RESEARCH IN FINE ART:
AN EPISTEMOLOGICAL AND EMPIRICAL STUDY

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Christopher Reding Brighton 1992
Research in Fine Art: An Epistemological and Empirical Study

ABSTRACT

The thesis considers relationships between the philosophy of knowledge and art; it questions whether epistemological ideas can describe and explain art, and therefore contribute to research in art. The contribution which research makes to other subjects in higher education is indicated, and the attitudes within the fine art community which seem to be inimical to research are discussed. It is argued that there is no fundamental barrier to the development of research in fine art, and that such a development would be timely.

The enquiry establishes ideas of knowledge, changes in knowledge, and research communities from epistemological philosophers (Popper, Polanyi, Kuhn, Lakatos, Feyerabend). These characteristics are considered in relation to evidence drawn from art, through studies in the history of art (Panofsky, Gombrich, Schapiro, Baxandall), and the writings and works of individual artists (Reynolds, Constable). The experience of twelve art students, their working approaches and their own work, are described through the use of interviews, questionnaires, photographs, and methods and techniques based on the Personal Construct Psychology of Kelly. The research policy of the Council for National Academic Awards and examples of completed research degree projects are discussed in relation to epistemological concepts.

The report concludes with discussion of the findings of the study. It is argued from the evidence presented that there are distinctions between ideas of knowledge and of art, but that epistemological ideas can be descriptive and explanatory of examples of art and art education, and that they are sufficiently consonant with current policy and practice to contribute to the development of research degrees in fine art.

C.R. Brighton, May 1992
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Preface and Acknowledgements
Preface and Acknowledgements

The opportunity to pursue my interest in the topic of this thesis was provided by my appointment as Visiting Research Fellow at West Surrey College of Art and Design. I would like to thank the College, its Research Committee, and particularly its Director, Norman Taylor, for their support.

The work was done as a research student in the Department of Educational Studies of the University of Surrey, which provided a supportive context and generous resources for the research. The University appointed two supervisors: Patricia Smart, who oversaw the philosophical discussion, and Dr. Pamela Denicolo, who advised on its more empirical aspects. They managed the difficulties which ensued, both from the joint supervision and the issues which the work raised, and contributed to the quality of this report, although the mistakes and misjudgments are very much my own.

In addition other members of the University were most generous in their advice and assistance, in particular Dr. Clive Turner, who guided me through the problems raised by the quantitative analysis in the report, Dr. Jane Fielding, who admitted me to courses run by the Department of Sociology, and arranged ESRC funding, and Dr. Robert Brownhill, who advised on the philosophical aspects of the drafts during the indisposition of Patricia Smart.

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Reading. The contributors to, and my fellow students on, the Course did much to familiarize me with research as a subject in its own right, and with its own identity and pluralism of methodologies. In addition Professor Pope was generous in her advice and in her interest in the project. Aspects of the work benefitted from being aired and discussed with staff and students at the Departmental Seminars. Many thanks to the staff responsible for inter-library loans in the University Library, particularly for tracking down and obtaining the unpublished and the more obscure sources which have contributed to this report.

Outside the University the project has benefitted from discussions with friends and colleagues: with Robin Marriner, about Thomas Kuhn during an Open University Summer School in 1972; Professor A.W.D Hills, lately Head of the Department of Materials Science at Sheffield City Polytechnic and a member of the original "Rochester" Committee, with whom I have discussed general aspects of the subject over a period of years. Christine Kapteijn’s critical and sceptical approach informed the drafting of passages on epistemology and art, and my brother, Andrew Brighton, read and advised on parts of the report, and contributed to lively discussions about the issues it raised. I would also like to thank Dr. Sally Richardson for the loan of her thesis, Developing a Learning Conversation; etc. (Brunel University, 1990) and the discussions which, although they did not directly inform this project, introduced me to some of the educational issues which the work raises.

The work also received generous assistance from officers of the Council for National Academic Awards who provided data
about research degrees in fine art and loaned the minutes of the Art and Design Research Degrees Sub-Committee which have contributed to an understanding of the development of policy and decision making within that body.

Particular thanks must go to the staff and students who assisted in the Case Study. The former facilitated my meetings with the students, they underwent the interviews and, in some cases, performed the tasks. The latter were generous with their own interest in the project, and in the valuable time, in their final year of studies, which they permitted me to use; were it not for the cloak of anonymity I would be happy to name each of them. The confidentiality of their testimony has also led to the withholding of references from some of the quotations from their interviews.

My overwhelming thanks must go to my wife, Bronwen Brighton, whose unstinting support provided invaluable encouragement; whose proof reading skills removed many mistakes from the text, and whose systematic records and processes made the Cibachrome printing of the slides a far shorter and less hazardous procedure than might otherwise have been the case.

Christopher Brighton 1992
1. Introduction
The assertion that art has a history will meet most resistance from those who believe that art is to be found only in works of art. For every work of art is in itself complete. In its factual existence it is no longer alterable, in its form not repeatable, and in the topicality of its message inextricably from its time. How can such a work be at the same time incomplete, merely a step within a larger development? Indeed, Benedetto Croce and his school rejected any model of a historical development of art and insisted instead on the "insularity" of the work; for them the work was interpretable only on its own terms and not out of a history of art.

Belting 1987, 67

The contributions of research to the majority of subjects in higher education are clearly apparent. They are evident in the growth of knowledge, the career structure of students and practitioners, the taught curriculum, the structure and resources of departments and institutions, and the public perception of the subject.

Since 1978 it became possible to submit works of art, with a written thesis, for CNAA research degrees (CNAA 1983, 8-9). However, there have been a relative lack of applications, and completed submissions, for such degrees.

This thesis will argue that some of the attitudes and beliefs of artists and art, which inform art in higher education, are a major contributing factor to this lack of response. It will also be argued that such ideas and beliefs have not informed, and do not inform, all artistic practice and education, and that research can offer an important means of development to individual students and to the fine art community as a whole.
These attitudes and beliefs have more distant roots than in the attitudes of contemporary staff and students. Plato excluded the poets from his ideal state. This is discussed in the Republic, where Plato provides the reasons why he considered such an exclusion right and necessary. Firstly, Plato considered artistic imitation as removed from reality. Objects had an ideal form, a form that was imitated in the material world and then, as a third order of reality, by the artist or poet (Plato 1955 374-375).

In his discussion of the membership of his republic, Plato extends his view of art to include its expressive qualities, and it is these which lead to its exclusion (Plato 1955, 384-5). Plato refers to an "old quarrel between philosophy and poetry", and quotes insults aimed at philosophy: "the bitch that growls and snarls at her master", "the crowd of heads that know too much", and "subtle thinkers who are beggars none the less" (Plato 1955, 385).

We can discern three aspects of Plato's quarrel with the arts. The first is the place of artistic and poetic imitation in the order of truth, where such imitation represents a last stage of a process of degradation from the ideal form; secondly, the expressive role of art in challenging and undermining reason, particularly as this was applied to the constitution and working of the state; and thirdly, through conflict between the artists and the philosophers, and the resentment remaining as it is reflected in recollected insults. This is, perhaps, an early and classical example of a Kuhnian incommensurability (Kuhn 1970, 201-203).
Feyerabend sees the foundations of scientific realism in this ancient antagonism "... between", he remarks, "... commonsense and comprehensive theories."

