3-2002

Intelligent Shape Sorting

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It is a familiar scene. Each September brings its new crop of would-be graphic designers, diverse in their experiences and ambitions, brought together in the lecture theatre by an appointment on their induction calendar, indicating an introduction to design research. It is my task to explain the pattern that this study will take in the opening modules. In this first year of study design research will take place on Wednesdays, regardless of studio projects It will constitute a certain number of lectures and tutorials, concluding with a specified brief which represents the first phase of assessment. As the routine unfolds I sense that my new audience will have already made some judgments on this particular aspect of their course.

To some, design research will be no surprise. They will have read the student handbook or they will have remembered most of what they were told at their interview. They may have learned about it by that mysterious grapevine which springs into existence whenever students gather together.

I discern a cheerful acceptance, even a flicker of enthusiasm from some individuals, whilst sensing that a few take a different view, entirely.   They will have already designated Wednesdays as their opportunity to visit the dentist, or the accommodation office, or the television repair shop. After all , there are plenty of interesting things to do on Wednesdays. But all my audience know that nemesis must await them if they try to hide from the long arm of design research.

After explaining where design research fits into the scheme of graphic design, I proceed to say why it is important. I know that these words are going to be repeated many times, in an attempt to bring even the most estranged into the design research fold. These are the disaffected students who don't even have to utter the words of protest, so plainly are they written in their body language and their faces: ' I don't read much...., I haven't written anything much..ever.., I thought graphics would mean I didn't have to write essays...' and so on.

'Graphic design will be the richer for graduates who are able to engage in criticism, analysis and debate' is the argument which I offer. This may slip by unnoticed in the opening address until I play my trump card: the dissertation, without which it will be impossible to achieve an honours degree.

Timetabling means that design research has to be allocated to a single day each week. Tutors have to be paid, lecture theatres have to be booked and courses have to be administered. The simpler all of this is, the better for everyone.

Design research takes place away from the studio. It is no easy task to convince students that the subject is a natural, ever present function of graphic design. Studio tutors, I should say, are just as determined to draw the twin experiences of research and design together. Yet to the student it could seem that we operate with a paternalistic- and maternalistic-'we know what's good for you' approach, until they themselves, see the point of it all. Frequently the assumption is made that design research is concerned with what happened in the past. This is a mistake as design reseach is very often concerned with the present. But in order to know what distinguishes the present from the past, and thus better understand our own time, we really need to know what has gone before. There is no reason why design research should not also be concerned with the future. Designers have always been interested in the future.

Back to the future of history. I can't think where the antipathy to the study of history on the part of designers originates but I am sure that the downgrading of the subject within the national curriculum has not helped. My perception of this is informed by talking to a history teacher at a successful comprehensive school. The history which is now taught in our schools nevertheless fosters some understanding of the contemporary world.   Often, however, the new graphic design student has difficulty in conceding that design history could play a useful role in their education. Graphics, after all should be about drawing and designing. The reality is, that it is hard to think of a successful designer, graphic or otherwise, who has not been interested in history.   History has vast treasure houses of ideas which wait to be recycled, transformed and turned upon their heads. Design has to be set within a social, industrial economic and political context. Then comes its aesthetic context. Christopher Crouch writes in his article Why Teach Design History?[3] a compelling case for persevering along the historical route and suggests a concise definition of the designed object " as the result of the interaction of function with ideology." His contention can equally be applied to the graphic designed object and indeed, when he refers to 'codified imagery' we are on very familiar ground.

> The relevance of a cultural literacy, the familiarity that a culture has with its processes and their relationship with other cultures, cannot be uderestimated. .....If aspects of a society's cultural life are valued and given prominence, an important arena is created within which social development can take place in an informed and reasoned atmosphere.

Philip Meggs, whose book, A History of Graphic Design,[7] has helped so many undergraduates to research, describes his motivation for writing such a text.[8] Teaching design history in the early 1970s, his goal was to construct the legacy of contemporary designers so that they could understand their own work, the vocabulary of design, and aid the profession in its struggle for professional status. He shares Crouch's belief in design's relationship to social development stating that it is not merely decoration or style; it is a necessity for a healthy society.

