From Practice to Reflection and on to Reflexivity.

ABSTRACT

Traditionally, art and design education in many higher education institutions has been characterised by a split between the teaching of theory and practice. This paper argues that this split ignores the possible common ground between the two, largely to the disadvantage of students. In particular, it will examine how and why many art and design students feel alienated by the methods employed in the teaching of theory. The paper further argues that there is a role for research as a common ground between theory and practice, and this common ground provides opportunities to design curricula that enable students to integrate reflexive and reflective practice.

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INTRODUCTION

"Education is experience, and the essence of experience is self-reliance." [18]

Historically, the studio tradition has conceded the pedagogic responsibility for the teaching of design history and theory to other specialist disciplines. The result of this has been the "wholesale importation" [14] of teaching and learning strategies from the Humanities which are at odds with those of studio practice. This separation has been described by John Wood [19] as the result of two different traditions; that of the monastic and the craft traditions, being taught alongside each other in Art and Design (A&D) colleges. Moreover, this dichotomy as discussed by Margo Blythman and Susan Orr [5], has done a disservice to our students by creating a polarity between theory and the activities that take place in the production of studio work.

However, designers design and write, and by implication design students need to design and write. The question arises for design educators – who are often also practicing designers – how well are we equipping our students to deal with writing? It is important to note that recent research such as those carried out by Rebekka Kill [11], and Blythman & Orr [5] indicate that students have an ambivalent attitude towards writing. Many students have expressed their choice of a design curriculum as a rejection of disciplines which employ writing or the written word, as the primary basis for the curriculum.

The disparity between the role and function of writing and the making process in A&D education is further explored by research carried out by Jane Graves and Dr. Beverley Steffert [8] in the 1990s at Central Saint Martins College of Art & Design, which indicates that a disproportionate number of A&D students are dyslexic and a large numbers of students, though not certifiably dyslexic, do certainly display dyslexic styles of behaviour, and employ 'Visual Spatial Learning Styles'. This profiling allows us a glimpse into the minds of many A&D students, where there is a perception of the wide divide that exists between the traditions of studio and theory teaching. A&D students often feel alienated by the methods of teaching employed in the teaching of writing, history and theory. This view is supported by Julia Lockheart [6], in the Primer Report for the Higher Education Funding Council for England (HEFCE), Fund for the Development of Teaching and Learning (FDTL) project, entitled Writing Purposefully in Art & Design (Writing PAD), where she describes the sense of alienation students feel towards writing. She states:

"Imagine you are a student at a university about to begin a BSc. [Bachelor of Science]. As you begin your course you are told that in order that you learn to be more 'academic' and that you receive a more balanced education, you will be expected to devote 20% of your time to visual research and the rest to your subject area. Moreover, in your third and final year, you will be expected to hand in a substantial folder of work based on visual research into an intricate variety and array of themes. This will be your Major Visual Project and contains up to 30% of your degree marks. It will be an in-depth visual study and you can choose subjects which may or may not relate to other work you are doing on your course. You must be creative!

Where would you, our student, begin? When at school, you always stayed away from the art rooms, never expressed yourself through drawing and painting, and were more interested in finding information about the world in books rather than through observation."

This statement clarifies what A&D tutors observe on a daily basis: that many students view writing as a necessary evil, that at best has to be dealt with in order to carry out what they believe to be the real purpose of their education; acquiring the skills to make the of artefacts. Moreover, many feel that by embracing writing, they will loose touch with the part of them that is creative.

Students feel more at ease when it comes to discussing their work in critical reviews. As Julier and Mayfield [10] point out, it is acknowledged (by Tomes et al. [17]) that designers and consequently design students, primarily articulate their actions and reflections verbally rather than in writing. This process of oral articulation and interchange presents a provisional space for reflection about what they do, how they do it and why they do it. One key reason for this may be that by talking about work, they don't have to come to a singular conclusion, and their ideas are not brought to a final static end. Rather they are open to ongoing interpretation and to revision, so that those involved in such discussions, may take the opportunity to restate their case - there is no finality, rather there is a continuing process of creative and generative learning. Contrast this with the scholarly essay, which validates and fortifies knowledge and beliefs by affirming through rigorous methodology and where conclusions (and conclusive statements) have to be made, tested and proven. This is altogether a much more adversarial approach. However, it is acknowledged that students of design need to develop a thoroughness of thinking; John Wood to whom I referred earlier, reminds us in his paper "The Culture of Academic Rigour: does design research really need it?" [19], that rigour is part of the family of words which includes rigor mortis!

