

Looking for Limits in a World of Excess © 2003

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Abstract

Investigations into the role of theories and practices of observation and imaging is commonplace in a range of established intellectual endeavours. The potential of such investigations applied to photo-based image-making, in visual communication design, is significant, yet at this point, under realised. In this paper we advance the proposition that careful observation, in an iterative framework, is a necessary pre-condition for any intelligent and informed photo-imaging practice. We outline a curriculum approach that is premised on a process of research, concept development and project management, within a critical and iterative framework, using photo-observation as the key tool. In this scenario, photo-imaging is used to engage with the world and develop a knowledge of it that feeds into the development of the final outcome. In short, the (re)presentation or fashioning of the world— the central activity of design.

Looking for Limits in a World of Excess

Limits in a World of Excess

Augé describes the essence of modernity as being 'the presence of the past in a present that supersedes it but still lays claim to it' (Augé 1995, p.75). In this co-existent state the past acts as a touchstone for the present against which the notion of progress can be measured. Augé argues that faith in the idea of moral progress, grand narratives and universal truth has been eroded and has been replaced by the postmodern sensibility, where one mode is regarded as being equivalent and of equal value to another. We live therefore, in the contemporaneous world, unhinged from history, where every event that unfolds soon becomes a history that we regard with suspicion as being unreliable. These events, by way of communication technology, are then transmitted as so much information, that we as individuals and communities struggle to make sense of. It is this condition of excess (the excess of information, events, time, space) that characterises supermodernity (Augé 1995, pp.24-30).

In this condition where information is limitless (and it would seem, often meaningless) we inevitably ask ourselves ‘how do we make sense of the world?’ This, Augé rightly describes, is the task of the anthropologist or ethnographer. However, the fundamental question for design in this scenario is how to shape the world when we can’t seem to make sense of it. Augé suggests anthropology should turn its gaze to the contemporaneous world for its object of study and so too, we argue, should design consider it as one of the richest sources of information to enact change — to refashion that world. Etymologically speaking medieval scholars thought of information as being bound up with materialisation, ‘form informing matter, matter materialising form’ (Borgman 1999, p.9). In this conception lies the significance for design’s engagement with information; it is the basis from which rich design content can be formed.

To cope with the enterprise of engaging with a world of limitless information, one must set limits to determine the scope of and manage the project of observation and design. Where a world without limits is existentially frightening, a project without limits is not only creatively frightening, but also impossible to complete. Despite much rhetoric in design discourse concerning the importance of unbounded creativity, and the historical model of the creative genius inherited from the 19th century and promulgated in the 20th century, limits are an essential precondition for creativity to be realised. In discussing limits we outline a curriculum approach that enables students to identify and set them, within the context of the projects they undertake. Furthermore we explore the implications this has for both the quality of their learning and eventual design practice. The application of this approach to design can be likened to providing a framework through which designers can make sense of and shape the world.

In the following reflections we attempt to outline the way in which photographic observation deployed in an iterative framework can be used as a means of engaging purposefully with a world of limitless information. This will be done in the guise of photo-imaging, within visual communication, but we will also speculate on the possibilities for design in general.

Looking Elsewhere

The use of photography as a tool of inquiry is not a new idea. It has been around almost as long as the medium itself. Indeed, Arabian astronomers used the earliest forerunner of the camera, the camera obscura, in the 11th century to study solar eclipses (Trachtenberg 1990, p.4). However, photography’s use as a tool of inquiry became more commonplace once the ability to permanently fix images had been achieved. In the mid to late 1800s photography was used by the likes of Muybridge, O’Sullivan and Watkins, on commission from the American government, to photographically document America’s vast and distant territories to determine what resources were available to exploit and preserve. In the 1870s, Charles Darwin used the photographs of

Duchenne de Boulogne in an attempt to prove his theory that human expression could reveal the emotional and mental state of a person (Lemagny & Rouille 1987). This period also saw the emergence of anthropology. In this guise photography was a crucial aid in documenting and cataloguing the people and artifacts of distant cultures in attempts to confirm developing theories of social evolution (Harper 1998, p.25). Thus utilised, photography is not integral to the development of new knowledge, but used late in the project 'as a highly selective confirmation that things are so'(Collier 1967).

Photography, born as it was in the "Age of Reason" and being the product of scientific discovery, was considered a reliable and truthful documentation of reality. The commonest understanding of photography during this period was that 'through the camera, nature paints herself' (Trachtenberg 1990, p.14). This view may seem laughably naïve now, but not so surprising if one considers the verisimilar nature of the photographic image to what was being photographed compared to the relationship between what was observed and then drawn or painted.

