Designing and Consuming: objects, practices and processes

Academic studies of consumption revolve around a repertoire of dominant concerns.   Building upon this intellectual heritage, projects included in the cultures of consumption programme advance understanding and knowledge of the history and contemporary character of 'consumer culture' (projects by Warde and Whittle); the local and global intersection of consumption and production (Anderson, Redclift, Jackson, Kneafsey), consumer 'citizenship' (Clarke, Laing, Couldry, Birchall) and the relation between consumption and identity (Barnett, Breward, Morgan). Our proposal extends and enriches this theoretical range by engaging with fundamental questions overshadowed by these defining agendas and the disciplines on which they draw.

Of all the aspects missing from consumption studies, and from the programme, perhaps the most startling is the 'stuff' itself. This is especially striking given the energy invested in understanding the development and use of tools, artifacts and services in other fields of social enquiry - especially in innovation studies, studies of science and technology, and in academic research on design.   This project exploits the potential for *theoretical development* at the intersection of ideas about the objects, practices and processes of consumption. It does so not in the abstract but through the detailed investigation of cases and situations that address two of the programme's research areas, namely, *knowledge and the consumer* and *the impact of new technologies on consumption*.

Research questions and objectives

A primary objective is to reinstate what Latour (1992) refers to as the 'missing masses' through a systematic cross-fertilisation of literature in science and technology studies, design and consumption. This strategy unleashes many new lines of theoretical enquiry. Amongst these we pursue three interrelated research questions.

1. What is the relation between the material world and the accomplishment of everyday life? - what is consumption *for* and what competences and practices are thereby required, permitted or sustained.
2. How do suites of things and complexes of practice interact in different

contexts and sites and what do these interactions mean for change and innovation?

3. How do designers, consumers and other agencies add value to products and artifacts and what does the construction and appropriation of different types of value involve?

Two features of our approach are especially important.

First, the project involves a novel collaboration between sociology and design (Julier 2000). This combination of disciplinary perspectives promises to refresh and invigorate both. As part of this project we intend to build an international network of researchers, including some already involved in the cultures of consumption programme, interested in the flow of concepts between design and social science. Existing links with researchers at the Helsinki University of Art and Design will be exploited to this end, as will Birmingham Institute of Art and Design's (BIAD) connections with Calgary University's Faculty of Environmental Design and Advantage West Midlands, a Regional Development Agency.

Second, we concentrate on cases of 'ordinary' consumption and of industrial/mass produced design. Contemporary theory tends to engender and rely upon empirical studies of visible and spectacular consumption; of consumers as private citizens, and of moments of acquisition rather than the routines and pleasures of use (Gronow and Warde 2001). We deliberately use materials and examples that break this mould. Even though a vast amount of consumption takes place in commercial settings, consumer research tends to focus on the domestic sphere. In acknowledging this we open the way for further debate about the situated nature of both design and consumption.

We therefore advance on three fronts at once:

1. By re-conceptualising the 'missing' objects, practices and processes of consumption studies we extend the theoretical reach of the field;
2. Collaboration between design and sociology (including science and technology studies) promises to bring different perspectives to bear on familiar debates and open up fresh agendas;
3. Finally, we confront new theoretical challenges by virtue of working with cases of 'ordinary' consumption and product design in commercial as well as domestic settings.

The work described so redresses important imbalances in how consumption is conceptualised.

Research Context

Our research is organised around three 'missing' debates, further development of which allows us to address the objectives identified above.

1   missing objects
Sociologists of technology have shown how artifacts 'script' and 'configure' their users (Woolgar 1990; Akrich 1992; Lie and Sorensen 1996), some arguing that is useful to think of objects and users as hybrid (part human, part non-human) entities (Michael 2000).   Although products sometimes encourage the discovery of unanticipated uses (Dunne and Lane 1999), consumers are - to an extent - made by the things they use, hence the notion of 'designing the user experience' (Ingram 1981). As well as giving the concept of 'material culture' new, more pragmatic, meaning (Miller 1998; Buchli 2002), these ideas - and critiques of them - are also important for design theory.   In thinking about how future users and values (Andrews, Ingram et al. 2001) are inscribed in the details of product design (Battarbee 2003) and how processes of 'inscription' and 'domestication' work across contexts of production, supply, acquisition and use, we re-examine the stuff and substance of consumption.

