ETHNOGRAPHY AND DESIGN

Paul A RODGERS[1] **and Mike ANUSAS**[2]

[1]Napier University, School of Creative Industries

[2]University of Strathclyde, Faculty of Engineering, DMEM

ABSTRACT

The recent Cox Review highlighted the issue that many more of our product design graduates should possess experiences and skills in, or at least have empathy with, techniques and methods from other areas [1]. With this in mind, this paper presents a series of projects concerned with the role of anthropological techniques and approaches in product design and development. In particular, the anthropological method of ethnography has been used here to support the creative process in the discovery of cultural patterns and subsequently developing products to meet or address those patterns [2]. In this way, ethnography can be viewed as a front-end design research method to investigate everyday social life and culture as a tool for promoting and developing innovation and creativity. This paper presents a brief overview of how ethnography has influenced product development over the last two decades and will show some of the future opportunities where ethnography can influence the design of products and the organisation of design processes. Specifically, the paper will describe recent case studies where ethnography has been used in engineering and product design education within Napier University's MDes Interdisciplinary Design programme and across a range of undergraduate programs within the University of Strathclyde's DMEM department. The authors will report on the contrasting styles of both institutions and attempt to draw out best practice to show how emerging ethnographic methods can inform new perspectives in product design education.

Keywords: Ethnography, Cox Review, Anthropology, Designers, Design Education, Design Process.

1 INTRODUCTION

One of the key recommendations in the recent Cox Review was the assertion that many more of our product design graduates should possess experiences and skills in, or at least have empathy with, techniques and methods from other areas [1]. To this end, this paper presents a discussion and a number of case study projects concerned with the role of anthropological techniques and approaches in product design and development. The anthropological method of ethnography is usually defined as the description and explanation of the culture of a group of people [3]. However, ethnography has recently been recognised as a creative process that is about discovering cultural patterns and developing models to explain those patterns. Used in this way, ethnography is employed as a front-end design research method to investigate everyday social life and culture as a context for innovation and creativity. The commercial success of this approach has been proven and documented by many leading product development companies including

Intel, Microsoft, BMW [4], and IDEO [5]. Here, ethnography, in the form of 'People-Centered Design' has been shown to encourage innovation and mitigate risk [4].
However, many of these proven approaches have developed from a US perspective. The meaning of ethnography within a European design culture still needs to be fully investigated. Additionally, many anthropologists and sociologists are employing ethnographic techniques to understand everyday product experiences and the processes of design [6, 7, 8]. Furthermore, design researchers have adopted an ethnographic approach to study the organisation of design and engineering processes [9]. Given, anthropology has its roots in cross-cultural understandings there is a distinct possibility for ethnography to be used to understand more about the processes of modern design pursuits. There is a need to present this wealth of activity concerning ethnography and design to a wider design audience in order to question and raise ideas concerning its applicability and usefulness to design education.
This paper will therefore present a brief history of how ethnography has influenced product development over the last two decades. It will then show some of the future opportunities where ethnography can influence the design of products and the organisation of design processes. In particular, the paper will present recent case studies where ethnography has been used in industrial design, product design and engineering design education within Napier University's MDes Interdisciplinary Design programme and across a range of undergraduate programs within the University of Strathclyde's DMEM department. Here, the authors will report on the contrasting styles of both institutes and attempt to draw out best practice to show how emerging ethnographic methods can inform new perspectives in design education.

2 ETHNOGRAPHY

Ethnography can be a tricky term to define. Definitions of ethnography and participant observation are very difficult to distinguish. Both deal with the participant observer or ethnographer immersing him or herself in the culture of a group for an extended period of time, observing the behaviour of that group, listening to what is said within the group and asking questions [10]. Ethnography seeks to answer key anthropological questions concerning the ways of life of human beings. Ethnographic questions generally concern the link between culture and behaviour and/or how cultural processes develop over time. For the purposes of this paper, ethnography will be taken to mean a research methodology where the researcher:

- Is immersed in a social setting for an extended period of time;
- Makes regular observations of the behaviour of members of that group;
- Listens to and engages in conversations with group members;
- Interviews group members on issues that are not directly observable;
- Collects documents about the group;
- Develops an understanding of the culture of the group and their behaviour;
- Writes up a detailed account of the group and its culture.