The use of photography in social research in this framework was typical of the time. It was not until the seminal work of Margaret Mead and Gregory Bateson (1942) that photography was used as an integral component of social inquiry to generate new knowledge (Harper 1998, pp.25-6). Its significance lay in their attempt to provide, through photography, a detailed and complex picture of the social-groups they were studying, in contrast to the illustrative approach of earlier anthropologists.

Despite the rigour and complexity of Bateson and Mead's work it was based on the assumption that photography could provide unproblematic evidence of social situations rather than being an interpretation of them. The idea of photography used as an interpretative tool of social inquiry came to the fore in the 1960's. It owes as much to the emergence of critical sociology in the 1960s as it does to the documentary photography of Americans like Lewis Hine, Dorothea Lange and Walker Evans (Harper 1998, p.28). This conceptual shift from objectivity to subjectivity occurred as a consequence of the recognition of the partiality of photographic intervention, of the photo-observer's subjectivity and the limitations of the frame. This application of photography contributed to the understanding of cultures not through the presentation of "evidence" but through interpretation. In this way the very subjectivity of photography in social observations is a means to an important end (Ruby 1988, p.71). Clifford Geertz, describes this relationship as a 'strange cross between author- saturated and author-excavated text,' as 'neither romance or lab report' (Behar 1996, p.7).

Looking Closer to Home

The philosophical shifts that occurred in the understanding and use of photography in the fields of anthropology and ethnography had a profound impact upon commonplace notions of photography as well as its tuition as an artistic or commercial medium. The dominant framework of photography relies heavily on models of representation that are affected by attitudes and values found in “realism” (Berger & Mohr 1982, p.119). Within the context of these two key foci in photographic education, we have arrived at a pre-occupation with authenticity and formal composition. In programs and institutions dedicated to the teaching of fine arts or design, photography has been dominated by discourses of creativity, formalism and aesthetics, tinged latterly (post 1980s) with a veneer of post-modernism and semiotics; in technical colleges the focus of photographic education has been geared to more commercial and technical applications, where formalist discourses and notions of authenticity tend to dominate (Watney 1986a, p.53). Our focus will be upon the location of photographic education in “creative” institutions as this is the educational milieu we work in.

The formalist pre-occupation we wish to critique is based upon the undue emphasis that often gets placed upon compositional and aesthetic devices taught within art and design schools (see Cunliffe 1996, p.310). This is not to say we do not see value in teaching such principles, they are a significant part of the history and vocabulary of photography. Rather, we believe this emphasis leaves little room for other types of photographic critique or practice. Further we fully recognise that a formal visual language itself is a means by which one may negotiate a world of limitless information; the judgment of what information gets noticed or valued can be predicated upon pre-agreed and learned formal conventions. However, engagement with the world on a purely aesthetic basis precludes interpretations of broader social experience and understanding.

Coupled with this concern with form, the underpinning ideology of the creative approach to photographic education is the model of the “artistic genius” and the privileged position of creative intuition (Watney 1986a, p.54). This results in a kind of romantic photographic logic; to paraphrase Descartes (ironically) ‘I shoot therefore I am’ or more to the point ‘I shoot therefore it is’. In educational settings this is played out through the retrospective “theoretical” analysis that is undertaken after a project has been completed to reveal what has been achieved or what was meant by it. As a consequence, photography of this type has no framing theory for engaging with and shaping the world other than form and intuition — what gets photographed is determined by whether it looks or feels right to the photographer.

This model of photographic education is premised on creative mastery and relies on both the “mimicry of attitude” and the “mimicry of action” (Roxburgh & Bremner 2001). In this context the mimicry of attitude pertains to the emulation of significant historical photographers attitudes.

Mimicry of action relates to slavish stylistic appropriation of them. As Watney (1986b, p.1) notes, this usually occurs with little acknowledgement of the complex social and material networks where photography is carried out. In short, an array of delimiting factors is ignored in the pursuit of limitless creative freedom, not least of which is the relationship between the photographer and the world they photograph.¹ This brings us back to the problems identified at the outset, creating coherence in a world of information excess.

