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Editorial

Associate Professor Jill Franz (Executive Editor)
Dr Dianne Smith (Review Editor)

When a journal of interior design/interior architecture comes into being what does it mean for its related field and those with whom it intersects? In Bourdieu’s terms, a field is a domain of meaning in which its constituent players and acts align to give it definition and generate practices that become the evolving rules of the game that continue to be contested. With the appointment of a new executive editor and editorial board in 2008, the 2007 IDEA Journal marks a point of transition and, as such, provides an opportunity to reflect on the evolution of the journal over the past years, its contribution to the field of interior design/interior architecture, and its potential to continue to inform and transform the discipline.

While few in number, the papers in this current edition reflect a diversity of themes and research approaches. Issues generic to design education are raised in Thomson’s paper on assessment criteria as a means for studio dialogue and their role in constructing shared meanings between tutors and students; while Crowther explores the use of drawing as a vehicle for design studio dialogue and in-depth conversations about emerging ideas. In contrast, Walker’s literary framework challenges the reader to seek what is embedded within the act, the narrative and the interpretations within processes from which ideas and artefacts surface. In addition, the paper invites debate about the nature of research and its potential to be more fully considered and realised as a creative act in itself. Providing an international perspective at the broader discipline level is the paper by Milligan et al who report on a recent ‘interiors’ conference in Scotland, the context leading to the convening of the conference, and its potential impact for participants and the profession.

As a chronological collection, the various editions of IDEA Journal reflect the evolution and growth of interior design/interior architecture research in Australia and New Zealand and the emergence of the journal as a reputable international publication and primary research forum for educators and post graduate students. The collection reveals a desire to experiment with format and content and to question what it means to undertake and re/present research. While early editions emphasise the design studio as a focus of research, later editions show an increasing interest in exploring the nature and parameters of the interior design/interior architecture discipline, with the outcomes being presented as either discussion papers or traditional academic papers. This is particularly apparent in the editions aligned with IDEA
conferences, such as the 2003 ‘Between Excess and Austerity’ conference and the 2005 ‘Insideout’ symposium.

Through its very existence, the journal has also helped to inform, construct and promote interior design/interior architecture. We can now say that:

• Interior design/interior architecture intersects, embraces and therefore transforms other disciplines to foreground the importance of the environment in human interactions and the human condition.

• The interior design/interior architecture studio is wide ranging moving beyond ‘the interior of architecture’, as it is often conceptualised and described, to explore relationships, experiences, technologies, materiality, social constructs and the beyond.

• Interior design/interior architecture education and practice are not isolated activities but are seamlessly part of a field that is informed by and opens up areas of research.

• Designing within the field of interior design/interior architecture includes modes of educational and professional practice that are not formulaic but that are reinterpreted and contested through research and the process of scholarly reflection.

• Interior design/interior architecture in Australia and New Zealand is informed by and informs international issues and practices – not at the expense of regional relevance but in ways that critique and/or embrace differing positions.

With changing social and environmental contexts, and an erosion of boundaries between academia and practice challenging the nature of research and who does research, the journal stands at an exciting and important threshold.

The greatest danger for interior design/interior architecture in its endless ‘becoming’ is the closing off to traditions and/or the mimicking of seductive facets of practice and/or conceptualisation. The IDEA Journal in its evolving presence challenges all authors and referees and readers to situate the fragments which constitute ‘the field’ in a fluid process that is able to foreground each in innovative yet constructive and responsible ways.

Recognising increasing emphasis on internationalisation, interdisciplinarity, multiple interpretations, blurred boundaries, and the need to transform, we as members of the previous editorial committees since the journal’s inception are excited by plans to extend and consolidate the journal’s presence and to realise more fully its potential as ‘an insertion’ that not only reflects, but also disrupts, interior design/interior architecture in the 21st century and beyond.
Drawing Dialogues: Participatory Design Education

Dr Phillip Crowther, Queensland University of Technology, Australia

Abstract: This paper offers an alternative view of drawing activities within an educational design studio environment. It analyses drawing tasks using the theoretical propositions of transformative learning, educational dialogues, and conversational frameworks. Such analysis highlights the possibilities for exploring true visual communication through drawing dialogues. It describes an action research project in which students and staff engage in a range of drawing activities in order to generate deeper visual conversations. The paper concludes by proposing that the theories of conversational and participatory education can be applied through the drawing activities of a design studio to generate and promote drawing dialogues.

Keywords: design, drawing, communication

Introduction

If I can not draw it, I do not understand it
Albert Einstein (in Martinez-Pena & Gil-Quilez, 2003, p. 181)

This paper describes an investigation into the use of drawing and sketching in an educational design studio context, and the analysis of such drawing activities using the theoretical propositions of educational dialogues, transformative learning, and conversational frameworks as explored by Mezirow (2000) and Laurillard (1993). These two writers have both promoted ideas of education through dialogue, participation, and transformation. Their investigations have focused on verbal modes of communication, but in the context of a design school, visual communication is equally important if not more so. The work of Mezirow and Laurillard can in fact be used to re-frame the activities of a design studio to better generate dialogical education through drawing dialogues. That is, conversations that take place visually rather than verbally, with illustrated and diagrammatic language; conversations that have similarly visual, illustrated and diagrammatic feedback.

This paper reports not on a new way of using drawing, nor on the elusive qualities of drawing as design process, but rather on a new way of understanding drawing. It illustrates this through an action research project that investigates ways to develop drawing dialogues between students and teachers. While design education relies heavily on participatory and dialogical educational settings, much of that dialogue is verbal. This project seeks to use the work of Mezirow and Laurillard to provide a different understanding of design drawing within a conversational framework.
Context

This action research project is set in a studio based unit (subject) for first year students of design. The second half of the semester is structured around a design project, which the students work on from week 7 to week 12. This project is a semi-structured strategy of experiential learning (Delahaye, 2005, pp. 308-312), with some aspects of problem-based learning (pp. 324-326). The unit has 250 students in 14 tutorial groups who meet for 4 hours per week, immediately after a 1 hour lecture given by the unit coordinator. One of the discipline specific objectives of this unit is for students to be able to ‘communicate to others through a range of visual representation techniques’.

Background theory

Learning through drawing

The significance of drawing within the studio context, and indeed in design education as a whole, is well recognised and uncontested (Gurel & Basa, 2004, p. 193; Schenk, 2005; Ulusoy, 1999). There is also strong agreement, amongst academics and researchers, about the relationship between drawing and designing. Cross (in Schenk, 2005, p. 201) describes the ‘use of drawings as [part of the] designerly ways of knowing, thinking and doing’. Ulusoy (1999, p. 125) also notes the direct relationship between designing and drawing, but goes further to describe understanding design as being related to the linguistic faculties, and the act of designing as being related to visual thinking. He describes analysis as a verbal activity, and synthesis as a graphic activity. While Schon (1984, p. 4) also notes the differences between learning about design and learning to design, he relates these two activities, stating that ‘…talking and drawing make up a single language… I call this drawing and talking the language of designing’. This language of designing therefore results in a process of verbal and visual communication in the studio class; tutors and students discuss ideas and designs through verbal and visual dialogue.

Drawing as dialogue

If we understand drawing in the studio as a form of dialogue, then our understanding of the value of dialogue in the learning environment, will apply equally to drawing. The value of dialogue as opposed to persuasion is well explored by Mezirow in his work on transformative learning (2000 & 2006). Among other attributes, the communicative and participatory learning that Mezirow proposes is an environment in which a student will be ‘free from coercion, distorting self deception or immobilizing anxiety… open to alternative view points… and have equal opportunity to participate in the various roles of discourse’ (2006, p. 26). In
an architecture studio much of the discourse occurs through drawing, so students need to have the skills to participate in that dialogue.

If ‘good dialogue elicits those activities that shape, elaborate, and deepen understanding’ (Biggs, 1999, p. 13) then a student’s ability to communicate through drawing may affect their ability to participate in that dialogue, and therefore affect their deeper understanding; their deep learning (Marton & Säljö, 1976). Students must be ‘able to interpret correctly a complex discourse of words, symbols, diagrams, and pictures’ (Laurillard, 1993, p. 51) if they are to participate in this deeper learning.

**Drawing for feedback**

One way to assist in the development of a student’s drawing abilities and their ability to interpret drawings correctly, and therefore, their ability to participate in the educational dialogue, is through systems of ongoing feedback. Laurillard’s (1993, p. 103) model of conversational frameworks maps out 12 activities of information transfer and feedback within the structure of a learning environment. Feedback, especially as rational and reflective discourse, helps to build the context of learning, and thereby influence and hopefully align the students’ perception of the task requirements. Within the context of the design studio it is evident that while all of these connections are present there is a strong reliance on feedback at the level of ‘actions’ as evidenced in the usual tasks of the design project, but significantly less feedback offered at the level of ‘conceptions’. Further to this, the nature of the learning context, the design project, makes it quite difficult to set tasks that offer a good level of intrinsic feedback - since the nature of the task is to develop something new and original, and in this particular case the students are in the first year of the course with very little prior learning to apply. Feedback is nearly always extrinsic, ‘as an external comment’ on the task (Laurillard, 1993, pp. 61-64) and as such, especially in the context of the design studio, commencing students often interpret it as subjective comment from the tutor, rather than objective analysis. This is an issue that must be constantly addressed and explained, not just in this unit but throughout the course. Establishing systems of feedback through drawing may offer better understanding of such objective analysis which can be seen rather than just heard.

Regular feedback on the student’s developing drawing abilities will also help to align the tutorial activities and dialogues with the assessment project, which is also a drawn assignment (Biggs, 1999, p. 27). Increased use of drawing as communication in the tutorials should help to develop the student’s perception of the task requirements, and align the student’s perception with the tutor’s perception (Ramsden, 2003, p. 82, Figure 5.1). The results of the lack of such regular feedback, and the lack of ongoing dialogue through
drawing, have been seen in many design studios that rely heavily on the final assessment being in the form of a critique. The reliance on final presentation drawings presented at a critique does not encourage deep learning (Gurel & Basa, 2004, p. 193). Indeed the focus on presentation drawings can dilute the process of design education—putting the focus on the product of learning not the process of learning.

**Problems and issues**

In order to avoid the usual problems associated with the critique process, the major design project for this unit was submitted for an exhibition of all student work in Week 12 of the semester. Students did not present their projects verbally to the assessors in the usual mode of a critique; rather the design projects were assessed on their own after the exhibition, based solely on the drawings as presented. The exhibition provided a much better opportunity for students to see other students’ work without being anxious about the impending critique. In the following week the work was exhibited again, and the tutors spent half of the class time reviewing the project. Tutors used a series of notes prepared by the unit coordinator to address each of the assignment objectives and discuss the standards, as outlined on the criterion reference assessment sheets previously provided to students and staff. In the second half of the class the students were directed, through a series of handout notes and questions, to reflect on their own work and explore alternatives, by analysing the work of another student and recording their observation in their Visual Journal for assessment at the end of the semester. The Visual Journal was a record of all of the student’s design activities and processes during the whole semester.

The success of the Visual Journal as a record of design thinking and learning is part of the longer term action research project, over several semesters at least. The more immediate issue was one of students communicating visually through their drawings without verbal descriptions to back them up. In essence, since the major design project was to be assessed on visual communication alone, student would need well developed capabilities in visual communication as they could not rely on verbal communication.

This action research project then sought to explore the issue of how to improve both the quality and quantity of drawings, and how to frame such drawings as visual communication; drawings that do communicate to a tutor what the student thinks they communicate. It further sought to explore the idea of reflective dialogue though drawing — using a dialogue of drawings to achieve deeper understanding.
**Action research project**

A number of ideas for improving and developing student engagement with visual communication were developed into two types of actions that would be implemented during the weekly studio classes; these were either changes in the way that tutors would offer feedback to students on their work, or activities for students to perform during the class where they could obtain immediate feedback from tutors. In the first class following the handout of the project (Week 7), the tutors were briefed on a new and alternative way to handle their interactions with the students. In summary, they were asked to alter the structure of their normal pattern of dialogue with the students to focus more centrally on the drawings rather than the spoken word (see Figure 1). After reviewing the progress of this strategy a number of in-class drawing exercises were then developed and introduced to further shift focus from verbal communication to visual communication, and to further build processes of visual feedback.

![Figure 1: Verbal dialogue verses drawing dialogue.](image)

Feedback on the action research project was primarily from tutors in the form of weekly debriefings, and written feedback on specific questions about the research activities. Some further comments were obtained directly from students during the project, though generally the feedback from students was managed through the tutors.

The notion of the ‘moments’ of action research (Carr & Kemmis, 1986, p. 186) has been used to structure the activities of this project as ‘Planning, Acting, Observing, Reflecting’ (see the following section).


**Week 7:**

**Constructive**
Plan - Since the action research project will seek to be participatory, all students and tutors should understand what is being attempted.

Act - Students and tutors are told about the planned structure of classes and the relationship that they must adopt with each other and the drawings. They are briefed on the ways in which drawings will become the focus of conversations and how we will encourage dialogue through drawing.

**Reconstructive**
Observe - N/A
Reflect - N/A

**Week 8:**

**Constructive**
Plan - Conversation would normally start with the student describing their ideas verbally, while using drawings as supporting illustrations. Discussions will now start with the tutor describing to the student what he/she reads/sees in the drawings. Only after those tutor comments, will verbal dialogue within the group commence.

Act - Some time is set aside before the class to brief the tutors on the alternative structure to the individual and group conversations that they will be having in class. Students show their drawings and the tutors read them to the group. Verbal dialogue follows.

**Reconstructive**
Observe - Tutors generally thought that this mode of conversation did shift focus to the drawings, and did get students to more fully understand what the drawings are actually communicating - as opposed to what the students thought they were communicating. There was however a feeling from most tutors that there was not enough drawing to respond to, and as such the dialogue was limited. Since this strategy had not resulted in sufficient drawings being prepared, the tutors often resorted to discussing the student’s ideas that were not drawn.

Reflect - A further strategy was needed to encourage students to produce more drawing - so that a deeper dialogue could be had. It also became obvious that the tutors themselves were not speaking through drawings, so strategies to address these issues would be developed.
Week 9:

Constructive

Plan - In an attempt to address the lack of drawings for the tutors to read, an in-class drawing exercise was prepared for this week’s class. Students would work on this drawing exercise while not directly engaged in dialogue with the tutor.

Act - This exercise ‘Diagramming Architectural Ideas’ asked students to prepare diagrams of their ideas. That is, to literally draw their ideas - not to draw a building proposal, just isolated ideas. Students were briefed on this exercise in the lecture and tutors gave demonstrations of this form of drawing in the tutorial classes; the tutors themselves would encourage drawing dialogues by doing drawing.

Reconstructive

Observe - Tutors almost unanimously agreed that this exercise was successful at getting students to make drawings that could be read and discussed by the group. They also agreed that the student’s understanding of the act of designing was enhanced by engaging in the act of drawing during the class where tutors could give immediate feedback, both verbal and drawn. Tutor all noted that the visual dialogues were more participatory after the drawing exercise.