Kevin McCullagh has written a paper stating a strong case for Contextual Studies. He writes from his position as a freelance industrial and graphic designer, and as a teacher of undergraduates and postgraduates, on the relationship between design practice and design context:[6]

> Contextual studies stands within a fine tradition of liberal education which encourages critical awareness, the art of challenging and questioning received wisdom, and the formulation and cogent presentation of a coherent point of view.

Departments of Contextual Studies can genuinely trace their history back to the monasteries of the middle ages, where the Seven Liberal Arts which they taught included rhetoric- the art of using language to persuade, and dialectic -the critical examination of arguments. Expertise in rhetoric and dialectic is essential to politicians, lawyers and academics. These arts are also useful to designers. What is much graphic design other than visual rhetoric? What is the interpretation of a client's brief other than an exercise in dialectic?

Students coming in to our graphic design degree course will be more familiar with the term 'contextual studies' than 'design research' as it is used on foundation and diploma courses. However, it would be wrong to allow the terms to be interchangeable as there is a clear distinction. Taught well, contextual studies fulfil the criteria described by McCullagh. The first year research programme which our students experience, matches his description. But as their work progresses through the second year of study the term 'design research' becomes self evident. Increasingly, the study of context refers to the students's own practice as his or her awareness of place, role and responsibility develops. Design research allows the practitioner's own work to be the starting point for an expanded study, rather than placing the objective study of context, at a distance. If, in studying the context for their work, students choose to reject convention for the sake of experimentation, then so much the better. The choice should be an informed one. Experimentation has a rich contextual history.[11] Jonathan Barnbrook, whose inventive and sometimes controversial designs include the typefaces Exocet and Manson, states that his work refers to the tradition of type as an important learning reference.

> People should experiment, but they must know the craft first; otherwise there is no experimentation - there is nothing to work against. Plenty of students and professionals think that they are doing experimental type,but they're not- thy're just working in a fairly defined con-

temporary visual language. Experimentation comes first from a rebellion of philosophy, not just a rebellion of style.[1]

Ilustration historian, Leo DeFreitas, who is a visiting lecturer to our course, told of a proverb for the digital age, which he found whilst surfing the net:

> Data is not information, information is not knowledge, knowledge is not wisdom.[12]

The curious thing is that the OED definition of each of these words refers to the next in the series- data is defined as information, and so on. Therefore, in linguistic terms, the statement appears to make little sense. Yet in research it is crystal clear and serves as an indicator of what we expect students to achieve through engaging at a sufficient level with their chosen subject. We hope to see the transformation of data into information, the examination and critical analysis of which can lead to understanding and a specialised knowledge. This is the true value of the dissertation. Of course, we cannot guarantee that any student will possess wisdom on completing the course. Wisdom, by its very nature, cannot be imposed. Yet, the ambition to acquire wisdom is of the utmost importance in the development of each one of us. Wisdom is attained by the experience of gaining knowledge and understanding, not only of one's subject, but also of oneself.

> Receive my instruction, and not silver; and knowledge rather than gold. For wisdom is better than rubies; and all things that may be desired are not to be compared to it.[9]

> This Old Testament injunction is as inspirational today as when it was uttered those millenia ago.

The dissertation became a formal requirement of art and design education in the wake of the Coldstream Report of 1960 which recommended that the traditional craft based courses should be replaced by specialist arts subjects. This report was of immense importance in the history of design education. It marked the first official recognition that Art and Design were comparable, intellectually, with the conventional academic subjects- English, History, Geography and so forth. Graphic design was established as a major subject, though not all art colleges were recognised for the delivery of a range of subjects. Exeter College of Art, for instance, was at first only allocated a fine art course.[5] Nikolaus Pevsner, as a member of the committee which drafted the report, pressed for the implementation of an art education system in which everyone should have a course in liberal studies and Art History- and by implication Design History- and Complementary Studies. The importance of this area of study is clear from the following statements in the Report:

> We see a prime objective of complementary studies as being to enable the student to understand relationships between his own activites and the culture within which he lives as it has evolved. Complementary studies should be an integral part of the student's art and design education, informing but not dictating to the creative aspects of his work.[10]

This was written at a time when the masculine personal pro-

nouns were used without question. But the Coldstream Report has stood the test of time and we owe much to it.

