

Creative Currents for our Common Futures

A model for collective reflection in action for situated design research practice.

Soumitri Varadarajan*, Liam Fennessy**, Mick Douglas***

* RMIT University, soumitri.varadarajan@rmit.edu.au

** RMIT University, liam.fennessy@rmit.edu.au

*** RMIT University, mick.douglas@rmit.edu.au

Abstract: Over the past two decades Design has actively engaged with sustainability as both a topic for, and as an agenda for intervention in entrenched social and technical practices. The collective expertise of the authors is in the area of design for sustainability, which we articulate as the practice of Social and Sustainable Design. Our work deals with projects that focus upon design as a socially engaged and negotiated creative practice with a strong sustainable design or service design focus. Often located as visions for the future these projects are speculative and propositional, and are undertaken through a set of defined methods and strategies to think through the projects and develop the solutions. In recent years we have seen the amplification of the social dimension in our projects and we have also realized the outcomes of the projects as social innovations. We campaign for a dematerialized world and have seen design projects become new, viable and self-sustaining social entrepreneurship ventures. The paper is undertaken as a reflection to describe a codified practice of the design of social and sustainable intervention. The paper offers a positioning and alternative territory for design and a discussion of the methods that we deploy in our shared practice of building a pedagogy for situated design research practice.

Key words: Reflective Practice, Social and Sustainable Design, Social Innovation, Situated Design Research Practice, Industrial Design, Design Studio Practice

1. Introduction

This paper has been written with the intention of reflecting upon a shared practice between three researchers. While the researchers work on their individual projects and collaborate on research projects they also undertake a collaborative practice to jointly supervise a group of senior industrial design students. This work of joint supervision is now a decade long, and the paper is motivated by a desire to reflect upon how the collaborative practice has created a very specific kind of Industrial Design Project space.

We would like to imagine that we have constructed this space with deliberation and forethought. While that would be the right way to speak about a shared practice, to do so would hide the richness of an emergent situation that organically comes into being every year absorbing and fielding ideas, practices and contemporary discourses. Therefore this paper has been set up primarily for us, the authors, to reflect and thus to understand what is it that we do and why. In the process of this reflection we will engage in thinking publicly about how our ideas about the profession and the discipline of Industrial Design and wider Design have been malleable. We also position our

activity of capacity development, as we see our mentorship of student designers, within contemporary notions of scholarship and allow for the students to bring their aspirations into defining the educational experience. In the process the project in the final year is transformed from being a 'demonstration' of capacity to design, to become a location where individual ideologies are allowed to mature and be tested.

2. Creative Currents: The Final Project in Design School

Near the end of the third year of their four-year journey through the industrial design program students have to submit their proposal for a project that they will undertake in their final year as a yearlong project. The project is undertaken as a demonstration of their capability to set up and run a design project, with an emphasis that the year is an incubation of the design practice of the individual. The role of the supervisors in this context is one of mentorship and support to facilitate the construction of the individual's design practice. Frequently students seek additional entrepreneurship grants and if successful they get additional mentorship and peer support from business start-up and innovation seeding organizations.

In recent years social media has allowed students to set up online groups and they have effectively used each other to problem solve or get help on decisions and uncertainties in their mind. Facebook is working particularly well and has enabled students to undertake projects more efficiently and with greater vigor. The yearlong project in year-four of the industrial design degree course is in effect imagined to be led, directed and managed by the students with support from supervisors, other mentors and peers.

In the fourth year the students are organized into five or six student clusters. The authors collaborate to supervise one such cluster titled social and sustainable design. By definition the cluster aims to support students with an interest in sustainability and global citizenship coupled with a desire to develop their design practice in the space of environmental and social sustainability. Over the years of this collaboration we have seen the global debate about sustainability shift gradually, and in each instance the exhortations from us have been heeded by the students as a push to immerse themselves in the debate that was contemporary at their time.

While we have hung our affiliation to sustainability as this larger territory of practice and allowed students in this year to partner with us individually and work on our ongoing research projects and interests, we haven't discouraged students from bringing client or manufacturer focused projects to work upon. It has just happened that we have not witnessed any client-supported project and have ended up with a situation where the whole project is proposed as something that a student designer wants to do. We have in effect ended up realizing the urgings of Fuller [1] to work 'independent of client prerogatives, to determine the external organics of industrial man'. Additionally these students projects are also solo ventures, where the student project is not part of a larger project and so the student does not submit works to a team as a design contribution.

