ENGINEERING AND PRODUCT DESIGN EDUCATION CONFERENCE
15-16 SEPTEMBER 2005, NAPIER UNIVERSITY, EDINBURGH, UK

THE 'CULTURE MEDIUM' IN DESIGN EDUCATION

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ABSTRACT

Design solutions do not occur in a vacuum. They are nourished by a breeding ground that embraces various substances, phenomena and traces, all of which function as raw material for concept generation and ultimately for design. Perhaps an appropriate name for this breeding ground is 'culture medium', which combines the notion of cultural baggage that individuals and groups hold as part of their make-up, with the idea of a seedbed for growing micro-organisms. This paper examines the composition of this 'culture medium' and how it functions in the context of design education through reporting two unrelated, yet content-wise connected studies. The first results from in-depth interviews with experienced design tutors, the second is comprised of an ethnographically oriented study with a group of design students. Combining, comparing and contrasting information gathered in these two studies, reveals some interesting insights about the 'culture medium' that is valued by tutors and students.

Keywords: Cultural capital, design education, influences on the design process

1 INTRODUCTION

Design has been recognized as a highly complex activity, which requires considerable amounts of knowledge beyond what is stated in the design task. As Nigel Cross [1] puts it, "*the solution is not simply lying there among the data, like the dog among the dots in the well-known perceptual puzzle; it has to be actively constructed by the designer's own efforts.*" In actively constructing a solution, designers rely heavily on previous design experience. That is, design solutions do not occur in a vacuum or pop out of thin air. Numerous authors claim that designers make extensive use of previous projects in the act of designing. Especially during the early, conceptual stage of the design process, previous designs are said to provide grist for a number of decisions to be made [2].

This grist, however, is but one ingredient of the breeding ground that nourishes and is nourished by design. Perhaps an appropriate name for this breeding ground is 'culture medium', which combines the notion of the cultural information that individuals and groups hold as part of their make-up, with the idea of a seedbed for growing micro-organisms. The culture medium embraces various substances, phenomena and traces—both from within and from outside the design domain—all of which function as raw material for concept generation and ultimately for design. Since accumulating a repository of previous designs requires many years of practical design experience,

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student and novice designers cannot rely only on previous designs. What raw material, then, do students use for their designs?

This paper looks at the composition of this ‘culture medium’ and how it functions in the context of design education. On the one hand, design education has a core component of learning in action and by doing, which means that design students learn through the practice of designing [3]. On the other hand, design students are commonly asked to be creative in their design projects and to learn about what they are designing and whom they are designing for by searching within themselves and their environment. Because designed things make up students’ everyday environment, they are intimately part of their lives. Tutors, to greater or lesser degrees, may encourage students to engage with their individual and collective ‘culture medium’ as sources to move forward their design work.

2 BACKGROUND

Within the realms of anthropology and sociology, the notion of a ‘culture medium’ is not new. Social anthropologist Pierre Bourdieu [4], for example, proposed the notion of social reproduction called ‘cultural capital’. His class-based theory considers the non-explicit activities of everyday life as defining individuals [5]. Bourdieu feels that ‘cultural capital’ is acted out through the individual-personal everyday activities. It is further speculated here that the ‘cultural capital’ embodied in individual design students affects their design process.

When discussing the notion of ‘culture medium’, it is important to emphasize the values and assumptions attached to the study and understanding of culture. Two basic assumptions made by anthropologists are particularly relevant in the context of this paper: 1. that many facets of an individual’s behaviour are gained through engaging in various social situations and interactions; and 2. that people learn a great deal that they are never taught explicitly, and that much is learned through simply being involved in situations, society and cultural activities. These assumptions are central to this paper as it presupposes culture to affect individuals involved in the design process. That is, it starts from the view that social and cultural situations can and will affect the design process. Therefore, learning and doing is more than a cognitive activity. Ways of knowing and doing are unique to each group, and can be called its specific culture.

Design culture, and the notion of culture medium in particular, has hardly been explored by the design community. Although there are few precedents for understanding the social and cultural influences on design, literature reviews reveal a growing interest in exploring the social and cultural nature of design. Ashton’s recent research on social constructivism [6, 7] begins to get at the role of social capital in the design process. Louridas [8] characterizes designers as bricoleurs, who collage divergent ideas together into a complex finished product. There is also a rising interest in ‘design culture’, as emphasized by the work of Rodgers [9] and Julier [10]. Through interviews with well-known western designers, Rodgers speculates the existence of a ‘cultural DNA’ common to all designers. Julier’s book *Design Culture* addresses the make-up of western society’s designed world. Research on how ‘cultural contexts’ are viewed help understand how users interact with the world around them. Such studies on user-centred design use information about ‘cultural context’ to create and market better objects [11]. User-centred design connects to the concept of ‘culture medium’ insofar as it recognizes the importance of context in design. The studies presented here embrace the notion that social situations and cultural norms impact individuals and, as such, are passed on and in essence embedded in the artifact.