Reflect - Tutors doing drawing in class completed the feedback loop (Laurillard 1993, p. 103). Since the in-class exercise did indeed result in more drawing being prepared, which resulted in more and improved dialogue, further exercises would be developed, and tutors would be prompted to draw more themselves in class.

Figure 2: Record of a drawing dialogue between student and tutor.
Week 10:
Constructive
Plan - With the success of the preceding week’s in-class exercise, another was developed and presented to the students, rather than reverting to relying on drawings done at home between classes.

Act - In this exercise ‘The Detailed Section’ students were asked to prepare, during the class, a 1:50 scale section. Samples of this type of drawing were presented in the lecture, and also provided in the class room. This exercise would stimulate a conversation about drawing conventions - in some ways an analogy of the basic grammar of drawing.

Reconstructive
Observe - Most tutors found this to be helpful with some noting that this particular type of drawing showed the aspects of the design that they wished to discuss. That is to say that this type of drawing spoke to them with the type of information that they wanted to hear. Some tutors noted that some students were struggling to engage with this type of drawing as they lacked the skills or confidence to even attempt it - their grammar was not yet developed enough to fully participate in the dialogue.

Reflect - Since this particular exercise focused on one specific/technical type of drawing, which some students struggled with, it did not promote drawing dialogue for all students; some alternatives types of drawing were also needed.

Week 11:
Constructive
Plan - In an attempt to engage with those students who struggled with the preceding exercise, a very different type of drawing was planned for this week’s in-class exercise - understanding that students learn in different ways, they will certainly also favour different modes of communication, and different types of visual communication.

Act - In this exercise ‘One Point Perspective Sketching’ students were asked to prepare a freehand perspective sketch of the inside of their building - this not only asked for a different type of drawing, more casual and lacking in technical conventions, but also requires a different type of understanding of architectural design. Samples were provided and techniques demonstrated and discussed by tutors in class.

Reconstructive
Observe - Most tutors noted that due to the impending submission date, most students really just wanted verbal formative feedback on what they had already drawn at home, though
most tutors thought there was some value in the exercise. One tutor noted that this exercise was helpful for students to understand ‘being in’ the space.

Reflect - The notion of ‘being in’ the space is a key concept of interior architectural design - the ability to imagine yourself in the space you are designing - so this comment suggests great value in this exercise in terms of improving student’s understanding, but perhaps it would have been more valuable earlier in the program.

Week 12:
Constructive
Plan - It had always been the plan in this unit that students would submit their final design projects for an exhibition before they were assessed - there would not be an oral presentation in the form of a critique.

Act - At the exhibition, students were directed to make observations of other students’ work - to analyse it and record their observation in their visual journal.

Reconstructive
Observe - Nearly all students took advantage of the opportunity to look at other students’ work. Most formed casual groups who together analysed the work of others and openly discussed it while recording ideas in both written and drawn forms.

Reflect - The self-generated dialogue, without any particular prompt from teaching staff, was very valuable and slightly unexpected. This almost completely unstructured time appears to have been very useful for the students.

Results
One of the most successful activities, in terms of increasing the levels of drawing dialogue and student participation, was to have students and tutors drawing during the class itself, rather than relying on between-class drawing activities. The in-class drawing tasks allowed more immediate feedback for students to respond to. When such feedback was also provided through drawing by the tutor, students were better able to see and understand the re-described conceptions that the tutor was providing (Laurillard, 1993, p. 103). Students were then better positioned to modify their actions in light of that feedback. Actions, conceptions and feedback are thereby all offered visually in the form of a drawing dialogue.

Some activities highlighted the inability of some students to fully participate in the drawing conversation. Students who had not yet developed a thorough understanding of orthogonal drawing conventions were unable to take part in the type of participatory education
that Mezirow proposes; they lacked the opportunity to ‘participate in the various roles of discourse’ (Mezirow, 2006, p. 26). For such students it was necessary to provide an alternative grammar through a different form of drawing; freehand sketching as opposed to orthogonal drafting.

Figure 3: Record of a drawing dialogue between student and tutor.

**Conclusion**

In general the strategies for change that were implemented in this unit seem to have allowed the students to develop a better set of capabilities for visual communication. The feedback from the tutors, and my own observations in the class, indicate that making the drawings the central focus of conversations — creating drawing dialogues rather than just verbal dialogues — has assisted students in their assignment tasks, but more importantly has assisted them in their understanding of design. On this small scale, the changed mode of visual conversation, and the in-class drawing exercises to help to facilitate such conversation, has resulted in students using drawings more than in previous years for communication purposes.

The problems of communication within the studio and the crit are well documented (Mitgang, 1999; Vowles, 2000; Webster, 2006 & 2007) but this action research project does suggest in some small way that:

- Alternatives can be developed that will favour dialogue over persuasion, and such alternatives can be visual as well as verbal (Groat & Ahrentzen, 1996).
- Some of the feedback in Laurillard's conversational frameworks model (1993, p. 103) can, in a design context, be developed through drawing, to provide re-described conceptions that prompt an appropriate modification of action by the student (Lee, 2006).
Better alignment of in-class tutorial activities and assessment tasks (Biggs, 1999, pp. 11-33), specifically through in-class drawing dialogues, can assist to develop deeper understanding (Marton & Säljö, 1976).

The development of drawing dialogues can shift the focus from product to process; from the design project outcomes to the design development process (Nicol & Pilling, 2000). This is especially evident when the records of such dialogues or conversations (see Figure 2) are presented as a component of the assessment of student projects, as was the case in this project with the Visual Journals.

If improved levels of communication can lead to deeper understanding of design, then this research project suggests that such communication can be established as drawing dialogues that do indeed facilitate improved learning outcomes. The exact relationship between drawing ability and designing ability is still not well understood in design education (Swanson, Sadaby & Yin, 2006). What has been explored here however, is that drawing can be a form of dialogue, and that such dialogue can be used to explore a deeper understanding of design.

If ‘transformative learning involves learning to think critically by questioning assumptions and expectations that shape and influence what we think and do’ (Mezirow, 2006, p. 24), then a new educational context that embraces transformative learning will require teaching staff to also critically question the assumptions under which they have been operating. The dialogically based learning environments that Mezirow proposes are ones in which learners and teachers develop an understanding through conversation.

This paper has stopped short of proposing new practices in the design studio, but rather has sought to re-frame an understanding of current studio practice. It has reviewed theories of educational conversation and participation, and applied them through an action research project, to a design studio. We see that Mezirow’s view of transformative learning, and Laurillard’s (1993) view of the conversational frameworks required to complete the learning process, can be applied to the activities of drawing within such a design studio context. Placing the tasks of design drawing within the context of such a conversational framework, with the associated systems of participation, transformation, and feedback, allows a different understanding of such studio activities as drawing dialogues.
References


Rethinking Inside the Box: Reflections on the Interiors Forum Scotland 2007 Conference

Andy Milligan, Duncan of Jordanstone College of Art & Design; Ed Hollis, Alex Milton, Edinburgh College of Art; Drew Plunkett, Glasgow School of Art; Frazer Hay, Napier University; John Gigli, Glasgow Metropolitan College with Glasgow Caledonian University

Abstract: This discussion paper describes key findings from the international IFS (Interiors Forum Scotland) conference, ‘Thinking Inside the Box’, held at The Lighthouse, Scotland’s Centre for Architecture, Design and the City in March 2007. In conjunction with an historical overview of interior design education in the UK, the authors describe the intention behind the conference, outlining its origins, aims and ambitions. The Interior Forum Scotland’s lead role within the UK sector is discussed, as is its collaboration with the UK wide Interior Educators Council. Similarly, the IFS, in its first conference, is positioned against more established international interior design research communities, such as IDEA, (Interior Design / Interior Architecture Educators Association), amongst others. The authors speculate on the issues and themes highlighted by an international audience of interior design educators, researchers, authors and practitioners, and consider the future directions, challenges and issues driving interior design thinking internationally and design generally, and in particular, how these may influence the independent Scottish interior design sector. The paper and conference underpins interior design as an exceptionally broad and increasingly self confident spatial field, albeit one which operates within distinct interior frequencies from decoration to architecture. It also examines the ways in which interior design educators, organisations and practitioners are reclaiming, refining and redefining this field. Interior design’s initial co-architectural / pro-decorative role is placed into context against new environmental territories and new challenges.

Keywords: interior design, interior architecture, Interiors Forum Scotland

Introduction

The Interiors Forum Scotland is a new interior design academic group representing the interests of the leading interior design honours degree programmes in Scotland. A number of shared concerns and situations have provoked the speculations explored in this discussion paper. In particular, the IFS’s inaugural interior design conference, ‘Thinking Inside the Box: New Visions, New Horizons, New Challenges’, held at The Lighthouse, Scotland’s Centre for Architecture, Design and the City, in March 2007 offers a response to those concerns and
contexts. One such concern is the threat of a deregulated expansion of new interior design programmes saturating an already complex graduate market and in the process threatening to dilute quality as skills force scholarship to the side. Expansion, it seems, is a shared concern provoking the field to reflect on its purpose (Caan, 2006). Comparisons between the UK and the international interior design community suggest that these concerns may be justified. Further, the deletion of the term ‘interiors’ from the RCA, Royal College of Arts MA Architecture & Interiors has provoked anger from alumni, academics, and practitioners mobilising the Interiors Forum Scotland into action (Casson, 2007; Billings, 2007).

Arguments against interior design’s erasure from that programme cite the preponderance of refurbishment over new-build in the UK as a market for interior design and interior architecture, not least in the £20bn schools programme planned by the UK Government. Whilst a few research conferences have emerged in the UK, these have tended to focus on highly specialised sectors, such as history, theory and exploring contexts of domestic dwelling (Sparke, 2006). No critical conference platforms exist in which UK interior design educators, researchers and practitioners can explore the overarching complexities, diversities and challenges of interior design education with the international interior design community, and fewer still in which interior design education is central to the debate, rather than positioned on the margins of other design or architectural symposia. Whilst the interior design research culture in the UK continues to grow in quality, scale and reputation, the networks, organisational frameworks and benchmarks which help establish research in the field are perhaps less advanced than other nations prompting the question as to the lessons the UK sector can learn from the international community.

The authors recognise the positive role that organisations like Interiors Forum Scotland can play in advancing this agenda, but remain conscious of the critical and global contexts and impact that UK Government reports will have in transforming the design sector. Government initiatives, such ‘Enhancement in Art, Design & Media in Scotland’, (Fisher, 2006), and the report on ‘Skills in the UK: The Long Term Challenge’, (Leitch, 2005), highlight the UK’s optimal skills targets for 2020 to maximise economic productivity and social justice within the global economy. Further, the report ‘Creativity in Business in the UK’ (Cox, 2005), identifies the growing competitive threat to the UK design profession and addresses three central concerns: 1. changes within the design profession suggest discipline blurring and flexible modes of practice; 2. changing economic factors within a global marketplace are already transforming employment patterns and graduate opportunities; and 3. rapid technological developments, most notably in information computing, which promise to bring efficiencies
and experimentation together. Conventional boundaries are blurring, and innovative design programmes, such as Stanford’s Studio D are challenging outmoded disciplined bound schools. Designers such as IDEO, Philips, Hella Jongerius, Ronan and Erwan Bouroullec, Marti Guixe transcend disciplinary definitions, but in what way are interior design programmes embracing these realities? Flexible modes of design practice are challenging the disciplinary ‘closed shops’, whilst offering up hybridised design models and new design personas such as the polymath interpolator, (exploiting broad design bandwidth to define the area where the solution might lie), and the specialist executor, (implementing polymathic observations specifically within the format that is needed) (Rodgers, 2007; Seymour, 2007).

Design is becoming increasingly interdisciplinary, accessible and democratic, allowing non-designers to design, and in some cases, lead design as demonstrated by the socially inclusive work by Hillary Cottam, recently named winner of the UK Designer of the Year 2005. Such a phenomenon is familiar to interior designers frustrated at the amateur tag of interior decoration and the confusion created by the global phenomenon of TV make-over shows (Cottam, 2005). New interior theory readers now provide the theoretical and intellectual ammunition in which to evolve truly innovative environmental programmes (Scott, 2007; Preston & Taylor 2006; Rice, 2006; Brooker & Stone, 2004, 2007; Hudson, 2007; Coles & House, 2007; & de Botton, 2007), but in what way are these transforming interior education? The contexts in which we frame our discipline are also set to change, shifting away from artefacts toward the multi modal, sensorial and cultural narratives (Asymptote, 2007) toward the experiential; retail is as concerned with the experiential and cultural narrative as it is about the product reflected in IDEO and OMA’s flagship for Prada NYC, and Carlos Miele by Asymptote. Like the Interiors Forum Scotland, the international interior design community continues an on-going speculation on disciplinary definitions and directions (IFI, 1983; IFI State of the Art, 2006; BIDA, 2007; CSD, 2007). This appears to be in contrast to the situation in Australia and New Zealand where interior design research and education seem well served.

**Past, present, future**

Published in the early seventies, Interior Design: An Introduction to Architectural Interiors (Friedmann, Pile & Wilson, 1982), provided the then emerging field of interior design with a useful, though relatively rare publication identifying tools and tactics for the new breed of interior architectural practitioners. The authors speculated on the future challenges confronting this new breed. Concerns over the environment, conservation, planning, CAD, and disability sat alongside traditional course primer material and methods to make existing
structures fit for future purpose, and against these contexts, also offered a new definition of future interior design practice as environmental rather than mere ‘interior’ design. The term environmental design seemed symbolic of a truly adaptive industry, capable of interdisciplinary working within the field of adaptive re-use. Nomenclature remains a delicate issue to many today. Then as now, this new harder breed sought alignment with the serious industry of architectural interiors by distancing itself from the softer decorative end of the interior design spectrum. Then as now, the search for disciplinary respectability and academic credibility continues to occupy our minds.

The once predictable tendency to locate interior design’s future within the shadow of architecture may be giving way to a new optimism from the international interior design community. Indeed, where once interior design existed as the ‘auld’ enemy of a more established, much larger, and much better supported architecture community, (particularly so in the UK), new research alliances are emerging which position interior design educators at the forefront spanning theories of intervention design concerned with re-reading theories of interior architecture; with spatial narratives (O’Connor & Milligan, 2007; Milligan, O’Connor & Ross, 2007); with interdisciplinary and co-design practice (Rogers & Milligan, 2006), and with environmental re-making projects (Nelson & Milligan, 2006; 2004).

Collaborations between Scottish interior design schools and European partner institutions are represented in the two year IMIAD programme, an International Masters in Interior Architectural Design developed in response to the Bologna Accord to bring participating countries in line with a British-style degree system and the prediction of an increase in new Masters provision by 2010 (Bologna, 2005). Duncan of Jordanstone College of Art is exploring the virtual and cultural dimensions of client and designer exchanges with Texas (Milligan & Mohr, 2007). Collectively these suggest an interior design community which is thriving rather than withering, but does so, the authors would suggest, despite the intense pressures, challenges, demands and intellectual isolation which UK educators in particular endure. The authors are however conscious of on going debates on the future direction of interior design through the International Federation of Interior Architects and Designers, but would argue that very few UK academics have had the opportunity to participate in that crucial debate. Equally significant is the success of IDEA, (the Interior Design / Interior Architecture Educators Association), and its biannual conferences and journals. Established in 1996 and advancing progressively since, IDEA comprises leading interior design programmes throughout Australia and New Zealand and advocates excellence, and supports diversity within its degree programs and its research culture. Significantly, the Interiors Forum Scotland,
in partnership with the emerging UK Interior Educators Council, held a round table discussion with leading members of IDEA and associated organisations from the United States and Scandinavia inviting participation in the conference and advice to the UK sector.

