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**Research Methods for
MPhil & PhD students in
Art and Design:
Contrasts and Conflicts**

Alex Seago

'The objects of the College are to advance learning, knowledge and professional competence particularly in the field of fine arts, in the principles and practice of art and design in their relation to industrial and commercial processes and social developments and other subjects relating thereto through teaching, research and collaboration with industry and commerce.'

Charter of Incorporation of the Royal College of Art
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Research Methods for MPhil & PhD Students in Art and Design: Contrasts and Conflicts

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In the first paper in this series¹, Professor Christopher Frayling adapted a typology first developed by Sir Herbert Read to identify three specific trends within art and design research: research *into* art and design, research *through*, and research *for* art and design.

To briefly summarise: research *into* art and design (the commonest research currently being undertaken by research students at the Royal College of Art) includes historical, theoretical, critical, aesthetic and/or perceptual research. Established methodological precedents for this type of scholarly endeavour are to be found in a wide range of academic disciplines with long research traditions, including social and cultural history, art and design history, psychology, sociology, anthropology, philosophy, cultural studies and business studies.

Research *through* art and design involves MPhils and PhDs by Project (i.e. studio work). This is applied research by practice in which a systematic enquiry is directed towards the acquisition, conversion or extension of existing knowledge for use in particular applications. In these MPhils and PhDs the thesis supplements studio practice by contextualising and recording studio experiments and their data. Methodological models and precedents can be found in a wide range of academic areas of specialisation, especially those falling under the headings of materials science and engineering.

As Professor Frayling points out, it is in research for art and design (i.e. research in which the end product is some form of art and design practice or an artefact, and in which the research is, in effect, embodied in that artefact) that many of our methodological and epistemological problems arise. Another term for this type of research activity is action research: i.e. a systematic investigation through practical action calculated to devise or test new information, ideas, forms or procedures, and to produce communicable knowledge. All research work in this area is of necessity by project and students aim to be examined primarily on the strengths of exhibitions and/or installations and/or performances supported in some instances by historical and/or theoretical theses. The main problem facing these research students is that for them, unlike their peers researching into or through art and design, few if any methodological models exist around which they can begin to structure and organise their research work. Indeed, these students are most likely to feel some hostility towards conventional academic research methodologies which they regard as inappropriate to a process of creative, artistic discovery. In addition to this

problem they are the research students most likely to be faced with the difficulties of finding sympathetic and appropriately qualified supervisors to help guide and critically evaluate their research and appropriately qualified examiners to assess it.

The Research Methods course for first year MPhil and PhD students I have been developing at the Royal College of Art over the last two years has tried to address some of these methodological issues while attempting to outline the parameters of good research practice in art and design. The following paper summarises some of the ongoing issues and debates which have arisen in the process of developing and teaching the course.

The majority of novice research students, especially those from undergraduate studio backgrounds, require a basic 'nuts and bolts' introduction to research. Although most are accomplished in the techniques and methods of their chosen discipline, many are unfamiliar with the processes of research, the required structure of theses, the nature of viva voce examinations etc. In addition, novice researchers can benefit from the advice of their more experienced colleagues and/or members

of staff, especially with regards to the more subjective aspects of life as a research student, such as the relationship between students and supervisors, the nature of originality in research degrees, the problems of gathering, analysing and synthesising data etc. Unlike research students in universities who comprise part of a large postgraduate research community and have the opportunity of attending numerous seminars and symposia, one of the major disadvantages faced by research students in colleges of art and design is the lack of a strong 'research culture'. Because the vast majority of students and staff in colleges of art and design are studio practitioners, the researcher can often feel isolated and alienated and one of the main aims of the Research Methods course is to counter this by laying the foundations of that elusive but vital interdisciplinary research culture without which little really innovative research work can proceed.