The question therefore arises, how well are students being equipped to deal with the demands of their world? How do we link design practice and writing? These questions require design educators, to create strategies which enable students to deal with the fast changing working environment, into which they will be progressing.

WRITING AS REFLECTIONS IN & ON DESIGN

It is important to note that designers write for a number of reasons, but primarily the design industries demand of designers the capacity to articulate and explain themselves and their work, to make explicit their decisions, and above all to be able to communicate with their colleagues, clients and audiences. This need to express and rationalise practice-based activities in writing, has been compounded by the expansion of multi-disciplinary practice in the last two decades. The nature of multi-disciplinary practice demands further clarification of concerns, often voiced by clients seeking tacit reassurance

from the designer, as to the nature of the activities carried out. Often questions are directed towards designers such as; how can a graphic designer be responsible for the making of films and audio visual pieces? Or, do product designers really understand the nature of branding? These questions are further complicated when designers attempt to explain that multidisciplinary practitioners are also able technicians, who are capable of manoeuvring between computer programmes distinct to one discipline (e.g. such as graphic design) to those of other disciplines (e.g. such as audio visual editing).

The requirements for writing, are not limited to the primary need of communicating with clients. There are often gaps that need to be addressed; between the disciplines themselves, and as younger designers mature and develop more in-depth understandings of their practice, they are often driven by the need to describe and reflect upon these insights. This form of reflection often expresses itself in writing for design magazines and journals, where the writing is either in the form of historical research, or trans-disciplinary discussions, or simply an exercise of mapping the limits of their practice. This form of 'reflection-on-action' is to be differentiated from reflection-inaction, which is the expression of what Donald Schön [15] described in his seminal work, The Reflective Practitioner, as the "epistemology of practice". Schön has demonstrated that the tacit knowledge, which is inherent in the actions and processes of practice, are reflected upon, and ultimately understood as 'artful doing'. Schön also reminds us that practitioners of 'minor professions', such as design, do not rely on text books as a source for their knowledge base. Rather, they utilize skills which they have gained through their studio practice and carry out 'reflection-in-practice', as a series of activities, summarized by Wood as:

".... 'reflection-in-action'. This means that there are crucial aspects of the work that requires contingent, provisional, backwardly-referred, and anticipatory modes of thought. In other words, we muse upon, question, re-invent, reframe, and revise our actions whilst we carry them out. Schön acknowledges his idea to have come from many sources including the pragmatist philosophers." [20]

Designers write about their experiences, they create route-maps which trace out their journey and describe how they have come to a particular understanding. By carrying out the act of writing, they describe to themselves, in self-reflective mode and to their audience, the steps or processes which are fundamental to and formulate their work. This act of writing demands of the designer to look at him/herself and question the feelings and thoughts they experienced as they come to a realization about their work. These understandings are contextualized by attendant theories that provide designers with a critical framework, in order to phrase their arguments. These new understandings act as a basis for debate about the role and performance of design.

So far in this paper we have looked at how design students experience the gulf between writing and doing, and touched upon a number of issues, which indicate that the advent of multidisciplinary practice requires of future designers to be able to articulate their practice. The purpose of these deliberations has been to set the scene for the main question facing contemporary design practice. Over the last 40 years the design industries have been busy transforming themselves from professions to disciplines. This process has been driven by various factors, starting with the need for academic legitimacy in the early 1960s, and moving on to the expansion of the communication industries, the advent of mass consumption and

most recently the challenges of new technologies. We are now in a position to start to define for ourselves a legitimate basis for research methodologies, which do not duplicate those of the Humanities and Sciences. In order to do this it is essential that we address the question: what do we mean by research through practice?

RESEARCH THROUGH PRACTICE IS...?

Christopher Frayling [7] notion is:

"... the concept of design as research - either applied research, where the resulting knowledge is used for a particular application, or action research, where the action is calculated to generate and validate new knowledge and understanding, or even (but very rarely) fundamental research - is so well established that it doesn't need elaborating here."