The historical and theoretical position held by the MIRC, Modern Interiors Research Centre, at Kingston University, offers a research focus located within the specialised domain of design and architectural history, visual, material and spatial culture, but focusing specifically on the design of interiors from 1870 to 1970. MIRC has broadened research within the marginalised modern interior, exploiting the conceptual gap between architectural and design history and its prioritising of the ‘building’ and the ‘object’ over the ensemble (MIRC, 2007). Equally important in helping to position the new role of the Interiors Forum Scotland is the AHRC (the Arts & Humanities Research Councils), Centre for the Study of the Domestic Interior and its Domestic Interiors Database, established over five years (AHRC, 2007). The authors of Interior Design: An Introduction to Architectural Interiors acknowledge interior design as an evolving, yet slippery discipline often resisting concise definition. Whilst the interior is indeed everywhere, (both through the ubiquity of life style magazines, and the global phenomenon of reality TV make-over shows), it exists between the physical, the poetic (Perec, 1997), and the phenomenological, (Bachelard, 1994). The interior domain is the place of dwelling, dreaming, belonging, sanctuary, memory and association, and a metaphorical stage set in which we act out life, simultaneously saturated with artefacts of conspicuous consumption in a world deeply concerned with sustainability. It is a platform on which to benchmark fashionable social mores, project social status and a lab in which to test ethnographic methods and patterns of use, behaviour and ritual (Gaver, Boucher, Pennington & Law, 2004).

The interior is familiar and elusive, practical yet paradoxical. It occupies increasingly broad disciplinary frequencies, and in the context of education, operates with that familiar artefactual framework common to partner disciplines of art, product and fashion. Interior design is often limited economically and logistically by the paper space abstraction of scaled visualising rather than real scale doing. Whilst other disciplines have highly visible expressions of their developing craft, (for example, painters paint, sculptors sculpt), interior design students rarely construct interiors. The authors acknowledge that making beyond model-making is occurring, but question whether limitations of economy, resources and time inevitably lead to compromise the making. This reality of limits prompts us to speculate as to what defines the craft of interior design; is it space, making, drawing, skin and surface- a debate that was perhaps limited in the IFS conference? Within education and practice, interior design reveals multiple spatial identities, yet its historical, theoretical and
contextual framework remains patchy, and is frequently contested in comparison to those of other disciplines. Speculations on the validity, challenges and directions of future interior design practice in ‘Thinking inside the Box’, are reflected in related events. The ‘After Taste’ symposium at Parsons, offered a critical review of interior design by exploring four themes; the Dweller’s Trace, which sought to theorise the study of the interior; More Room, exploring alternative sites, users, and technologies; Class Room, examining pedagogical models; and Reconsidered Outside In, speculating on the progressive practices at the edge of the field (AfterTaste, 2007). Further, InterSections 07 in Newcastle brought together leading design thinkers from a wide spectrum of disciplines to explore design’s relationships with other fields and examine how design is adapting to change.

The UK interior design scene: historical perspectives

The re-emergence of the UK Interior Educators Council is a reincarnation of the AIDDC, the Association of Interior Design Degree Courses, established in 1983 but which ceased to exist in the late eighties. However, it is important to offer a historical overview of the lineage in which the Interiors Forum Scotland is now part. UK interior design practitioners and students, (but not educators), may apply for professional membership of the Chartered Society of Designers (CSD), formerly the Society of Industrial Artists and Designers, with design membership in excess of 3000 across 34 countries. The CSD represents the interests of product, fashion, exhibition, interactive media to graphics, with interior designers once again somewhere on the margins. In the 19th century, (at a time when engineers held the celebrity status currently projected onto Architects today), interior design practitioners sought membership of the British Institute of Interior Decorators (BIID). BIID’s credibility was gradually diluted due to its alliance with decorators, and interior designers in the early 20th century distanced themselves from the decorative / feminine focus (Sully, 2004). This new breed rejected the BIID and opted to join the more progressive SIAD. Later, the BIID merged with the renamed CSD, but for many the CSD has been ineffective in supporting interior design. Founded in 1930, the SIAD predates the Design Council, (formerly The Council of Industrial Design, COID), which was itself founded in 1945. In contrast, the Royal Institute of British Architects, founded in 1837, and its independent Scottish counterpart, the Royal Incorporation for Architects in Scotland, formed in 1916, have both been formed on firmer foundations.

The seminal events which reignited interest in design in the UK (particularly within the interior domestic domain) were the 1951 Festival of Britain and the publication of ‘Design’ magazine. However, as Sully (2004) states, interior design was still the poor relation to architecture, product and graphic design, with the exception of interior practices such as Design Partners,
Design Research Unit, David Hicks, Conran and Dennis Lennon, (the latter being an architect who specialised in interiors). Indeed it was architects who were producing the designs until the better qualified interior designers entered the scene from the mid sixties. Sully (2004) identifies as important interior architectural practices: Sheppard Robson, Powell & Moya, Stillman & Eastwick-Field, Stirling & Gowan, Building Design Partnership, Austin Smith Lord, Renton Howard Wood Levin, Purcell Miller & Tritton, and Stefan Buzas all of which collectively specialised in interiors. In-house interior designers gained experience working for local authorities, health boards, the police and large companies such as Pilkington Glass and the British Shoe Corporation soon gaining a foothold in specialised environmental contexts of museum and exhibition design, set design for theatre, TV, and film as well as the retail phenomenon driven by the power of teenage spending. The diversity of career routes originating in the sixties continues to expand in today's cross disciplinary climate.

Collectively, these new arenas enabled interior design to gain professional credibility, albeit credibility bound to capitalism and consumerism. In the seventies the Burolandshaft thinking offered specialist interior design practices, such as Planning Unit and DEGW, (Duffy, Eley, Giffone & Worthington), new opportunities in which to hone strategic tools and skills in enhanced organisational, analytical and interpretive brief writing. They cultivated close client engagement and sought to demystify design for clients prior to commissioning the design process. DEGW also successfully added value to the profession whilst meeting the demands and profit margins of its corporate clients. In ‘A Vision of a New Workplace’, the progression from functional office to multi dimensional work environment demonstrates how far this specialised interior realm has progressed (Duffy & Tanis, 1993). New hybrid office, service designers and interior research at Dundee, invoked interdisciplinary and hot-desk working whilst helping to shift focus from products and square feet acreage toward experience design (Buchenau & Suri, 2000), human factors and proxemics (Hall, 1998), environment well being (Anjum, Ashcroft & Paul, 2005), business acumen, and hi-tech servicing. This interior specialism challenged Frederick Taylor’s work-study models, where workers were components and units of production organised for maximum efficiency. The earlier diversity of career routes, including the work of DEGW from the seventies, brought aspects of interdisciplinarity into the frame. Today interdisciplinary thinking is becoming a crucial element within interior education in Scotland, and, within practice, is evident in practices such as Imagination, Fitch, Land, Aukett Associates, Pentagram, Graven Images, Northern Office of Research & Design, and Landor Associates; and internationally, IDEO and Philips.
Educational perspectives: UK and Scotland

Today, the undergraduate experience is under threat from lucrative Masters programmes, whilst interior graduates now target conventional design and non design careers. Until the late sixties, the National Diploma in Design was the standard interior qualification after four years of intense study. This was changed when Manchester, Leicester, Leeds, Brighton and Hornsey had their NDD interior design courses upgraded to Diploma in Art and Design, underpinned by national benchmarks outlining curriculum content. In the seventies, new vocational polytechnics were established and were able, through the Council for National Academic Awards, (1965 to 1992), to award honours degrees in interior design and other creative fields, offering academic credibility on a par with university qualifications and architecture. An important consequence of the CNAA was the introduction of the academic dissertation allowing interior design programmes to demonstrate a theoretical quality previously absent. Cultural programmatic distinctions remained. Architecture was perceived as an ‘academic’ university profession, lasting seven years backed by the ARB, the Architects Registration Board and RIBA, the Royal Institute of British Architects overseeing curriculum content, whilst interior design was a vocational programme of four years in Scotland and three in England with no external professional support. However, the architectural community is, like interior design, now challenging previously rigid educational models and contemplating flexible alternatives (Taylor, 2005). Recent initiatives from the Chartered Society of Designers for an international Course Recognition Programme, is perhaps symptomatic of the anxiety some design organisations are experiencing in an increasingly international market. Interior design, however, is again on the margins of this initiative, rather than a central concern (CSD, 2006).

In comparison to the wider UK sector, the Scottish interior design community is intimate, geographically close, comparatively easy to network, and has allowed the Interiors Forum Scotland to establish itself quickly and lead the education debate ahead of the Interior Educators Council. The Scottish sector offers diverse degree structures, including BSc(hons), the only Bachelor of Science within interior design in the UK, BA(hons), BDes(hons), and distinct masters and undergraduate programmes with titles including IMIAD, an International Master of Interior Architectural Design, Masters of Design and Interior Architecture, Interior Design and Interior & Environmental Design. The growth of new interior design programmes, increases in student fees, large student staff ratios, and intense competition for studio, workshop and CAD resources in England and Wales have not impacted on interior design education in Scotland yet. Facilities in Scotland are generally less crowded, space is more
generous, student staff ratios lower, costs of living cheaper, students' costs less onerous and learner's are better supported by the Scottish Parliament, whilst programmes are generally four rather than three years. The five Interiors Forum Scotland institutions possess distinct identities. Edinburgh College of Art operates interior design, as well as product and furniture design programmes and has strong links to the lighting industry, whilst also benefiting from the Edinburgh International Festival and Fringe, (Hollis & Milton, 2007); Dundee produced the first interior design PhD graduates in Scotland, is a centre for the games industry and its interior and environmental programme is experimental and interdisciplinary in focus; Glasgow's reputation as a thriving design community is well founded, having comparable cultural centres to Edinburgh but often projecting a diverse and energetic design scene.

Interiors at Duncan of Jordanstone College of Art & Design use the indeterminate, contentious and shifting nature of interior design as an intellectual and conceptual springboard for environmental exploration. Themes of spatial narratives, co-designing, interdisciplinary working, sit alongside deliberately broad definitions of environmental engagement, from PhD studies concerned with environmental design, the office workplace, maternity wards (Anjum, Ashcroft & Paul, 1994; 1997; 2005), and re-appropriation and reworking waste which meet aspects of the eco pluralist manifesto (Faud-Luke, 2005).

Glasgow is a contradiction, the seminal second city of the British Empire; a centre of the Scottish Enlightenment; a merchant city relying in the past on the dubious trading triangle of manufactured goods, tobacco and slavery; a cradle of the modern architectural movement; and a peon of the Industrial Revolution. It simultaneously embraces the studio-based culture of Glasgow School of Art, alongside the highly vocational training of Glasgow Metropolitan. Edinburgh College of Art sited in a medieval city bounded by a neo Georgian counterpart and host the world's largest arts festival. Edinburgh College of Art values the art of storytelling, proposing that interior designers are not only re-reading buildings, but also retelling them, allowing their old stories to be experienced anew. Interior Architecture at Napier University, believes that architects and designers need to analyse the structural DNA, (design, narrative and aesthetics), of their host building (Hay, 2007). These distinct voices reflect what UK architect Tony Fretton, (lecturer at interior architecture at Delft Technical Institute in the Netherlands), describes as the interiorists, an inclusive, rather than divisive, interdisciplinary term reflecting the distinct frequencies, exchanges and collaborations necessary for interior operations; interior designers, interior decorators, interior architects, exhibition designers, lighting designers, stage designers; event designers; installation artists and architects.
In this context, the authors recognise that design is undergoing change, designers are adopting new roles as creative strategists, co-creators, rationalists and story-tellers (Myerson, 2004), and recent speculation on the UK sectors obsession with disciplinary territory, identity, and nomenclature, may be contrasted with more flexible attitudes in defining one's creative terrain. This is particularly so in new attitudes toward interior design in some sectors of the Netherlands. Rodgers (2006), author of Inspiring Designers, suggests that more fluid models for future collaborations and practice are required and that fluid terms like Fretton's interiorist neutralise the debate surrounding architecture or interior which distracts many designers. How would the wider interior design community balance existing strengths within the commercial sector, whilst also exploring ideas of the design specialist or design polymaths (Seymour, 2007)? In addition, the authors suggest that interior design has to respond to crossing, rather than defending boundaries and respond to interdisciplinary, experimentation, and co-designing strategies. Such speculations echo the Friedmann et al definition of environmental designer, and whilst interventional design is described in On Altering Architecture (Scott, 2007) distinguishing a practice focused on the grammar and remodeling of existing buildings, what alternative futures might exist for interior design beyond remodeling existing buildings and outwith physical architecture and design?

In addition to the speculations already mentioned from Myerson, Seymour and Rodgers above, a number of themes emerged within the conference. A rejection of space, in favour of skin, surface and transience was suggested as a key concern for the new interior designer (Plunkett, 2007) at the recent International Federation of Interior Architects and Designers round table in New York, and is outlined in the theory reader, Thinking Inside the Box: A Reader in Interiors for the 21st Century (Gigli, Hay, Hollis, Milligan, Milton & Plunkett, 2007).

The Interiors Forum Scotland

In 2003, Duncan of Jordanstone College of Art & Design initiated a new academic interior design partnership. Interior design degree programmes within the Scottish higher education sector, including Edinburgh College of Art, Glasgow School of Art, Napier University, Edinburgh, and Glasgow Metropolitan College, (with Glasgow Caledonian University), formed a cross-institutional interior design academic body, the Interiors Forum Scotland. The group emerged in response to the frustration many expressed at the increasingly London centric position of design organisations, national student shows and the lack of opportunity for critical debate, research, networking, and sharing of good practice. Educators and practitioners have begun to express concerns over unregulated growth of both interior design programmes and student numbers, matched by inevitable reductions in teaching time,
staff, and class contact. The IFS recognised that design is a critical, socially engaged activity that is rapidly transcending traditional design boundaries. Interdisciplinarity, sustainability, and entrepreneurial skills need to be matched by a heightened global awareness. Holistic education needs also to exploit research culture whilst digital thinking will shift from visual tool toward cybridised place. A number of issues specific to Scotland will also transform interior design education. In the next ten years the eighteen year old demographic which typifies its current application pool will reduce; by 2009 class contact will be reduced by one third in Dundee; and the undergraduate system will gradually be overtaken by more lucrative international masters programmes.