It arose when Greek intellectuals, guided by a love for abstractions, new kinds of stories (now called 'arguments') and new values for life, denied the traditional views and tried to replace them with their own accounts... which... introduced general notions of existence and reality.

Feyerabend 1981, 3

The differences between the arts and the tradition of scientific realism, and, therefore, ideas of education and research which reflect that tradition, have a long and profound history.

Evidence of the "mythologizing" of an artist in the present century is available in Richardson's biography of Picasso (Richardson 1991). Richardson considers the artist's early life. His account conflicts with earlier versions. This is partially accounted for by the thoroughness of his research, particularly of the documentation of Picasso's childhood. It also questions the information provided by the artist himself. Richardson suggests that the accounts of Picasso's childhood were falsified through wishful thinking and, "... the artist's Andalusian embellishment" (Richardson 1991, 28).

The importance of Richardson's findings are that, whereas naturally faulty memory and rigorous research might generate contradictions, the wishful thinking of Picasso appears to have been directed to achieve particular ends in the presentation of an artist, by himself or others.
It indicates the making of a myth, a desire to shape the artist's biography to meet certain criteria or expectations.

One of the specific issues which have been mythologised is Picasso's view of himself as an artistic child prodigy, to the exclusion of all else.

... he chose to see himself as a prodigy of infantile backwardness on the one hand and a prodigy of adult perception on the other; as a child who took pride in having learned virtually nothing since he emerged from his mother's womb, and yet an artistic virtuoso who sprang fully developed from his father's head.

Richardson 1991, 33

The first part of this, the infantile backwardness, is illustrated by the standard account of an examination which Picasso took for entrance to secondary school in Malaga in 1891. This can now be contrasted with the examination paper which has recently appeared, which clearly show that Picasso made a passable response to dictation and arithmetic tests (Richardson 1991, 33)

Picasso's more positive claims to have been an infant prodigy in art are subjected to the same scrutiny. The notion of artistic prodigy has always been somewhat difficult within the Picasso myth because it was well known that his father was an established professional artist and lecturer, under whom Picasso studied for a time (Richardson 1991 45). It was, therefore, doubly important for Picasso to establish that he had a prodigious natural talent rather than being seen as any sort of extension to his father's
limited ability and reputation. Again Richardson considers Picasso’s claims in relation to the evidence. Picasso’s account is as follows,

"I have never done children’s drawings. Never. Even when I was very small. I remember one of my first drawings. I was perhaps six, or even less (i.e. 1887). In my father’s house there was a statue of Hercules with his club in the corridor, and I drew Hercules with his club".

Richardson 1991, 29

Richardson, having found the drawing in question, remarks,

Wishful thinking played him false. Picasso had forgotten that the drawing in question is dated November 1890 - three years later than he thought. The execution and conception are no more or less than one would expect of a gifted nine year old.

Richardson 1991, 29

A further myth which has been widely reported was that when Picasso’s father found problems in one of his paintings of a pigeon, Picasso painted the claws with such skill that his father handed over his palette and brushes to his son, and declared that he would never paint again. Richardson reveals that, in fact, the father continued his career as a painter well into the 20th century (Richardson 1991, 51).

Picasso’s need to reinforce the idea of the prodigious character of his own talent, and to resist accounts of artistic achievement as a sequential process consistent with an idea of research, is also evident in his account of the development of cubism. Baxandall (1985) discusses the conflict between the description provided by Kahnweiler (Der Weg zum Kubismus, Munich 1920), who was a major dealer and

Kahnweiler suggests that the development of Picasso's painting was a systematic identification of a series of problems and various strategies, including trial and error, towards their solution. The problems are described by Kahnweiler (Baxandall's translation).

With the fundamental problems of painting: the representation of the three-dimensional and the coloured on the plane surface, and their comprehension within the unity of this plane surface. . . . And then the problem of colour as well, and lastly the most central and difficult point, the alloyage and conciliation of the whole.

Kahnweiler suggests that, initially, Picasso sought to solve all the problems simultaneously, but,

After months of the most intense search Picasso perceives that the problem cannot be completely solved by following this path . . .

After "a short period of exhaustion", and pictures which centre on the organization of colour planes,

. . . we find him once again at work, now out to solve one at a time the tasks set him . . . The most important seems to him the demonstration of form, the representation on the two-dimensional plane of the three dimensional object and its location in three-dimensional space . . . . At the same time the problem of comprehension - of construction - remains of course always in the foreground. On the other hand, the problem of colour is completely excluded.

Baxandall 1985, 68
Picasso may or may not have been responding to these passages in the comments which were published three years later. He certainly seems to have been addressing the issue, albeit in a broader context.

I can hardly understand the importance given to the word research in connection with modern painting. In my opinion to search means nothing in painting, to find is the thing. . . .
Among the several sins that I have been accused of, none is more false than that I have, as the principal objective of my work, the spirit of research. When I paint, my object is to show what I have found and not what I am looking for.

Baxandall 1985, 69

Picasso also provides an informative insight into the consequences of this position.

The several manners I have used in my art must not be considered as an evolution, or as steps towards an unknown ideal of painting. All I have ever done was made for the present. . . .

Baxandall 1985, 69

These comments are particularly useful because they appear, whatever the truth or otherwise of the two accounts, to demonstrate Picasso's commitment to the idea of the artist as a timeless genius whose works stand separately even from the evolution of his own art. The works represent a series of instant "findings", rather than any sequence of development. This is the other side of Plato's coin: a commitment against the idea and processes of scientific realism.

Ideas of art and artists are informed by a number of strong and sustained myths. These myths, or constructs, enable
artists to give definition and value to events in their lives and work. They are also important in art education, and account, in some degree, for the resistance to the idea of research degrees in fine art and have also contributed to the difficulties of developing policy and practice in this area.

Earlier researchers have made some of these deeply and long held beliefs about art and artists visible and problematic. Research into fine art in higher education, as a body of work, is necessarily limited historically: fine art did not become a part of higher education until the Diploma in Art and Design, designated as "degree equivalent", started in the early 1960s. The diploma courses became CNAA BA (Hons) courses from 1974. These developments rendered the subject of fine art comparable with other subjects for which degrees were awarded, rather than with the range of technical, vocational and other courses which constitute further education.

There are significant variations in the descriptions of what constitutes the characteristics of fine art in higher education. Madge and Weinberger (1973) offer an account of the distinctiveness of art as a practice and in education.

Art is an extreme case of a traditional activity - other examples being those of the army or the clergy - which has been continuously redefined in an attempt to give it new validity in contemporary terms. . . . there is little or no consensus either among artists or among the public about the nature and purpose of artistic activity. Socialization into art is therefore socializing into nobody quite knows what.

Madge and Weinberger 1973, 15
In his paper of 1981 Pearson draws attention to the public nature of fine art in higher education.

