New Methodologies in Art and Design Research: The Object as Discourse
Alex Seago and Anthony Dunne

Introduction:
Is Design Research of Second or Third Order Quality?

Should researchers in art and design adopt and adapt methodologies developed in other academic disciplines, or should they concentrate on developing original methodologies which recognize the distinctive quality of discovery in art and design? Although the answer to this question is complicated by the broad spectrum of subjects currently being pursued under the aegis of art and design research (a Ph.D. by thesis[1] in, say, design history on an aspect of costume obviously will employ very different methodologies than a Ph.D. by project[2] in ceramics which explores the development of new glazes in the key area of action research by project[3] and, in particular, in those projects in which the end product is an artifact which, in effect, embodies the essential research, the need to develop and to legitimize original research methodologies seem essential.

While it is well documented that much original research in the various spectrum of disciplines follows a similar path, a variety of factors seem to be threatening the self-confidence of some students pursuing action research by project. The most important of these obstacles seems to be the academic blueprint inherent in the Ph.D. qualification, its demand for originality, for methodological rigor in the production of explicit data, for a defense of the reliability and validity of the research methodologies employed, for "transparency" of method, "replicability" of results, and the transmissibility of the final outcome of the research project. These requirements, of supreme importance to the legitimacy of the Ph.D. qualification in academia, can clash with artists', craftspersons', or designers' suspicions about what might be termed the "demystification of process" in creative work. In addition to this ideological conflict, action researchers by project in art and design face the familiar problems of finding suitably qualified and sympathetic research supervisors, and of negotiating the economic and political discrepancies between the entrenched research cultures of universities and those of colleges of art and design in which the idea of research continues to remain vague and contentious.

The danger in all of this is that perplexed researchers in art and design will opt to "play it safe" and, rather than risking the

1 The research degree "Ph.D. by thesis" is a conventional written Ph.D. of 80,000 words.
2 The research degree "Ph.D. by project" consists of a major element of practical research supported by a minor element of related text of between 25,000 and 40,000 words.
3 Action research is research in which the process of making or designing an artifact constitutes the methodology.

development and defense of really original hypotheses and methodologies characteristic of "fundamental" research work, will choose (and be admitted into art school research programs because they have chosen) academically acceptable and supervisable research topics with methodologies culled from established academic disciplines. Although most of these students probably will produce solid and worthy "applied" research projects, most will be narrow in scope, usually rather dull and pedestrian and will probably be regarded as research of second- or third-rate quality by academic-dominated funding bodies. In short, as a result of what might be termed "methodological intimidation," research work carried out in colleges of art and design stands a very real risk of losing those qualities of originality, iconoclasm, energy, style, and wit which have characterized the best of art school culture since the 1950s. In an attempt to allay this threat, this paper will review the methodologies of some Royal College of Art research-by-project doctoral students who have grappled with this problem and as a result, have begun to develop unique research strategies.

Three Examples of Innovative Design Research
One solution to some of the methodological problems faced by the action researcher by project in art and design is offered in the work of Ian Ferguson.[4] A metalsmith/craftsman by training, Ferguson's research focused on the traditional Japanese practice of fusing metals known as *mokume gane*. While his M. Phil. thesis concentrated on the history and development of the technique, his completed Ph.D. represents a successful attempt to transcend the traditional "hit or miss" techniques of craft production by applying and documenting modern methods of solid-state diffusion bonding to the production of *mokume gane* craft objects. Co-supervised by the Royal College of Art's Department of Goldsmithing, Metalwork, and Jewelry and the Department of Materials at the University of Oxford, Ferguson initially was faced with the problem of being accepted as a craftsperson in an academic scientific research environment, while also satisfying the demand to produce work of high aesthetic quality in an art school.

Highly competent academic supervision in a research environment sympathetic with the intellectual processes necessary for the production of innovative fundamental research enabled Ferguson to develop a research strategy in which metallurgical research techniques were interpreted from the viewpoint of the "producer" of craft objects. As an experienced metalsmith, Ferguson's practical understanding of the behavior of materials is considerable, but the "focus" of his research on the application of solid-state diffusion bonding is radically different from a research metallurgist who might lack the craftperson's understanding of the creative process. Ferguson's research is particularly interesting for the way in which it combines an understanding of the processes

4   Ian Ferguson, *The Development of Solid State Diffusion Bonded Mokume Gane*, Ph.D. by project. Department of Goldsmithing, Metalwork and Jewelry, Royal College of Art, 1996.

used for the "production of materials" with the very high level of craft skill needed for the "production of aesthetic objects. " As such, the *mokume gane* objects offered by Ferguson for the studio/project component of his *viva* are much more than simple samples of materials, adding instead a distinctive aesthetic craft dimension to his doctoral research.