Uniquely, the IFS body is the first forum in Scotland and currently leads the interior design educational debate in the UK. Hannay (2007) suggests that the saturation of graduates into an already compact market ignores the fact that fewer jobs exist, yet greater numbers of graduates are emerging from the UK higher education sector. Given this graduate career pressure, the conference sought to examine how interior design academics in the UK might respond and to explore how interior design programmes equip their graduates with intellectually flexible creative attributes to deal with an increasingly uncertain world.

Interior design has, in the past, allowed other design disciplines to influence its character. It is not surprising therefore to understand the Freudian fixation some interior designers express in seeking alignment with architecture. Given this legacy and lethargy, it is perhaps understandable that lack of disciplinary ownership might lead to lack of confidence, and be responsible for the rather out dated debate on how interior design may, or may not, fit an architectural mould. Such concerns say little for interior design’s disciplinary self-confidence and self-belief. Very few disciplines would relinquish creative, spiritual and intellectual ownership so easily to another ‘related’ discipline en-masse, but in the past, guardianship of interiors has been dominated by architectural academic teams, rather than diverse environmental teams. Many disciplines, including architecture, certainly would not accept the reverse scenario. The message this sends passionate interior design students, keen to pursue a serious interior career in the field, is clear and unfortunate. Crucially, the IFS recognised that for too long interior design educators, practitioners, researchers and students have been neglected by the very organisations designed to protect their interests and cultivate debate. Significantly, the Scottish sector has been marginalised due partly to its geographic distance from London, and this has prompted the IFS to seize the initiative and lead the UK interior design educators’ agenda.

At a time of crossing boundaries and mutual respect across those creative territories, it is important to continue to develop a clear sense of interiority across all bandwidths, (some
receptions being strong, other signals weak), and through further conferences the IFS plans another event, Interior Tools Interior Tactics in Edinburgh in 2008. In order to evolve an independent and distinct body of research knowledge, the question of what defines meaningful research, and what constitutes appropriate interior design education has to be re-evaluated from the ground up, through a passionate re-engagement within education, toward an informed perspective on practice, through to clearly defined research which is strategically driven.

Rethinking Inside the Box

In March 2007, the Interiors Forum Scotland held its first international interior design conference and exhibition, ‘Thinking Inside the Box: New Visions, New Horizons, New Challenges’, at The Lighthouse, Scotland’s Centre for Architecture, Design and the City, (designed originally by C.R. Mackintosh, and converted by Javier Mariscal and Page & Park). Since it’s opening as the flagship of Glasgow’s European City of Culture status in 1999, the IFS conference and exhibition represents the very first interior design event of any kind in over two hundred previous conferences held in the Lighthouse - the greater majority being focused on architecture and product design. This was also the very first time that a Scottish wide national perspective could be experienced en masse and which featured work from all five IFS member institutions across the four year programmes. The conference attracted delegates from the Netherlands, Scandinavia, UK, Australia, Canada, Italy, Turkey, US and New Zealand, and explored current research into education, practice and theory of interiors for the 21st century. An eclectic range of papers focused on architecture and interior design pedagogy, digital studios, theory and history, layering, doubleness, re-reading, slow homes, re-branding and identity, amongst many others, and were presented by an international audience of interior design academics, researchers, authors and practitioners. In addition, representatives from key international interior design organisations attended including IDEA, the Interior Design / Interior Architecture Educators Association involving leading universities of Australia and New Zealand; BIDA, the British Interior Design Association; the ECIA, the European Council of Interior Architects, the UK Interior Educators Council; and members of various US and Scandinavian institutions and organisations. The award winning multi disciplinary practice Graven Images presented alongside keynotes speakers Shashi Caan, (previously Chair of the prestigious Interior Design programme at Parsons, and the Pratt Institute, NYC). Graeme Brooker and Sally Stone, co-authors of Re-Readings: Interior Architecture and the Design Principles of Remodelling Existing Buildings; From Organisation to Decoration: An Interior Design Reader; Form & Structure and Context & Environment in the Interior Architecture Basics series, provided the second keynote. Other notable authors
contributed including Mark Taylor, co-editor of *Intimus* with Julieanna Preston, and Charles Rice, author of *The Emergence of the Interior*.

The conference occurred over two intense days and was attended by one hundred interior design academics, researchers, doctorate students, practitioners, and writers from across the higher education sector. Interiors Forum Scotland also invited and hosted a meeting of the UK Interior Educators Council meeting on 28 February at Glasgow School of Art, and sought advice from leading interior design organisations including IDEA and representatives from the USA and Scandinavia. A parallel exhibition in the Young Designers Gallery from 24 February to 7 May, complimented the conference, and, as mentioned previously, featured for the first time in the UK examples of work from each of the four years of each IFS member institution. Approximately 90% of delegates provided constructive feedback praising the energy of the event but also expressing concern over the sheer intensity of the programme. Most however, agreed that the presentations and discussions left them with ample food for thought and provocations to further action. The conference explored five deceptively simple areas of concern:

- **The education of the interior designer**: and the ethos, strategies, tools, tactics, themes and approaches influencing the field from undergraduate, postgraduate and continuous professional development.
- **What was will be interior design?**: interior design’s identity, multiple identities, professional expectations and industrial connections, regulation, deregulation, definition, scope and futures.
- **Interpreting interior design**: reading and re-reading, theories, trajectories, practices.
- **Histories of interior design**: narratives, speculations, meditations on history and theory and their value to practice.
- **How do we teach interior design?**: reflections, observations and case studies from education.

An objective of the conference was, from a Scottish perspective, to gain deeper insight into the extent and diversity of interior design research and to reflect upon the possible directions and likely influences this may have on the Scottish sector. A further intention was to develop research and educational networks to the mutual benefit of the IFS and its UK partners. It was also crucial to the IFS to ensure that relationships were forged between higher and further education in the UK; the parallel exhibition helped to generate interest from this sector and high school applicants and their career advisors. The authors also wished to use the event...
to gauge how diverse the international community was in its delivery of programmes or the scope of its practice. The event also served to boost morale by challenging the notion that interior design was a mildly schizophrenic design discipline in crisis. The outcome of the conference was, we hope, neither. Despite the pessimism which affects the sector, many interior design academics are, in the words of TS Eliot ‘united by the conflict that divides them’. Several clear debates emerged, there were several ghosts at the feast, and several absences, all of which lent the theoretical discussion of interior design a certain consistency.

Chief among the debates that dominated the discussion was the question of point of view: should interiors be discussed, visualised and conceptualised only from traditional notions of inside/outside? The paper, ‘Hertzian Space’, a term used in wireless technology, describes an innovative design studio which investigates the possibility of defining activity beyond conventional modernist perceptions of space, movement and interaction (Burry & Taylor, 2007). Connectedness between overlapping fields of occupation and activity are used to generate an interior in response to data flows that affect, interfere and overlap, and engender a kinetic response to shifts in activity, occupation and fluctuations in an electro-climate defined by wavelength, frequency and field strength. Process drives product, with modelling, rather than drawing, the key methodology for design investigation. This example of collaborative design through modelling also explores a fascination with surface and skin.

In ‘Towards a New Interior’ a new interior design discourse is proposed which acknowledges the interdependence of the related disciplines of clothing, product, art, film, and politics which are contained by and inhabit the interior (Weinthal, 2007). By viewing these disciplines through the lens of interiors, it allows us to see how they rely upon the interior in order to complete their work, re-defining the host interior as a series of perceptual layers that surround the body, therefore, constructing a new definition of the body in architecture. Weinthal’s paper brought a phenomenological, poetic and pragmatic argument to bear on interior theory. Indeed Weinthal’s investigations touched upon home as containing perceptual thresholds, or layers, with implicit territories, explicit boundaries, with physical, (outside / threshold / inside), and metaphysical polarities. The latter was defined by Bachelard (1994) as the Oneiric Axis, representing a metaphorical vertically stacked trinity of distinct domestic realms; the lower cellar, (with its allusions toward nightmare); the inhabited formality of the ‘middle kingdom’ of the house; and the elevated dream space of the attic. This relationship between the poetic and the spatial is also evident in collaborations between the disciplines of english and interior environmental design at the University of Groningen and Duncan of Jordanstone College of Art and Design, University of Dundee (Collins & Robillard,
and allows us to speculate on the extent to which the more ethereal, poetic and phenomenological perceptions of home and dwelling are still fertile territory for interior design in an age in which the smart technologically laden home, rather than the poetic dwelling, seems to dominate.

In ‘From Organisation to Decoration’, new strategies and tactics affecting the re-use and remodeling of existing buildings are described citing the impact of Herzog and de Meuron, Diller & Scofidio, Matta-Clark, Whiteread, Malcolm Fraser Architects and Carlo Scarpa, and the theories of contextualism, of urban theory, art, archaeology and installation art as influences of new interior architectural thinking (Brooker & Stone, 2007). Re-use of existing buildings is presented as an increasingly legitimate arena, whilst the writings of Rodolfo Machado uses the palimpsest or ‘writing over’ as a metaphor for building reuse; the text of the manuscript has been scraped off and the parchment used again, but inevitably a trace of the original text remains, a shadow that haunts and influences the author of the succeeding inscription. And so with buildings, they are remodelled, reused, rethought and yet a suggestion of the former meaning disturbs and inspires the subsequent design and it is this search for that meaning that is the basis of the analytical chapter.

Another key debate that emerged was the definition of interior design: should it be regulated and strictly defined, as is the case in some countries, and indeed with other design disciplines, or should it be allowed to maintain the flexibility of a ‘non-discipline’ in an age in which the crossing of disciplinary boundaries, rather than the defensive closing of boundaries is increasing. In, ‘But is it Interior Design?’ interdisciplinary theory and cultural analysis are used to enrich interior design education and practice (Chalmers & Close, 2007). The connection between theory and practice for visual thinkers is explored, and the intellectual framework it offers interior design is presented as a tool for thinking critically and reflectively on how and why an interior is made. Chalmers and Close (2007) cite IDEO as exemplars in which designers work alongside ethnographers, anthropologists, engineers and social scientists, and argue that, rather than seeking to emulate architecture, or operate within life style superficiality of some interior decoration, interior design should explore interdisciplinary theories. The authors of this discussion paper suggest that interdisciplinary theories also enable an economic means of managing creativity in mass education (Anusas, 2006), whilst introducing related concepts from IDEO of experience design (Buchenau & Suri, 2000).

In, ‘What’s in a Canon?’, Attiwill (2007) reflects on Chalmer’s and Close’s concern over a lack of a theoretical canon, but explores whether, in this multidisciplinary climate, a canon as it might be construed in architecture, may be undesirable or evolve into canons of distinct
interiorisations. Attiwill exposes the vast range of points of view that can be held about the discipline of interior design, speculating whether there are any canonical interior spaces that have influenced the practice of interior design on a par with that of architecture? An experimental workshop involving Australia’s design media, academics, graduates and practitioners were asked to respond to the provocation ‘What's in a canon?’ The question had two potential readings in this context: to question and evaluate the value of a canon for interior design; and as an invitation to identify examples of interior design which are significant at this point in time to the practice of interior design.

The issues of graduate saturation and disciplinary proliferation surfaced forcefully within ‘A Regulated Irregularity’ (Hannay, 2007) and brought much needed comparative detail between regulated and protected interior design programmes in Germany and those in Cardiff, Wales which exposed the exponential scale of expansion affecting interior design education in the UK. Hannay suggests that organisations like the IFS and Interior Educators Council should take the lead in advocating a tighter definition of the profession, in order to combat sliding educational and professional standards.

In ‘Not Cushions and Curtains’ (Hoskyns, 2007) interior design and interior architecture are differentiated from each other through their different approaches to the use of textiles. The use of textiles, patterning, wallpaper and ornament are becoming increasingly fashionable in contemporary design, such as Boontje, Wanders and Timorous Beasties. Coates, Alsop and Nouvel represent architects using textiles as construction materials, and transformations in computer modeling combined with advanced textile engineering are creating sophisticated architectural solutions. Hoskyn describes an innovative design studio which reclaims textiles by integrating textile technology with site.

Disciplinary anxiety surfaced in the presentation, ‘Why Do We Underestimate What We Do?’ (Stone, 2007), which defines the interior as a coincidence of contexts, and that these provide the opportunity for different activities and the social, economic and cultural conditions that stimulate them to be articulated as a considered, defined and designed place. As such the interior must be seen as a laboratory, absorbing diverse and contradictory ideas and facilitating a dialogue between activities and experiences. Stone argues that tensions between the professions has nullified the intellectual growth of the subject and relegated learning to mere skill.

The neglected heart of interior design is perhaps the home, but the authors speculate that the interior community may be reluctant to engage critically with the home, particularly
within education. However, in ‘The Tailored Home’ (Brown, 2007), new approaches toward customising existing residential dwellings are discussed in contrast to the large land development conglomerates considered analogous with the fast food culture of the US. Drawing parallels with slow food philosophy, which cultivates re-engagement with the culture and collective ritual of the selection, preparation and enjoyment of food, Slow Homes attempts to foster a re-engagement with the culture of the home, offering the client ownership and responsibility for the way in which the house is acquired and the home transformed; how it is designed, and the manner in which it is lived in and later adapted. Negotiating the conceptual space between the home as mass-produced commodity and home as a one-off high-end project, Brown replaces the one off bespoke ideal cherished by architects with a mass customisation strategy.

In clothing, high design is made affordable to a larger number of consumers with factory produced garments that are individually customised through alterations at the point of sale. In the same way, a Tailored Home begins with helping the client find an existing residential property that is the right size, price and location. This property is then tailored to fit with a series of interventions assembled from an edited kit of design strategies. The process creates an affordable way for individuals at a variety of economic levels to work with a professional designer to assemble their interior domestic world (Brown, 2007).