2   missing practices
We build on the idea that consumption occurs as a consequence of practice (Schatzki 1996; Reckwitz 2002; Warde 2003).   There are several aspects to this.   One is to think of consumption in terms of appropriation, not just acquisition.   Another is to consider the hardware of every day life - the tools and materials involved - and the mutually constitutive relation between products and practices.   Questions of competence are pivotal to both (De Certeau 1998; Kaufmann 1998): what skills do things and designers presume, how are they acquired and how do performances, practices and concepts of value co-evolve with the material artifacts on which they depend?

3   *missing processes*
A focus on practice brings other issues into view.   We consider the ways in which designers and consumers relate to complexes of material artifacts (Silverstone 1993; Ingram 1997; Molotch 2002).   By looking at how constellations of products and practices co-evolve, we bridge between theories of innovation and sociotechnical 'transition' (Abernathy and Clark 1985; Rip and Kemp 1998; De Wit, Ende et al. 2002; Geels 2002), more sociological concepts of 'normalisation' (Shove and Southerton 2000), and evolutionary models of design and practice (Nieminen-Sundell and Pantzar 2003).   Equally important, we pay attention to the meso-level understandings of 'normality' and 'service' that are reproduced through integrative processes of design and of consumption (Shove 2003).

This strategy promises to make a distinctive contribution to theories of design and consumption. Having been preoccupied with questions of method

and management design theorists are increasingly interested in the social contexts and conditions of use, and in product systems (Morelli 2002; Forlizzi, DiSalvo et al. 2003). New approaches like those of 'practice oriented product design' draw upon social scientific research in management (Orlikowski 2000) and in science and technology studies (Suchman 1987). Our empirical and theoretical work fuels these developments, providing important insights into consumers' roles as the designers and 'reproducers' of practice, and the place of objects within the constitution of society (Giddens 1984). Since we are interested in the relation *between* design and consumption, we also investigate the materialisation and embodiment of value through design, production, acquisition and use. What institutional relations, material constraints, visions, aesthetics and aspirations are embedded in the hardware of everyday life and what do different contexts of design and consumption mean in practice?

In addressing these issues we focus on the stuff of consumption; we consider consumption in terms of practice and competence, and we examine the relation between things in design and in use. In all of this we bring a new set of intellectual resources to bear on the programme's core themes.

Research Design
The research consists of four main areas of work.

1 Integrating ideas
A systematic review of relevant literature in science and technology studies, material culture, design and the sociology of consumption will help us fill in the three 'missing' debates identified above. In drawing together previously disconnected bodies of work, and in identifying areas of commonality and divergence, our longer-term aim is to lay the foundations for interdisciplinary exchange and interaction between sociology, technology studies and design. We use this mapping of intellectual positions as a means of stimulating further exchange and debate.