Similar problems are faced by Les Johnson, currently enrolled as a Ph.D. by project candidate in the Royal College of Art Department of Illustration. A graphic designer by training, Johnson is interested in the visual dynamics of black British popular culture, and popular music (reggae, soul, house, drum and bass, etc.) in particular. Since the early 1970s, this field of academic inquiry has been deeply influenced by academics working within the discipline of cultural studies, particularly students and ex-students of the University of Birmingham's Centre for Contemporary Cultural Studies. The standard CCCS approach to popular music has been to understand it in terms of consumption and, specifically, in terms of resistance to bourgeois hegemony. CCCS studies of the 1970s and 1980s by authors such as Dick Hebdige and Paul Willis, who "read" post-war British pop music and subcultural style in terms of "resistance through rituals," tended to ignore the entrepreneurial elements involved in the creation of this type of pop music. Sensing that the experience of these music producers had, in a sense, been overlooked by most academics, Johnson set out to reassess the sociology and history of black British popular music, focusing on what he terms the forgotten "little narratives" of production and entrepreneurship.

While this could be interpreted as an innovative and interesting exercise in academic research, the project element of Johnson's research[5] is wholly original, revolving around the development of an Internet website which serves both as a source of information about the history and sociology of this music but also, and perhaps more important, as a site for contemporary discourses about music, fashion and graphic design. Traditional academic research, and the Ph.D. in particular, entails the development of the narrow expertise and exclusive jargon of the specialist. Whereas this is entirely appropriate and absolutely necessary in many areas, in the field of popular culture it often can exclude the constituency which possesses the greatest knowledge. This can lead to situations in which self-appointed "experts" pontificate about popular culture in a language only other academics can understand, thereby preventing any constructive discourse between academics and the consumers and producers of pop, including designers. Johnson's website, currently under construction, aims to bridge this gap by democratizing and bridging the gulf which separates academic and popular debate, serving, both literally and metaphorically, as a site for popular discourse. As with most research degrees by project, however, one of the greatest challenges involves the coherent link-

5 Les Johnson, *The Hidden Narratives of Black Popular Culture*, Ph.D. by project, Research in progress, Royal College of Art, 1997.

age of the written and studio aspects of the project within a research context.

A more complex solution to the problem of combining academic research with creative studio-based projects is offered by Anthony Dunne, who just completed a Ph.D. by project in the RCA's Department of Computer-Related Design. Coming from an art school background in industrial design, and already having been employed as an experimental electronic product designer by Sony in Japan, his detachment from more conventional academic research methodologies help render his approach particularly useful as a blueprint for future design research strategies.

Dunne's research proceeds from the observation, originally posited by designer/theorist Ezio Manzini, that advances in electronic technology have "given rise to a massive crisis of the object:"

> If a technical system undergoes a period of rapid change, the need arises to modify the criteria by which one recognizes the artificial. This is the phase we are now experiencing. The transformation of materials, manufacturing processes, and technological knowledge has brought about a new artificial that calls into question the traditional recognizability of the artificial, as well as the entire system of space-time relationships that we base on that artificial.[6]

Rejecting the electronic product designer's traditional role as semiotician, he attempts to map a new conceptual territory on which to explore the electronic object as "post-optimal object," turning his attention away from the familiar attempt to achieve "optimum performance levels" and towards more fundamental philosophical issues. Whereas a conventional, applied research project in this area might try to develop a specific utilitarian application or change of appearance for electronic technology, concentrating on problems such as production, practicality, and performance, Dunne's research focuses on the relationship between electronic objects and the realms of poetry and aesthetics. The project attempts to reexamine the potential of closing the gap between art and everyday life by developing objects that fulfill more complex and abstract needs. Design is seen as a form of socio-aesthetic research towards the integration of aesthetic experience and everyday life through the development of conceptual products rather than working prototypes or models which attempt to simulate a final product designed for mass production.

As a Ph.D. by project, Dunne's work[7] uses research through the design process to explore an approach that allows the development of critical responses and a skeptical sensibility towards the ideological nature of design, for the purpose of stimulating original aesthetic possibilities for new kinds of electronic objects. The ultimate aim of the research project is the development of electronic products which, by "making strange" or "poeticizing the distance"

6   Ezio Manzini, *The Material of Invention* (Arcadia Edizioni 1986): 27.

7   Anthony Dunne, *Hertzian Tales* Ph.D. by project, Department of Computer-Related Design, Royal College of Art, 1998.

between ourselves and our artifactual environment, facilitate socio-logical awareness as well as reflective and critical involvement with the electronic object rather than its passive consumption and unthinking acceptance.