The students in turn bring a quite powerful energy to the project. This energy has its roots in the liminality of the situation, the space between being a student and being a creative practitioner or professional, as this is the last

chance at a doing a project that is risky and a vehicle for an idealistic statement. The project as a vehicle for channeling not capability, which is how the curriculum would see it, but of an individual ambition transforms what is worthwhile doing. The project in this instance is not an objective and pragmatic task to be undertaken efficiently, but becomes a creative work in a way similar to how 'work' is imagined in art. It is often an honor to witness the journey of a highly motivated student, to see them take the decisions that they take, and to see them imagine their work having the power to change the world. It is such fragile yearnings that give the projects their poignancy and their accompanying texts their individual ideologies. The supervisory role in much of such projects is about creating a scaffold for independent learning and for nurturing a sense of confidence in the student to keep her going in unique directions. On the negative side the early days and the closing days of the project are very stressful for the student as they fear they could be doing something not good enough - for the expectations are quite high and the supervisory group does not wish to intervene and do the thinking for the student. This project is as much about the nervous energy that can be generated and funneled into a creative endeavor, as it is about solving a big global crisis.

3. Our Common Futures: Engaging with Sustainability

This year the students commenced their year by spending three weeks working from a mobile studio environment temporarily located at an urban environmental park and community organization in inner city Melbourne called CERES. The mobile studio facility – a customized modified 20 foot shipping container fitted with a kit of flexible use parts – enabled the student group to be temporarily immersed in a host environment from which they could learn and contribute, without draining on the limited resources of the host setting. The intensive experience of undertaking short collaborative projects in three weeks provided an analogue experience of what lay ahead in year-long projects by enabling learning about design, through design, for design. Through immersion, students are able to examine and respond to the existing sustainable technologies and social initiatives of our host community setting. By immediately experiencing a call for project actions, students inculcate value in a practice-based mode of investigation through doing design activity. By engaging with a larger community of practice that itself values social and sustainable orientations to design, students are able to contextualize their year-long investigations and personal aspirations, and so inform their process of a becoming design practitioner.



Figure. Mobile studio environment – Container at CERES

They go in every morning, except when they have the odd class in the city, and spend the time looking at the different projects in the environmental park and talking to the coordinators of these projects. This is a departure from our usual start of the year where we spend hours talking about the state of the world's environment. Such conversations in past years included 'behavior change' and the nature of design in the 'post growth' epoch. This year it is emerging that the environment is something tangible and the problems the students are viewing and thinking about are going to be local, material and technical. This three-week stint that the student's are spending away from campus and the studio environment within the university is a quarter of the time of the session and exemplifies the notion of immersion, which is the first stage of a four-stage design process. The other three stages of the complete four-stage design process comprise – one, exploration, which is about proposing design solutions and pathways for a sustainable future and imagining the potential impacts of the different options. Two, intervention, is to activate a proposition as an intervention, a design artifact or service that has the potential to transform local or global practices so as to reduce their environmental and social impacts. Three, the last stage, demonstration, is to develop the design solution as a product, product service system or service showing a designerly outcome. These four stages are spread over a year, and offer an intense period of exploration with periodic presentation of outcomes.

The length of the project offers two critical methodological options; one is the ability to display risk-taking behavior, with enough time to back-track from failures to redefine the project; and two, is the ability to imagine an entrepreneurial option of going into business with the idea. In effect while the student is involved deeply in the project, the mentorship often focuses upon how the student is 'playing' the project. This is reinforced with the engagement with three practitioners with different leanings, and there is a discussion of the approaches of the supervisors as possible options for the way the project can be constructed.

Sustainability viewed from Australian design practice introduces the peculiarities of the local context into the practice of the supervisors. Significantly sustainability in Industrial design at RMIT University has deep roots in the ecoredesign movement, and the belief that incremental change to products to deliver reduced environmental impacts was the sole contribution that design could make. However the gradual decline of local manufacturing over the years has meant that ecoredesign became a hypothetical prospect for engagement with clients far away in manufacturing centers of Asia. Sustainability itself is more real today and is located in a less technological and more social transformative space. In recent years we have ended up focusing upon 'the making of design' in such a way that empowers individuals to implement behavior change in their practices. Critical to the approach to behavior change is the notion of respect and a belief that given appropriate tools people will rise up to the challenge to change the way they do things.

If anything from the perspective of sustainability the full yearlong joint activity between the supervisors and the students is a form of Capacity Development.