In his paper 'Research into art & design' he elaborated on Herbert Read's delineation of the functions of research in art education as:

"...this is research for art and design, rather than either research into or research through art"

and later as;

- ". Research into art and design
- · Research through art and design
- Research for art and design"

Research into art and design is where the focus of study is the subject of art and design, and the traditions of art and design history best demonstrate this phenomena. In these fields there is an established scholarly tradition of examining the subject by the application of methods and methodologies which deliberate upon available material. The conjectures or findings of historic research for instance, may also tackle socio-economic, political, ethical etc. perspectives and are evaluated by the community of historians or even theoreticians. The convention of research through art and design, is an equally well established tradition, where art and design are a means of expression for the subject – often carried out by practitioners or those in a related tradition and adopted by other artists and designers. This tradition also has its own history and has in the past had examples which ranged from the investigation of materials such as oil paint, or new technologies such as lithography. This form of "action research" is characterised by the accumulation of a body of evidence which describes and reports on processes taking place in studio activity. This evidence distinguishes research from the mere gathering of reference material.

In contrast to the other two modes however, the last category of research *for* art and design, has presented educational establishments (or the academy) with a dilemma. Frayling describes research *for* art and design as;

'... thinking is, so to speak, embodied in the artefact, where the goal is not primarily communicable knowledge in the sense of verbal communication, but in the sense of visual or iconic or

imagistic communication'. Moreover, the artefact is an embodiment of the thoughts and the processes of deliberation and decision making.

It is worth noting here, that these deliberations raise the question for us: what do we mean by 'knowledge' in the field of art and design? and it is against the backdrop of this question that we attempt to locate the activity of research within art and design institutions.

The modes proposed by Frayling usefully locate research within a number of frameworks where the actions of research are investigated, evaluated and ultimately acted upon. We often replicate these modes within education, and many students define their research, however unconsciously, by finding themes that may express their interests (for instance in their proposals for their final thesis or major projects), which are often about:

- the Practitioner of art and design (i.e. I am interested in the works of a particular designer).
- the Practice of art and design (i.e. I am interested in the process or way we do these things).
- and the Product of art and design (i.e. I am interested in objects such as books, bags etc.).

In turn, design tutors are motivated to transform these student ambitions into a concrete, palatable form. Hence, we use these initial interests and enable the students to move from such starting points, to form a *position of conjecture* or to *a position of critical insight*. Tutors introduce students to contextual and critical frameworks, where the act of research enables the student to find new ideas and locate their ideas within a debate or argument.

We discuss their ideas and develop strategies to undertake their projects according to appropriate methodologies or structures of thinking. This activity of critical thinking, to quote Kill [11] is:

"... an engagement, both for students and staff, in critical thinking, as it is this paradigmatic destabilisation that underpins deep learning and real (academic) development."

Critical thinking, within A&D is in essence related to the activities of creativity, as it is in this mode that we challenge and overthrow existing paradigms and create new ideas, products or strategies. This essential connection between critical thinking and creativity, both in studio and in situations that demand writing, essentially undermines our ability to define rigorous methodologies. It is difficult to envisage an act of creativity (within-in design) while at the same time applying a rigorous methodology, since the creative insight or moment often catches the practitioner by surprise. To make this claim however does not exclude the need for appropriate design processes or support the view of the designer as a 'natural genius' who can only create through mysterious acts which are inspired by heavenly forces.

Critical thinking has been thoroughly discussed and defined by various theoreticians, as Kill expounds:[11]:

"This practice has variously been called 'criticism (Barnett), critical reflection (Mezirow), reflexivity (Beck et al,), or critical thinking (Brookfield).' For Barnett the emancipatory nature of Higher Education is closely linked to an engagement, both for students and staff, in critical thinking, as it is this paradigmatic destabilisation that underpins deep learning and real (academic) development."

And again:

"More recently Barnett has described a more holistic approach to becoming "critical" that Brockbank and McGill characterise as attending to process and contextual issues."

However, it is difficult to differentiate between the processes of critical thinking, theorising and the methods of gathering information, both in studio and in situations that demand articulation in terms of writing. Darren Newbury [12] offers a succinct and generic definition of research as a starting point for debate, which locates the relationship between the collection of information and critical thinking as:

"At it simplest, research can be understood as a process involving a period of information gathering, or in research terminology data collection, and a period of data analysis, bounded on either side by some theoretical work. Generally this takes the form of proposing a particular question about an object, or group of objects (theory)..."