A key to understanding interior design’s identity is its history and theory. In ‘Towards a History of Interior Architecture’, Diaz (2007) offers suggestions on how an interior architecture theory programme may evolve, whilst raising questions about the definition of the field itself. Diaz suggests certain ground rules and identifies the strengths and weaknesses in various approaches to historiography. Diaz implies that the emergence of interior architecture is itself rooted to the history of modernism. In The Emergence of the Interior, Rice (2006) charts the emergence of the domestic sense of the term interior in the 19th century, and in particular, how through a reading of Dutch genre paintings, an ambiguous sense of doubleness surfaces: the interior referring both to a spatial condition, and a representation of a spatial condition. Rice argues that doubleness afforded the interior a conceptual structure that exposes certain problems for the various disciplines that study domesticity and the interior. The perception that objective Dutch realism offers a reliable device for evaluating interior life at that time is called into question. Rice argues that traditional histories assume the interior as a stable and timeless context for the unfolding and development of domestic life, rather than analysing what the historical emergence of the interior might mean for a critical account of the history of domesticity.
Conclusion

This discussion paper offers insight into the emergence of the Interiors Forum Scotland, with particular focus on their inaugural conference, ‘Thinking Inside the Box: New Visions, New Horizons & New Challenges’. It attempts to place into context the reasons for its emergence against other conferences and symposia, and interior organisations currently debating the future of interior design. A historical overview of the UK interior design sector allows the IFS to be placed into context within an important, but fragmented, lineage of groups which previously sought to represent interiors in the UK. Concerns from the UK community are presented; research culture; identity; deregulation; saturation; lack of support; the loss of interiors from the Royal College of Art’s MA programme; the impact of Government studies - the Cox and the Leitch Reports; demographic changes affecting Scotland; isolation, have mobilised the IFS into action. The IFS relationship with the UK Interior Educators Council is explored (for example, IFS institutions are members of the IEC, whilst one member is the Scottish regional representative). The relevance of other conferences to the IFS are discussed, ‘After Taste’, ‘IFI State of The Art 2006’, ‘Intersections07’, alongside the current, but highly specialised research in the UK of the MIRC, Modern Interiors Research Centre at Kingston, London, and the AHRC, Arts and Humanities Research Council five year research project by the Centre for the Study of the Domestic Interior and its Domestic Interiors Database. The impact of IDEA, Interior Design / Interior Architecture Educators Association on the emerging UK community is identified, whilst the authors also recognise the significance of biannual IDEA conferences such as ‘Inhabiting Risk 07’, ‘Inside Out 05’ and ‘Between Excess and Austerity 03’, amongst others. The paper speculates on alternative future interior design practice separate from architecture, and identifies interdisciplinary culture and new hybrid concepts of the polymath and the specialist. A number of key papers from the ‘Thinking Inside the Box’ conference are discussed offering a flavour of the conference. The significance of remodelling is explored, suggesting that conversion rather than new build has economic benefits which could place interior design in a more favourable light, ‘...between 50% and 70% of all construction work and about half of the entire economic volume of construction now concerns work on existing buildings’ (Cramer & Breitling, 2007).

Valuable lessons have been learnt in the first three years of the IFS’s existence. While the intensity of the conference programme in 2007 confirmed the rich territory in which interior design operates, the IFS highlighted the need to address additional research funding to support ongoing debate and exploration. The format of the event was overly formal,
and future events need greater flexibility. The emergence of new interior design theory publications challenges the superficiality of life style catalogues and pragmatic construction course books. This offers serious intellectual material of value to educators, researchers, practitioners and learners. It is hoped that the Thinking inside the Box: a Reader in Interior Design for the 21st Century, published by Middlesex University Press will also contribute to this. This collection of 30 essays addresses an eclectic range of issues from the conference with comment from The Lighthouse. This reader is designed to provoke within the international interior design / interior architecture community a desire to rediscover, reframe and perhaps reclaim the field of interior design.

References


Milligan, A. & Mohr, C. (2007). Internationalising the curriculum: Exploring proxy designer and pseudo client relationships through virtual, physical and textual design. An online case study, CEBE, the Centre for Education in the Built Environment with the Higher Education Academy. URL: http://www.cebe.heacademy.ac.uk.


**Endnotes**

The authors are indebted to Anthony Sully for his succinct historical overview of the various interior structures, educational and practice details, bodies, organisations and groups outlined above in ‘Historical Perspectives of the UK Interior Design Scene’, which stem from Anthony Sully’s response to an article in IDFX in Oct 2004 entitled, ‘All You Need Is Love’.
Sharing Understanding of Assessment Criteria in Design Project Tutorials: Some Observations of, and Implications for, Practice

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Abstract: This paper discusses and develops several findings out of a small action research project conducted in the context of a first year design studio. The basis for the project arose out of feedback that design critique is ambiguous, subjective and largely unqualified from the student point of view. While we implement criterion-referenced assessment (CRA) in design units, it is a struggle to identify and clearly express criteria and standards for design projects. Tutors may also struggle, as they relate their own frames of reference for design quality to the order of a CRA matrix. If the academics leading design units have difficulty with defining and agreeing on objectives and the standards against which student achievement is assessed, then where does that leave the student? The paper proposes framing a space of shared understanding by incorporating a dialogical address to criteria and standards into teaching practices, cumulatively expanding this discussion into more pervasive operational and developmental terms that embrace both the procedural and the (often delightful and surprising) declarative knowledge of our students.

Keywords: criterion-referenced assessment, assessment, design studio

The context

This paper documents a small action research project undertaken as part of my higher degree studies in education. It involved observing a number of tutor-student interactions in a design studio setting. I do not have any formal teaching commitment in the unit of study in which I observed the interactions. I negotiated with unit coordinator to work with two design tutors and their associated tutorial groups in the unit. The unit observed is the first unit of design in our undergraduate architectural studies degree program. The majority of students taking this unit have no prior experience with design for the built environment, although a significant percentage of the unit cohort are second year students from another design major (for example, a second year student of interior design or landscape architecture or industrial design, taking this unit as part of a second major or minor in architectural studies).
Three assessment items were set for students: a visual journal (with a weighting of 40%), a set of postcards (20%), a project to design a small artist’s studio for a well-known artist of the student’s own choosing (40%).

The academic coordinating the unit manages nine sessional tutors, most of whom teach twice weekly in three hour blocks. The unit cohort is subdivided into fourteen groups of approximately eighteen students; nine groups attend on Monday and five groups attend on Wednesday.

I planned to work with two groups: a Monday afternoon group and a Wednesday morning group. Although the tutorial groups had sixteen and eighteen students enrolled respectively, attendance at the sessions I observed was typically fewer than this. On average, I observed six tutor-student interactions in each of the sessions I attended.

I acknowledge several aspects of my interaction that flavoured the nature of the research I could undertake. Firstly, my influence in this learning environment was limited. Outside of the control structure of the unit, students did not inherently value what I was doing, nor was I in a position to make significant, responsive changes to the content or teaching and learning processes within the unit based on the findings of the research cycles. This limited impact aside, my involvement could be seen to be potentially advantageous and clarifying, so I also had to account for a possibly problematic characteristic of the situation: that of working with a subset of a larger unit cohort. So while I wanted to be of some use to the students I made contact with, I was conscious not to create significant advantage for the two groups over the rest.

On these terms my goal was to develop a small action research project that could both extend my understanding of a generic teaching and learning issue and inform my future practice. In this way the reflection had positive value at course/subject area level. The approach of auditing local practices opens to view a localised insight into the student-tutor interaction as arguably the key interaction in the context of teaching and learning in design subjects.

**The planned project**

The goal of my project was somewhat idealising. Ultimately, I wanted to enhance beginning students’ understanding of the language of design critique as they experienced it in a tutorial setting. Surveys of student experience often reveal that from the students’ point of view, critique in design seems ambiguous, subjective and largely unqualified. While we implement criterion-referenced assessment (CRA) in project-based design studies, it is a struggle to identify and clearly express criteria and standards to characterise the quality of the outcome
and student achievement. Tutors may also struggle, as they relate their own frames of reference for design understanding and design quality to the order of a CRA matrix.

The academic in charge of the unit I was researching has coordinated the first year design units for several years with success (confirmed by student satisfaction scores) and has been using CRA for at least two years. While I had the option to observe students in other settings, the evidence that the student experience of this first year unit was so positive made it robust for my study. Had I discovered plans going awry in the process of interpretation by students and/or tutors, these findings were unlikely to unravel into anything that would be detrimental to the overall outcome.

For me, it was a most privileged prospect to occupy: to be able to eavesdrop on and document the instances where interpretation of a task or goal is played out, principally through the evidence of the progressive (formative) review of students’ work in the context of weekly tutorial discussion. What was revealed in those moments would inevitably be valuable to a larger cycle of improving our practices as a community of design teachers.

So my initial plan was to observe, identify, document and annotate aspects of the discussions between a tutor and their students taking place in the tutorial - about processes and design project work in development – with attention to that which seemed to me to be problematic during the dialogue. I planned then to share my thoughts with those I had observed. The outcome I envisioned was a greater awareness in all parties of potential dissonances of meaning in discussion. Ideally, this sensitivity to the conflicts or ambiguities that arise in discussion would encourage movement towards a space of shared understanding.

I joined the tutorial groups for the third project (‘Oasis in the City’) at a stage in the schedule by which I presumed a useful amount of work would have been completed. My expectation was that by the time I joined in, projects would be well underway and tutor-student dialogue would be focussed on design development. Once I was ‘embedded’ into the tutorial setting, I realised that several conditions were going to make my task more difficult than I had envisioned. This promoted my first ‘reflection-on-action’, in that I had to modify my approach away from the one I had intended to follow.

Most significantly I noted that a lack of student preparedness at the first tutorial sessions I attended limited the range of evaluative feedback that tutors could provide to students. In these sessions tutors dealt largely with procedural aspects of the project task, as students had either not done ‘enough’ work (a common perception), or had misunderstood the goals for that week. The tutors spent a good deal of time re-stating aspects of task, and
providing how-to advice about such things as site analysis and appropriate procedures and representational conventions for conveying information in the absence of ‘formal’ instruction in drawing elsewhere in the first year curriculum. I note here that the unit coordinator has developed on-line modules in drawing for students to self-pace through (available from the unit ‘on-line teaching’ site), but not all students undertake these self-paced activities to develop their skills.

In each session I recorded tutor-student interactions and studied the content of these discussions in relation to the larger elements of the project objectives and criteria and the timeline for the project. My reflection was focussed through a consideration about the time remaining on the task and the extent of work to be completed. This was then queried in relation to the effects of tutor inputs and the terms on which projects were advanced from week to week. I noted that tutors were often responding contingently, subjectively and ‘directively’ to things that were ‘lacking’ in the student work.

In my ‘documentary’ space (a weblog) I proposed that some aspects of the project could be advanced more quickly if both students and tutors kept the unit/project objectives in mind as a reference agenda for discussions and the points around which understanding must be shared. From my reading of the brief (the assignment handout) the following seemed important as a minimum to consider when engaging in productive dialogue about work in progress:

- The quality of work in recording the city up to the point of starting this project (to build on something already accomplished by the student, which had been assessed, and which could be harnessed into the thinking for the current project).
- The quality of research (and understanding) of the work and approach of the chosen artist (the client for the project space).
- Understanding the site and relevant aspects of the surroundings of the site (demonstrated through presenting documentation of observation and analysis).
- Understanding what an ‘oasis’ is, for the purposes of this project. (The ideas of ‘contrast’ and ‘opposition’ are highlighted).
- To develop the design of a suitable studio out of a suitable set of ideas generated from the preceding understandings.

I emailed the students and the tutors a summary of where I was at with my observations, inviting engagement with the web notes by reading and posting comments. Here I was attempting to get all parties to align their productive activity (designing and discussing designing) with the goals of the design project.
I again returned to class to observe and record but this time I also asked to speak with a sample of the groups who had identified that they had read my notes on web. This discussion opened up the issue of project objectives and related criteria and whether or not students were considering the criteria while they were ‘doing’ the project.

From these discussions, I gleaned the following:

- Students paid most attention to the verbal feedback they received from tutors, although they did not always understand it
- Interpreting the criteria was difficult for some students
- That some students did not think about the criteria until the end when they were preparing their project for submission and assessment (too late for some)
- That some students did not even look at the criteria until they received their summative assessment

Interestingly, two of the students I spoke with had already completed a year of study in industrial design (ID) and reflected on the difference between criteria for their ID projects and the criteria for the architectural projects. They offered that criteria figured largely in their ID project work, with lecturers and tutors presenting the CRA matrix ‘up front’ and guiding progress in project development. They also observed that their ID design tasks were very clearly defined. To them, in contrast, designing a built environment seemed to be ‘about everything’ and this justified not paying too much attention to the CRA matrix for the oasis project.

Figure 1: First cycle of recasting plan to account for criteria as way to order discussions between tutors and students.
Out of the first ‘cycle’ I decided to demonstrate an analysis of criteria and standards in my documentary web space, publicising to students and tutors how these things could be considered and harnessed into managing work and ordering discussions (Figure 1). Because so much of the content of the earlier sessions I observed was about procedural aspects, I focussed on the four criteria that related to the communication and documentation of process and ideas.

- Requisite drawings
- Presentation
- Range of techniques
- Appropriateness of techniques

I analysed the relationship between the criteria and also pointed to the qualitative differentiation of standards for each criterion and presented an extended commentary on this in the web notes also summarising it visually to draw students’ attention to the fact that each criterion embraces the previous one, but adds something more (Figure 2).

**Figure 2: Criteria are embedded.**
At the next tutorials I attended, the work was advanced enough for discussion to be framed in terms of the ‘performance’ against project criteria, but what was revealed in these instances was that certain criteria were more problematic than others in the conflation of ‘knowing how’ aspects with ‘knowing what’. For example the association of ‘technique’

![Diagram](image_url)

**Figure 3:** Second cycle of explaining criteria, then reflecting on the construction of these criteria for understanding. Promote new actions, including the design of criteria that differentiate the address to procedural competencies and higher order abilities.

Out of this cycle, then I can identify at least two new actions. The first is to do with how we define and articulate our expectations of students at that higher order, in either demonstrating functional knowledge or the application of the declarative and procedural knowledge through a design project (Figure 3). The second is to do with the relationship between the tutor and the student, and how conceptions of the nature of this relationship can influence the outcome of student understanding in approaching the higher order criteria and deeper learning.

**Findings and implications**

The disinterest that some students displayed in the criteria surprised me. If as this study demonstrated, some students do not recognise assessment criteria as signposts of what it is important to know and be able to do, then it is important for teachers to make this
more explicit. Yet I was also surprised at how rarely tutors made an address to the criteria when discussing project work. I do not want to suggest that the complex dynamics of the relationship between students and tutors in design education can be resolved by agreement of criteria. Nor do I think that criteria should be the singular focus of discussions between students and teachers. However, given that a large number of studies in design education point to problematic perceptions of subjectivity in design critique, there is obvious value in referring to (if not at every instance of formative assessment, at least at key moments in the semester or assignment timeline) the framework by which the student’s efforts will eventually be summatively assessed. While formative assessment cannot be prescriptive, the general coordinates for agreement about a successful outcome exist in the criteria and performance standards written for the assessment tasks.

While I have only dealt with one dimension of the teaching and learning processes in this unit of study (which includes also lectures, a text book and an on-line resource base), I understand that the issues I have identified here, though not significantly detrimental in the context of my colleague’s extremely well-conceived and well-managed unit, are emblematic in the wider context of project- and enquiry-based teaching and learning in all design disciplines. It is clear that assessment criteria are an important, although sometimes invisible, layer in the territory that tutor and student navigate together. In large cohorts, the experiential distance between the tutor and students and the academic, who establishes the assessment framework for a project or other item of assessable work, may grow wide. In these large cohorts it’s arguable that the clear expression, communication, and shared understanding of criteria and their values are very important.