3 FROM THE TUTOR'S PERSPECTIVE

Our first study derives from a series of in-depth interviews with four local designers and design tutors: Mauro, Peggy, Paul and Werner.[3] The interviews were originally conducted to investigate the role of cases, *i.e.* concrete design projects, in architectural practice and education [12][13]. The interviewees represent different approaches and generations in (architectural) design practice and have also ample experience as design tutors. While the interviews started from a formal questionnaire, they often took place in a rather informal atmosphere, at times wandering to other subjects. Because the role of a 'culture medium' popped up during several conversations, these interviews are recycled here as the starting point for our investigation. In particular, they provide the (sometimes contradictory) views of tutors on the role of culture in the design process.

The notion of culture—or rather of being cultivated—is referred to by Mauro, when explaining what distinguishes 'good' from 'weak' first year students:

"*You immediately notice whether or not students have had 'from home' the opportunity—unfortunately, but that's reality—who have richer parents or have had the opportunity to travel more, and who, upon arrival in the second, third year, already have been to Firenze, to Paris, and to London and to New York. And you have others who have stayed in their own village and only have read the Panorama. That is, of course, a huge difference. That shows that those who are more 'cultivated', perhaps filter and use what they know in a different way than those who join us on the bus to a museum for the first time […]"*

In Mauro's view, the former students already have from day one of their architecture studies a 'culture medium' to draw from during design, while the latter have to start developing this resource from scratch. A similar view is expressed by Peggy, according to whom better students differ from weaker in that they "*come up with better examples*." Judging from Paul's experience, they are also better at interpreting: "*For the others, it's often copying, and in a volatile way.*" Many students tend to adopt shapes or materials from other projects, and there is nothing wrong with that, provided they know why they choose a specific example and draw the full consequence of their choice. Yet what is very difficult to students, Paul assumes, is to separate the sheep from the goats: "*I don't blame them for adopting things, but for adopting them without question, without reflecting.*"

The view of this trio sharply contrasts with the opinion of Werner, who has teaching experience in both architecture and jewellery design. He attaches great interest to teaching students to control and direct their inspiration, instead of passively waiting until they are struck by a bright idea. Therefore, he introduced the use of a memory book, in which students continually collect collages, images and preferences, to serve as base material during concept generation:

"What we try with that memory book is to say: 'Look, what do you like to see? What do you like to listen to? What do you like to eat? What do you like to do?' […] And not: 'Yes, I love Bach. And I like Tadao Ando. Etc. Etc. And I only watch movies by Peter Greenaway.' No, no! 'I've only watched Friends and I've also read Willy and Wanda, and I also played with Barbie.' […] Don't throw these things away. […] that's your culture, that's your basis, and if you look at other people, and you're projecting yourself onto those other people, then you're hiding or suppressing part of yourself."

[3] For more information on these interviewees and their background, see [12].

Rather than expecting the less ‘cultivated’ students to start building up a ‘culture medium’ from scratch, Werner stresses that each student already has a valuable and unique resource to draw from, and explicitly encourages students to go ahead and use it.
Judging from this series of interviews, then, there is no such thing as ‘the’ perspective of design tutors on the role of a ‘culture medium’ in design education. All interviewees find it evident for students to fall back on some kind of resource during design. Yet when it comes to the content of this resource, they seem to split into two camps. For the majority of our interviewees, this resource should be built up carefully so as to include buildings from ‘*Firenze, Paris, and London and New York*’ or ‘*better examples*’, in short Architecture with a capital A. The opposite camp, by contrast, accept that each student’s ‘cultural capital’ is idiosyncratic and may not involve what has typically been defined as culture with a capital C. What both camps have in common, however, is that their opinion seems to be built on presuppositions and intuitions as much as on clear evidence about the role and impact of students’ ‘culture medium’.

4 FROM THE STUDENT’S PERSPECTIVE

The second field study takes an ethnographically oriented approach by engaging with a ‘real world’ design learning scenario. A group of industrial design students were observed and interviewed in their educational setting while designing an artifact over a period of six weeks. The participants met once per week for six to eight hours per day in a classroom setting. The study aimed to investigate the ‘references’ that are considered to be the inroad to understanding the ‘culture medium’. References are all shared communication in the design environment, including speech and visual representations such as sketches and images from magazines or books. References are topics and experiences coming from inside and outside the design environment, most often relevant to the task at hand. Particularly interesting for this paper are the individual-personal experiences of events (sometimes involving cultural artifacts) that are talked about while designing. They come from outside the design environment and often relate to culture.
In order to target these individual-personal and sociocultural indicators, the study started with a questionnaire to discover the participants’ interests, values and background, which could then be connected with the more spontaneously occurring information later in the study. In order to get closer to what was happening socially and culturally in the design studio, information was gathered using a holistic multi-method approach, combining observation, informal interviewing, questionnaires, videotape, still photography and note-taking.
The group was selected because of its manageable size and willingness to participate in a lengthy study. Students and tutor were treated equally as participants, in order to maintain research distance and provide a reassuring environment for the students. All participants were male and between the ages of 21 and 22. The majority came from Scotland and England, yet two participants had lived outside the UK for extended periods.
The design brief was sponsored by *Virgin Atlantic Airlines* and *Corus Steel Packaging* in the context of the British Design and Art Direction Award (D&AD) competition [http://www.dandad.org]. Current meal trays are relatively standard across airlines and *Virgin* wanted a trademark meal tray to be manufactured by *Corus*.
All references were sorted into two general categories. *Inside* references directly relate to design and to the instructions provided by the tutor. *Outside* references include aspects that are idiosyncratic personal experiences as well as common cultural currency.