Dunne's methodological and theoretical stance bears a simi-larity to contemporary architectural attempts[8] as represented by the work of Kei'iche Irie and Yutaku Saito, to radically redefine rela-tionships between structure, visual perception, and space, and also to the work of the designer/theorists Ezio Manzini and Marco Susani, who express a strong belief in the experimental function of contemporary design practice in order to counteract the contempo-rary obsession with styling for its own sake:

> Today, "family line," "identity codes," and "guidelines" are the priorities applied by major industries to determine the design of aesthetic consumer goods...in many design studios a great deal of time is now spent changing a curve simply to make it different from that of a competitor's product.... These techniques and tricks have always been used by industry and, at times, have even produced bril-liant results. Now, however, they are transforming design into a meaningless and endless process of reworking. A great many creative and sensitive people.... are no longer able to keep up with this "creative vomit"..... All the energy invested in work towards aesthetic, social and spiritual goods is translated into nothing more than transient suggestions borrowed from the world of art..... For the vast majority of individual consumer articles now on the market, aesthetic design is now limited to the outer surface of things...design needs to concern itself with deeper processes of material configuration rather than trivial inno-vation.[9]

Dunne's methodology comprises a sophisticated synthesis of a detailed review of developments at the fringes of contemporary electronic product design, mediated through the insights of twenti-eth-century critical theory. Rather than aiming for transparency, as a conventional applied researcher/product designer would do, Dunne's attempt to enhance the critical distance between the elec-tronic object and the human subject through the introduction of "poetic" techniques of aesthetic "estrangement" is reminiscent of the writing of Walter Benjamin, or the methods of avant-garde theo-rist/performers such as John Cage, rather than those associated with university-based academic Ph.D.'s in applied electronic engi-neering.

The key methodological factor which separates Dunne's approach from that of a conventional applied researcher, who typi-cally would be involved in the fabrication of working prototypes, is his idea of using the process of invention as a mode of "discourse,"

8   Riiche Miyake, Anne Mommens, Gerry Anne & Taub, eds., *Transfiguration*, (Foundation Europalia International, Carte Belge De La Bande Dessinée, Brussels, 1989).

9   Ezio Manzini and Marco Susani, eds., *The Solid Side: The Search for Consistency in a Changing World: Projects and Proposals* (The Netherlands: V & K Publishing, 1995): 31.

a poetic invention that, by stretching established conventions, whether physical, social, or political, rather than simply affirming them, takes on a radical critical function, a material critical theory, or what Dunne terms a "parafunctionality." Like Michel Foucault's concept of a discourse which crosses and challenges traditional disciplinary territories,[10] Dunne's research methodology does not readily fit into traditional analytical categories, because an attempt is being made to generate a different conception of the role of the design researcher/intellectual. Rather than asking the familiar question "What is good design?", the written section of Dunne's thesis attempts to provide thematic analyses of the electronic object (e.g., the use of estrangement, subversion, or humor), with the goal of allowing refusal, curiosity, and innovation. To this extent, Dunne's work offers a positive and radical model of the action researcher in design as a critical interpreter of design processes and their relationship to culture and society, rather than a skilled technician preoccupied by the minutia of industrial production, or a slick but intellectually shallow semiotician.

Conclusion: The Object as Research Discourse
The methodological strategies employed by the research projects reviewed above seem to offer some solutions to the problem of the role of the object/artifact in research by project. As experienced craftsman, graphic designer, and product designer, respectively, Ferguson, Johnson and Dunne acknowledge that there is a kind of tacit knowledge creative professionals possess which cannot be separated from their perception, judgment, and skill. However, rather than arguing that a radically new electronic product or a new method for producing metals can be constituted as providing new knowledge "in themselves," Johnson, Dunne, and Ferguson situate their discoveries in a research context. All three of these doctoral programs have been conducted as systematic research activities and contain explicit data. The record of the conduct of both programs is "transparent" in the sense that a future researcher could uncover the same information, rehearse the arguments expounded and, to a lesser or greater degree, produce the same results. In all three projects, the data employed and the results obtained are validated and related to a review of previous research in appropriate fields. In short, if research in "any" discipline can be described as a systematic inquiry whose goal is knowledge, then Ferguson, Johnson, and Dunne offer good examples of systematic and original research by project in art and design in which the object occupies a central place. All three pieces of research also raise the question of the role of design/craft in an academic context free of commercial values. In Dunne's case, the electronic object produced as the studio section of the doctorate is still "design," but in the sense of a "material thesis" in which the object itself becomes a physical critique. In all three cases, research is interpreted as "conceptual modeling" involving a

10 Michel Foucault, *The Archaeology of Knowledge* (Tavistock, 1972).

critique of existing approaches to production/consumption communicated through highly considered artifacts.

References

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