The dominance of the model of photography outlined is a consequence of a general lack of any significant attempt to engage with the idea of a framing theory or theories for its practice (Becker 1974, p.11). Though quarter of a century has passed since Becker made this claim, about all that has changed is the introduction of semiotic theory in many photography programs. Whilst this has been valuable in raising awareness of the issues surrounding representation and multiple readings of images, authorial vision in the guise of self-expression ironically still persists (Cunliffe 1996, p.314). One need only look at the kind of subject, course objectives and assessment criteria typically used in photographic curricula to understand that little has changed. Some examples are:

- ‘To encourage the study of photographic media for personal expression, to explore the social implications of pictures, and to develop the skills needed for careers in photography.’(University of Illinois, 2003)
- ‘Problems and assignments are structured to develop a personal vision and to build a working knowledge of photography materials and methods.’(University of Arizona, 2003)
- ‘Your final portfolio must consist of at least 10 – 15 photographs which are conceptually related. Your instructor will be looking for creative content as well as technical proficiency in this final body of work.’(University of Arizona, 2003)
- ‘Photography II - Instruction in black and white photography emphasizing self expression, standards of quality and knowledge of different procedures.’ (Saint Mary of the Woods College, 2003)
- Photography IV — Students continue experimentation in photography emphasizing artistic expression in an individualized direction. (Saint Mary of the Woods College, 2003)
- ‘Throughout the semester, the emphasis will be towards developing individual “ways of seeing” and students will be encouraged to explore personal concepts and personal expression through black and white photography.’(University of Technology Sydney, 1999)

- 'Research and concept — 25%; Technical innovation — 25%; Technical Skills — 25%; Effective communication —25%.'(University of Western Sydney, Nepean, 1994)

Though not comprehensive, these examples typically represent the kind of obscure definitions and an emphasis on individual creativity in photographic education. It should be noted that it is possible programs exist that offer markedly different approaches in their objectives and assessment criteria than those surveyed. However, a complete absence of attention to learning objectives and assessment criteria in the published literature indicates a challenge to the dominant model of photographic education and practice is not considered a central component in associated discourses. The material that does exist concerns itself with much more generalised arguments of what constitutes a good photographic education, with little reference to the specific detail of subjects, student experience or outcomes. Much of the material argues that the key components of a good photographic education are the development of creativity, visual literacy and technological competency (see for example Golden 1995, p.13; Phillips 1995, p.17) to which others add business skills (see for example Wheeler 1999; Wilson 1995, pp.14-15).

There are a few exceptions to this situation. Gerlach (1984) offers a clearer insight into how he structures aspects of his photographic subjects, particularly in relation to critiques, but again the dominant paradigm is individual creativity and formalism. Sayre, et al (1999) describe their approach to photographic education with an emphasis on visual literacy (formalism in another guise) and a touch of post-modern theory, but again the framework is creative self-expression. Grover (1991) critiques this state of affairs in photographic education and clearly identifies the need for a more reflexive practice, connected to broader social experience and understanding, but offers no detail of how this might be integrated into specific subjects or programs. Similarly Skopik (1999) provides an elegant account of the integration of theory and practice in photography education over the past few decades, highlighting the advantages and problems of this shift, but Skopik fails to outline how this might manifest itself at the subject level.

Cruickshank and Mason (2003) provide a rare account of the use of photography in art-education-research and present a review of the issues of subjectivity, intention and meaning that were associated with this application. However they don't provide a detailed account of how the collected images were used in their curriculum experiments, rather they concentrate on the theoretical and methodological implications of photography used in this context.

Bolton (1991) provides perhaps the clearest published account of how such a framework can be integrated into a photographic subject and discusses the political and creative implications of doing so. The approach he has taken is not dissimilar to ours, however the relationship between content and assessment criteria and the implications this has upon learning and practice are not

discussed. It is indicative of the quality of discourse in photographic education that little has been published along these lines since Bolton's article. It would seem that the privileged position of individual creativity in photographic education has not radically shifted.

In Bezencenet & Corrigan's (1986) anthology "Photographic Practices" the focus is upon the political implications surrounding issues of photographic representation and identity, within a framework of social inquiry. There is no evidence of concern for the potential of this line of inquiry in refashioning the material world, nor is there a clear articulation of the relationship between learning objectives and assessment criteria. Similarly Prosser's anthology "Image Based Research" (1998) concerns itself with the potential of photography to engage with the social world from a sociological perspective. At its most extreme, the end point of this social approach to photographic research is in essence the discovery of the "self" and to a lesser degree the "other". Work is rarely taken beyond the photographer's "self" discovery. Photography, by virtue of its representational nature, is the vehicle used to get there. This fixation with the "self" is inherently reductive. Reflexive understanding 'is not primarily the gaining of an awareness of one's subjectivity, one's personality...rather it is the effect of the sociality and the inscription of self in social practices, language and discourses which constitute the research process.' (Usher cited in Prosser 1998, p.105).