... 'art', unlike so many other disciplines taught in higher education, has always been essentially a public practice. It has not been a research tool, or a set of technical skills or theoretical understandings to be applied or used towards some other end. It has been a public practice, and a living public culture.

Pearson 1981, 25

This public character entails a lack of differentiation between art in higher education and the "art world" in general. This helps to explain the difficulties faced by art students: they engage the same problems as those which are faced by the professional artist; the models or exempla from which their work develops are not provided within the curriculum as appropriate to a particular stage of development, but are culled, in a relatively random fashion, from available exhibitions and publications.

In the course of her research at the Slade, Sleigh found that it,

... is assumed that the artist possesses extraordinary attributes, some go as far as claiming an almost genetic difference.

Sleigh 1974, 90

More recently the myths, or collective constructs, in fine art education, are identified in the work of Gillian Wayte (1989 and 1990) as "fine art ideology". These include the claim of fine art students that they have,

... a special vision that surpassed that of, say, art historians, and their attempts to demonstrate their obsession with their practice, to the exclusion
of potentially challenging areas of theory and criticism.

Wayte and Wayte 1990, 289

This belief is generalized to include,

... the superiority of imagination and innate ability over imitation and learned skills characterized the discourse of both art and design students and staff.

Wayte and Wayte 1990, 290

"Fine art ideology" is also manifested through the idea of what Wayte calls an "exemplary biography": a model, with similarities to that presented of Picasso, in which the need for total commitment and the achievement of a personal style are related to public recognition and obscurity, to success and failure, at various stage of an artist’s career (Wayte G 1989, 250-252).

The current situation emphasises the importance of educational research in the identification and discussion of attitudes and beliefs in fine art higher education. The questioning of those attitudes and beliefs, which characterises the current pluralism of both art and epistemology, suggests that research in fine art may provide a basis for post-graduate and professional practice, and develop as a major source of ideas and exempla.

The identification and discussion of the "myths", or collective constructs, of art education has been paralleled by a similar process in the discussion of the art market, the source of many of the exempla which inform the work of students. Hughes, for instance, attacks the pretention that
the market reflects any aesthetic and ethical values (Hughes 1987, 28). The loss of the such values in the source of many of its exempla removes the justification for some of the attitudes within fine art in higher education.

The work of researchers shows that the constructs and exempla, of both the "art world" and fine art in higher education, despite their long and authoritative genealogy, are being made visible and seriously questioned. The centrality of such constructs and exempla indicates that such visibility and questioning has generated a crisis in fine art education. In such a crisis Kuhnian theory indicates that there should be an alternative paradigm, or alternative paradigms (Kuhn 1970, 93-94).

Current practice appears to undermine some of the basic ideas of modernism: for instance, "post-modernism" replaces the idea of the avant garde with an eclecticism, and proliferation of ideas, styles and sources, which have undermined some traditional moral and aesthetic certainties. Whilst we may regret the passing of such moral and aesthetic certainties, such as they were, it can be argued that it was some of those certainties, such as those identified with Picasso, which led to the rejection of research as an area of development in fine art; the uncertainty and eclectic character of the more recent situation might provide a more sympathetic basis for its development. Such a view is encouraged by changes in the philosophy of knowledge; the certainties of the hypothetico-deductive process have given way to a plurality of approaches and methods (Kelly 1955, 3-45; Swift et al 1983, 6).
It may be possible to accept Feyerabend's anarchistic (or dadaist) view of the development of knowledge (Feyerabend 1978, 21 n.12).

To those who look at the rich material provided by history, and who are not intent on impoverishing it in order to please their lower instincts, their craving for intellectual security in the form of clarity, precision, 'objectivity', 'truth', it will become clear that there is only one principle that can be defended under all circumstances and in all stages of human development. It is the principle: anything goes.

Feyerabend 1975, 27-28

However such a proposition does not solve the issue of acknowledged research degree study in an institutional context, or of providing a basis from which successful submissions for research degrees can be made, and awards achieved. Ideas of objectivity, and the other epistemological issues which are discussed, do, therefore, have a place in our understanding of these more formal and necessary concerns.

This thesis does not argue that the mythologies which have been identified with art and artists are necessarily wrong; still less that doubts about such mythologies do anything to undermine the work of the artists with which they have been identified. It is possible, for instance, while disagreeing with Picasso's historical interpretations, to enjoy, to value, and to recognise the significance of, his work. Indeed it will be shown later in this report that the coexistence of different, even conflicting, beliefs and attitudes is a characteristic of the artworld as a whole.
The idea of research in fine art represents an alternative within the totality of the practice of, and education in, art. It does not seek to exclude those attitudes and beliefs which are inimical to research, but rather to question their universality as defining characteristics of art.

This thesis, therefore, is concerned to demonstrate aspects of art as problems of knowledge, and therefore susceptible to epistemological discussion, ideas of research, and the development of research degrees. This is a practical, as much as a theoretical problem. Ideas of knowledge have not only to be shown to be a presence within the history of art, but also relevant to current thought and practice in art education.

The issue of research in fine art, therefore, is viewed in both its theoretical and practical aspects. It is addressed in three linked chapters: firstly, the identification of epistemological ideas which can be used as terms with which to discuss ideas and examples drawn from the history of art; secondly, in the examination of such terms in art education through a study of the experience, ideas, exempla, and work of students. In the third section the development of the policy, particularly in the Council of National Academic Awards, and examples of research degrees in fine art are considered. This serves to identify recent and current attitudes to research and research degrees within the fine art community and the institutions with which it is related.

The thesis concludes with a summary of its findings; a review of the research methods used, and their possible development and future applications; and discussion of the possible characteristics of research degrees in fine art.
2. Literature Sources
The study of the relationships between research in general, as perceived through epistemological ideas, and research degrees in fine art, is to address a specific and practical issue, rather than an explanatory theory. The project reflects the problem-solving type of research described by Phillips and Pugh.

In this type of research, we start from a particular problem "in the real world", and bring together all the intellectual resources that can be brought to bear on its solution. The problem has to be defined and the method of solution discovered. The person working in this way may have to create and identify original problem solutions every step of the way. This will usually involve a variety of theories and methods, often ranging across more than one discipline since real world problems are likely to be "messy" and not soluble within the narrow confines of an academic discipline.

Phillips and Pugh 1987, 46

The problem-orientated character of the thesis presents particular problems. A comprehensive and critical knowledge of the literature of each subject involved is beyond the scope of the individual researcher, and criteria have to be established which determine those texts within each subject which are included, and those which are excluded.

The first criterion is relevance: does a particular text contribute to the arguments being made and the understanding which is being sought? The second criterion, which seeks to condition the first, is that of the "seminal" work: is a text of such standing within its subject community that it can be considered authoritative? Such an approach does include works which reflect different, and sometimes conflicting, points of view; the discussion of the arguments
raised, and their relevance to the subject, are seen as an aspect of this thesis.

The arguments of the thesis are necessarily centred on its own subject, rather than the subject areas from which its source material is drawn. The use of such source material can, therefore, contribute only to their application to the concerns of the thesis, which may lead to the enlargement or clarification of their explanatory character. It cannot be expected to contribute to the central issues in fields from which such source materials are drawn.