Through observing, listening, conversing and engaging with groups of people ethnographers seek to gain what is called an "emic" perspective, or the "native's point(s) of view" without imposing their own conceptual frameworks. The emic world view, which may be quite different from the "etic", or outsider's perspective on local life, is a unique and critical part of ethnography. Through observing and listening, ethnographers

record detailed field-notes, conduct interviews based on open-ended questions, and gather whatever site documents might be available in the culture as data.

3 RAPID ETHNOGRAPHY

Typically, designers need answers in hours not months. So, a variant of conventional ethnography – Rapid Ethnography [11] - may be a more appropriate technique for creative design practice. Rapid ethnography is an efficient and effective way to achieve a relatively deep understanding of peoples' habits, rituals and meanings around relevant activities and artefacts. The resources required to conduct ethnographic research are not insignificant in terms of time and personnel commitments. Therefore, product designers need to be able to define exactly their goals and operational framework prior to commencing a rapid ethnography. Rapid ethnography is based on three key ideas:

- Narrow the focus of the field before entering. Zoom in on the important activities and make good use of the key group members.
- Use multiple interactive observation techniques to increase the likelihood of discovering exceptional and relevant user behaviour.
- Make use of collaborative and computerised iterative data analysis methods.

4 MDES INTERDISCIPLINARY DESIGN, NAPIER UNIVERSITY CASE STUDY

The MDes Interdisciplinary Design programme at Napier University has been developed in recognition of the changes affecting the practice of product design. In particular, the MDes programme advocates an interdisciplinary philosophy in the practice of design. Students are given opportunities to exploit social, cultural, critical, historical and/or technological developments in the pursuit of design and it is envisaged that upon graduation MDes Interdisciplinary Design students will be able to move seamlessly between conventional areas of creative practice including product, graphic, interactive, furniture and fashion design to name but a few.

As part of the MDes programme students are asked to undertake a number of design ethnography exercises. The exercises have been designed to be conducted quickly – some exercises take hours whilst others last a few days. The exercises are as follows:

- **Home** - What makes you love your home? What makes you sick of the sight of it? What is special about living in your home?
- **The City** - We adapt, exploit, and react to things in our city. Some things we do without really thinking. You are asked to go out on to the streets of Edinburgh and observe and collect data on how we interact with objects and spaces that we encounter. How do we exploit the physical man made structures of the city? Are there natural things that we exploit? How do we alter or adapt the purpose or context of things in the city to meet our end needs, wants and desires? What do you see?
- **Shopping** - When we go shopping we probably do lots of things that we don't really think about. How do we act when we are in a long queue? How do deal with the transaction of goods for cash? What kinds of conversations do we have? Do we really enjoy shopping or is it a task that we just need to do? You are asked to go out on to the streets and shops of Edinburgh and observe and collect data on how we interact with things (people, places, products) during shopping. The first exercise you should focus on collecting data via a quantitative research approach

(*i.e.* collect numerical measures of phenomena data only). The second exercise should be conducted using a qualitative research approach (*i.e.* collect rich descriptions of phenomena data only). Please remember, it is the little things (minutiae) that might reap the real insights.