An initial review paper, together with an extensive annotated bibliography will be circulated widely and made available, along with other links and resources, on a project web site – developed with the UserLab at BIAD. Other aspects of this review process and the theoretical development associated with it will inform working papers for all three workshops and contribute to the full range of publications arising from the project.
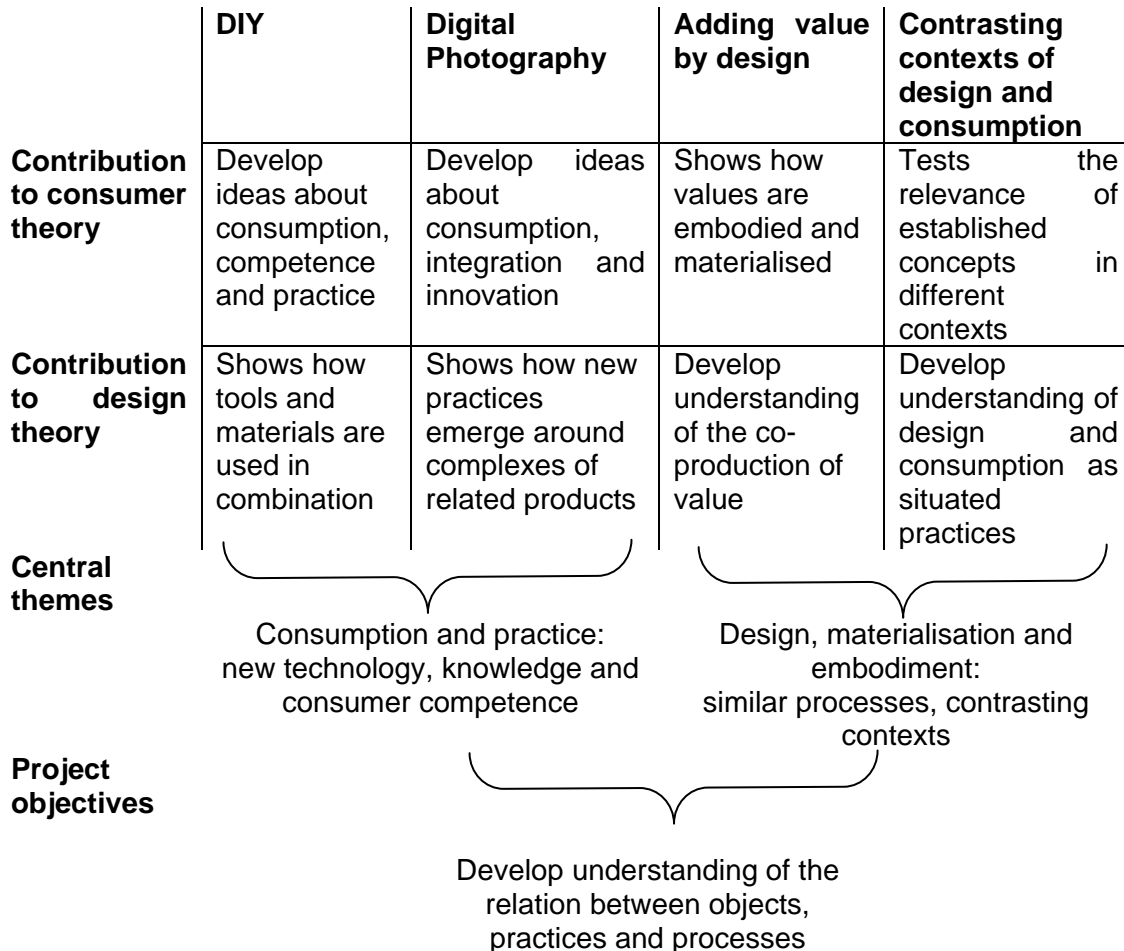
Literature reviewing, synthesis and theoretical development.

2 Analysing objects, practices and processes
We will undertake four empirical studies in order to develop different aspects of our theoretical programme and explore related questions about knowledge, competence (research area 3.1) and new technology (research area 3.3).

In selecting cases we have been guided by the following ambitions.
- to examine instances of relatively ordinary design and consumption that are nonetheless dynamic and of contemporary interest.
- to collect empirical material that will provide a focus for interdisciplinary and international debate.
- to consider a range of contrasting situations so as to test the reach and relevance of new concepts whilst addressing a menu of inter-related theoretical issues.

The first two studies consider a) consumers as producers and designers in their own right and b) consumers as the 're-producers' of new practice. The second pair examine a) designers' role in shaping and adding value to material artefacts and b) the institutional contexts in which this occurs. The figure below shows how the four studies relate to each other and to the project's central objectives.

	DIY	Digital Photography	Adding value by design	Contrasting contexts of design and consumption
Contribution to consumer theory	Develop ideas about consumption, competence and practice	Develop ideas about consumption, integration and innovation	Shows how values are embodied and materialised	Tests the relevance of established concepts in different contexts
Contribution to design theory	Shows how tools and materials are used in combination	Shows how new practices emerge around complexes of related products	Develop understanding of the co-production of value	Develop understanding of design and consumption as situated practices

Central themes

Consumption and practice: new technology, knowledge and consumer competence

Design, materialisation and embodiment: similar processes, contrasting contexts

Project objectives

Develop understanding of the relation between objects, practices and processes

The cases involve a combination of interview-based method and analysis of relevant secondary material: magazines, advertisements and web-sites. We have experience of collaborating with DIY companies and with relevant product designers and manufacturers, and do not anticipate problems of access. We will adhere to the British Sociological Association's ethical guidelines and guarantee the anonymity of those we interview.

