

Collaborative International Project – ‘Kitchens of the World’, a case study in multi-national groups undertaking design studio activity.

Principle author; Selby Coxon Monash University.

Co –contributors; Stig Karlsson, Dennis Pettersson, Asa Wikberg of Lulea Technical University, Sweden, Neil Smith and Nick Spencer of the University of Northumbria, United Kingdom.

Abstract

This case study describes an Industrial Design project concerning the kitchen its environment and the products within it. The consuming and preparation of food as a unifying feature of humanity was chosen as a topic to bring together students of diverse nationalities and at the same time expose any cultural contrasts.

The design project involved students of Lulea Technical University in Sweden, the University of Northumbria, UK and Monash University, Australia. The purpose of the studio activity was to advance multi-national creative team working and expose undergraduates to new cultural experiences outside their normal environment.

The project took place in three distinctive phases. Firstly a research investigation within the bounds of the students home institutions and countries. A second phase hosted by Lulea Technical University in which research material was synthesized into targeted design briefs and finally a third phase, the configuration of physical design outcomes hosted by Monash University at the Prato Centre in Italy.

The project is indicative of the ‘studio’ mode of teaching and learning but with the heightened level of experience in placing the student in an ‘alien’ but stimulating environment rich in cultural heritage. This period overseas it was speculated might have the most influence upon the learning experience during activities requiring a great deal of creativity. The project also enhanced team based co-operative learning at an international level between individuals and institutions that, the author would hope, would prove central to a young designers education.

The project exposed both flawed and effective strategies in the refinement of the studio experience in Industrial Design across international design cultures. The findings of this project have implications upon the development of studio practice, modes of creativity and teaching.

Presentation Paper

[Slide 1.]

Background.

This paper discusses the work of an international collaboration between Monash University and two other university undergraduate programs from Europe. The work centres upon an Industrial design project on the theme of the kitchen its environment and the products within it called “Kitchens of the world”.

[Slide 2.]

To best describe this case study I am going to take through the following series of steps;

The nature of what we call studio practice in Industrial Design education.

The influence of the environment upon that practice.

I will talk through some of the dynamics of multi-national groups.

The process of the project.

The results of the undergraduate research.

And finally some of the observations resulting from the activity.

[Slide 3.]

For those of you not familiar with the term Industrial Design. Here is a brief overview of the essential philosophy. Industrial design concerns itself with the planning, evaluating and creation of objects (usually mass produced but not always) where by the needs of the human being are central. And those needs are responded to at a number of levels from the visceral to the behavioral. In the four-year bachelor undergraduate degree offered at Monash the program seeks to educate and train professional Industrial designers confident in their contribution to the field through high quality visual expression, usable safe products produced by economic and efficient means.

[Slide 4.]

The experiential activity of designing to solve problems is a distinguishing feature of ‘Studio’ education. The studio learning experience, where by students work, thinking, drawing and making to realize solutions either collectively or as an individual has been used for very many years. It has been a successful cornerstone of the industrial design program both at Monash and at overseas institutions.

Typically industrial design projects are multifaceted with variable and open-ended outcomes that encourage students to have a heightened responsibility for their learning. Cultivating innovation is the sought outcome and synthesizing what we call ‘design thinking’ as an effective tool for attaining those high levels of innovation. I offer as evidence of this the results of evaluation surveys conducted over recent years.

Here you can see the classic stages of the 'learning circle' in which students apply thinking skills to conceptualize an issue and then experiment by making. Lecturing staff then bring their experience to assist the student in reflecting upon their outcomes in order to re-conceptualize and refine their design thinking further.

[Slide 5.]

The loop is re-expressed here with a bit more detail illustrating the actual techniques employed at each stage. Conceptualization is the formulating of innovation or what we might term as novelty. This is done by bringing otherwise disparate information together to form new patterns either in functionality or physical form. Such outcomes could be through the observation of related matters in another area of endeavor or challenging convention but all in some way making new connections. The 'cultivation' of these connections is supervised by the intervention of teaching staff.

[Slide 6.]

Introduction.