- **Areas of Outstanding Natural Banality** - Look around you, pause as you make your daily journey to work or University. What's happening between the buildings? What's down that lane that you infrequently acknowledge each day? What is the person on the bus next to you doing, what are they into? Is that corner of your bedroom really just full of dust and fluff, or is there something far more exciting going on? If you slow down for just a minute and take in the view, you might be delighted by what you see. Take some time to capture these things on your camera or on your phone and then share them with me and the world. This week's task is to create a flickr[1] account (see the Areas of Outstanding Natural Banality work of Adele Prince) and produce a personal photographic essay of your Areas of Outstanding Natural banality.
- **A Day in Your Life** - You are asked to analyse the activities and experiences of a typical day in your life and design a presentation that creatively demonstrates your findings in an exciting and engaging way to any viewer. Your presentation may reflect your actions for the whole or any part of a typical day in your life. This is a chance for personal interpretation and experimentation – push the creative possibilities of the media used and resist the temptation to overcomplicate. A single creative idea is worth a thousand more prescriptive ones. What are you willing to share?
- **Karen** - Karen magazine[2] is an excellent magazine in the way it knits everyday stories and conversations with humdrum photos. But then again the stories and photos ordinary nature somehow makes them in fact extraordinary. David Shrigley, the famous artist, states: "*One issue of this magazine is more interesting than every issue of every other lifestyle magazine in the world put together*." Karen is a magazine composed entirely from the ordinary - the weather, rubbish, eating, shopping, household chores, and things like that. It's a reaction to standard lifestyle magazines which are composed of fancy things that we are supposed to want or aspire to. As well as recipes, shopping lists, drawings and various found ephemera, Karen contains transcripts of numerous ordinary conversations illustrated by photographs of the participants and their environments. In this exercise, you are asked to analyse Karen magazine and create your own magazine. The subject can be anything but it should be rooted in the ordinary.

5 DMEM, STRATHCLYDE UNIVERSITY CASE STUDY

The department of Design, Manufacture and Engineering Management (DMEM) at the University of Strathclyde is concerned with holistic and integrated approaches to product development education and research. The department runs a number of programs that position design education within the contexts of engineering design, product design, innovation and production process design. Since 2004 a variety of ethnographic approaches have been trialled and taught as an 'Design Ethnography for Industrial Design' within undergraduate teaching in the department's level 3 'Industrial Design' class. Student's then take this learning forward into their level 4 and 5

[1] www.flickr.com
[2] www.karenmagazine.com

individual final year design projects, where they experience a in-depth, front-end design research process that involves the use of ethnographic techniques alongside traditional market research techniques (such as surveys and focus groups), ergonomics research and technological research.

The core focus of the Industrial Design class has been concerned with a philosophy of *persona-centered design* to address designing for the *emotional* needs and *cultural* contexts of users/consumers. This is done through selecting a general product *category*, such as bags, toasters or kettles and designing the physically interactive and aesthetic qualities for that product category. However, the brief for the project is designed so that, rather than asking the students to introspectively design for their own styling preferences, they are asked to design for *other* people's *extreme* styling preferences via defining a user/consumer *sub-culture* and design for this through ethnographic enquiry. Initially the students use the ethnographic method of non-participative, covert observation within Glasgow city public environments to identify a range of 'personas'. Distinct personas are identified on the basis of their outward stylistic appearances, habits and sub-cultural associations. These distinct personas are then given a theme name, such as 'bling', 'eco', 'folk', 'executive', 'skater'. It is important to note that this process does not intend, or claim to be, an in-depth social science study of sub-cultural styles, but rather it is a *rough, quick* and fun way of enabling students to experience a *culture-centered* approach to design, rather than the prevailing user/task-centered approach that has existed in product design [4]. Student teams are then assigned to each explore a single persona theme in more depth and define their values, needs, style characteristics and aesthetic preferences. To do this, students source a small sample of research participants that they think relate to their persona theme. Working with these participants they use the ethnographic methods of unstructured and semi-structured interviewing and visual ethnography to explore the participant's values and preferences and understand the participants' cultural contexts. Students then analyse this collected verbal and visual information in their team and develop a definition of their persona in more depth. This definition is used to inspire and stimulate a co-design activity where the student team designs a new product, with the participants, to suit the personas lifestyle.