The definition of research and its relationship to information gathering, critical thinking, and practice deserves much more consideration and space than this paper allows. However, it is important to point out that the aim here is to attempt to locate what we mean by *research practice* in relation to *design education*. To create an artificial dichotomy, for the sake of brevity in debate: studio tutors assume that that there is a distinction between what they describe as research and what a theoretician or historian may demand of the students – and vice versa. To add to this divergence of positions, there is also the additional confusion of what is meant by research as an activity. In terms of A&D we may often adapt an unsophisticated approach to research and define it as; a *careful search*, exploration, investigation, information gathering or identifying sources for reference material.

Studio teaching allows students to learn through 'doing'; learning through projects and briefs which can lead to observation, play, assimilation, translation, repetition and the act of critical reflection which often expresses itself through making. In studio work we often start our research process by employing reference material as a starting point. We then employ techniques such as play or visual juxtaposition such as minifying or magnifying, scaling etc. to propel an idea towards a solution.

The activity of research expresses itself in a variety of investigative processes, each displaying characteristics of a mode of investigation. According to Prof. Martin Barker, [1] the range of these activities and actions can be:

[Please note all explanations have been expanded upon by the author of this piece.]

"• Exploratory

[a search: which uses primary and secondary sources]

Archival

[looking at lost histories and researching material that has gained new or recent validity]

Narratives

[looking at a sequences of events which validate or fortify new insights and ideas]

• Textual [visual] / analytic

[asking designers what the significance is of these objects and how we can develop questions about them through contrast, comparison etc.]

• Argumentative

[asking designers to challenge their or the audience's understanding of this subject]

· Scholarly

[looking at and examining a field of study, reviewing what is already known and mapping the territory it covers]

Critical

[asking the designer to examine a knowledge claim, and to challenge doubt, reason out a position etc.]

· Conceptual

[asking the designer to review terms, concepts and ideas, and in turn postulate as to what needs clarifying...]

Methodological

[the designer is enabled to think about a set of procedures, and take them apart]

• Model-building

[the designer will need to look at disorganised materials, and attempt to sort them out]

· Case study

[the designer looks at a phenomenon, and brings it into focus]

• Hypothesis-testing

[the designer ascertains from what is already known, some deduced logic]"

These clarifications of the activities of research, articulate for the student, design educator and designer, the various actions of research. However, it becomes apparent that we rarely employ a single mode of research by itself, we often utilise one or more of these modes at various points during our working lives or the course of a certain project. The designer often starts in an *exploratory* mode and moves on to an *argumentative* mode in order to try to define a position in relation to a problem. Or, as many designers are avid collectors, they start by referring to their *archives* and draw out appropriate source material as a starting point in their investigations and move to a *critical* or *conceptual* mode of research. These modes of design can be easily transferred from one arena; (studio) to another (theory) in order to research a subject.

This ability to consciously manoeuvre through different modes, is based on an implicit element of our education system, namely the ability to draw upon a repertoire of skills. This repertoire of skills (often manifested in the multi- and transdisciplinary elements of our curricula) provides the students

with a flexibility of thought and reflection-in-action during which time they are able to transfer ideas and actions.

Moreover, the translation or manifestation of these activities into a parallel, provisional or subsequent act of writing may take many forms and enable designers of the future to use writing as a tool for reflection as well as development.

DESIGN, RESEARCH, WRITING AND REPETOIRE.

It becomes apparent here, that in order to create sustainable curricula which can address the needs of the changing world of design, we must introduce students to a repertoire of writing styles which complement the repertoire of registers they learn in studio based activities. For instance, a graphic designer learns to use a very different register when talking to a printer (a more technical language) as opposed to a client (a descriptive or reassuring language) or when he/she reflects in writing on a historical matter in a journal or magazine. These styles will then be able to encompass and address the requirements of different activities of research, which take place in studio and in the act of theorising. As all good design educators raise the question with their students of: - what is design?, they must also raise the question - what is writing? since both are integral to the future needs that our students, as communicators. These questions may enable students to leave behind the imprinted model of the school essay, and start to explore other forms of writing pertinent to their practice.