This idea of the discovery of the "self" has direct parallels with the model of individual creativity that is typically encouraged in many photographic courses, as criteria such as "personal vision" and "individual ways of seeing" would suggest. Again, this discovery isn't an end in itself. We argue that once this discovery is made photography needs to be re-engaged to ask the question "what next?" That is, how can this knowledge be used to assist in configuring possible material outcomes? When the task of design is framed like this, the discovery of the "self" is part of the process and not the outcome. Photography moves from being simply reflective to being constructive within a reflective framework.

The point that needs to be made here is that the metaphorical navel gazing that is encouraged in a creative framework that privileges the "self", omits acknowledgement of the wider circumstances that photographic, and indeed design, practice is played out in. The "self" becomes the sole reference point on the map of the wider social and material world, and its attendant flows of information, and is rendered inadequate in navigating them by virtue of its singularity and isolation. It is here that the idea of photography deployed as a dialogue presents itself as a vehicle for firstly navigation, then discovery, and finally configuration. Photography in an iterative framework. This idea has much in common with the notions of design as a reflective practice explored by Schon (1983), Forester (1989), and Fleming (1998), to name but a few. These scholars, in different ways, recognised the inherent contingency of design practice, an idea that

has much in common with the views of artistic practice held by Wolff (1981), Bourdieu (1993) and Cunliffe (1996). Despite the efforts made by these theoreticians, photography in art schools appears to be far from being a source of critical reflection.

In examining creative production, in general, and by recognising the creative “self” and its attendant biases, as but one set of limiting factors in knowing and shaping the world, we can begin to develop ways in which to set limits upon the information we engage with. This essentially enables us to identify, or have identified for us, that which is relevant to the task at hand. To imagine otherwise is to risk drowning in the global flow of information, a meaningless death.

Lost at Sea

The dominance of the formalist discourse in photographic education has the effect of separating one’s photographic “self” from the “object” of one’s gaze. The pre-occupation of the “self” in this mode is upon the formal possibilities of that which one can see and deems worthy of rendering “permanent”. The dominance of the discourse of individual creativity has a similar effect. Here though, the “self” is separated from the “object” of its gaze by the way in which the object is perceived to conform, or not, to the “self’s” pre-conception of that which it sees. In both instances the “self” is the only apparent reference point. The political implications of this subject/object separation have been well documented by Berger and Mohr (1982), Soloman-Godeau (1991) and Wells (1997). However to summarise the debate, such a separation has the potential of separating the observer from the observed by positioning the observed as something merely for the visual titillation of others and empathy with the subject is compromised. Our interest though, at this point, is somewhat different as we wish to touch upon the pedagogical implications of this model of photography once translated into a learning environment, rather than critique the ethics of this practice.

The approach to photography and photographic education we have critiqued thus far is, in many respects, a replication of the master apprentice relationship, where educational achievement is based upon the extent to which the student can replicate the master’s skills and attitudes. As knowledge is largely implicit, and the key discourse is a highly aestheticised one, assessment criteria and processes are often very vague. When subject learning objectives and assessment criteria are vague, students often regard their ability to perform well in assessment as being dependant, to a large extent, on their ability to conform to the “vision” or preferences of their teacher, by producing work that appeals to their tastes. They judge ‘their success by their ability to imbibe information and values’ (Bolton 1991, p.80).

Yeah like what Michael was saying about not knowing what you’re getting marked on. When that happens I just work out what the lecturer likes and make my work like that. It’s really easy to get pretty good marks. You know, Judy’s classes are like that. I know what she likes, I think most of us do.³

This situation has several key consequences. It reinforces both the implicit and exclusive nature of knowledge and the dominant formalist discourse. The former occurs as a consequence of working out what the teacher likes, this knowledge sets you apart from those who don't know it or refuse to engage with it. The latter is a consequence of students using the formal devices that they know the teacher likes, these become the stock in trade of the student over time. The capacity to intuit what a teacher likes further reinforces the idea of intuition as a key tool for knowledge generation. Finally the lack of clear objectives and assessment criteria do not encourage meaningful or "deep" learning nor a critical disposition (Ramsden 1992, pp.128-35) as learning is based upon the mimicry of actions and attitudes of the teacher.