The Diploma in Art and Design was elevated to the level of a degree course as the polytechnics, which were later given university status, took over the bulk of the provision of art education. The written component in courses was not inserted to exclude the less academically inclined student, but to ensure that all students would be able to view their own disciplines in a critical way. The dissertation became a key component in a degree which was intended to have authentic academic credibility.

At the Making/Writing Conference which was held in Exeter in 1998, we discussed the differences and affinities of both activities. Our starting assumption was that neither making nor writing should be assumed to take intellectual precedence · over the other. Instead, they should reflect characteristics of each other. The maker and the writer could both be described as originators, or creators, with the outcome of their efforts being dictated by external demands. Pavel Buchler's keynote address led us into the theme:

> To comprehend writing and making as modes, one must look not at the final product but at the potential contained in the original thought itself. There are undoubtedly perceptions and ideas which call for being articulated in writing, becoming texts, and others which demand being shaped by making to become objects or images. But in the main, it is likely that thoughts, perceptions or ideas will contain a range of such potentials simultaneously (including, most obviously the potential for nothing being done about them at all) and the heirarchy of the modes that may be deployed in realising a particular potential will be a matter of external priorities.[2]

In academic institutions priorities are usually imposed by those who shape the structure for learning. Paula J.Curran has described the structure and brief of the course she has devised entitled Designing with Self-Authored Text [4] in which she challenges the historical role of designers as mediators rather than creators of text. There is an obviousness to the process of integrating writing and design that is often overlooked, though they share the simple stages of production: research, creative thought, planning, drafts and refinement. It seems the course allows every opportunity to the student to develop a solution to a verbal and visual communication problem and at the same time, keep a notebook to record the process, a necessary tool in the task of self-criticism and self-evaluation. This is a model we could well consider adopting.

The dissertation is the outcome of a period of intense, self driven research. This is its supreme value. It is a significant rite of intellectual passage: the authoring of a text which is to be validated by academic authority. Yet, despite the recognition of its importance, pressures may be brought to bear on studio based courses which could threaten the continuation of the dissertation as an essential element. In the climate of diminishing resources, departments are forced to consider reducing the time spent on teaching. In the event of a student failing a module, no extra teaching is available and a sub-standard piece might be accepted as a re-submission, for the sake of moving the student on to a module at which he or she is likely to achieve greater success. Some students experience difficulty with the written element. It is easy to see how the lowering of expectations would undermine the important role the dissertation has for, what is after all, the majority of students.

A former designer for television, who has devoted the latter part of his career to design education, recently recalled his time at the BBC, We were actually talking about dissertations. He recalled excellent designers who never got the best plays or shows to design because they were unable to express their ideas fluently, whether in conversation or writing. Directors and programme planners, whose lives are frenetic, have little time for mumbled or written gabble.

> 'Literacy and the ability to express ideas to colleagues and clients' said my friend, 'are part of the indispensable armoury of the designer.'

An inability to manipulate language is a great disadvantage for a graphic designer. Linguistic laissez-faire should not be condoned. Language is common property and to function it should be widely understood. Jargon, the language of coteries, is swiftly superseded by other jargon. Designers need to make words and images perform on comparable conceptual levels. Credibility for the designer is gained when this is achieved, yet undermined when there is poor control over the mechanics of language. The discipline that gaining such control inevitably requires, should be encouraged, and the skill of writing coherently, mastered. The reality is that writing is as vital to the graphic designer as the making of dovetail joints is to the cabinet maker.

Learning how to use a university library is most important for the student designer. Students are expected to engage with the literature of their subject. By researching and writing we can appreciate more readily the dedication of those authors who bring our subject to life, pushing forward debate and criticism. The discovery of alternative methodologies is essential if our viewpoints are to mature. In order to nourish the creative process, the fledgling designer needs to be aware of how texts and images have been related to each other, not only in the past, but also in the present. Design journalism is alive with comment and debate that the student cannot afford to ignore. The activity of engaging with it on a regular basisis so important that it forms a basis for project work which is assessed in the first design research module that I teach. One expects that the practice, once established, continues throughout the degree course and beyond into professional life. All professions, industries and trades rely on discussion and comment, as the diversity of this area of publishing shows.