4. The Collective Reflection

This is the last year of the program as we have run it; something new is taking its place brought on by national educational policies and local educational imperatives. While many of the aspects of the program will be retained some crucial aspects may change. That said the program we have run is not unique in its conception or location, at the end of a bachelors education in design, but is a particular construction defined by our porosity to the local. Porosity to the local is a characteristic of most if not all design programs. This porosity is what defines the way the final project in design school is constructed. Conducted over either a six month or one year period the final projects usually take one of two forms: as an industry relevant project with the student located in the university and working singly or in a group on a project with close supervision from a tutor/teacher, or as a research-led project. Industry oriented projects may be of a duration of six months and in some universities it is common for the student to be physically located away from the university, in the industry's R&D labs or design studios. This model is popular in manufacturing contexts and where the notion of design work is defined by design jobs in manufacturing businesses. We have been referring to this kind of meaning of design work as 'professionalized' to indicate a particular alignment of design theory and ideology that of being a member of the professional expertise network of the producer. The research project model sees the student demonstrate the ability to research a topic or subject and produce a thesis. While common in traditional universities, this model is also to be found in new programs in universities where design is situated within departments of engineering and computer science. Normally of a six-month duration the design culminates in a project that demonstrates values of inquiry. Both the above forms of final year project end with an assessment by a 'jury' - where the student puts up a presentation and 'defends' their work. In our process of defining a specific and emergent design project culture we have been referring to this kind of 'positioning' of the project as justificatory.

Given the location of our program, within a school of architecture and design, we have over the years adopted and shared perspectives on design from the disciplines of architecture and the allied areas of interior design and

landscape architecture. This coming closer to architecture has meant a distancing from some core 'industry' and mass manufacturing orientations that might otherwise dominate an industrial design curriculum. While at the superficial level it has meant that certain aspects of industrial design, such as those to do with spaces and interiors such as furniture and table ware, have become more prominent, at a deeper level, how we see and speak about design has been re-centered and relocated. For example we have actively raised a tension between two forms of positionings of practice as those that are propositional and those that are justificatory. Not having to convince a management of the sales, functional and manufacturing efficacy has meant that projects can be propositional and even if one unit is built the design endeavor is validated.

Australian designers are known in the North America for their ability to take projects through to prototyping or working out manufacture. This skill in fabrication, detailing and manufacturing thinking is an ability we take for granted with our students in the fourth year. There is an element of toughness and vigorousness in the way the design student can be expected to approach the project. There is also much less by way of dialogue or argument in the thinking through of design projects. This individuality and inwardness, potentially a cultural trait, (though that is for others to research and articulate as a trait) transforms the design journey into an individual enterprise. We use this unique performance to urge the student towards entrepreneurship and in this instance the final project becomes a vehicle for the prototyping of not just a design, but of a venture based upon a design of a product or service. The final year is in effect a launch pad for the designer and for designing to be thought of as itself an enterprise making activity. This notion of project as a launch pad we share with the other disciplines in our school and this is most prominent in the discipline of Fashion design. The student then is imagining a solution but also a business.

Sustainability thinking in this situation is hostage to career and ideological agendas. In answer to this problem we frontally ask students to address through their projects the questions of what is sustainability, what is research, and what is design practice? As a design provocation the authors subscribe to a position in sustainability thinking that is aligned with the radical fringes. We believe that global warming is happening and that in Australia we are seeing the dramatic effects of a heating planet in the extreme weather events and in record warm summers. We introduce students to fringe writing such as texts that say: "The only thing we can be certain of is that if civilization continues, it will kill every last being on earth"[2]. We seek from the students' neither 'justificatory', nor incremental or technological fixes but a way forward in thinking about reductions in our ecological impacts. We urge students to imagine setting up campaigns where we influence not buying decisions but the very practices of communities that impact upon the environment. We speak to the students about how our goal ought to be less consumption, less mobility and a lot less of technologically enabled and resource consuming functions in life. In fact this position of ours sets up a location for innovation that challenges a community of creatives to produce interventions that can change the course of human civilization. The proposition here is that the collective, the group of students forming the final year project cohort, is itself a resource that can farm its own intellect to produce revisionings of human activity. We encourage direct action, and urge students to embark upon giving agency to themselves and their creative, and to inhabit their own practices as a way to tackle unsustainability. We describe our expectations to them as wanting to see more activism, design activism [3], to see more advocacy for

the marginalized and to see design being used for the collective good of the collective and not the focus upon the individual.

