tensions in theory, resolutions in practice (309-319)
Beryl Exley

- the contribution literacy, linguistic, curriculum and pedagogic theories make to realising declarative knowledge outcomes for middle years visual arts students

The relevance of art education and the education of the Nigerian child: implications for the universal basic education policy (320-331)

Michael J. Emeji

- Lack of creative ability in our educational products is perhaps a major setback in ... [Nigeria's] quest for industrial and technological development....A new art curriculum for elementary schools is advocated as a means of engaging the young child in order to attain functional educational skills necessary in the world of work.

Aesthetic modernism in the post-colony: the making of a national college of art in Pakistan (1950-1960s) (332-345)

Nadeem Omar Tarar

- With the formation of Pakistan as a modern Islamic republic in 1947, the institutions of art and design education were transformed under the sway of modernization theories of development....The Bauhaus influence which formed the initial impulse to bring artists and craftsmen in the service of national industry gave way to the competing fine art movements in painting resulting in abandoning the synthesis of arts and crafts envisaged in the earlier approaches to art education.

BOOK REVIEWS:

Spectacle pedagogy: art, politics, and visual culture. Charles R. Garoian and Yvonne M. Gaudelius

Being with A/r/tography. Stephanie Springgay, Rita L. Irwin, Carl Leggo and Peter Gouzouasis [Eds].

1968: The Art School Revolution Lisa Tickner

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INTERNATIONAL JOURNAL OF DESIGN
2:2, AUG. 2008
SPECIAL ISSUE ON CULTURAL ASPECTS
OF INTERACTION DESIGN
ISSN: 1991-3761 [WEB LINK](#)

Mapping cultural frame shifting in interaction design with blending theory

Thomas Markussen, Peter Gall Krogh

- Gilles Fauconnier & Mark Turner's blending theory as a new conceptual framework for explaining 'cultural frame shifting' in interaction design

A cross-cultural comparative study of users' perceptions of a webpage: with a focus on the cognitive styles of chinese, koreans and americans

Ying Dong, Kun-pyo Lee

- The Chinese, Korean, and American participants employed different viewing patterns when viewing the webpage, revealing a positive relationship with Nisbett's cognitive theory.

Influence of cultural background on non-verbal communication in a usability testing situation

Pradeep G. Yammiyavar, Torkil Clemmensen, Jyoti Kumar

- While some gesture types are culture specific, cultural background itself seems not to influence the rate or pattern of the gestures' occurrence. Therefore, gestures do hold potential as a source of additional user behavior data in a cross-cultural testing situation.

Requirements for the design of advanced driver assistance systems – the differences between Swedish and Chinese drivers

Anders Mikael Lindgren, Fang Chen, Patrick W. Jordan, Haixin Zhang

- Even though Swedish and Chinese traffic rules and regulations are similar, driver behavior is highly culturally mediated. Results also indicate that the type of assistance drivers need in different traffic situations depends a great deal on driver behavior.

Political and cultural representation in malaysian websites

Adrian Min, Choy Tong, Keith Stuart Robertson

- This research investigates effective strategies for the development of a truly representative visual interface design within a multicultural context.

Social interaction design in cultural context: a case study of a traditional social activity

Ko-Hsun Huang, Yi-Shin Deng

- Social activities are inherently embodied in a cultural context. Therefore, a field study of tea drinking, as a traditional social activity in Taiwan, is presented with the purpose of revealing the abundant cultural features of this activity.... The cultural characteristics of a society should be a key issue in developing interaction designs.

INTERNATIONAL JOURNAL OF TECHNOLOGY AND DESIGN EDUCATION
18:4, NOV. 2008
ISSN: 0957-7572 [WEB LINK](#)

Problem based learning: application to technology education in three countries

(319-335)

P. John Williams, Juan Iglesias, Moshe Barak

- Keywords: Explanatory framework
Preschool education
Programming
Robotics concepts
Technology education

Does it "want" or "was it programmed to..."? Kindergarten children's explanations of an autonomous robot's adaptive functioning (337-359)

Sharona T. Levy, David Mioduser

- This study investigates young children's perspectives in explaining a self-regulating mobile robot, as they learn to program its behaviors from rules. We explore their descriptions of a robot in action to determine the nature of their explanatory frameworks: psychological or technological.

Uncovering learning outcomes: explicating obscurity in learning of aesthetics in design and technology education (361-374)

Grietjie Haupt, Seugnet Blignaut

- Kirkpatrick's four-level model is a widely accepted and highly popular evaluation tool. This article will examine the extent to which the four-level model can evaluate design and technology students' learning about aesthetics after an intervention by reporting our use of an augmented version of the four-level model.

Continued p. 28 →

Researching cognition and technology: how we learn across the lifespan (375-396)

Stephen Petrina, Franc Feng, Juyun Kim

- After outlining findings of research into how children, adolescents, teens and adults learn technology, we address theoretical shifts from sociocultural to technological theories of cognition and reorientations from mediated to cyborgenic learning.

JOURNAL OF DESIGN HISTORY

21:2 SUMMER 2008

ISSN: 0952-4649

[WEB LINK](#)

Barbarity in a teacup? punch, domesticity and gender in the Eighteenth Century

(205-221)

Karen Harvey

- This essay examines the gendered aspects of ...[the juxtaposition between refinement and barbarity] as it was manifested in the meanings associated with punchbells, teacups and punch pots

The Grammar of Ornament: cosmopolitanism and reform in British design (223-236)

Stacey Sloboda

- The Grammar of Ornament was an explicitly cosmopolitan text that attempted to synthesize the industrial and imperial ethos of the period through universal principles of design.