The literature which has contributed to this study falls into a number of categories. Firstly, the epistemological texts which provided a theoretical framework; secondly art historical texts and examples, which enabled the examination of this framework in terms of art historical ideas and the artists and works themselves, thirdly, texts on art education and higher education; a fourth included research and research methods, which inform methodology and technique.

The texts comprise original and secondary sources; they include books, published articles, unpublished research reports and articles, course documentation, official reports, and minutes and papers of meetings; paintings are also used as original source material.

The broad topic of the thesis, the relationship between research in general, as perceived through epistemological ideas, and the issues of research, and particularly research degrees, in fine art represents a preferred approach. Alternative approaches are represented by Biedermann’s Art
as the *Growth of Knowledge* (1948), Burnham's *The Structure of Art* (1971), and Gablik's *Progress in Art* (1976), which has been rejected.

Biedermann's study represents a valuable argument, from comprehensive historical sources, for the author's own constructivist work. This retrospective justification leads to some astonishing assertions, and also lacks the more general relevance for artists and students whose work may not work in this tradition. Burnham makes arguments from a structuralist standpoint. Theoretically this point of view may offer more than is apparent in the book, where he exemplifies the culmination of the development by the work of Marcel Duchamp; indubitably an important artist, but also one whose pre-eminence in the context excludes much in current and potential future activity.

Gablik's arguments are founded in the work of Piaget concerning the development of children. This imposes a historical structure, since it forces the author to argue that earlier art is an immature version of current practice. Not only is this theoretically dubious, but even with the cave paintings the argument has its difficulties; and to consider, for instance, the sculptors of Chartres, or the painters of the renaissance, as immature versions of contemporary work challenges belief. In addition Gablik, like Biedermann and Burnham, argues for a particular kind of art, minimalism, as the culmination of her historical construction.

In general terms this report differs from the works of Biedermann, Burnham and Gablik in two important respects: it does not seek a general explanation of art, but aims to
enhance a specific discussion of one aspect of art in an educational context. It does not seek to explain the present in terms of the past, but to suggest constructions and processes which might contribute to the future development.

This study also differs from Bailey's thesis, Drawing and Drawing Activity: A Phenomenological Investigation, (1982): it does not seek to identify all artistic activity as epistemological, as Bailey would describe all drawing as phenomenological, but rather to identify elements of an epistemological tradition in art, and their presence in current art educational thought activity, as a basis for research degrees in fine art. This study is also concerned with a broader range of exempla and develops and applies a more sophisticated methodology than Bailey's use of interviews.

There exists a relatively small, and largely unpublished, body of studies concerned with fine art in higher education, and a similar one devoted to research in fine art. The subject and the method of the thesis, therefore, has entailed an interdisciplinary approach in which the literature of a number of subjects has been pursued on a thematic basis.

The literature of art in higher education includes not only published material, but also unpublished research reports and articles, course documentation, and official reports. They form a strongly comparable body of literature, and provide the thesis with one of its major sources of form and methods; it is also a body of knowledge to which the thesis can contribute. In particular the unpublished theses, and the published papers which derive from them, offer some familiarization with studies in art in higher education, the
points of issue which had been identified within it, and the arguments and research methods which had been employed.

A second group of texts includes more general published studies in higher education. These enabled research in fine art to be seen in the broader context of research in other subjects in higher education, and, thereby, contribute to the discussion of the character and role of research in fine art, and the contribution which it might make to the subject.

The relevant works on research include both research in higher education, including existing research in fine art, and the methods and techniques of research used in the thesis generally, and in the Case Study particularly.

The role of research in higher education has been examined through published texts, which have described the character and role of research within the general field. The consideration of research in fine art has included minutes and papers of meetings, including those reflecting research policy and decisions about research projects in art and design. This area has been particularly informed by CNAA minutes of the Art and Design Research Degrees Committee (ResCom 1975-1988). Whilst they do not offer a comprehensive picture, they do offer valuable insights into the ideas which informed policy and the criteria which were applied to applications for registration, and the examination of research degrees.

The completed CNAA submissions in Fine Art for M.Phil and Ph.D degrees have enabled the manifestations of the principles and criteria of the Committee to be critically
examined, and also provide valuable source of examples of how research in fine art might, or might not, be pursued. The second area includes those texts which have informed the research methods used in the preparation of the thesis, and particularly in the Case Study. These have been augmented by the Research Methods course in the Department of Educational Studies at the University, and short courses in the Departments of Sociology and Computer Studies, which together offer a substantial range of alternative research theories, methods and techniques: quantitative and qualitative. The influential factors in the selection of those used included the issues of the thesis, the nature of the information which would elucidate those issues, the precedents in research into art in higher education, and the audience which the thesis is to address.

Whilst the epistemological literature is central to the objectives of the thesis, it is beyond the scope of the research to treat it comprehensively and to make contributions to epistemological thinking beyond those which relate it to art and to research degrees in art. The choice of texts drawn from epistemological writing, therefore, is drawn from works which can be considered seminal and which contribute the principal elements of the model which forms the basis of the discussion (Popper 1972a; Polanyi 1958; Kuhn 1970; Lakatos 1978). However, those works do include a number of authors whose work presents alternative and sometimes conflicting interpretations and includes critical, as well as seminal, texts (Lakatos and Musgrave 1970; Feyerabend 1978). It also includes works which relate epistemological ideas to art (Feyerabend 1965; Harrison A. 1973).
Other sources contribute to the relationship between the epistemological texts and texts and images from the history of art. They include a wide variety of source material.

The varieties of approach within the history of art has made the criterion of relevance of particular importance when considering art historical texts. The application of this criterion has centred on two principal aspects of art historical writing; firstly authors whose structuring of the history of art has similarities with the epistemological sources (Schapiro 1953; Panofsky 1957; Gombrich 1980; Baxandall 1985), and, secondly, those whose subject matter has been centred on those aspects of art, such as perspective and colour theory, which can be seen as aspects of knowledge, and therefore susceptible to epistemological description (Kemp 1990).

The original sources also provide important evidence; the study of an individual artist, Constable, is based largely on his own writing and paintings, and prepares the ground for the discussion of the students and their work. Other, and more recent, writings by artists have also been used (Brighton and Morris 1977).

The writings drawn from philosophical aesthetics reflect issues relevant to the epistemological discussion: particularly, the idea of the "art world"; and the "institutional" theory of art (Danto 1964; Dickie 1969). Studies in the sociology of art are only briefly touched upon in the thesis; they are used to elucidate the aesthetic discussion of the "artworld", or art community, by providing further theoretical views and empirical evidence (Becker 1974; Painter 1986).
3. **Epistemology and Art**

3.1 Objective Knowledge and the Third World
3.2 Tacit Knowledge and the Paradigm
3.3 The Scientific Research Programme
3.4 Joshua Reynolds and the Academic Paradigm
3.5 John Constable: Painting as Natural Philosophy
3.6 Artworlds
3.7 Conclusions
3.1 Objective Knowledge and the Third World

Popper identifies a number of issues which are important in any discussion of epistemology and its relation to art. These include the idea of "objective knowledge", the criteria by which an activity may be considered scientific, the relationship of theory to observation, critical processes, and the idea of scientific progress. He also considers parallels between scientific and artistic activity.