Using whatever aligned means we can to map out clear learning pathways for students that tutors can consistently manage, while enabling the play of ambiguity and exploration required in ‘discovering’ what it is to design, is our task. As a result of conducting this small enquiry and subsequent research into the work of others it is clear that much can be gathered around and mobilised by the expression of criteria. Research into tutor/critic-student interactions in design teaching shows that tutors often cover very diverse issues in their discussions with students in order to open up the basis of learning. However, in doing this, they may also create confusion in the student (see Wilkin, 2000). This can play out into the unfortunate ending whereby the student, upon receiving a mark for a project in which they lost sight of the stated objectives by working through a tutor’s ‘divergent commentary’, blames the tutor for the outcome and may go on to seek redress.
While the work of students, in the end, might reflect engagement with higher design understanding, the opportunity of opening up a space of shared understanding in the process of careful expression of criteria and standards and the dialogue that ensues in relation to it, could mean that students are able to internalise this understanding less accidentally. For example, this study highlighted some difficulties that can arise out of merging skills-assessing criteria, largely relating to the communication of observations and ideas, with the criteria for judging the capacity for students to produce appropriate designs with substantive design intention. Unravelling the application of such ‘hybrid’ criteria is challenging for even an experienced teacher, let alone a pressured tutor or beginning student. Swanson, Sabady and Yin (2006) find in their three-pronged enquiry into the student experience of design studio that this is a particularly trying conflation for foundation students with few or no design communication skills. These students, they observe, struggle so much with their drawing and modelling skills that any possible engagement in reflective design practice is neutered with negative implications for their future as design students (p.234). While acknowledging that the procedural and declarative aspects of designing need to be learnt simultaneously, the researchers offer that the reflective practice aspects and the skills aspects of design should be carefully but productively separated and the roles of each in the holistic process of designing be an explicit, early topic of discussion in foundation classes (p.236).

Extending the idea of openly discussing the bases from which design work is developed and subsequently judged, it is possible also to have students participate very deeply in constructing a space of shared understanding through techniques of self- and peer-assessment that partner and even inform the assessment made by tutors and coordinators. A recent study into the applications and implications of these techniques in an undergraduate psychology subject reveals the useful dimension of students gaining a better grasp of productive self-critique and a greater understanding of criteria while engaging with assessment tasks (see Hanrahan and Isaacs, 2001).

Others have also made similar observations. Cowan (2000) proposes that there is value in asking design students to spell out in detail the criteria and standards by which their work is judged, get assessors to do the same and then compare the results. ‘Students who do not know what they are trying to achieve are unlikely to make good progress, other than by chance. It is highly useful and informative to discover that, or whether, some students have no conception of what they are striving to achieve’ (p.281). Rust, Price and O’Donovan (2003) argue a similar, although more developed line, that the explicit statement of criteria and standards must be carefully woven into the socialising processes of tacit learning, even to the extent of inviting students to join in with staff in the judgement of work: ‘It follows that
inviting students into this shared experience should also enable more effective knowledge transfer of assessment processes and standards to them’ (p.152).

The clear benefit of integrating the criteria framework more fulsomely into instances of formative assessment is that it can act as a point around which shared understanding can develop between tutor and student, using a common language. Arguably this could mitigate against their asymmetrical relationship (in terms of power) and enable more effective dialogue, possibly even opening up common avenues of query to the unit coordinator, in which both tutor and student clarify meaning and agree about standards together. This is probably useful from the point of view that many tutors, while knowledgeable about the content domain, are in fact not very skilled in teaching. Some may be very recent graduates, thereby being more peer-like than ‘instructor-like’.

Laurillard (2002) identifies that there are many different ways of conceptualising the topics we teach so students and teachers alike need to be cognisant of this differential distance and put in place some means to resolve the resulting tension in a learning situation. She proposes that ‘there must be a continuing interactive dialogue between teacher and student, which reveals the participant’s conceptions, and the variations between them, and these in turn will determine the focus for the further dialogue’ (p.71).

Because the scale of my study was quite small and very time-limited, a factor not explicitly activated was the impact of the personality and approach to their students of the two tutors I observed. If as Laurillard has emphasised, participant’s conceptions need always to be exposed and compared, one thread of further enquiry is to investigate more closely how the tutor’s attitude and approach to their teaching role might inflect students’ understanding and progress. The scene of Helena Webster’s (2004) research into tutor-student interaction is the ‘ritualised transaction’ of the one-to-one desk crit. Webster’s ethnographic-type study of students’ experiences in one-to-one tutorials offers that students typically encounter three types of tutor: ‘the hegemonic overlords’, ‘the entertainer’, and ‘the liminal servant’. Of these three types, students in Webster’s study largely believe that it is only the third – ‘the liminal servant’ – who has the greatest positive effect on their learning and enhanced motivation, but that it is the first -‘the hegemonic overlords’ - they encounter most frequently.

In labelling the most effective type of tutor ‘the liminal servant’ Webster is aligning the characteristics that the students identified with a key figure proposed by Peter McLaren in ‘Schooling as a Ritual Performance’. McLaren constructs a role for the teacher that is collaborative, and a role for the student, which is also participatory. In McLaren’s conception,
the liminal servant is like a celebrant at a religious service and the student, a co-celebrant who is actively engaged. In this role, the teacher or tutor creates a learning environment that is characterised by ‘liminality and communitas’ (Broz, 1999, p.160) where authority and status are set aside while the student is in the threshold condition of transformation or ‘becoming’. It is an approach that recognises that teacher/tutor and students together create the culture of their learning environment.

Relatedly, in Webster’s study a key characteristic of the ‘ideal’ tutor as proposed by her student interviewees, is that they be capable of engendering openness: ‘Both the tutor and the student having an awareness of what it is that the other party requires of the project’ (p.109). Unfortunately this student-centred quality, in Webster’s study at least, does not flavour the lived experience of her student subjects. Instead in the one-to-one context most tutors tended to intuitively adopt a teacher-centred approach, coercing students into a certain way of thinking while assuming that they were supporting student learning. Many students remarked that they found this approach ‘demotivating and frustrating’. In Webster’s study, very few lower-year learners report positive tutorial experiences (p.110).

My study was far too limited to infer much of import in relation to the ideas of McLaren and others who promote constructivist, student-centred approaches. Webster concludes that the intuitive practices of many design tutors may result in problematic student experiences – ‘at best unhelpful and at worst excessively coercive’ (p.110). While student satisfaction in the first year learning environment that I observed is reasonably high, in it and other settings I have frequently witnessed instances of coercive and directive behaviour on the part of tutors. That said, I also acknowledge the pressures that may exercise these tendencies such as perceived lack of time for discussion or the absence of work to discuss which may also associated with a lack of experience on the part of the tutor.

To counter the intuitive or reactive teacher-centred tendencies of tutors Webster recommends developing a critically-reflexive approach to tutorial practice. In thinking through ways to facilitate this, it is possible that tutors and students could overtly deploy the ‘map’ of objectives and criteria: a chart for their excursions into a creative, collaborative space of learning and understanding.

The space of shared understanding that could be framed through a collaborative dialogical address to criteria and standards can readily contain the aspects of the task. Any divergent discussions could occur outwardly from this point, and ideally develop both the students’ and the tutors’ understanding of each others’ thinking but also create a situation where the
student's attention is unambiguously centred on relevant aspects, which is one of Marton's and Ramsden's implications for the design of a learning session (Laurillard, 2002, p.69). Another large value of this approach to the wider enterprise of design teaching would be the cumulative expansion of the discussion of criteria and standards into more pervasive operational and developmental terms that embrace the procedural and the (often delightful and surprising) declarative knowledge of our students.

While many studies consider problematic aspects of teaching and learning in design, few critically examine the tutor-student interaction (Webster, 2004 and Blair, 2006) and there is more work to be done particularly in framing the terms of interaction away from perceptions of subjectivity in judgement towards a shared understanding. Other studies focus on the role of discussion about assessment processes in design in the professional development of teachers (Bennett, 1989 and Orr, 2005). A research pathway out of my limited observation, might conflate these two dimensions – tutor-student interaction and the role of discussion in assessment – in an extended analysis of current practice around the use of criteria (and expression of standards) in design process and project units, towards engaging and embedding these more explicitly in the development of students’ understanding about design and designing.

References
Blair, B. (2006). At the end of a huge crit in the summer, it was “crap” – I’d worked really hard but all she said was “fine” and I was gutted. *Art and Design Communication in Higher Education*, 5(2), 83-95.


Following a line … she collapses onto the gleaning table

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Abstract: This paper, titled ‘Following a line … she collapses onto the gleaning table’, looks at the relationships between writing and drawing. In particular it looks at a creative-making practice that is based on the gathering of ‘remains’, on the bits and pieces left-over, and brings to mind studio teaching, where the scraps of thinking and noting and sketching are often discarded (and thrown-away). In the paper, drawing and writing are considered to be ‘graphic events’. Agnes Varda’s film The Gleaners and I is referred to, as are writings by Jacques Derrida, Hélène Cixous, Gilles Deleuze, Clarice Lispector, Octavia Paz and Gregory Ulmer. Marcel Duchamp’s Large Glass also plays a part. Fragment-images from an eight-metre long drawing by Michael Geissler (Louis Laybourne Smith School of Architecture & Design), that took its starting point from ‘scraps’ left in a studio, accompany this paper. These non-representational images form a parallel text; the image-text and the writing-text together are a made-work.

Keywords: writing, drawing, remains, teaching, event, art

‘I like filming rotting stuff, leftovers and debris, mouldy things and rubbish’ (Varda, 2000).

All around the design-studio – on the tables and the floor, shoved into the bins – paper, scribbled on, drawn over, screwed up, abandoned, forgotten, rejected, unloved; the remains of labour, of learning, of unlearning, of hate and despair and disinterest, of boredom and rejection; rubbish, waste, ruin, excess, remnants, surplus, spillage, detritus, refuse (lines, words, rubbings, creases, folds, crinkles, colours, footprints, stains) …

Sometimes we, the writer and the drawer, pick up the remains, make piles on tables, other times we finish the job … throw it all away, good riddance, adieu, good luck, rot-in-hell.

Writing is (made by) slow gathering, handling this and that, keeping one’s eyes on the margins, adding word to word, her word to his word, composing by remembering and following (old notes, photographs, dog-ears, asterisks), by taking time, by feeling anxious; one makes one’s body, the writing (the made-thing), in time, with time. From the outside (an enchanted outside; or, from the inside of the air), something arrives, a ghost, a monster, a stranger, an animal, a glorious blue; a gift, a miracle, an enigma, a something one lets-in, welcomes, an accident, a chance, a mess, a step toward another’s mess, or my own, junk;
suddenly, I am more than I was, I am the one who is arriving, dreaming my junk-filled self (reaching out; there is almost-nothing there; and yet so much).

One takes something, uses something to work with/from, that one needs/wishes to go on with (so as to get-on with the work – art, design, writing, singing, dancing, filming, teaching; the work, for instance, of building the world, again); it could be love, or a year, or a word, a scent, a sleep, a map (and something was taken/used for that short list to be thought and written).

‘… and everything begins, like the postcard, with reproduction …’ (Derrida, 1987, p. 63).

Each small found-mark is a postcard (a note, a picture, an address, a stamp) to be cut and pasted (like a quotation), to be received (if it does arrive) and drawn upon. This writing, for instance, is a drawing of a table (I am sending you, giving you, a drawing of a table); it is a table for writing at; it has a chair pushed under it, a chair awaiting, but the chair will be another writing (not this one) – it is only under the table in thought, with the table now-said in the writing. The table is a surface for a book (an archive) of drawings; these drawings will furnish a world, for a moment; the table is the turning of pages too; the table is exactly as you imagine a table to be – although, it has several drawers, and is made of beautiful wood. It’s a table to die for (and on perhaps), and to sit at each morning to write, to copy out sentences – one’s that have never caught your eye before, and yet are delirious (and always were), sentences of terrible quietness, ones that lay-about, bare as bones (or so it seems).

The table will never ever be finished; most of it will stay, hidden, in a notebook, or become a distant memory; and, once-in-awhile it will pour out (as sound) at the mention of a rendezvous (for instance) sketched-out in speech to another, who has turned-up without warning, and who was forgotten by you, right up until that moment (they ask and you tell them how you are; you say, I am table). The memory is an accident, a crash – as if there could be an accident (of memory); no, no accident, instead one more line drawn across the face of the table (and in the face of the other) – there, that’s part of the table now, of its intention (beyond you), part of the design, a line drawn onto the table before the writing begins; the table is being written (a writing table).

The trouble starts with the gathering of remains (a type of re-searching); then it starts again with the first word (maybe not even a word, more a sigh, a gasp); then again with the word table, now there's no end to the trouble(s). And the body of the writing is less and less somewhere-in-particular; less and less in place; it has drifted away, but it remains too, to be
read (as the remains), as small incessant effects – at the table the non-writing, thought, is written. This is important, as writing now is spread-out, scattered, inconclusive forever.

The table looks nothing like a table; I can write this, I have written this. Writing does this drawing. The table is a table for the hope of both writing and drawing; its drawers are for drawings and writings, and for the beginnings of drawings/writings (titles, measurements, quotations, errors) – small suspenseful strokes of the (yet) invisible (hope). ‘The effort to write is always beyond my strength. What you see here, these lines, these strokes, are rungs on the ladder of writing, the steps which I have cut with my fingernails in my own wall, in order to hoist myself up above and beyond myself’ (Cixous, p. 25).

The table is a dream. The table could be a bench. It makes a difference to call the table a bench. You can sit on a bench (‘… the stream, the flowers, and out of breath she collapses onto the bench …’ (Cixous, p. 50)). There are different things on a bench. Sometimes a table becomes a bench (when it’s thrown out, for instance); and sometimes, in time, a bench emerges as a table, it surfaces to be another type of surface, for food, for plants, for birds.

To go away, to leave, even for a short walk …

‘I am going out to walk for a bit,
I’ll be back right away,
probably I won’t go far’ (Derrida, p. 127).

… will change the direction of the work underway – writing, drawing, thinking. It might be a slight change, a swerve, or a dividing line, dead straight from left to right, light as a feather. You might leave never to return, or return to a blank page (blank when you left, blank when you return), as if you’d never even pondered beginning (but you had, you had vowed to start soon – sooner or later: I will write that house, you vow). And to begin you might reach for a sentence, a sentence for life, a throng of words assembled by another for one’s attention (written just for you to read), and possible use (like kindling for a fire), or to borrow (like sugar); for example: ‘Any plane surface within a certain range of dimensions, and suspended or supported at a particular height off the floor, may be considered a table’ (Kingwell, p. 174). One-self becomes an-other, is made to be an-other, by their work, the work of the other, as their work is excised and carried over, copied down upon the page on the table (or upon the table of the page). It is a kind of drawing (an actual drawing), a broken-off bit of a larger drawing, as if tripped over (and one is overjoyed, because it is so fitting, and it starts things up, writing starts, writing thinks that it is drawing, that it is making a space in the world); and it has begun, finally, by reading (thank goodness).
We make by gleaning; in Agnès Varda's film, *The Gleaners and I*, about gleaning, she is the gleaner, both of her own life and the life of those she films (the gleaners), and also of the making of the film itself. She makes use of the accidents of her filming; when the camera is left running and the lens cap is filmed bobbing in and out of frame Varda leaves the footage in and calls it *the dance of the lens cap* (she has gleaned her mistake). *There*, she seems to say, *there’s* some waste, and now here, *here’s* some physical rhythm for you, *here* is what I have made of it (with music).