(The effect of physical place)

A great deal of research suggests that student learning is affected by physical place. An effective learning environment, physical, social and psychological supports the task to be done and encourages learning and teaching. It would seem few students are immune to the impressions that impinge on the senses from the outside. The working context in which particularly creative people live and work has consequences upon the production of innovation as well as its acceptance. This I would suggest might account for the creation of clusters of creative individuals that gravitate towards centers of design activity at certain places and institutions. This is certainly true of such regions in the world such as Scandinavia and Italy. These are the locations that created a contextual background to the 'Kitchens of the world' project and imbued a historical design culture that may in fact help students see situations holistically and from novel viewpoints.

(Centers of design activity)

The professional practice of Industrial Design is not distributed evenly around the world but appears to gather intensity in different geographical regions. To enrich the learning experience Australian design students need to access these practice rich areas. Part of the rationale for undertaking this collaborative project was to experience how different locations appeared to influence the creative process. During the early preparation for this project students were living in their home countries and working at their own institutions gathering elements from which a specific design problem was to emerge in a familiar environment without the distractions of new cultural experience. Issues and observations concerning a problem were therefore able to incubate.

(Connections with new stimuli)

Once the groups of students met the distraction of new stimuli brought about by alien cultures and new environments allowed the design thinking processes to make connections that are unlikely when the problem is pursued within an environment of everyday experience. As I elaborated upon earlier; from unexpected connections new insight is derived. The institutions involved in the project come from countries that have a deep design culture in comparison with Australia. Italy and Sweden are repositories of a wealth of design history. The opportunities for learning in these places capture the students' interest and involvement within the design field. A greater density of design and manufacture in Sweden and Italy therefore provide more ferment and a greater output of innovation prompting the creative student to experiment with ideas more readily than if they had stayed within a more familiar environment.

[Slide 7.]

Case Study.

Kitchens of the world was a three University collaboration. Lulea University in Sweden who also hosted part of the activity, the University of Northumbria in the UK and ourselves. The project focused upon the studio activity in designing that brought about learning experiences and creativity in two main areas.

1. Working in multicultural groups.
2. Working in a changed environment.

Each of the universities embarked upon a period of preliminary investigation during March of 2005. Setting out to question current paradigms of food preparation and consumption as well as their associated rituals. Investigating opportunities for new systems in the light of our varied cultural backgrounds. For Lulea this meant visiting commercial kitchens and interviewing luminaries of the culinary world. For Northumbria an audit of contemporary attitudes to food and cooking and the popular media's portrayal and representation of culinary activity. For Monash University a more studio based research activity took place resulting in conceptual designs.

[Slide 8.]

[Slide 9.]

The results of this information scoping were brought to Lulea Technical University in the north of Sweden in late April 2005 and formed the basis of a forecast of relevant social and cultural issues, emerging technologies, design trends and ergonomics in relation to each of the students design concepts. Presentations from each of the universities cohort of students formed the basis for creating specific design briefs that emerged from the scoping investigation. Crucially at this stage the groups were re-formed this time as multinational groups containing an equal number of students from each university. The design briefs that emerged from this process were as follows;

A kitchen that promoted and stimulated children to learn to cook.
A kitchen for young couples in a small apartment.
A communal kitchen.
A kitchen for someone living alone.
A kitchen to assist in combating obesity.

[Slide 10.]

The design briefs were redistributed between the groups so that the original authors were not the designers. This precluded any possibility of preconceptions of the design outcome.

[Slide 11.]

At this point I'd like to make some observations about the group dynamics. In effect the new multinational groups followed all the hallmarks of group development namely storming, norming and performing (to a fashion). The Australian and English cohort bonded a little closer for two reasons language being an obvious one (though typically the Swedish contingent spoke English fluently). And their student cultures were similar. Lulea University students came from a far more linear process path that reflected an engineering and perhaps more deductive method to design solutions. This educational upbringing one might say proscriptive and the other liberal did create tensions particularly in the period in which groups were carving out their design strategies.

[Slide 12.]