Popper distinguishes an idea of "objective knowledge" from those ideas which he labels as 'expressionist', and finds analogous with expressionism in art. He also argues that objective knowledge has an existence independent of the knower.

The old subjective approach of interpreting knowledge as a relation between the subjective mind and the known object - a relation called by Russell 'belief' or 'judgement' - took those things which I regard as objective knowledge merely as utterances or expressions of mental states (or as the corresponding behaviour). This approach may be described as epistemological expressionism because it is closely parallel to the expressionist theory of art. A man's work is regarded as the expression of his inner state: the emphasis is entirely on the causal relation, and on the admitted but overrated fact that the world of objective knowledge, like the world of painting and music, is created by men.

Popper 1972b, 146-7

Popper identifies objective knowledge with the "third world" of human experience.

... we may distinguish the following three worlds or universes: first, the world of physical objects or of
In this pluralistic philosophy the world consists of at least three ontologically distinct sub-worlds; or, as I shall say, there are three worlds: the first is the physical world or the world of physical states; the second is the mental world or the world of mental states; and the third is the world of intelligibles, or of ideas in the objective sense; it is the world of possible objects of thought; the world of theories in themselves; of arguments in themselves; and of problem situations in themselves.

Popper 1972b, 154

In the third world of objective knowledge each statement is related, not just to a particular idea, but also to an established branch of knowledge which provides reference points which contextualize the statement (Popper 1972b, 147). Popper also argues that objective knowledge can provide a means of self-transcendence, which is not available from an expressionist approach.

The expressionist believes that all he can do is let his talent, his gifts, express themselves in his work. This result is good or bad according to the mental or physiological state of the worker.

As against this I suggest that everything depends upon the give and take between ourselves and our work; upon the product which we contribute to the third world, and upon the constant feedback that can be amplified by conscious self-criticism. The incredible thing about life, evolution and mental growth, is just this method of give and take, this interaction between our actions and their results by which we constantly transcend ourselves, our talents, our gifts.

Popper 1972b, 147
As an example of self-transcendence Popper refers to a story about Haydn, who is reputed to have said, on hearing the first chorus of his Creation, "I have not written this" (Popper 1972b, 180 n). For Popper the importance of this self-transcendence, and the third world can hardly be overstated:

... the third world has grown far beyond the grasp not only of man, but even of all men ... Its action upon us has become more important for our growth, than our creative action upon it. For almost all its growth is due to a feedback effect: to the challenge of the discovery of autonomous problems, many of which may never be mastered. And there is always the challenging task of discovering new problems, for an infinity of problems will always remain undiscovered. In spite of and also because of the autonomy of the third world there will always be scope for original and creative work.

Popper 1972b, 161

In his discussion of change or progress, Popper suggests that the process of learning cannot be contained within the second world, but has to extend beyond our immediate experience.

The process of learning ... is always fundamentally the same. It is imaginative criticism. This is how we transcend our local and temporal environment by trying to think of circumstances beyond our experience: by criticizing the universality, or the structural necessity, of what may, to us, appear (or what philosophers may describe) as the 'given' or as 'habit'; by trying to find, construct, invent, new situations - that is, test situations, critical situations; by trying to locate, detect, and challenge our prejudices and habitual assumptions.

Popper 1972b, 148

This process of imaginative criticism generates alternatives to the status quo,
our schema of problem solving by conjecture and refutation or a similar action may be used as an explanatory theory of theory of human actions, since we can interpret an action as an attempt to solve a problem. Thus the explanatory theory of action will, in the main, consist of a conjectural reconstruction of the problem and its background. A theory of this kind may well be testable.

Popper 1972b, 179

Popper continues to describe a development of science which rests upon the testing and falsification of successive theories. He rejects the inductive basis of science, and the confirmation of theories by evidence through verification. This process does not, in his view, enable the distinction between science, as exemplified by Newton and Einstein, and pseudo-sciences, such as astrology, psychoanalysis and Marxism. None of the pseudo-sciences, he argues, permit falsification (Popper 1969, 33-37).

Popper argues that science, as objective knowledge, is characterised by theories which are,

. . . not a digest of observations, but . . . inventions - conjectures boldly put forward for trial, to be eliminated if they clashed with observations; with observations which were rarely accidental but as a rule undertaken with the definite intention of testing a theory by obtaining, if possible, a decisive refutation.

Popper 1969, 46

The priority of theory, which this passage suggests, presents a problem. How, it might be argued, could any theory be developed which was not a theory about something, that is to say, which was not the response to, and an explanation of, previous observation. Popper relates this problem to that of the priority between the chicken and the
egg; there can, he argues, be no observation without hypothesis, or something like it, and no hypothesis without observation. He recalls testing the problem with a group of students,

... with the following instructions: 'Take pencil and paper; carefully observe, and write down what you have observed!' They asked, of course, what I wanted them to observe. Clearly the instruction, 'Observe!' is absurd ... Observation is always selective. It needs a chosen object, a definite task, an interest, a point of view, a problem.  

Popper 1969, 46

Popper proceeds to discuss the issues within the 'chicken and egg' context.

It is quite true than any particular hypothesis we choose will have been preceded by observations - the observations, for example, which it was designed to explain. But these observations, in their turn, presuppose the adoption of a frame of reference ... if they created a need for explanation and thus gave rise to the invention of a hypothesis, it was because they could not be explained within the old theoretical framework.  

Popper 1969, 47

The logic of this statement is extended to suggest that it indicates an interdependence between the science and the pseudo-science; that it is only the unsatisfactory explanations provided by the latter that led to the development of the former, and that both have their origin in mythology, and that dogmatic thinking has to precede critical thinking, for otherwise there would be nothing to be critical about, and no basis for it.
Critical thinking is closely identified by Popper with scientific processes, as dogmatic thinking is with pseudoscience.

. . . the dogmatic attitude is clearly related to the tendency to verify our laws and schemata . . . whereas the critical attitude is one of readiness to change them - to test them; to refute them; to falsify them if possible. This suggests that we may identify the critical attitude with the scientific attitude, and the dogmatic attitude with the . . . pseudo-scientific.

Popper 1969, 50

Questions are raised by Popper’s account of falsification: how does science progress? What is progressed? And what does it progress to? The passage from observation to satisfactory theory is described as a process of continuous rejection.

"How do we jump from an observational statement to a good theory?" . . . to this the answer is: by jumping first on any theory and then testing it.

Popper 1969, 55

It then follows, according to Popper, that progress can be achieved, " . . . by repeatedly applying the critical method, eliminating many bad theories, and inventing new ones" (Popper 1969, 56).