This paper zooms in on the latter as they are relative to the culture medium. The kinds of references expected in this category are:

1. Local: experiences and memories relating to travel, recreation, gender, workplace, hobbies, home, personal belongings, family, friends, prior education, and personal religious beliefs.
2. Universal: experiences and memories relating to the natural world, religious economic and political systems, government, place, media, and recreation relative to culture.

Moreover, references from outside either have a *tangible* relationship to the artifact being created or are more *intangible*, more distant from the task at hand. The former include everything that relate directly to the design of an airline meal tray, such as references to dishes, food (*e.g.*, kosher, Japanese, bento boxes, edible packaging, and drawing on restaurants' tablecloths), cooking, all forms of travel (*e.g.*, train, automobile, plane), space restriction, lap items (*e.g.*, laptops, cushions) and waste management. Indirectly related to the project (but still tangible) are references to *Virgin* music and music in general. Since they were designing for a multinational corporation offering more than one service, students referenced all types of music, particularly connected with a turning disc (*i.e.*, vinyl records, DJ-ing, DVDs, CDs). This was demonstrated when six participants presented preliminary concepts that involved a spinning disc as part of the meal tray. Games and game playing formed the second strongest theme after music. Again, five participants presented preliminary concepts featuring a game to be played while on the plane. Further yet from the task but still tangible are references to TV commercials and a bird feeder. Interestingly, there were very few references to personal flights, presumably because only four participants (including the tutor) had traveled extensively and several had never been on a plane.

Intangible references are less frequently discussed while designing an artifact, but nonetheless present. They are abstract, unusual, and ambiguous, and therefore more difficult to categorize. One example worth elaborating on is a reference to a whiskey tin that eventually becomes embedded in the final artifact design. The participant says: *"I like the shape … it is like the old whiskey tin boxes that the 'Glenfidich' comes in. I've got loads of them back home. My dad likes to collect those."* This statement is very telling about the participant's culture medium. He uses the whiskey tin to describe the overall proportion and form he wants to employ in his design. He also wishes to create a meal tray that is three-dimensional, breaking the mold of a traditional meal tray design. Yet, in referencing a whiskey tin, he is referencing his Scottish culture and individual-personal experiences. That is, whiskey is produced in Scotland and is known as one of their cultural icons.

The references identified in this field study are highly significant to investigating the culture medium, which should allow constructing a broader understanding of the design process milieu. Approximately 50% of all references come from the inside of design, the other half come from outside. Although not all references directly influence the final artifact design, it is clear that the culture medium is a driving force in the design process among design students. The participants in this field study bring values and added meaning to their design work on a personal level by reflecting their cultural capital.

5 DISCUSSION AND FUTURE WORK

Cultural capital exists within all people (students and tutors) and is a major contributing factor towards the development of an artifact, shown here from two perspectives. Some tutors define the culture medium as involving specific artifacts that embody 'good'

design. Another tutor recognizes the inherent value of reflecting on and exploiting 'what students have'. Either way, students seem to use the culture medium knowingly, unknowingly, creatively and spontaneously throughout the design process. It is speculated that designers and even design experts use the culture medium while designing. That is, the artifact is 'born' in an ecosystem that contains other artifacts and the experiences surrounding people's interface with the designed world of objects, places and spaces. In the case of design, those objects and experiences relate to the everyday lives and cultures of designers.

It is, however, too early to draw general conclusions based on the studies reported here. Further research is needed to identify what culture media are used in the design process and why. Awaiting the results of this investigation, design tutors can surely start off by preparing themselves for a profound change in mentality. According to our study, their present emphasis on culture with a capital C wrongfully excludes students' personal and sociocultural background from nourishing design in the studio. To acknowledge this fact is but a step, yet it is not an unimportant one.

ACKNOWLEDGEMENTS

Ann Heylighen is a postdoctoral fellow of the Fund for Scientific Research-Flanders.

The authors would like to thank the interviewees, and the fourth year industrial design students and tutor in the school of Design and Media Arts at Napier University, for their time, support, patience and honesty.

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