Thomas Edison said, 'Genius is ninety nine percent perspiration and one percent inspiration.' The perspiration/inspiration battle applies equally to the research and writing process as it does to the grand gesture of the finished designed piece. It is rewarding to observe, as students work on their projects, the

development of their ideas and the self criticism which inevitably arises. I tutor a very wide range of dissertation subjects, as a member of a graphic design department which offers typography, illustration and photography as specialisms. Last year's crop yielded, amongst many, Sign Language: A Study of British Road Signage by a typographer; Mailart by an illustrator; another typographer's investigation of the branding of Britain via the Dome; and a study of the relationship of photographer, subject and viewer with reference to the work of Hannah Starkey, by a design photographer. The current year displays a fascination for all things digital, as might be expected, with attempts to become expert in the area of web design and multi media programmes. Here students are acting upon the advice to envisage the route they wish their career to take, and prepare for it through the dissertation research.

Any teacher should acknowledge that we learn as much as we teach. The satisfaction gained in tutoring dissertation students derives, in part, from the vicarious experience of research into a subject that one may not have been particularly familiar with before. Such subjects often have a contemporary story which unfolds as the dissertation proceeds. It can be a challenge to keep up with the latest twists and turns, gleaning information to pass on in tutorials, whenever the opportunity arises. We are still able to provide one to one tutorials, throughout the dissertation module. This is an expensive teaching method, and there is funding for just four tutorials. This concentrates the minds and efforts of tutor and student. My ex-television designer friend remarks on this form of teaching:

> This is a tried and proven method which invariably produces results commensurate with the student's ability. Often, however, a previously indistinguished student blossoms under the one- to - one tutorial system. I fervently hope that this kind of teaching can be maintained in the future. It is the very life blood of design education.

Concerned that the dissertation may have assumed a disproportionate meaning for me because so many of my efforts are directed towards it, I asked the opinion of my colleague, Katy McCleod. We agreed on the broad themes that I have touched upon, but with characteristic precision Katy added:

> Writing an extended essay or thesis deepens a student's engagement with their practice. It serves to clarify their practice concerns.

The dissertation is a measure of students' depth of engagement with their own practices and the text. At times, in tutorials, as the student worries over the structure of the piece, I am reminded of the shape sorter toys that the Early Learning Centre convinced me to buy when my children were very young. Shape sorter toys would aid their hand and eye coordination No doubt the parents of many of my students were convinced by the same argument. They would, I am sure, be proud of their offspring as they sort their present precious shapes into the structures of their own devising.

The Dissertation is the moment of intelligent shape sorting

Notes:

1 Barnbrook, Jonathan. 'Experimentation' in Heller,Steven and Pettit, Elinor. Design Dialogues Allworth Press, New York 1998

2 Buchler, Pavel. Words Apart: the Question of Authority, a paper for Making/Writing conference, Exeter, September 1998

3 Crouch, Christopher. Why Teach Design History? in Thistlewood, David (ed.) Issues in Design Education, Longman 1990

4 Curran, Paula J. 'Designing with Self- Authored Text' in Heller, Steven (ed.)
The Education of a Graphic Designer, Allworth Press, New York 1998.

5 In conversation with David Jeremiah, Head of School, Exeter School of Art & Design, University of Plymouth until 1994

6 McCullagh, Kevin . Towards a Design Context Rooted in Design Practice. A paper for Contextual Design, Design in Contexts, The European Academy of Design conference, Stockholm, April 1997

7 Meggs,Philip . A History of Graphic Design 2nd ed. Van Nostrand Reinhold,New York 1992

8 Meggs, Philip. 'Graphic Design History ' in Heller, Steven and Pettit, Elinor Design Dialogues, Allworth Press, New York 1998

9 Proverbs 8:10,11

10 Warren Piper, David (ed.)Readings in Art and Design Education After the Coldstream Report, Davis Poynter. 1973 .

11 Poynor,Rick. Design Without Boundaries Booth-Clibborn Editions 1998.

12 Source unknown, yet not far removed from T.S. Eliot's chorus in The Rock, a pageant play, 1934
Where is the wisdom that we have lost in knowledge?
Where is the knowledge that we have lost in information?