Typically, this kind of approach to teaching photography gets played out in a situation where work is assessed at the end of the semester. Though work in progress might get shown during the course of the semester, a general lack of formal assessment at these points undercuts the value of any reflection that might occur. Work presented, that is not assessed, is generally regarded by students as being of little value or meaningless and is often not undertaken, or done superficially at best as students '...will study what they think they will be assessed on.'(Ramsden 1992, p.70). Without clear objectives and criteria, students become anxious and their pre-occupation shifts from what and how they are learning, to whether or not they are getting it right. Satisfying what they perceive to be their teacher's preferences becomes the goal (Ramsden 1992, pp.67-73). As a consequence students have difficulty managing the tasks they are set, they are unable to determine and set limits, as they are working in a void. As their projects have no limits, they have no end, save the arbitrary and usually abrupt cut off date of the end of semester assessment. Anecdotally, this is why many leave their projects to the last minute.

A project without end or limits means students do not learn how to identify or determine the limits or scope of any creative endeavor. This reduces their capacity to make sense of what it is they have undertaken or to report back to others about it. As this becomes their dominant experience of creativity it becomes the model they work to and eventually pass on to others. Rhetorically speaking, a project without end cannot create new knowledge, nor can it project new scenarios. If by chance it does, the potential to replicate the success of that project is diminished, because the whole process is implicit. We argue that though photography deployed in this framework might shape our vision of the world, it rarely shapes our vision of what that world might become.

Charting a Course

It is here that we return to the potential benefits of drawing upon ethnographic approaches to photography in the curriculum that we have developed. Our approach is premised on a consciousness of the intervention that occurs when photographing the social and material world and that the students' photographic representations of these worlds shift our perceptions of it.

This is not so surprising. Significantly though the photographic observations made in the initial stages of the process are but the raw material for the eventual final visual narratives that they fashion, based upon this intervention and observation. This approach is started in an introductory level of photography where the dominant genre explored is photo-documentation. However, this foundation is developed further in subsequent subjects whereby students consciously fashion “alternate realities”, on location or in the studio, through the guise of art direction. These “alternate realities” are based upon observed and documented material, and social realities in the first instance. Thus the final works are not representations of an “actual reality” but fashioned representations of other possibilities. This fashioning is the act of design.

Given this the curriculum requires several explicit, and assessable, instances of reflective engagement during project execution. The project is not characterised as a creative or technical exercise. Rather it is presented to the students as a “research process”. The generic approach requires students to research and communicate a particular issue or set of circumstances that are grounded in both a theoretical and empirical investigation. Key readings are supplied that explore various aspects of the relevant issues or methodological concerns. The first task students undertake is to begin to identify some of their pre-conceptions about what it is they are exploring. The presentation of this task is verbal, but has to be supported by visual material that relates to their current understanding of the topic. The presentation is assessable and is usually worth about 25% of their grade. Typically they are assessed on combinations of the following types of generic criteria:

- the presentation of images from a secondary source that represent aspects of the issue they are exploring
- the presentation of images they have taken that represent aspects of the issue they are exploring
- an outline of literature they have sourced that relates to the issue they are exploring
- their ability to articulate a clear understanding of the relationships between the various sources they have identified
- their ability to outline the direction their project will go in
- their ability to outline the deficiencies with their work so far in relation to the criteria

Thus the presentation is in essence an overview of their preliminary research and provides an opportunity to question their assumptions and get them to reflect upon this. These presentations are done in front of the whole class and feedback and criticism from them is encouraged.

Feedback based upon these criteria help students to develop the framework for further observation and development that is presented at an interim stage. At the interim presentation what is valued is:

- the presentation of original images that represent a response to the previous limitations identified
- an outline of the limitations of the work at this stage and how it might be improved
- the appropriateness of the technical and aesthetic parameters of the project in relationship to the stated objectives of the student as it relates to the themes they are researching

The final assessable-presentation values much the same sort of expectations but also values the extent to which students have reflected upon, critiqued and modified the project from commencement through to completion. As stated these criteria are generic and variations of them are used depending on the set of questions being asked or the issues being explored.