The object of this process of continual revision is the search for truth,

. . . falsified theories are known or believed to be false, while non-falsified theories may still be true. Besides, we do not prefer every non-falsified theory - only one which, in the light of criticism, appears to do better than its competitors: one which solves our problems, which is well tested, and of which we think, or rather conjecture or hope (considering other
provisionally accepted theories), that it will stand up to further tests.  

Popper 1969, 56

In a further paper, "Truth, Rationality and the Growth of Scientific Knowledge", Popper restates this view in a broader context.

In a further paper, "Truth, Rationality and the Growth of Scientific Knowledge", Popper restates this view in a broader context.

"... it is not the accumulation of observations which I have in mind when I speak of the growth of scientific knowledge, but the repeated overthrow of scientific theories and their replacement by better or more satisfactory ones.

Popper 1969, 215

He continues to specify the criteria by which a theory may be assessed, even before it has been empirically tested. These are its simplicity, its empirical content, its explanatory or predictive power, and its testability.

To achieve simplicity a new theory should,

"... proceed from some simple, new, and powerful, unifying idea about some connection or relation (such as gravitational attraction) between hitherto unconnected things (such as planets and apples) or facts (such as inertial and gravitational mass) or new theoretical entities (such as fields and particles).

Popper 1969, 241

The empirical content of a new theory is related to its testability:

"... the new theory which tells us more [is preferable]: that is to say, the theory which contains the greater amount of empirical information or content; which is logically stronger; which has greater explanatory or predictive power; and which
therefore can be more severely tested by comparing predicted facts with observations.  

Popper 1969, 217

The increase in content is, as Popper shows, concomitant with a decrease in probability. He concludes that,

... if the growth of knowledge means that we operate with theories of increasing content, it means that we operate with theories of decreasing probability.  

Popper 1969, 218

However, Popper does not appear to see science as autonomous and self-contained, but rather as a reflecting philosophical ideas about the nature of the universe.

... purely metaphysical ideas - and therefore philosophical ideas - have been of the greatest importance for cosmology. From Thales to Einstein, from ancient atomism to Descartes, speculation about matter, from the speculations of Gilbert and Newton and Leibnitz and Boscovic about forces to those of Faraday and Einstein about fields of forces, metaphysical ideas have shown the way.  

Popper 1972a, 19

Whereas all other discussion of the nature of change in the development of knowledge indicate wholly scientific criteria, this passage suggests that philosophy, even metaphysics, may be a source of scientific ideas, and even contribute to the preference of one theory rather than another.

Popper relates his view of scientific activity to other forms of human endeavour, and particularly to art.
I have tried to answer the question: 'How can we understand a scientific theory, or improve our understanding of it?' And I have suggested that my answer, in terms of problems and problem solutions, can be applied far beyond scientific theory. We may, at least in some cases, apply it even to works of art: we may conjecture what the artist's problem was, and we may be able to support this conjecture by independent evidence; and this analysis may help us to understand the work.

Popper 1972b, 179-80

Popper describes his view of the artist's use of the method, and describes the possibility of the process of painting generating problems, rather than solving those of which the artist is already aware:

... artists, like scientists, actually use this trial-and-error method. A painter may put down, tentatively, a speck of colour, and step back for a critical assessment of its effect in order to alter it if it does not solve the problem he wants to solve. And it may happen that an unexpected to accidental effect of this tentative trial - a colour speck or brush stroke - may change his problem, or create a new subproblem, or a new aim: the evolution of artistic aims and artistic standards (which, like the rules of logic, may be exosomatic systems of control) proceeds also by the trial- and-error method.

Popper 1972b, 253-254

Popper expands his discussion of art with specific reference to the work of Gombrich (1977), which he describes as,

... a study of the impact on Western Art of the problems raised by the aim, accepted in the past by many artists, of creating an illusion of reality (for example, by using perspective).

Popper 1972b, 180n.

Popper continues, in the same passage, to cite other works of Gombrich in support of his own view of art. This includes
Gombrich’s quotation of Ghiberti’s description of his use of perspective in the bronze doors of the Florence Baptistry (Gombrich 1966, 10).

I strove . . . to imitate nature as far as I could with all the lines that result in it . . . They (the panels) are all frames so that the eye measures them and so true that standing at a distance they appear in the round.

Gombrich 1966, 7.

Popper then quotes Gombrich’s view that the

. . . artist works like a scientist. His works exist not only for their own sake but also to demonstrate certain problem-solutions.

Popper 1972b, 180n.

Popper continues to comment on this passage.

Of course, this is part of the analysis of the work of one artist; and even though similar comments might be made on some other artists, it is not suggested that their problems are similar. On the contrary the problems change: solutions to old problems - for example, of the problem of creating an illusion of reality or ‘nature’ - may create the rejection of the old problem, and the search for new ones.

Popper 1972b, 180 n.

In a footnote to the source referred to (Gombrich 1966, 10) Gombrich refers to Popper’s discussion of the implication of progressive problem solving in most Greek philosophical writings (Gombrich 1966, 137 n.9). The concluding remarks include the comment that, perhaps,

. . . art progresses less like science than in the way a piece of music can be said to progress, each phrase or motif acquiring its meaning and expression from
what has come before, from the expectations that have been roused which are not fulfilled, teased or denied. Gombrich 1966, 10

The relationship between Popper and Gombrich is often referred to by the latter, who acknowledges and welcomes Popper's friendship and influence, and frequently refers to his work as of almost ex cathedra authority. Just as Popper commences his Conjectures and Refutations with a quotation from Dürer, the parallels and references to the history of science are present within Gombrich's thinking.

According to Harrison:

Art and Illusion is a Popperian book, embodying Popperian styles of argument. These employ a central, perhaps an over-central, use of the notion of the employment of an hypothesis both in making observations and in the interpretation and understanding of pictures. Harrison 1973, 122

The parallel between a scientific procedure of "conjectures and refutations" and an artistic process of "schema and correction" is reinforced by Gombrich. He describes the process of picture making in the following way.

Copying ... proceeds through the rhythms of schema and correction. The schema is not the product of a process of 'abstraction', of a tendency to simplify; it represents the first approximate, loose category which is gradually tightened to fit the form it is to reproduce. Gombrich 1977, 64

However, important distinctions remain. Popper sees "conjectures and refutations" as a process leading to the revision of theory, as a testing of an idea against
observations or facts which can be established. In contrast, Gombrich's "schema and correction" is exemplified through reference to the making of specific works, and, if we are to accept Popper's account above, to the problems which are more usually related to specific works, rather than yielding a more general principle or rule. Gombrich's account, while it sustains the parallel as processes, does not extend it into theory. However, in general discussion he does indicate a priority of "schema" in a similar way to that accorded to theory in Popper's discussion.

All art originates in the human mind, in our reactions to the world rather than the visible world itself, and it is precisely because all art is 'conceptual' in this way that all representations are recognisable by their style.

Without some starting point, some initial schema, we could never get hold of the flux of experience.

Gombrich 1977, 76

In addition to the idea of schema and correction, Gombrich also uses, perhaps synonymously, the terms "make and match" to describe the process of artistic creation. Whilst Popper identifies continuous revision through conjectures and refutations as a path which leads towards away from the false theory and towards the true, Gombrich sees making and matching as the means towards the unique work.