What then should a Research Methods course begin to address? Are there any core concerns which all novice researchers share? At first glance this would seem improbable owing to the staggering range of research topics

undertaken by research students in art and design. What core concerns are shared (to use specific examples from current research in progress at the Royal College of Art) between a student engaged in doctoral research by thesis into horror films, censorship debates and the theories of Georges Bataille, an MPhil by Project student in the Department of Goldsmithing, Silversmithing, Metalwork and Jewellery concerned with experiments into a Japanese technique of fusing metals, and a doctoral student in the Illustration Department researching the history and philosophy of representations of the brain in medical illustration? In a more traditional university setting these research students would be based in departments of cultural studies, metallurgy and medicine, and would be unlikely to meet socially, let alone in a common Research Methods course. Perhaps this indicates a weakness of the university and a strength of colleges of art and design, however, for as Phillips and Pugh point out, doctoral (and, by implication, MPhil) degrees in whatever field conform, at a certain level of abstraction at least, to a certain *form*:

We may think of the analogy of the sonata form in music. This is a structure of musical writing, but it tells you nothing about the content. Haydn wrote in sonata form . . . but so did the Beatles. The range of content covered is therefore enormous but the sonata form does not cover all music . . . The same is the case with the PhD. It has a particular form and since not all research conforms to it, you have to be aware of what the elements of this form are.²

From my experience at the Royal College of Art I would suggest that a Research Methods course for first year students is most immediately relevant when it addresses itself primarily to the form of research degrees rather than their methodologies or content. Once students appreciate the formal constraints of their research degree and begin to negotiate the basic problems of information retrieval, then the more difficult but intriguing epistemological and methodological problems can begin to be addressed.

Many novice research students (and some inexperienced supervisors) either underestimate or overestimate the formal demands and constraints of a research degree. Indeed, as Phillips and Pugh indicate³ this is a very common cause of either failure or non-completion of research degrees. The first

sessions of a Research Methods course can usefully be dedicated to a clear and concise description of the differences between MA degrees, MPhils and PhDs. It is also necessary to clarify the differences between research degrees by project and by thesis, especially the relationship between thesis and the project (studio work) in the former case.

To briefly summarise this section, it should be stressed that whereas the purpose of the MA, MSc or MDes is, generally, the candidates's depth of understanding of his/her discipline, to widen his/her knowledge and skills and/or acquire additional research skills, the purpose of the MPhil degree is primarily *methodological*: i.e. to learn and refine the *research methods* appropriate to a given field and by observing good professional practice. In addition, the purpose of the MPhil is to demonstrate competence in a given field of research by producing, under supervision, some attestable new knowledge and, importantly, to qualify for the PhD degree. The MPhil therefore is primarily a *demonstration of the candidate's methodological competence as a researcher*. The purpose of the PhD, on the other hand, is to demonstrate competence in research in a given field by conducting an enquiry calculated to produce some *significant new knowledge* and by exposing the findings of that enquiry to criticism by other experts in the field. Unlike the MPhil, evidence of *originality* is a crucial component of doctoral research. Another vital component of the doctorate is a demonstration of the *principle underlying the research* and this almost always involves a very thorough, extended *critical review of the methodologies* employed by previous researchers and a subsequent justification of the candidate's own methodological preferences. Another formal aim of the doctoral degree (which is often overlooked) is that the candidate should acquire competence in supervising the research activities of others, experience which should be gained as a *direct result of having been competently supervised themselves*.⁴

It is apparent that several of the formal constraints of research degrees are proving problematic to MPhil and PhD candidates in several areas of art and design research, but especially that category of action research identified as research for art and design. For example, the demand for methodological

rigour is difficult to meet in a field in which few, if any, methodological precedents exist. Unlike the doctoral candidate in, say, psychology, it is impossible for a PhD by Project candidate interested in, say, performance art, to turn to the Annual Review of research in his/her discipline or to unearth scores of previous doctoral theses on similar subjects in order to establish methodological precedents. MPhil and PhD students researching for art and design are therefore forced to be methodological trailblazers, and this can be a daunting prospect unless they have very competent supervision.