Case 1: Consumers as designers and producers - DIY

In 2001, British consumers spent £8.5 billion on DIY, some 33% more than in 1997 (Mintel 2003). DIY is currently reported to be 'the fastest growing area of retail spending' (Sunday Times, 2004), sales of some items, like power tools, having increased by 39% in just three years (between 1999 and 2001 – Mintel 2003). Though relevant, this is not our only reason for studying DIY projects and those who do them. In making over or repairing their properties, householders simultaneously occupy the roles of consumer, producer and designer. Technological developments especially in power tools and paint have brought new projects within the reach of amateurs and made traditional tasks easier and faster. Professional tools like the chainsaw have been re-designed for ordinary users - the suburban chainsaw. The changing relation between technology and competence is of immediate significance for what people are willing to do themselves and when they call in expert help - for whether they consume products or services. Critically, the practice of DIY depends upon the effective combination of materials, tools and skill. It is on this relation that we concentrate.

We intend to study, through detailed interview, the 'careers' of 15 DIY practitioners. Respondents will be selected via a process of recruitment based on brief interviews conducted within DIY stores. This allows us to identify persons with significantly different ambitions and types of expertise. In-depth interviews will then focus on respondents' DIY project histories, on tools and materials, and the acquisition and development of competence. We will also review sources of advice (in-store, on TV and on the web) and interview retailers (e.g. B and Q, Wickes), manufacturers and product 'designers' (e.g. Black and Decker, ICI Dulux) about their role in mediating technology, practice and consumption.

This work will generate better understanding of consumers as producers, and of how materials mediate consumption and competence.

Case 2: Consumers as 're-producers' – Digital photography

This year, sales of digital cameras are expected to outstrip those of analogue models – (Financial Times 2004). For digital photography to take root in this way, consumers have to acquire new habits, blending tradition - the idea of photography and perhaps the print - with novelty - the possibility of 'click and delete', new forms of storage, sharing and 'processing', the fusion of

cameras and mobile phones, and the reinterpretation of photography as computing. How do new users handle the possibilities open to them and what does this mean for the reproduction of photography? (Gustin 1998; Lehtonen, Koskinen et al. 2002; Nieminen-Sundell and Pantzar 2003). In this case we are interested in a) how technologies are used in combination and b) how the careers of consumer-practitioners unfold.

We plan to interview around ten new users when they first acquire a digital camera and again eight months later. This allows us to see how photographic habits evolve and how the new camera is used. Interview material, together with an analysis of magazines and interviews with selected retailers will show what is at stake in the rapid transformation of a once stable sector and in the practices associated with it.

This case will provide new insight into how complexes of products are appropriated and integrated, and what this means for the (re)production of new practices.

The first two case studies help conceptualise the relation between materials, tools, technologies and new forms of competence and practice. The second pair examine the conditions and contexts of design, showing how concepts of use and practice are embodied in the stuff of consumption.

Case 3: Adding value through design

The notion that designers add value to material artefacts is relatively well established (Jordan 2000; Green and Jordan 2002; Norman 2004), including through the work of BIAD's Centre for High Value Added Products (Burns et al 2001, 2003). Our intention is to discover what this means in practice. How are concepts of value embedded in designers' solutions and specifications and with what consequence for the hardware of everyday life? By interviewing a sample of around ten product designers working in a range of different contexts - in consultancies, such as DCA, IDEO and within a variety of commercial situations - we aim to describe and analyse the routes and circuits through which values, qualities and functionalities are materialised and inscribed across a range of consumer products. Rather than following fashions in design theory and method, our aim is to show, concretely, how things come to be designed as they are.