Gleaning is not a method, not a teaching; it’s a possibility, an understanding (a way to live). As a research method it is aligned with that invented by Gregory Ulmer in his book *Heuretics, The Logic of Invention*. He says, more or less: glean. If you want to make something, he says, try this weaving-method; a process of mixing several strands, and the strands can be named: Contrast, Analogy, Theory, Target, and Tale. To work with these strands one must glean one’s own interests, one must consider one’s ‘specific position in the time and space of a culture’ (Ulmer, 1994, p. 32). One must be, in fact, subjective. He calls this method chorography after Plato’s concept *chora* – which is a generative vessel, or space, that will endlessly receive; a container that allows everything to come and to go. Chorography is an experimental method of making new poetics; research by doing rather than consuming. It is choral-working. And one can improvise within the five strands (or categories; and there could be more, and they could have different names). Essentially it is the building of structures of possibility; of using what comes into view, and being associational, and intuitive. The process is as much about failure as success. It’s a practice of adventure and synthesis, of evoking relationships (from what is gleaned) between things and facts and concerns and desires, it’s a scattered and infinite making (like using the bobbing lens cap). Gleaning saves the excess, and makes helpful the broken, abandoned, rotting, imperfect, worn, and the failed – it picks one/self up-off the floor, or out of the swamp, and values the chance to make-do with the mess (to see the mess anew); it draws upon reserves, and draws out exhaustion into inexhaustiveness, as there are inexhaustive amounts of surplus matters and materials from which to make a refrain, a poem, a reply, an image; to form a new thought. ‘To make an image from time to time … Can art, painting, music have any other goal, even if the contents of the image are quite meagre, quite mediocre? In one of Lichtenstein’s porcelain sculptures, sixty centimeters high, there stands a brown-trunked tree, topped with a ball of green, and flanked by a little cloud on the left and a patch of sky on the right, at different heights: what force! One asks nothing more … The image is a little ritornello, whether visual or aural … Image-ritornellos run throughout [Samuel] Beckett’s books. In *First Love*, ‘he’ watches a patch of starry sky as it comes and goes, and ‘she’ sings in a low voice. The image is not defined by the sublimity
of its content but by its form, that is, by its ‘internal tension,’ or by the force it mobilizes to create a void or to bore holes, to loosen the grip of words, to dry up the oozing of voices, so as to free itself from memory and reason: a small, alogical, amnesiac, and almost aphasic image, sometimes standing in the void, sometimes shivering in the open. The image is not an object but a ‘process’. We do not know the power of such images, so simple do they appear from the point of view of the object’ (Deleuze, 1997, p. 158/159).

Gleaning is the taking of the gifts that are not given (as if they are given), but are there for the taking; gifts without the name gift, gifts for those who feel free to take the gift, who are willing to steal-away the fruit, the sketch, the sentence (in the name of touch, a touch that touches upon the flowing-over (overflow) of the world we make; a touch that recognizes fleetingly, but again and again, that we are not alone in our craving, that we do not have to make it all up by ourselves); that we can help ourselves, that we share the world (with everything, animate and inanimate), that we do not have to start at the start, or start with a belief that there is a blank empty start – with the digging of the soil, with the melting of the metal, with the pulping of the trees (that are all already in the midst of their own makings).

This, I imagine, is what Ulmer means by proposing a set of categories (that become fields) that enable us (arm us) to make in the midst of our own making (of self), of paying close attention to our own minute specifics, our own nuanced spatialized place.
Gleaning, running one's eyes around the space (the classroom, the theatre, the gallery, the surgery), along the street, across the horizon, over the page, can – if we surrender the notion (momentary, perhaps) of an original (independent of anything else) thought, a genius idea, coming to us like magic (from the gods), turning us inside-out, singling us out as the one – give us beginnings in all directions, ready-things from the hands (and life and labour) of others that are not so much intact answers to our heart's-desire, but the energy of inspiration (of breathing in or into), food for thought, shivers of intuition; and then, with force of differing kinds, we belong to others’ (imagined) origins (or to a never-ending chain of origins – origins-without-origins), to the community of myriad others – who we make contact with, touch upon, and join (breathe-with).

In the (design-)studio, paper is the table, the screen, the surface, on(to) which thought arrives; it is expendable, page after page marked and left, marked and left. Once the surface was skin, the skin was stretched, dried, rubbed, then scored; the surface was an animal. Once, the surface was sand and rock. On the (animal-rock of the) paper surface, desire and feeling congregate, sent from inner and outer speech, to try out their wings. Can a first line become a museum, a school, a house, an embassy, a skyscraper; a note is made (jotted down, dashed off, scrawled, doodled, recorded) about site, light, sound, tone, wall, door, floor, and so on …; a diagram sums up a lecture, a single word suggests intention: feather, seaweed, lagoon. ‘… if it [paper] gets hold of us bodily, and through every sense, and through every fantasy, this is because its economy has always been more than that of a medium (of a straightforward means of communication, the supposed neutrality of a support) – but also, paradoxically … that of a multimedia. It has always been so, already, virtually. Multimedia not … in the regular and current use of this word, which, strictly speaking, generally presupposes precisely the supposition of an electrical support. Paper is no more multimedia ‘in itself’, of course, but … it ‘already functions’, for us, virtually, as such. … Paper is the support not only for marks but for a complex ‘operation’ – spatial and temporal; visual, tangible and often sonorous; active but also passive (something other than an ‘operation,’ then, the becoming opus or the archive of operative work)’ (Derrida, 2005, p. 42).

On the paper, the page, a world is made/operated on, a world of infinitely moving (extracted, adjusted, oiled, filed, recombined) parts, its complexity is packed into shades of a doubtful tentative procession of learned and improvised movement(s) – the writing of a single letter, e.g. L or M; or, the unexpected happening of a pencil held on the page and slowly patiently pulled across: contemplation, pleasure, trust, expectation, acceptance, surprise; moving, choosing to move, without the demand for outcome; the seeing and watching of one's body
as a subject in the world, and of the particularity of being that subject, and that subject
bringing into appearance something by a deliberate sitting at another surface (other than
one-self), a surface that might resemble a table, or an animal - an animal-table.

What we put down on the paper comes to the sight, potentially, of others: the paper comes
into view as bearing (an indication of) us as who/how we are at that moment (it puts up with
us, receives us). ‘Paper is utilized in an experience involving the body, beginning with hands,
eyes, voice, ears; so it mobilizes both time and space’ (Derrida, 2005, p. 44).

Every time we write or draw are we looking for love – a gleam, a flash – to look back at us;
so that what we have made appear will appear to us as faith, as cheer, as care; that we might
glean in that gleam/flash a glimmer of ourselves for ourselves – and not for our teachers,
judges, or critics; that we might glean a hint that we have changed a little, grown-up a tad,
become human and animal, all-over skin; that in the broken lines, the clumsy render, the
illegible words, we might divine our future, or intuit a realm of good-tidings (a calendar of
good tides), where we are welcome.

On the (design-)studio tables and floors are pages of all sizes – torn, crumpled, stained; pages
of disappointment, neglect, anger, worry, freedom (to leave), ready to be swept up, recycled,
or mulched, whatever, and so we pick them up, from time to time, and look at them and
wonder if the markings are as beautiful as the cracked/scratched glass in Marcel Duchamp’s
Large Glass, the furry legs of a moth, the tip of a butterfly’s wing, the buds of cherry
blossom; are they traces, evidence, testimony, of thoughts that caught themselves in thought
(thinking) and froze, amazed, and then (quick as a wink) lost their nerve, or slipped, and, with
the next thought, ripped the page from the book, and started (heart-broken) all over again:
‘Graze the paper with the soul’s foot, and immediately the foot slips. It’s always this same
story of the foot and the ground, one and the other in motion, the one missing the other.
How then to draw a firm footing, when our soul is merely a staggering? Our drawings, our
books and us, we all go along at the same pace, with an uncertain foot. This is why it is the
legs above all which, in our drawings, are the most agitated’ (Cixous, 1998, p. 29).

Writing is a way/mode (in a way) of drawing, of forming by hand, shapes called letters
– characters, signs, symbols, consonants, vowels (from the archive of the roman alphabet)
– and here, in the first instance by a cursive script, in syllables, spelt out, in a draft shape: in
sentences, phrases, paragraphs, with capital letters and full-stops and commas and semi-
colons, and colons, past and present tenses, adverbs, verbs, nouns, pronouns, adjectives,
conjunctives; now and then I use a question mark, an ellipsis, brackets, dashes, slashes,
apostrophes, accents, quotation marks; I make at best a mood; the mood is composed of all the markings in the constellation of a writing that in each of its separate contributing marks is itself an atmosphere (a mood then of atmospheres; the meaning and history of the individual word (sketch), the combinations of several words (e.g. gather to us), the choice of a word (e.g. atmosphere), the order of the paragraphs (e.g. a pathway), the other writers (e.g. Hélène Cixous), the tone of the other writer’s (e.g. the deep bass of sorrow), the touch and touchings of different forms (e.g. art, film, furniture). There are half-baked ideas, scrappy corners, song-voices of strangers, suspect-grammar, threadbare patches, awkward angles, sharp edges, borrowed expressions, wrong-commas.

To write-draw is to write in the mood (for love, even), or in the mode/temper/measure of making or inventing (of imagining the drawing (here) could become, or already is, a table, a set of shelves, a cabinet, a chair, a house, an urban plan (including gardens, cemeteries. dwellings, underground passages, overhead passes, bees). It’s a process which forms and un-forms; it’s an opaque vessel of cuts, splits, slits, gashes, and hollows, partial, inconsistent, discontinuous (a texture stretched and stitched). This writing is not about design/style, it’s more likely for art – a work of language, an approach (like a board-walk or a red staircase) toward (a drawing near, a seeking warmth) making (and knowing making is framing). This writing is, for instance, something else: music, film, performance, (social) sculpture\(^10\) (and a drawing, as already written) – a composition (a compound substance, a combination of substances), an invitational composition, an unfinishable composition, as if heading, imprecisely, toward the open sea (with passion for the headlong heading and the company and the anecdotes and camp-food and starry nights and misty mornings, the choppy waves, howling wind, and creatures from the deep); and it, the coming-about writing/drawing, doesn’t know what will be added to or taken from it, scraped out, squeezed in (or thrown at it). Clarice Lispector, early in her book The Hour of the Star, writes: ‘… what I write is like a dank haze. The words are sounds transfused with shadows that intersect unevenly. Stalactites, woven lace, transposed organ music. I can scarcely invoke the words to describe this pattern, vibrant and rich, morbid and obscure, its counterpoint the deep bass of sorrow’ (Lispector, 1992, p. 16). Writing is a social space, a space to be in, to draw with; to follow lines from, so as to make another garden\(^10\).

And so the left-over, the scrap, is quoted, copied down, as a moment of weakness\(^11\), a leak, as if admired, dearly held; it has persisted, and it is not a mystery, it is the beginning of a drawing and of a writing; these, thoughts, may be mysterious – the poem, the perspective, the map (these are different than their stolen beginnings, and yet they are no less
‘beginnings’); they are present as the-things (the poem, the map), and present as situations (occasions) from which we can drift-away, or come a-drift – they cannot constrain us in their sureness, their program. They, wonderful marvellous the-things can open the world (as mysterious) – that is, if a little anarchy remains (to initiate the unpredictable).12

Drawing and writing are graphic events (graphic, from the Greek graphein: to write); they record lines and line-shapes – there is the word or a paragraph or the outline of a body or the sketch of a window, but it is, too, a galaxy of other shapes that we have learned to ‘read’, and even if we can’t read them, they are still available for reading.13

And, always, as we read we practise how to read (the monstrous painting, the convoluted novel) – we are slowed, aggrieved, impatient, brutal, or we learn to learn, and we become a strange image of ourselves; we sink into ‘… writing rather than seek transcendence over it or by means of it. The inconclusive play of letters is the magnetic sediment, the fertile earth or ash of writing and learning. It is out of this earth that the colossal natural entities … are dreamed into being.’14 We can ask of something: what is it; it is thought, it is transmission.15

And, out of this earth, and out of transmissions, are dreamed the machines: ‘… machines are great producers of waste, and the refuse they leave increases in geometric proportion to their productive capacity.’ (Paz, 1990, p. 7) We are machines (from the Latin máchina: an invention; and from máchināri: to devise, to plot) and we can be anti-machines (in the Duchampian sense): ‘These apparatuses are the equivalent of (the) puns: the unusual ways in which they work nullify them as machines. Their relation to utility is the same as that of delay in movement; they are without sense or meaning. They are machines that distil criticism of themselves’ (Paz, 1990, p. 8).

Rubbish16 offers us a chance to be an anti-machine, a being working carefully to produce a further delay – a drawing that is writing, a writing that is drawing (and drawing and writing as sculpture). Not as play-thing (writing/drawing play-thing) though (although playful), nor as gesture (although makeshift); but as a contribution to the ether of abandonment: the ecology of incomplete documents, and documents that, as act/action/event, set atmospheres in motion; a motion that is only an offering/commitment to the infinite condition of an atmospheric imagination, or an imagined atmosphere (even if real); to the furnishing of the known place we carnally inhabit and the unknown space ahead of us, that we (freely) chance upon (and about which we know next to nothing (except its impending coming)).

Out of the atmosphere though comes a use – a conversation, a nervous pause, a proposal, an urge to go home, a design for a table, a floor plan, a colour scheme, a sense of joy, a resolve,
two hours of peace, a painting, a photograph … and one thing connects (leads) to another; the anti-machine spreads out exponentially, and its logic runs by electric filaments, gaps of thin air, pulses, ringings in the ear, shudders, rain, static, interpretations – an assembling of endlessly presenting (in themselves) assemblages, and proliferating tactics of differing densities, from the barely visible (line) to the unavoidably solid truck, road, disposition, subject (e.g. art, architecture, chemistry, me, etc). The anti-machine works as if it is an anti-machine, and all the while it belongs to the communities of machines. Somewhere nearby, in the vicinity of a chasm (machine/anti-machine), the writing/drawing reflects not an image-of-myself, not the appearance/surface of-myself, but an inquiry of myself that can be looked at and admired – it faces me, and it faces the world; it is social: ‘Drawing and writing are mirrors in which we do not see ourselves. What we see when we are the graphic mirror, when we read or write, cannot be a mirror-image. The result of loving to draw or loving to write is not an abnegation of the living self, but a discovery of life’s otherness. This discovery is not apocalyptic or sublime but divisive, echoic, repetitive and bathetic. To experience this discovery we must agree not to be its author, not to be exempt from failure, scattering and disappearance’ (Wood, 2006, p. 60).

To-be then, perhaps, in-between (or nowhere to be seen in regard to …) ourselves looking at the mirror-work and the mirror-work – not-ourselves – looking back. A tender state of double-jointedness (and not of separation, not of peeling oneself from oneself and then speaking of a subject and an object), a fading, fleeting, and reaching (invisible) activity spilling in every-which-way and defying propositions; one can dream oneself in writing/drawing as myriad; the activity of making-present ‘… brings us out of ourselves into the world …’ (Wood, 2006, p. 61).

And still, remains: ‘… there is no getting hold of … drawing or writing’ (Wood, 2006, p. 62).