Pedagogically Speaking

The educational benefits of this kind of approach are significant. Emphasis is shifted away from how the images look or the extent to which the student has developed a unique approach to the medium. Rather emphasis is placed upon the degree to which students can identify, are responsive to and can appropriately represent a range of factors and issues that intersect through an inquiry. Thus the identification of limits plus the management and utilisation of a wide array of information that students encounter, throughout the formative and developmental stages of their project, are paramount, as is their ability to be critical of what they do and how they do it. As the creative process is more explicit, students are better able to articulate the choices they have made based upon the sustained observation of particular social and material situations. Additionally, they develop personalised knowledge about these situations in a considered manner, knowledge that will flow into the development of their final works.

In this scenario students are much better able to manage the tasks they in effect set themselves and this mechanism becomes an experience in self-learning as well as a model of research. The extent to which this approach has been successful is typified by the comments of many students from focus group discussions.

How the subject, you know the various assessment tasks are set out, structured, is great. You can see that each one develops from the previous one and you know where you're going. You feel confident that you're heading in the right direction and if you're not you can like, look back and find out where you've gone wrong.'

The way it's (the subject) put together helps you feel like you're in control of the whole process. In most of the other projects you work on, for other subjects, I usually don't know what I'm doing and then at the end you just kinda put anything together and hope it works. ⁴

Similarly in questionnaires 100% of the 60 students surveyed agreed or strongly agreed that this approach helped them to develop an understanding of the material they were researching. 91% of those same students agreed or strongly agreed that this approach was a useful learning experience. Finally the degree to which students found this approach engaging is reflected in the 90% who agreed or strongly agreed that this approach to learning a creative medium and process was intellectually stimulating.⁵ This is significant for it demonstrates that a creative practice based upon a model of research and inquiry, rather than just intuition and aesthetics, can deliver intellectual rigour, self reflection and self directed learning and the development of new knowledge. Furthermore it does not negate the prospect of students configuring creative outcomes that satisfy their desire for engaging in material processes.

An Ecology of Design Experience

Whilst much of this work has only been applied at an undergraduate level and is subject to further development, it points to some rich opportunities for both design education and practice. Indeed we have begun to develop this method further as part of core visual communication subjects, complemented by interview based research, with similar results. For design education the benefits lie in an alternative to its reliance on problem solving and creative intuition. It enables students to take charge of their learning, becoming less reliant on teachers for providing them with knowledge (in the form of yet more information), and encourages them to develop knowledge themselves. What these outcomes point to is that creative practices can be taught in a way that encourages students to explicitly look to the world they live in as a primary source of information for content generation, while enabling them to manage the potential information overload inherent in doing so. This approach empowers students and as a consequence they are more likely to develop an empathy with the social and material situations they are studying. As this is a mode of learning based upon research and inquiry, rather than a master apprentice relationship, independent intellectual development and critical reflection, whilst not guaranteed, are far more likely to flower than with the other modes critiqued.

The implications for design practice are equally significant. Information excess can be seen as a symptom of the unsustainable nature of western consumer societies. Information wastage, messages that have no resonance or impact yet have high material and monetary costs, are a consequence of a disjuncture between design intention and audience reception. This problem, as Whiteley (1993, pp.10-11) argues, is a consequence of the modernist model of design practice and education being premised largely on creative intention. If design is to be more sustainable

then its utility lies in a well observed base of the social and material circumstances in which we live to ensure that the world that design creates is based upon an empathetic understanding of those circumstances. *This is an ecology of design experience.*⁶

In Summary

In short what we have outlined here is a critical methodology based to a large extent on photographic observation. We have proposed that thus deployed photography is a way of engaging with and managing identified and relevant streams within the vast flows of information that characterise the contemporaneous world. This achieved, the potential of empathetically reconfiguring aspects of that world becomes far more manageable and potentially sustainable, limits have been identified. This is significant, for design is nothing if not premised on the idea that the world is now inherently an artificial place. For this artificial world to be sustained limits must be set.

¹ See Cruickshank and Mason (2003) for an interesting account of some of the tensions that emerge around these relationships.

² Comment in focus group discussion for subject Photography for Design 2. 1999 UWS Nepean. Not real names.

³ Comment from student in focus group for subject Photography for Design 2 in Semester 2.1999 UWS Nepean.

⁴ Comment from student in focus group for subject Research Methodologies in Semester 2.1997 UWS Nepean.

⁵ UTS student feedback results for Photography 2. Spring semester 2000.

⁶ This is a term used by Professor Craig Bremner and Mark Roxburgh. in a book they are working on provisionally titled "The Design Condition: A Report on Appearances."

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