Parallel interviews conducted by our Finnish collaborators, Dr Mika Pantzar at the National Consumer Research Centre and Professor Ilpo Koskinen and colleagues at the Helsinki University of Art and Design (at no cost to this project) will enhance the reach and range of this part of our research.

This study will show how product designers view their own role and how they conceptualise consumption, use and practice.

Case 4: Contexts of design and consumption – low-tech office equipment

This case compares different contexts of consumption and production with the aim of discovering how these affect design strategies and solutions. We focus on ordinary office equipment, including filing systems and other tools of office management. Although these products are sometimes sold to individual consumers, most are bought by corporate purchasers, often through catalogues or specialist suppliers. Interviews with designers and manufacturers (for example, Rotadex) dealing in commercial and home office markets, and with catalogue companies and corporate purchasers, allow us to compare the distinctive qualities of domestic and organisational contexts of design and consumption. This is important on two counts. First, theories of consumption are typically grounded in studies of private rather than corporate consumption – this case allows us to apply and test the saliency of established concepts in different contexts. Second, design theory rarely takes note of the social and institutional contexts of production.

The four cases address issues that are important in their own right. However, their real value lies in the relation between them and the theoretical questions at stake. In analysing the resulting material we will move between the results of our literature review and these studies, setting the insights of one against another in order to exploit the cumulative potential of our research design.

3 Analysis, theory development and publication
The literature review and case studies will inform an interdisciplinary programme of theoretical development organised around the production of jointly authored working papers on topics relating to:

- Technology studies, design and material culture
- Theories of design and use
- The construction, design and appropriation of value
- Competence and consumption
- Consumption and innovation
- Corporate and domestic contexts of consumption
- Relations between modes of innovation and integration in design and practice

These will form the basis of a book and a number of published articles. In addition to a website (including literature review, workshop papers, annotated bibliography and links to relevant social scientific and design research), we will present jointly authored papers to academic audiences in sociology, science and technology studies, design and design education.

4 Interdisciplinary network building and non-academic interaction
An innovative aspect of our work, and an important part of our contribution to the programme, is in linking research in design and social science. Members of the research team have already worked together in planning and participating in two interdisciplinary workshops (Shove et. al. 2003; Ingram et al. 2003). Building on this experience we will organise three two-day workshops as part of the research process. Each will involve around 18 invited participants from different research communities – including two overseas participants.

The workshops will explore themes of common interest such as:
  • Consumers as practitioners/practice oriented product design
  • Innovation junctions: perspectives from design, science and technology studies and consumption
  • Adding value: contexts of design and consumption

These events will be structured around short papers prepared by participants and a longer discussion document written by the research team. Reports of each workshop and all materials will be made available on the web. In this way we hope to use the cultures of consumption programme to foster forms of interaction that would not otherwise occur. We are already planning research student exchanges between Helsinki University of Art and Design and Lancaster's Sociology department. By developing initiatives of this kind, we hope to develop a durable network of scholars interested in the objects, practices and processes of design and consumption.

This project is designed to develop theories of consumption through a programme of interdisciplinary enquiry. That said, our empirical cases address issues of immediate interest to a variety of non-academic users – specifically companies dealing in DIY, digital photography, design consultancy, and in home and office furnishing. As well as presenting our work to relevant industry fora, we want to experiment with new forms of user interaction. Our plan is to encourage individual companies to support and wholly fund specially tailored events, the purpose of which is to relate recent research in consumption, design, science studies and social theory – including work arising from the cultures of consumption programme - to the sponsor's current concerns. The development work associated with this kind of exploitation falls outside the scope of the present proposal and in any event there is no guarantee that this strategy will succeed. We are nonetheless keen to put this idea to the test.

More immediately, the research will inform design education and practice through interaction with the Centre for High Value-Added Products, part-funded by the European Union and Advantage West Midlands and based at Birmingham Institute of Art and Design, and with the Smart Products group at Helsinki University of Art and Design.

In summary, this interdisciplinary project addresses important gaps in contemporary theories of consumption and design. It does so through an integrated programme of conceptual synthesis and a series of interlocking empirical studies.

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