Once the formal constraints of research degrees have been outlined, the specific components of MPhil and PhD theses can be addressed. As Phillips and Pugh suggest,⁵ virtually every doctoral thesis consists of four main sections: 'background theory', 'focal theory', 'data theory', and the candidate's original contribution. (In the MPhil degree and in the PhD by Project the latter sections will be attenuated and/or incorporated into the studio research project.) The syllabus of a Research Methods course can follow these components quite closely. It is a basic axiom of research that a researcher must first 'map' its field. The background theory section of *all* research degrees therefore involves a thorough and *critical review* of the relevant literature and should display an acute awareness of the current 'state of the art', both theoretically and literally, in the case of research degrees by project. It should be stressed that the literature review is not a review for its own sake, but exists to demonstrate that the candidate has a real *professional grasp* of the background theory to the subject in which others' contributions are evaluated, trends in research activity are identified, and areas of theoretical and empirical weakness are clarified. As the literature review is usually the route whereby the researcher identifies his/her own hypotheses, it is absolutely essential that the novice researcher is familiar with the full range of information retrieval resources available. In the Research Methods course at the Royal College of Art at least two sessions are devoted to librarians and archivists who deliver general and specific information about bibliographies, indexes, CD-Rom systems, and specialist archives in specific art and design disciplines and associated areas. In addition, an

introduction to the National Register of Archives is offered to those students engaged in historical and/or commercially-related research topics. As much research in art and design is interdisciplinary by nature, research students usually need to be quite expert in the intricacies of information retrieval, especially where most current research is being conducted overseas. Quite often the first year research student is forced to conduct lengthy, and, for the host institution, expensive on-line computer searches of foreign databases, especially when they are trying to discover the most contemporary research publications. This area is already proving quite problematic for research students in art and design, for, unlike university-based researchers in the sciences, social sciences or humanities, colleges of art and design are less likely to be 'plugged into' international networks of research information. The majority of students are quickly confronted with the difficulties of using other institutions' libraries (at a time when funding restrictions are forcing other institutions to charge for this service), gaining access to articles published in specialist foreign publications and/or funding the sponsorship necessary to visit overseas archives. Early specialist advice about the practicalities of reviewing background theory is therefore an absolute necessity for every first year research student.

Once the technicalities of background theory are addressed, the researcher can begin to consider the focal theory of his/her work. As this is usually the point at which the researcher spells out precisely what he/she is focusing upon and why it merits special attention, it is at this stage that *methodological* considerations begin to become particularly important. The commonest and most effective approach to the focal theory section involves the development of the researcher's own hypotheses via a detailed critique of the methods and conclusions of others' research. It is here also that the researcher must address the question of originality, and a section of a Research Methods course can usefully be devoted to this topic. Phillips⁶ for example, has identified at least twenty definitions of originality in her interviews with supervisors and researcher students, but it is worth mentioning that at least half of these definitions involve a critique of others' methodologies and/or the refinement and development of the

researcher's own. At this point in the Research Methods course it is particularly useful for students to be introduced to examples of successful MPhils and PhDs in which the criteria of their originality is pointed out. It is particularly germane for students to understand the crucial link between methodological critiques, the development of hypotheses and the collection of data via the researcher's chosen methodology. As this process differs greatly between the various disciplines represented across the wide spectrum of research in art and design, it is helpful for students to see this process at work in a variety of successful research degrees by thesis and by project.

Initial sessions on background, focal and data theory lead the Research Methods course into the territory of research epistemology and methodology. This has proved to be the most problematic aspect of the course. At present students are introduced to many of the methodological techniques which have been successfully employed by research students in art and design. There are sessions on laboratory and studio research methods for applied and action research projects, on quantitative fieldwork (including questionnaire development, interviewing techniques, sampling, data analysis and drawing conclusions) and on qualitative fieldwork (including ethnographic research techniques and oral history) for researchers into art and design. As action research techniques in the research *for* art and design category begin to develop it is hoped that additional sessions on research techniques in art and design practice can be included in the programme.