... for all that the skill of hand and eye that marks the master, a constant readiness to learn, to make and match and remake until the portrayal ceases to be second hand formula and reflects the unique and unrepeatable experience the artist wishes to seize and hold.

Gombrich 1977, 148
He continues to support the parallel character of the ideas, without identifying the distinction between the revision of scientific theory, on the one hand, and the making of works of art, on the other.

The development of aesthetic sensibility is another aspect of schema and correction; this provides a broader context than the individual work, extending the process towards a style. Donald Schon argues that,

Traditional artifacts evolve culturally through successive detections and corrections of bad fit until the resulting forms are good

Schon 1983, 52-53

However such a process of schema and correction, based on sensibility, can be upset by the introduction of new materials which have their source in another culture.

. . . for generations the Slovakian peasants made beautiful shawls woven in yarns which had been dipped in home made dyes. When aniline dyes were made available to them, "the glory of the shawls was spoiled". The shawlakers had no innate ability to make good shawls but "were simply able, as many of us are, to recognise bad shawls and their own mistakes. Over the generations . . . whenever a bad one was made, it was recognised as such, and therefore not repeated". The introduction of aniline dyes disrupted the cultural process of design . . .

Schon 1983, 53

The aesthetic values, particular the sensibility to colour, which related the style to natural dyes, and which had developed over a long period within a particular culture, were successfully challenged by a new range of colours which, whatever their advantages, resulted in the loss of a way of seeing and judging the quality of the objects. The
style was undermined, and altered through the introduction of new materials as surely as it might have been by other changes in the working approaches of the weavers.

Gombrich's respect for Popper's ideas, and his willingness to identify processes in art with Popper's view of science, reflect some possible common ground between the artist and the scientist. However, this is a limited commonality, and in other respects Gombrich clearly distinguishes between them. This is particularly true in his discussion of art criticism.

The passages also establish that we can apply the notion of "schema and correction" not only to individual representations of things, but also to the style and method of a tradition.

Popper argues that the critical attitude is characteristic of science, and that without it the process of conjecture and refutation could not take place, and nothing would distinguish it from pseudo-science. Gombrich observes that the standards which he believes characterise criticism in the world of science are substantially absent from the world of art. He suggests that this relates to differences between the two communities:

... contrary to the rigorous standards by which any scientific paper is judged when submitted for publication, the lack of criteria has led to a loss of nerve among art critics and, what is more serious, it has also intimidated the public ... I am not the first to recall in this situation Andersen's famous parable of the Emperor's new clothes ...

Gombrich 1980, 242
He elaborates this point further.

Art is not science and the art exhibition differs in more than one respect from the laboratory, where the results of experiments are soberly assessed by the investigator's peers who will find faults, eliminate error and work in the direction of progress. I do not want to be misunderstood. I do not want to suggest that in contrast to science the world of art today is entirely governed by brainwashing and bandwagons, but I do think that our art is not safe from corruption from these forces and that we must be aware of these distorting influences if we are to take the comparison of works of art with scientific experiments further.

Gombrich 1980, 243

To some extent Gombrich's distinction can be seen as that between explanatory, descriptive, or even promotional, comment, such as that which appears in the press, and generative critical discourse, which takes place between members of a particular scientific or artistic community. Generative discourse is normally specific and often of a technical nature, concerned with the identification of objectives and ways of achieving them, whilst public comment may be largely concerned with issues of contextualization, value and application. Examples of generative critical discourse in art are the discussion of the representation of space and form, and the development of perspective, in 15th century Italy (Leonardo 1970; Alberti 1962; Baxandall 1972) and of visual representation in painting and colour theory in 19th century France (Johnson, 1963; Rewald 1973). Such critical discourses contributed to, indeed were integral to, the production of significant works of art. However, Gombrich is right in the sense that there is little evidence of a continued tradition of such generative criticism within the fine art community.
In addition to his distaste for current art criticism, Gombrich also rejects much of the work of the modern movement, and particularly abstract art, his arguments are sometimes presented with particular ferocity. He compares his resistance to abstract art to St. Paul's rejection of 'speaking with tongues' among the early Christians.

How reactionary these words must have sounded to the fervent enthusiasts who had at last got rid of the deadweight of conventional speech! But would Western civilization have survived at all, one wonders, if this dyke had not been erected against the tide of unreason, enabling the Church to use and preserve the texts and disciplines on which a revival of rationality could ultimately be based?

Gombrich 1971, 150

The parallels between the work of Popper and Gombrich, supply some epistemological concepts with which to examine the history of art and contemporary work. In making the distinction between an expressionist view of knowledge, and what he calls objective knowledge Popper provides a possible basis from which we might build a similar distinction between different approaches to art.

Popper's philosophy of the 'third world' provides a self-transcendent alternative to an approach to art which is based on self-expression; a form of "knowledge without the knower". Popper also suggests that this 'third world' is cumulative in character; that it 'grows' (Popper 1972b, 161). In the processes of art and science parallels are also found in the relationship of "conjectures and refutations" and "schema and correction", although the differences in the subjects of these processes: scientific theory on one hand, and works of art, on the other, are not discussed. This
might be become a crucial issue in discussion of several issues, including, for instance, any process of falsification in works of art. It might, on the other hand, be assumed that this lack of discussion signals a lack of distinction between the two, concluding that works of art might be understood in the same way as scientific theories; as propositions about the world.

Gombrich's discussion of Popper's 'third world' is limited by a commitment to art as a process of the imitation of the perceived world, by a rejection of abstract art, which he suggests is a form of unreason, and the further rejection of current art criticism which, it might be inferred, Gombrich considers unworthy of presence in the third world.

The most explicitly critical discussion of Popper's work has been provided by Feyerabend. He argues that such concepts are inimical to the work of actual scientists, and that the "third world" has the most insecure of foundations.

None of the methods which . . . Popper . . . want[s] to use for rationalizing scientific change can be applied, and the one that can be applied, refutation, is greatly reduced in strength [if the contents of alternatives are incomparable]. What remains are aesthetic judgements, judgements of taste, metaphysical prejudices, religious desires, in short, what remains are our subjective wishes: science at its most advanced and general returns to the individual a freedom which he seems to lose when entering its more pedestrian parts, and even its 'third world' image, the development of concepts, ceases to be rational.

Feyerabend 1978, 284-5
3.2 Tacit Knowledge and the Paradigm

In contrast to Popper's abstract idea of the "third world", of knowledge without a knower, Kuhn situates knowledge within a knowing community. He describes a network of linked concepts which identify that community and determine the nature of its activity, and also describes the nature of the changes which occur in that practice.

In this approach Kuhn had been anticipated by Polanyi, particularly when it is recollected that his thinking had its origins in the 1950, against the background of logical positivist philosophy and scientific hypothetico-deductive orthodoxy.

Polanyi's fundamental achievement is in the development of the idea of "tacit knowledge", and an alternative to specific knowledge.