6 DESIGN EDUCATION IMPLICATIONS

The number of product design graduates in the UK continues to grow at an alarming rate. In the UK alone there are 290 undergraduate Product Design courses. A conservative estimate would put the number of new product design graduates looking for employment each year at somewhere between 3,000 and 5,000. This means that employers can be selective in their recruitment of new graduates and demand ever more. Thus, a major implication for product design education is that we, as educators, need to produce graduates that possess knowledge and skills in other areas relevant and useful to product design [12]. A significant differentiator amongst product design graduates, then, will be the ability to conduct ethnographically-oriented research during the design process which potentially has the power to unlock new and untapped areas for product development.

7 CONCLUSIONS

Product design graduates today enter a challenging and dynamic world where disciplinary boundaries are blurring, economic and employment patterns are continually shifting, and technological developments (most notably in information and computing

technologies) are expanding rapidly. This is a world where product designers can be working on the interactive system for a new ATM one day and the next be developing the interior for a new range of luxury boutique hotels. This is a world where one-off limited edition designed objects such as a chair or a table can fetch hundreds of thousands of dollars at auction. This is a world where design projects regularly consist of teams that coalesce for a project one week, and dissolve and reform with different personnel and expertise the next. Thus, the product designers that we produce for today and tomorrow will need to be highly flexible, have the ability to move seamlessly between domains of knowledge, and have great networking and communication skills [13].

REFERENCES

[1] Cox, G., *Cox Review of Creativity in Business: Building on the UK's Strengths*, HM Treasury, London, 2005.

[2] Squires, S. and Byrne, B. (Editors), *Creating Breakthrough Ideas: The Collaboration of Anthropologists and Designers in the Product Development Industry*, Bergin & Garvey, Westport, Connecticut, 2002.

[3] Wasson, C., "Collaborative Work: Integrating the Roles of Ethnographers and Designers", in S. Squires and B. Byrne (Editors), *Creating Breakthrough Ideas: The Collaboration of Anthropologists and Designers in the Product Development Industry*, Bergin & Garvey, Westport, Connecticut, 2002, pp. 71 – 90.

[4] Wakeford, N., *DTI Global Watch Mission Report: Innovations through people-centred design – lessons from the USA*, Crown Copyright, London, 2004.

[5] Fulton Suri, J., *Thoughtless Acts?*, Chronicle Books, San Francisco, 2005.

[6] Costall, A. and Dreier, O., *Doing Things with Things: The Design and Use of Everyday Objects*, Ashgate, Aldershot, 2006.

[7] Henare, A., Holbraad, M. and Wastell, S., *Thinking Through Things: Theorising Artefacts Ethnographically*, Routledge, London, 2007.

[8] Ingram, J., Shove, E. and Watons, M., *The Design of Everyday Life (Cultures of Consumption)*, Berg, Oxford, 2007.

[9] Bucciarelli, L., *Designing Engineers*, The MIT Press, Cambridge, MA, 1994.

[10] Bryman, A., *Social Research Methods*, Oxford |University Press, Oxford, 2001.

[11] Norman, D.A., *The Invisible Computer*, The MIT Press, Cambridge, Massachusetts, 1998.

[12] Rodgers, P.A., "Polymath Interpolators - The Next Generation of Designers", *Shaping the Future?*, Hadleys Ltd., Essex, 2007, pp. 375 – 380.

[13] The Bureau of European Design Associations, *Design Issues in Europe Today*, BEDA, Barcelona, 2004.

[1]Dr Paul A RODGERS
Reader in Design
Napier University
School of Creative Industries
Merchiston Campus
10 Colinton Road
Edinburgh
EH10 5DT
p.rodgers@napier.ac.uk
+44 (0) 131 455 2313

[2] Mike ANUSAS
Design Lecturer
University of Strathclyde
DMEM
James Weir Building
75 Montrose Street
Glasgow
G1 1XJ
mike.anusas@strath.ac.uk
+44 (0) 141 548 2366