The methodological section of the Research Methods course has proved to be problematic for several reasons. To begin with it has proved difficult to find experienced researchers within art and design fields willing to discuss and evaluate methodological questions. The most rigorous methodological paradigms within art and design research have been developed in those areas in which art and design research overlaps with other academic disciplines in which a large number of methodological precedents already exist. For example, Professor Nigel Cross⁷ has pointed out that design draws its methodologies from a very wide range of disciplines: from engineering (see, for example, papers published in the

journal *Research in Engineering Design*), to social and cultural history (see, for example, the journal *Design History*), to philosophy and business studies (see, for example, the journal *Design Issues*). Although some first year research students are interested in learning about a broad spectrum of research techniques developed in academic disciplines, a significant minority, and especially those researching for art and design remain sceptical about the idea of methodology itself. This raises epistemological questions about whether researchers in art and design should adopt and adapt methodologies developed in other academic disciplines or whether they should concentrate upon developing unique and original methodological techniques which recognise the distinctive quality of discovery of art and design.

Current examples of doctoral work in progress at the Royal College of Art help underline this epistemological problem. Should, for example, a student engaged in doctoral research by project in Natural History Illustration, which focuses on the ecology of inner city conservation areas, be employing the methodology of the biological sciences tempered by the methods of Natural History Illustration, or should the originality of the natural history illustrations have primacy over the methodologies of the biological sciences? The question is of vital importance for the doctoral candidate, for an examiner who is a research biologist will probably assess the research project very differently from a natural history illustrator. Whereas the former will be primarily concerned with the validity and reliability of the candidate's scientific methodology, the latter will assess the project on the originality of the illustrations themselves. The doctoral researcher registered for this project in a university would almost certainly be less concerned with the aesthetic qualities of the illustrations, which would comprise an appendix (probably photographic) to the research rather than being its central studio component. Or to use an example of fine art-oriented action research, should a student engaged in a degree by project which employs studio work to explore post-modern images of gender and identity be obliged to adopt academic methodologies which seem to him to have little relevance to his own studio work, or should he attempt to derive and

justify a new methodological approach (derived perhaps from dance or performance work) which seems to be more in keeping with the 'spirit' of his research for art and design?

Issues such as these are becoming a source of concern for research students in some areas of art and design and remain largely unresolved. Will the studio work (the central component) be overlooked by the appropriately qualified (and therefore usually academic) external examiner intent upon scrutinising the academic rigour of the research to the exclusion of the work's aesthetic content? How do we retain the necessary balance between academic rigour and artistic creativity? How do we find suitably qualified and experienced *joint* supervisors for studio research projects? In short, are we to doggedly follow established research paradigms derived from universities to produce safe and solid, but perhaps rather dull research, or should we be stretching the boundaries of established research methodologies to the limit, producing our own methodological precedents in which alternative contexts within which art and design can be produced are debated and perhaps tested?

In what seems to be an invitation to bravely adopt the latter solution, the organisers of the 1994 Research in Art and Design Conference at Robert Gordon University, Aberdeen, quote the anarchist philosopher of science, Paul Feyerabend, who in *Against Method*, asserts that 'The only principle that does not inhibit progress is: anything goes . . . Without chaos, no knowledge'. Despite the seductiveness of this message, my experience of organising the methodological component of the Research Methods course at the Royal College of Art tends to confirm a suspicion that colleges of art and design provide a crucible within which mutually hostile research philosophies collide and polarise. Some researchers at the action research for fine art end of the research spectrum do indeed strongly reject the very idea of traditional research methodologies, whereas others, particularly those entering research in art and design from science, engineering, or medical backgrounds, remain strongly committed to those traditional research methodologies which emphasise the importance of rigorous empirical research employing Popperian techniques of falsification to justify the replicability of experiments and the validity and reliability of data.

These debates also have to be understood within the context of the cultural history of British art and design education, for it seems that a good deal of the anti-methodological (or perhaps anti-academic) sentiment amongst some research students stems from the perception that many of the best products of art and design colleges in this country have developed precisely because they have *not* followed the methodologies and research paradigms of the universities, but have instead encouraged and nurtured unorthodox, intuitive, and creative 'research' which has been allowed to flourish because of the relatively unstructured nature of the art college milieu and the type of iconoclastic, non-conformist student it attracts. To quote John A. Walker:

Art students are not taught a fixed body of knowledge, though they may be given some help in terms of methods and skills. They are encouraged to explore, to improvise, to experiment, to behave as if they were already professional artists. Art students don't spend long hours researching in libraries or attending lectures and seminars: their activities in the studio resemble manual labour rather than academic study. They work directly with tools and materials in a messy, noisy and chaotic physical environment. Practice is more important to art students than theory . . . Some collective projects take place, but on the whole individualism rules. Students determine their own rate of work, their own directions. In this field standards of evaluation are notoriously unreliable, consequently art students have to learn to live with doubt and uncertainty, with the antagonism and/or hostility of society at large.⁸

Sympathetic to these perceptions, the methodological radicals tend to regard the introduction of traditional university-based research methodologies as deeply threatening to their creative autonomy, or to paraphrase one student: 'There's a move afoot to fill our colleges with dull empiricists clutching pocket calculators'. In short, there is a general perception in the 'anti-methodology' camp that conventional research as constrained by the formal limits of research degrees is an uncreative, essentially stultifying activity.

I would like to argue that these sentiments are based on a deep misconception of the research process. In fact Walker's description of the art school milieu and art students' creative processes seems very similar to the research processes and creative mechanisms of *all* innovative researchers. This is precisely why, it seems to me, that discussions about

epistemology and methodology are absolutely vital in art and design research. We are not attempting to impose 'alien' academic research traditions precisely because those traditions have been under serious threat in the universities for years and, in some areas, are now in retreat. In fact one can argue that it is art and design students' experience of working in an insecure and relativistic environment which makes them particularly suited for innovative research as their minds have been trained to be flexible, hostile to received dogma and constantly open to new possibilities and interpretations of data.

This is a point emphasised by the sociologist of science Tom Collins who, in *Changing Order: Replication and Induction in Scientific Practice* investigates the 'taken for granted reality' upon which scientific research is based. Examining the processes of originality and discovery in science, Collins points out that there can be no such thing as a 'private' discovery, for, in a sense, scientific discovery does not exist until it is communicable, that is, published. When it is published it becomes crucial that other scientists agree that the research findings *constitute* a discovery and act upon them. In order to be a discovery, the research must precipitate a new set of rules. The usual method whereby this is accomplished in science is via a defence of the validity of originality by reference to the respectability of research observations and the replicability of research experiments. Ironically, however, the belief in the *replicability* of a new concept or discovery comes hand in hand with the entrenchment of these new elements within the conceptual and institutional network of the scientific community, or what we have been referring to as the 'research culture'. It is this equation between replicability and institutional entrenchment which has become problematic in scientific research. As Collins argues, 'replicability, the "foundation stone of the scientific value system" and the basis of common sense theories of scientific value, turns out to be a complex sociological and philosophical puzzle into the nature of inductive reasoning rather than a simple, straightforward test of "certain" knowledge'.⁹

The recipe for changing order in science, as in art and design, begins with individuals prepared to postulate interpretations of research data with the potential to create

contradictions which reverberate throughout the social and conceptual networks which constitute the research culture. In the academic world this research culture is deeply politicised as common sense order rises from the consensus of the institutional networks upon which careers and reputations are based. In the embryonic world of art and design research, however, these validating networks have yet to be constructed and this is a major source of both methodological confusion but also excited anticipation. The confusion stems from the paucity of 'experts' to supervise and examine research and to dictate research methodologies, but the excitement comes from the realisation that we are still relatively unencumbered by the oppressive institutional networks of the other research cultures which validate and bless as methodologically 'worthy' the research of 'novices'. What we must avoid above all, however, is the rejection and dismissal of methodological and epistemological issues as being somehow 'irrelevant' to research work in art and design because they are somehow 'stultifying' or 'too academic'.

Owing to the relative insecurity of researchers in art and design which stems from the lack of established research cultures, there has been a tendency for epistemological debates in the Research Methods course at the Royal College of Art to polarise around two positions characterised by Gerald Holton (drawing heavily from Nietzsche) as the 'Dionysian' and the 'Apollonian'.¹⁰ The former tendency, popular with students engaged in action research for art and design, equates most established academic research methodologies with narrow-minded reductionism. This suspicion of conventional scientific rationality has its roots, of course, in the romantic movement and resurfaced energetically during the late 1960s and 1970s in the works of writers as diverse as R. D. Laing, Norman O. Brown, Paul Feyerabend and John Cage. There is also a strong streak of anti-methodological iconoclasm in the 'archaeology of knowledge' expounded by Michel Foucault with its concentration upon the theoretical problems posed by the emphasis of such concepts as discontinuity, threshold and transformation within the history of ideas. Indeed, Foucault's fascination with the 'by-ways and margins' of history rather than with 'rational' sequential historical narratives proves

deeply appealing to researchers into art and design because his epistemology appears to retain a particular relevance to the issues they choose to research. Several brilliant doctorates into art and design have been the product of the researchers' fascination with,