Design education has ignored the many forms of writing that designers use, such as: annotated writing in sketch books, reflective journals, reports, personal reflections, diaries etc. in favour of the academic essay. Though this mode of writing draws on a rigorous tradition, it is limited and prescriptive in its function. However, throughout our daily lives as designers we employ many different modes of writing to drive and record our ideas, feelings and intuitions. There is a well documented trend in recent years of A&D education that has used creative writing (and it must be promptly conceded that most writing is creative) in order to enable students to understand the associations that exists between a personal and reflective style – for instance when used to document autobiographical reflections – and those of a public nature such as a public declaration of a historic event.

Pertinent writing styles will enable the design student (and the designer of the future) to not only carry out reflection-in-action, but also make a more complex conceptual leap forward towards self-reflexive writings. It is important to note that to be reflexive or 'self-reflexive' means that the actions of a designer (or any human being) are in a state of constant flow or referral between an external state, activities and actions (i.e. I made this piece in the studio by using these machines or processes), and an internal state or condition which questions the self (i.e. Who am I? What am I doing and why did I just make that piece?). This impulse for self knowledge can then become as Wood puts it:

"a possible mode of feedback that can guide, moderate, or regulate your behavioral (and other) impact on the world." [20]

These musings and writings can be integrated into parts of a curriculum that addresses questions such as environmentalism, sustainability, information management etc. The concept of repertoire is essential to any curriculum design as it enables students to transmute ideas and skills from *action*, to reflection and on to reflexivity. This process of change was alluded to by

Schön in his earlier work *Beyond the Stable State* [16] where he argues that 'change' and flexibility are fundamental aspects of modern society and there is a need to develop social systems that could realise this; respond and adapt to change.

These new curricula are not intended simply to make our students better writers. By creating teaching strategies that alternate between and invite thoroughness, diligence and meticulousness of thinking on the one hand, and self reflexivity on the other. At others times they may be actively involved in untrammelled creativity, however, through these contrasts we are asking students to take part in flexible thinking, which is given expression in writings that are embedded into their practice. Writing can then become liberated from the purely scholarly and become part of the armoury of skills needed in order for design students to become part of what Hutchins [9] described as the "learning society" where he notes that:

"the increasing proportion of free time and the rapidity of change. The latter requires continuous education; the former makes it possible."

In order to enable our students to develop from current modes of education which have left them feeling alienated from writing, we need to underscore the fact that they are entering into an environment of multi-disciplinary practice. In this arena they will need not only to interact with practitioners from other disciplines but also to be able to express themselves as designers and writers and at the same time evaluate and monitor their career progression.

This is an idealised proposition that ignores many of the everyday problems that design students and designers face. For instance the lack of time, when decisions have to be made in a hurry and there is little time for reflection. Yet it is in these situations that many designers perform at their best and "think on their feet". However, the act of reflection does need space, and too often we leave little room in our curricula for our students to simply 'to stand and stare'.

CONCLUSION; CURRICULAR DESIGN FOR MULTI-DISCIPLINARY PRACTICE.

Design students like designers are not simply problem solvers. They situate and frame their understandings of a problem, and locate their actions within a construct. They then impose, on to these situations various directions and processes that had not previously been considered. As such, students are no longer problem solvers rather they are aspiring to become problem definers. As stated by Guy Julier and Wendy Mayfield [10]:

"We accept that much professional design practice has shifted from problem solving to problem processing."

There is also the ever growing anxiety challenging design educators, which asks of us; – can we develop a wide enough spectrum of experiences, with which to enable our students to frame and re-frame problems or questions they face, during their careers? Or rather, are we reflexive enough as problem definers to meet the challenges that are facing us and our students?

In conclusion, it is possible for us to state that we are capable of imagining a situation where we will be able to equip our students (and dare I say, ourselves as designers), with the demands of a fast moving and developing world?

The challenge for design education is that we are no longer able to give guarantees to our students that they will leave with a set of skills, which alone could sustain them. Rather, we must enable them to become able to meet the requirements of modern technologies and a changing world. We need to develop designers of the future who are able to adapt to fast changing circumstances and operate within multi-disciplinary environments.

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