Duchamp’s *Large Glass* is the drawing/writing (picture/anti-machine/machine) that cannot be held; it is a painting/text/sculpture/architecture, a glass-work, sealed (hermetic), and accompanied by boxes of notes and diagrams: the *Green Box* and the *White Box*. It is touched upon (here) in passing as an artwork that cannot not be (or is) everywhere (a type of nowhere) at once – it, itself, touches upon many genres of knowledge – metaphysical, philosophical, erotic, physico-chemical, biological, ontological, spiritual, mechanical, psychoanalytical, and so on. It is wrought and grotesque all at once; an engine, a generator, of intellectual sensual thought (a teaching, a learning). Any fragment (element) of the *Large Glass* has explosive capacity in terms of what it might be saying; each fragment is equally available and excessive – excessively more than is possible to know from looking, and yet a
trace (salvage) too, and a trace (or in Duchamp’s words an apparition or a souvenir\textsuperscript{17}) that is almost-knowable, and almost-knowable in the first instance by genres – architecture, sculpture, painting, drawing (the cracks across the glass made by accident) – and by, in the long term, the slow attention to associations (by analysis, interpretation, correlation, techniques (e.g. glass, nature, joints\textsuperscript{18}).

To-do another version of the thing – fragment, quote, shape, sound – that is already itself (a chord sequence, or Freud’s reading of the Oedipus myth) is to treat time as a space of immense elasticity; and, in that space we, as gleaners, cast spells, conjure words and objects – turn little scraps into ‘this and that’ (into mountains of possibilities – a book, a philosophy, an art practice), and in the turning produce more waste, more residue, motivating the invention of new language with which to consider process: what is going on? Octavia Paz invents his is going on in this tiny extract about the Large Glass: ‘The glass turns the drops into a ray of light. Again the act of looking, through which the universal magnetism is conveyed. The magnifying glass throws the ray onto the combat marble. Struck by its luminous energy, the marble jumps up and hits the first summit. In this way it sets in motion the clockwork mechanism of the Boxing Match. The first fall of the rams that hold up the Bride’s garment makes the Juggler of Gravity give a little jerk. The ball attacks again, ‘very hard’; the rams fall again, the first one is unfastened, and the Juggler pirouettes’ (Paz, 1990, p. 58). Theatre; we are at the theatre; writing/drawing is theatre – a venue, an architecture, an encounter.

We glean to keep making/moving/walking (from ourselves as archives, from others in our (real) midst everyday, or on our shelves, or in our cinemas, and so on) and to stem the mourning for what is lost to us anyway, irrevocably, and what is overlooked and cursorily dismissed – all the labour that wears (away) the body, all that is crossed out, over-written, erased, deleted (but still in mind, the surface of mind written on, and written/printed on the body/skin in the same movement/moment (the body as waste-book\textsuperscript{19}) – and here I am writing of the writing/drawing that has a paper-base and is based on paper, and resembles a signature (the law of identity (but not identical to me), as identity is still an authentication), usually, in worldly affairs, ceremoniously given at the table.

I listen, I glean, I try to make a little sense, to stop myself falling through the gaps (the gaps, or cracks – the chasms between – are where the relationships amongst things and facts and concerns and desires are stored; to fall through is to become part of the distributed and the scattered (more atmospheres, postcards (sendings)). I glean so as to remain (to fall and rise again), and so as to reach into and across the gaps, to build, by spreading out – a fragile bridge (a bench), a makeshift raft (tables of one kind or another), in hope digression and
improvisation will save the day, will redeem/reproduce me (or my history) for an instant – not for anything in particular, just for living (remaining).

Postscript One
“Touch on any part, on any sight, a sock, a hole, a wall, pictures, a resistance to museums, yet pictures always on the wall, and defining eras by those pictures. Wander looking for the odd lots, stop in front of something smallish, a little unofficial, by someone who did the best he could. That's all. Or a self portrait by a woman no one ever hears of. She. Sincere, intransigent. Or a few squares floating, by an escapee. One or two lines on a page. That's all I need …”(DuPlessis, 1990, p. 164)

Postscript Two
The large drawing by Michael Geissler was initiated by several ‘scraps’ (left-over) from a second-year design-studio – most of them scavenged from the tables, two of them donated (thank you Charlie). This writing and the drawings (here represented by fragments) are a result of observing students' vulnerability about their ‘process’ drawings on the one hand, and their frustration and irritation and disappointment at what amounts to the production through labour of many many beginnings (in other words, the learning of turning thought into image, into form, by practice), on the other hand; but what was more troubling and exhausting was the disbelief by students that their humble, awkward, delicate, doubtful marks are always potentially available to them; that these are open to further thought, for later consideration, for a persistence that is a matter of keeping hands and eyes attentive (and mobile) – that the work produced in the dark of every beginning can itself be gleaned (it is the remains of oneself that can be gleaned ‘tomorrow’). We told the story of the artist T. J. Kempsey who's practice makes use of the ‘remains’ of the world by re-composing for instance a group of chairs outside a café, or smoothing the edges of a pot-hole, or taking photographs of peeling posters to make new posters, of pausing to re-adjust the print in a doctor's office, to make a book of found pages, and so forth. A few students discovered evidence of Kempsey's work in their everyday meanderings. About a third of the way through the drawing by Michael strange tightly formed pen-lines appeared out-of-the-blue on the surface of the paper, judiciously placed; the drawer of these lines is still a mystery; they were accepted into the drawing. The drawing appears to be a cross-section of a city (or part of a city) whose below-ground structures are at least as intricate as its above-ground structures; it seems, as an overall 'situation', a machine of some kind, with anti-machine tendencies and voids like fault-lines, or perhaps a type of inter-related furniture scene (an event awaiting) reaching up into the sky and down into the earth …
References

Endnotes
1 For a discussion of the politics of dangerous waste, in this case ‘nuclear waste’, and the consequential issues of trauma, disaster, memory, and monumentalising, see Peter C. Van Wyck’s Signs of Danger, Waste, Trauma, and Nuclear Threat, The University of Minnesota Press, Minneapolis and London, 2004
2 ‘Furniture is for doing things, and for being beautiful; but it is also for instantiating, and illuminating, certain kinds of political ideas. In Das Kapital, for instance, Marx introduces some insights about the nature of commodities by, as it were, putting a few things on the table. ‘A commodity appears, at first sight, a very trivial thing and easily understood,’ he says. And yet: Analysis shows that in reality it is a very queer thing, abounding in metaphysical subtleties and theological niceties. So far as it is a value in use, there is nothing mysterious about it … The form of wood is altered by making a table out of it; nevertheless, the table remains wood, an ordinary material thing. As soon as it steps forth as commodity, however, it is transformed into a material immaterial thing. It not only stands with its feet on the ground, but, in the face of all other commodities, it stands on its head, and out of its wooden brain it evolves notions more whimsical than if it had suddenly begun to dance.’ (Kingwell, 2006, p. 175)
3 ‘We all sit somewhere when we think, yes, and chairs hold us up while we work out our thoughts on desks and tables. But more importantly, what we sit upon or write upon are themselves thinking things; not just tools that help us in chosen tasks, but aspects of humanity whose very presence is thought.’ (Kingwell, p. 179)
4 The quotation continues: ‘This is the way in which, for example, a philosopher of kinds, natural or non-natural, nominal or real, would speak of tables and chairs. Individual instances are linked together by an articulable essence, consistency with a given design, or certain inductions that can be run, for good reasons, over the class of objects so
styled – a good reason being, in this case, something like the combination of cultural and physical factors entailed by ‘because you can sit in it.’ But to leave the matter there is to fall into a mundane version of the furniture demolition of the Cartesian philosopher. Here all tables are equal because they are all merely extensions of our instrumental tasks and bodily dimensions. This misses a deep point about tables. A ‘good’ table, a table worth having, isn’t just a handy surface or prop; it must also be striking, beautiful, elegant, or witty – or some combination thereof.’

Ulmer’s strategy of chorography is one of discovery as invention, an organizing of any manner of information for the making of space (metaphorically and really) that is locational; the location is horizontal rather than vertical. Ulmer’s teaching of a poetics of method, and its history, deserves much more subtle unfolding than there is room for here.


The significance of ‘the animal’, dead or alive, as a way to learn, to bring to thought what one’s own skin and presence is in relationship to any ‘other’, and to the animal-self, in acts of collaboration between different ‘fields of knowledge, and between different species. Joseph Beuys’s performances with a Hare and a Coyote are, as Gregory Ulmer writes, in concert with Jacques Derrida’s gram, ways to think and make nomadically: ‘The method of grammatology, then, shared by Derrida and Beuys, is the display and displacement of the literal sense of the root metaphors of Western thought – dialectic and rhetoric, science and art. At the same time that this analytical function is at work, a further pedagogy of creativity is also set in motion, intended not only to show people the principles of creativity and how to put them into practice but also – and here is the particular power of the new pedagogy, beyond deconstruction – to stimulate the desire to create (not necessarily in ‘art’, but in the lived, socio-political world).’ (Ulmer, 1994, p. 264)

In Beckett’s play Quad the square is inexhauative potential: ‘To exhaust space is to extenuate its potentiality by making any encounter impossible. Consequently, the solution to the problem lies in this slight dislocation at the center, this sway of the hips, this deflection, this hiatus, this punctuation, this syncope, this quick sidestep or little jump that foresees the encounter and averts it. The repetition takes nothing away from the decisive and absolute character of such a gesture. The bodies avoid each other respectively, but they avoid the center absolutely. They sidestep each other at the center in order to avoid each other, but each of them also sidesteps in solo in order to avoid the center. What is depotentialized is the space, a “track … just wide enough for one. On it no two ever meet.”’ (Deleuze, 1997, p. 163)

The Large Glass (The Bride Stripped Bare by Her Bachelors, Even) ‘… is a double glass, 1091/4 inches high and 691/4 inches long, painted in oil and divided horizontally into two identical parts by a double lead wire. ‘Finally unfinished in 1923, the Large Glass had its first public viewing in 1926, during the International Exhibition of Modern Art at the Brooklyn Museum. It was broken when it was being returned from the museum to the house of its owner; the damage was not discovered until years later, and Duchamp did not repair the work until 1936. The dividing line, which serves both as horizon and as the Bride's transparent garment, was smashed; it is now merely a thin strip of glass held between two metallic bars. The scratched surface of the Large Glass is like the scarred body of a war veteran, a living map of campaigns endured. Duchamp confessed …: ‘I love these cracks because they do not resemble broken glass. They have form, a symmetrical architecture. Better still, I see in them a strange purpose for which I'm not responsible, a design ready-made in a way that I respect and love.’’ (Paz, 1990, p. 35)

Social Sculpture is the name Joseph Beuys gave to a particular way of thinking and doing creative practice, or more generally ‘human productivity’, where theory becomes theatre or performance: writing as sculpture, for instance. Beuys wrote, in his introduction to a catalogue for his solo exhibition at the Guggenheim Museum, New York, 1979: ‘My objects are to be seen as stimulants for the transformation of the idea of sculpture, or of art in general. They should provoke thoughts about what sculpture can be and how the concept of sculpting can be extended to the invisible materials used by everyone: Thinking Forms – how we mould our thoughts or / Spoken Forms – how we shape our thoughts into words or / SOCIAL SCULPTURE – how we mould and shape the world in which we live: Sculpture as an evolutionary process; everyone an artist. That is why the nature of my sculpture is not fixed and finished. Processes continue in most of them: chemical reactions, fermentations, colour changes, decay, drying up. Everything is in a state of change.’ (Ulmer, 1994, p. 227)
‘It’s true that when we quote, with or without marking the fact, with or without a known source, authors start to proliferate. The Author becomes uneasy. Sometimes there’s a sense of pressure from what had to be missed out. Quotation marks a sort of weak place, like the places on the earth where there are joints between tectonic plates. It’s still the earth, but there can be chasms, eruptions, earthquakes there. There’s feeling of the ancientness and the capacity to surprise that the writing’s crust can have.’ (Wood, 2006, p. 54)

‘And just as the image must attain the indefinite, while remaining completely determined, so space must always be an any-space-whatever, disused, unmodified, even though it is entirely determined geometrically (a square with these sides and diagonals, a circle with these zones, a cylinder ‘fifty metres round and sixteen high’). The any-space-whatever is populated and well-trodden, it is even that which we ourselves populate and traverse, but it is opposed to all our pseudoqualified extensions, and is defined as ‘neither here nor there where all the footsteps ever fell can never fare nearer to anywhere nor from anywhere further away.’ Just as the image appears as a visual or aural ritornello to the one who makes it, space appears as a motor ritornello – postures, positions, and gaits – to the one who travels through it. All these images compose and decompose themselves.’ (Quoting Samuel Beckett, Deleuze, 1997, p. 160)

‘Despite our habitual preoccupation with the experiences, emotions or motives that writing may evoke, quotation reminds us that writing is more like drawing, more consequentially a matter of the recording of lines and shapes, then we tend to think. The form of letters and words gives itself as freely to the ‘illiterate’ as to the ‘literate’ would-be reader. This is what makes it possible to learn to read.’ (Wood, 2006, p. 55)

The ellipsis stands in for: ‘… that interests Kant and the rest of us so much …’ (Wood, 2006, p. 55)

Ulmer writes of Beuys being engaged in a mode of Writing, in terms of how he describes himself and his work as transmitter’s: ‘I want the work to become an energy center, like an atomic station. It’s the same principle again: transmitter and receiver. The receiver is the same as the transmitter … The spectator becomes the program.’ Indeed, the best way to appreciate the specific nature of this Writing (rite-ing) is not as art, science, or philosophy, but as pedagogy: ‘To be a teacher is my greatest work of art. The rest is the waste product, a demonstration. If you want to explain yourself you must present something tangible. But after a while this has only the function of a historic document. Objects aren’t very important to me anymore. I want to get to the origin of matter, to the thought behind it. Thought, speech, communication – and not only in the socialist sense of the word – are all expressions of the free human being.’ (Ulmer, 1994, p. 245)

For a discussion of the value of the creation of rubbish/garbage in terms of it being the way we make knowledge (which in the final work is hidden) see: Scanlon, 2005)

‘The Green Box says that the coefficient of displacement – that is to say the farther or the closer each shot [or each projected desire] is to the target – is nothing but a souvenir. A strange hermetic affirmation that, however, is not impossible to decipher: what we see is only a souvenir (vague, imprecise, unfaithful) of what it really is. Knowledge is remembrance. Amorous, desiring remembrance.’ (Faz, 1990, p. 56)

‘Joints are dangerous links: they tend to dis-joint (everything in nature is joined and a group of joints is form. Hence, all designs and construction in the arts and architecture are specific calculation[s] for re-joining into unity, artificially assembled [material], and the control of decay.’ (Kiesler, F. 1994, p. 114)

Waste-books were used in accounting as the general ledger for the transactions of the day or week, etc. in their rough form, and from them the balance sheets would be drawn up; the waste-books showed how a business was operating, how it could be refined (alchemically: how it could be turned into gold); it was from the waste-books that the wealth of commerce was delivered or transmitted; the waste-books were the garbage bins where things were thrown to wait or be sorted out. (Scanlon, 2005)