The history of those shady philosophies that haunt literature, art, the sciences, law, ethics and even man's daily life, the history of those age-old themes that are never crystallised in a rigorous or individual system, but which have spawned the spontaneous philosophy of those who did not philosophise . . . The analysis of opinion rather than of knowledge, of errors rather than of truth, of types of mentality rather than forms of thought.¹¹

As our doctoral registrations testify, increasing numbers of students into and for art and design are attracted to irrational and quasi-mystical topics, to academically marginal authors such as Bataille or to the 'messianic', anti-academic writings of contemporary savants such as James Hillman and Rupert Sheldrake. These research students, who are often also practising artists and designers, are attracted to these writers' attempts to achieve a new synthesis of thought and their emphasis upon the limitations of conventional science and its seeming inability to understand or even address many aspects of the natural and social world.

The attitudes towards research methodology of those students who emphasise the need to pay heed to the instincts and be guided by the irrational, the spiritual and the imagination stand in sharp contrast to those Horton describes as the 'New Apollonians'. Ultra-rationalist in their epistemology and heavily influenced by the work of Wittgenstein, Neurath and Popper, they seek to purge research of metaphysics and romantic 'mumbo-jumbo'. Quasi-mystical concepts such as Sheldrake's idea of 'morphing resonance'¹² are subjected to the withering rationality of Popper's principle of falsification. Manifesting itself particularly in applied scientific research through art and design, this 'Apollonian' view is primarily devoted to analysis and was central to the military-inspired Operations Research which was developed into Systems Theory and the Design Methods movement of the late 1950s and 1960s. Although this Ulm-rational perspective on research methodology exerts a strong appeal in those areas of applied design research which involve painstaking analysis of

materials (conservation research, for example) researchers into and for art and design often find it both intimidating, claustrophobic and actually hostile to the very spirit of their research endeavours.

Just as I have suggested that criticisms of all methodology are based on a false idea of the research process, so I would also like to suggest that this epistemological polarisation is based upon similar falsehoods. For while the Dionysians rail against what they regard as the methodologies of 'conventional' research and the Apollonians seek to rid research work of 'pseudoscience', the process of discovery in much successful research work is, in reality, a combination of rigorous methodology and the following up of intuitive, imaginative 'hunches'. As the philosopher of science Peter Medawar pointed out, 'hypotheses are imaginative and inspirational in character'; they are 'adventures of the mind'.¹³ Similarly, as Collins notes,¹⁴ the process of much scientific discovery involves a large element subjective, intuitive, 'hands on' craft skill, as well as objective, conventionally scientific values neutrality and analytical processes. As Professor Frayling remarked in the first paper in this series, it is slightly ludicrous for a student enrolled for a *research* degree of MPhil or PhD to attack the notion of research itself as if they were involved instead in a 'creative' project somehow beyond reason and analysis. All research in art and design, whether it be applied research, action research, or even fundamental research, *must* involve a systematic enquiry with some form of *communicable knowledge* as its goal.

True research is based upon the dual components of intuitive imagination and critical rationalism which constantly alternate and interact. It should be calculated to produce new knowledge or be intended to test or maybe to refute existing knowledge. To quote Medawar:

The process by which we come to form a hypothesis is not illogical but non-logical; i.e. outside logic. But once we have formed an opinion we can expose it to criticism, usually by experimentation.¹⁵

As researchers in art and design we urgently need more refinement, expansion, documentation and discussion of our *own* experimental methodologies, a process which this series of Research Papers aims to facilitate.

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This is the third Paper in a series intended to stimulate research and debate in the areas of art, design and communication.