Designing meaning: streamlining, national identity and the case of locomotive

CN6400 (237-257)

Garth Wilson

- the role of design in shaping the meaning of an important artefact of Canadian transportation history and heritage: the semi-streamlined steam locomotive CN6400

Modernism, nationalism and gender: crafting 'modern' Japonisme (259-275)

Yasuko Suga

- the vital role Imai Kazuko, who studied in Europe...in the early 1930s, played in Japan's national representation through craftworks

Re: focus design

Nineteenth-Century patent seating: too comfortable to be moral? (277-288)

Jennifer Pynt and Joy Higgs

- While patent seating accorded with medical concepts of the day, ... [it was designed] by inventors using craft knowledge, science and mechanization. Patent seating pre-empted modern ergonomic seating by 120 years. The Victorians, however, failed to appreciate the ingenuity and health benefits of such seating.

Book reviews

Graphic design: a new history. Stephen J.

Eskilson.

Paul Jobling

Designing modern Britain. Cheryl Buckley.

Volker M. Welter

Domesticity at war. Beatriz Colomina.

Freddie Floré

JOURNAL OF ENGINEERING DESIGN

19:5 OCT. 2008

ISSN: 0954-4828

[WEB LINK](#)

Genetic algorithm-based optimisation method for product family design with multi-level commonality (401-416)

George Q.Huang, Li Li, Lothar Schulze

- Considers multi-level commonality in product family design in the sense that the feature or component can be common only among some product variants.

Evaluation of materials selection activities in user-centred design projects (417-429)

Ilse van Kesteren, Sijf de Bruijn, Pieter Jan Stappers

- the critical factors that influence the materials selection process of user-centred design projects

A framework for the integration of environmental and business aspects toward sustainable product development (431-446)

J. K.Choi, L. F. Nies, K.Ramani,

- [A method that] may help the company systematically develop appropriate and profitable design for environment strategies for their product systems.

Is design of experiments really used? A survey of Basque industries (447-460)

Martin Tanco, Elisabeth Viles, Laura Ilzarbe, María Jesus Alvarez

- Research and development and manufacturing make up 85% of [design of experiment] DoE use. Furthermore, results show that lack of knowledge about general statistics is commonplace and only 31% of companies claim to be knowledgeable about DoE.

JOURNAL OF ENGINEERING DESIGN

19:4 AUG. 2008

ISSN:

Parameter design considering the impact of design changes on downstream processes based upon the Taguchi method (299-319)

D. Xue, S. Y. Cheing, P. Gu.

- the factors affecting the success of a remanufacturing operation...[illustrating] the way the methodology is used in the two main activities of designing: redesigning products from a remanufacturing perspectives and developing new products

Continued p. 29 →

Remanufacturing strategies to support product design and redesign (321-335)

Peggy Zwolinski, Daniel Brissaud

- Encapsulated in 11 'remanufacturable product profiles', this knowledge is the core element of the design methodology developed and supported by the implemented software REPRO2. The paper illustrates the way the methodology is used in the two main activities of designing: redesigning products from a remanufacturing perspectives and developing new products.

Parameter analysis for the application of the principle of direct and short transmission path: a valve-actuator design case study (337-357)

Sridhar S. Condoor, Ehud Kroll

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- the durability choice problem of complex engineering systems, as seen from the customer's perspective and in the face of network externalities and obsolescence effects

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- whether space syntax measures in New Urbanist and conventional suburban neighbourhoods are associated with the walking patterns of residents in these communities,... relationships between the number of leisure trips and all three syntactical measures

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- effects of restrained car access on preferences for new residential areas....how... effects can be compensated for

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15-17 Feb. Berlin, Germany
Design/09:
Third International
Conference on Design
Principles and Practices
<http://g09.cgpublisher.com/welcome.html>

1-3 Apr. Aberdeen, UK
Connexivity
8th International
Conference of the European
Academy of Design
<http://www.designconnexivity.org/>

5-8 Apr. London, UK
Include 2009: Inclusive Design into Innovation - Transforming Practice in Design, Research and Business
http://www.hhc.rca.ac.uk/1345/all/1/include_2009_.aspx

15-17 Apr. Brussels, Belgium
Conference 'Communicating (by) Design'
<http://conf.bydesigning.info/conf/>

11-14 May Liverpool, UK
EURAM 2009: Renaissance and Renewal in Management Studies
<http://www.euram2009.org/r/Renaissance-and-Renewal-in-Management-studies>

18-20 Jun. Paris
DD4D – Data Designed for Decisions
VisionPlus : joint IIID, OECD conference
<http://www.iiid.net>

19 Jun. London, UK
EKSIG2009: Experiential Knowledge and New Methodologies
<http://www.experientialknowledge.org.uk/>

19 Jun. London, UK
In Pursuit of Luxury Conference
<http://www.inpursuitofluxury.com/>

2-4 Sep. London, UK
Designs on eLearning 2009
<http://www.designsonelearning.net/index.htm>

3-5 Sep. Hatfield, UK
Writing Design: Design History Society Annual Conference
http://sitem.herts.ac.uk/artdes_research/tvad/writingdesign.html

10-11 Sep. Brighton, UK
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