This stage concluded by decamping to Stockholm where the students were then treated to presentations and discussions with two multinational giants of the manufacturing world. Electrolux and IKEA. Both visits to their offices in Stockholm gave the students insights into their processes and the relevancy to their own research work. We then moved on to the Monash Centre at Prato to complete the design study and create the concept outcomes.

[Slide 14.]

The Italian intervention was the longest period in the project and the one in which there was something of a level playing field in experience as this time the Swedish cohort were also away from home. From the cool climes of a rigid and structured crisp and tidy design culture to the effervescent and at times apparently anarchic flavor of Italy had an energizing effect upon stimulating the groups. Of course there were the distractions of curiosity but there remained a sense of working within a greater whole in terms of artisanship and creativity beyond the walls of the centre. The studio spaces at Prato are basic compared to our facilities at Monash but that only served to create a heightened

responsibility within the groups for resourcing materials utilizing laptops and delegating tasks.

Outcomes.

Here are just some snapshots of the final outcomes of the work.

The communal kitchen. A lozenge shaped bench that can be accessed from all sides suitable for outdoor environments and catering for groups of up to ten people cooking different dishes.

To the right the kitchen entitled I-alone; A kitchen for single people. A compact console style kitchen that envelops the user creating a sense of security wellbeing and accessibility.

Beneath that an apartment kitchen for young couples. This island kitchen contained all cooking requirements sink, hotplate and dishwasher and a dining area complete with fireside hearth.

To the left of that a detail of some pedestal steamers for the kitchen to assist the obese. The concept encourages a healthier lifestyle through immersion into dietary assistance and a display of healthy foods and products. Steamers take centre stage in the kitchen reinforcing healthy food preparation techniques.

And finally bottom left a kitchen that promoted the safe learning environment for use by children took the form of a series of shelves or cabinets that articulated up and down to suit the requirements of the child.

Slide 15.

Here is a short film that was made by students from the University of Northumbria following the project and is interspersed with images of the developing design outcomes.

Implications.

[Slide 16.]

There were two main interventions in the normal studio paradigm of study I mentioned before; Working in multicultural groups and working in a changed environment. To analyse these and reflect upon the outcomes a semi-structured interview was carried out with each of the Australian students to validate the observation of the projects progress.

Analysis of the responses does suggest that (anecdotally at least) that people with prepared minds that find themselves in different but stimulating settings appear to be more likely to find new connections among their new colleagues and new ideas. But this was hardly a scientific test.

All the students responded that they had enjoyed the experience but the groups were not cohesive displaying group behavior rather than team identity despite carefully defined roles emerging towards the end of the project. Difficulties arise in the process of gaining 'buy-in' to the chosen design and the feeling of some sense of ownership in the outcomes. This would appear to reinforce '*the triumph of the individual creative mind*' as displayed by current design orthodoxy. That said deeper levels of consideration and sensitivity between each other was evident when the balance tipped from intellectual enquiry to the more fun aspects of traveling overseas.

In response to the change of environment both Prato and Lulea stimulated creativity. They presented novel and complex sensory experiences and I have to say mainly visual ones at that. Attention is diverted from the norm and encouraged to follow the novel. Interestingly despite the attention on culinary activity none of the design concepts displayed an overtly Swedish or Italian technique or theme but tried to respond to the brief in a focused and neutral way. There were no problems in pursuing divergent thinking much more in managing consensus and convergent thinking when decisions had to be made.

Typical days would be eight hours with two group meetings a day at least one with a teaching staff member from one of the institutions involved. Perhaps this was too much of an interference to the momentum of the group.

The project has if nothing else generated positive outcomes in the form of exhibitions in Sweden, Australia and the UK and very positive press enthusiasm here in Australia in national and state newspapers.

[Slide 17.]

References

Csikszentmihalyi, M. *Creativity, Flow and the psychology of discovery and invention*. Harper Perennial, New York, 1997.

Boyes, K, *Physical Social and Psychological Environment for Learners*, Spectrum Education, Auckland, 2005.

Young, R. A, Hilton, K. H, *The Review of a Design Practice Learning Project to Pilot Heightened Social Responsibility and Engagement*, Northumbria University, Newcastle-Upon-Tyne, 2002.