The external perception in the larger community within and around the university, of the designer as a creative practitioner contains a particular discourse that the student would have experienced over the years preceding the final year. The two aspects of this perception are discussed below as being mediated through the notions of the design 'exhibition' and the 'impact' of design work.

The final year project is a particular kind of design project, one that is situated within design academy and orientated towards showcasing an exemplar of design practice through an exhibition. The existence of the exhibition, as against serial production, places a unique emphasis upon the way the project's goals are visualized. The existence of the exhibition also places emphasis upon the notion of impact as a key outcome of the project. While the idea of 'what is it that can be designed so that it can be shown through an exhibition' has dominated urban practices in design in the modern era, it has not necessarily been the subject of a discussion as a determinant of the construction of a design project. The question therefore is; what happens to a design project when its main purpose is exhibition to an urban audience of peers? What we are witnessing here is a shift in ideology of design. Where traditionally design was tasked with the goal of making work easy, or with increasing the uptake of technology, the new view of design is nakedly about making artifacts that can be appreciated for their visual qualities, and for the solution to some big problem.

Additionally the notion of impact as a key outcome has been interpreted in many ways. The notion of 'impact' within the context of a practice orientated towards exhibition has traditionally been measured by the number of people who have witnessed, attended the preview or walked through the event. Within a practice of design that is often undertaken in a glass box fashion, where the research, designing and intimate details of the work as it progresses are shared online, the impact is assessed and measured differently. If the project uses a social media platform, such as a blog, the platform records the number of hits and comments. What changes the meaning of impact online is when such measurements are rendered superfluous, such as in projects where the work goes viral on the Internet. In one instance where this happened the impact was best seen by the Google results to searching for the project online. This form of impact produces a different kind of project goal. A goal in which design is capable of transforming the way a topic, a problem or need is perceived. We refer to projects that produce large and substantive impacts as campaign projects.

Both the sense of the exhibition and impact permeating the design project demand an engagement with a very real urban audience in the city of Melbourne. The intellectual concerns of the social and sustainable constitute the research component of creative practice in design.

5. Conclusion: Towards an Engaged Situated Design Research Practice

What we have tried to write about is the shifting and fuzzy way that design practice is privileged by the authors. We situate 'practice' as an alternative to the formulaic and methodological approaches to sustainability projects

based upon the presumption of technological fixes and pre-determined responses to isolated problems. We have also provided an account of the final year in design school in a way that would be familiar to most design academics who teach into this stage of design education. We have attempted to parse the interwoven elements of the educational network that constitutes the final year project. In the process we have hinted at the existence of forms of fuzzy and tacit knowledge that is shared by design academics. While some aspects of such knowledge are common, the context intrudes into our porous network and transforms this tacit knowledge. So what we end up with is a typology of forms of tacit knowledge, where the accepted forms of design practice within manufacturing and industrial societies are markedly different from that to be found in post-industrial urban contexts.

How we engage with sustainability and the social nature of our artifact universe is pliable in form and changes with the shifting of time and emergent discourses. So as to remain alive to these dynamics, our pedagogy attempts to encourage the situated undertaking of design research practice. We foster the attributes of engagement, reflexivity and commitment to situate design research practice. Engagement in questioning is positioned as a requirement. Being able to bring a reflexive contextual awareness to a design undertaking is pursued as a capability that brings potential affects and effective impacts to the designer's project and self-development. The design research activity is constructed as a commitment to a journey of change. To be right is not at a premium, and a failure is considered worthy of the bold. If the design journey can be considered to be an inquiry then the design project becomes a research project. The real limitations to levels of engagement are acceptable – even the explicit negation of areas of engagement is tolerable - in a design practice where any work at all is acceptable so long as it demonstrates a vigorous journey. Thus we coin the phrase engaged design research practice to define a particular form of design that we, the authors, have encouraged.

These ideological and methodological reference points are not rendered into diagrams, or visual models, but are allowed to emerge as a narrative model of practice. The edges of this model are porous and some key threads can be pointed out. From this point forward the authors imagine they will embark upon a fuller narrative reflection to describe a historical practice illustrated by works.

6. References and Citations

[1] Fuller, R. B. (1963). *Nine Chains to the Moon*. Doubleday & Company, New York.

[2] McBay, A., L. Keith, et al. (2011). *Deep Green Resistance*. Seven Stories Press, New York.

[3] Fuad-Luke, Alastair (2009). *Design Activism: Beautiful Strangeness for a Sustainable World*. Earthscan, London.