An art which cannot be specified in detail cannot be transmitted by prescription, since no prescription for it exists. It can be passed on only by example from master to apprentice. This restricts the range of diffusion to that of personal contacts, and we find accordingly that craftsmanship tends to survive in closely circumscribed local traditions . . . Again, while the articulate contents of science are successfully taught all over the world in hundreds of new universities, the unspecified art of scientific research has not yet penetrated many of these.

Polanyi 1958, 53

The transmission of those aspects of knowledge, as well as of art, which have to be communicated through personal relationships, rather than taught from textbooks or simultaneously through lectures, creates, according to
Polanyi, specific traditions and makes particular demands on a society.

By watching the master and emulating his efforts in the presence of his example, the apprentice unconsciously picks up the rules of art, including those which are not explicitly known to the master himself. These hidden rules can be assimilated only by a person who surrenders himself to that extent uncritically to the imitation of another. A society which wants to preserve a fund of personal knowledge must submit to tradition.

Polanyi 1958, 53

Whilst the acknowledgement of such traditions may be generally understood within the arts, where the notion of apprenticeship is not wholly defunct, it is less common to find them associated with the sciences. Vasari provides examples drawn from both painting and sculpture. He writes, for instance, of Raphael's apprenticeship to Pietro Perugino, and his assimilation of the master's style.

It is very remarkable that, in studying Pietro's style, Raphael imitated his work so exactly in every detail that it was impossible to tell the difference between the copies he made and his master's originals.

Vasari 1965, 285

Even in Raphael's own youthful work the stylistic similarities were striking. Vasari remarks of a panel in San Francesco, Perugia.

This work was executed with marvellous diligence, and anyone who is not an expert would swear that it is by Pietro and not, as it undoubtably is, by Raphael.

Vasari 1965, 286
Vasari cites another example, drawn from sculpture rather than painting, and an assistant rather than an apprentice.

While he was finishing the tomb of Julius II in San Pietro in Vincoli, Michelangelo caused a stone-cutter to execute for it an ornamental terminal figure. He guided him by saying: "Cut away here, make it level there, polish here . . . " until, without realizing what was happening, the man had carved a figure. After it was finished, as the stone-cutter was staring at it in astonishment Michelangelo inquired: "Well, what do you think?"
"I think it's fine," he said, "and I'm grateful to you".
"Why's that?"
"Because through you I've discovered a talent I never knew I had".

Polanyi places substantial emphasis on the ways in which the skills which are demonstrated can result from an unconscious use of rules or principles

. . . the aim of a skilful performance is achieved by the observance of a set of rules which are not known as such to the person following them.

Polanyi concludes that knowledge is a social entity, that,

. . . this tacit sharing of knowledge underlies every single act of articulate communication. . . . the whole network of tacit interactions on which the sharing of cultural life depends, and . . . lead[s] on to a point at which our adherence to the truth can be seen to imply our adherence to a society which respects the truth, and which we trust to respect it.
For Kuhn the relationship between a community and knowledge is identified in the paradigm. He describes knowledge in terms of the attitudes, beliefs, values and examples held in common by a scientific community, the paradigm. The paradigm is the basis from which the identity of, and the research in, a subject is developed:

Acquisition of the paradigm, and of the more esoteric type of research it permits, is a sign of maturity in the development of any given scientific field.

Kuhn 1970, 11

Kuhn demonstrates the need for the paradigm, and therefore the community, by describing the character of a pre-paradigmic field of study,

In the absence of a paradigm, or some candidate for a paradigm, all the facts that could possibly pertain to the development of a given science are likely to seem equally relevant. As a result, early fact gathering is a far more nearly random activity than the one that subsequent scientific development makes familiar.

Kuhn 1970, 15

Subject focus and critical debate is necessarily absent from pre-paradigmic activity. Such activity might produce, for instance, observations or even measurements of celestial bodies, the fall of objects from towers, and the collapse of bridges; but such observations, in the absence of the focus provided by a paradigm, would not generate a theory of gravity, or a science of structural engineering. The distinction between important and insignificant data, and the relationship of data to hypotheses or theories, could not be made. The paradigm provides a consistent source of significance, value and meaning within a particular community, and thereby provides a basis for judgements and
preferences whether they be scientific, aesthetic, moral or whatever.

The paradigm is not only among the most important of Kuhnian concepts, it is also among the most contentious and ambiguous. Masterman identified 21 different senses in which Kuhn used this term (Masterman 1970, 61-65). In response to her comments, and those of others, Kuhn, provided two principal definitions of the paradigm, firstly as,

.. the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community

and secondly,

.. the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles in normal science.

Kuhn 1970, 175

It will be noticed that neither of the definitions include the word theory.

Even these definitions of paradigm are themselves far from unambiguous, seeming so comprehensive as to include almost every aspect of a scientific, or for that matter, an artistic, work. The works themselves as examples, their techniques, and the values and beliefs, and "so on". However the role of the paradigm, in providing a single noun for the complex "constellation of beliefs, values, techniques and so on" has parallels with the sources of an artistic style in art historical discussion. Schapiro writes:
... style is, above all, a system of forms with a quality and meaningful expression through which the personality of the artist and the broad outlook of a group are visible. It is also a vehicle of expression within the group communicating and fixing certain values of religious, social, and moral life through the emotional suggestiveness of forms. It is, besides, the common ground against which innovations and the individuality of particular works may be measured. Schapiro 1961 81

Although there are strong areas of overlap between Schapiro's 'style' and Kuhn's 'paradigm', there are also differences. Kuhn, for instance, does not describe the paradigm as being a system, or of having any internal coherence or consistency; however, it might be suggested that such a coherence is necessarily developed in the relationship of the paradigm to the processes of scientific investigation, and that a lack of it would necessarily generate anomalies.

It may also be significant that here "style" is identified with individual artists as well as communities, whilst Kuhn discusses his paradigm only in relation to the latter.

A further, and perhaps closer, correlation between Kuhn's idea of the paradigm and an art historian's conception of style might be found in Baxandall's use of the term 'cognitive style' to describe the fabric of knowledge and ideas which characterised fifteenth century and its relationship to pictorial style. In discussing the perception of a figure he describes various interpretations and acts of recognition, remarking that of these:

That which we tend towards will depend on many things... not least on the interpreting skills one happens to possess, the categories, the model patterns and the
habits of inference and analogy: in short, what we may call one's cognitive style.

Baxandall 1972, 29-30

He develops the idea of cognitive style as it relates to pictorial style:

.. some of the mental equipment a man orders is visual experience with is variable, and much of this variable equipment is culturally relative, in the sense of being determined by the society which has influenced his experience. Among these variable are the categories with which he classifies his visual stimuli, the knowledge he will use to supplement what his immediate vision gives him, and the attitude he will adopt to the kind of artificial object seen. The beholder must use on the painting such visual skills as he has, very few of which are normally special to painting, and he is likely to use those skills which his society esteems highly. The painter responds to this; his public's visual capacity must be his medium. Whatever his own specialized professional skills, he is himself a member of the society he works for and shares its visual experience and habit.

Baxandall 1972, 40

Elsewhere Kuhn discusses the behaviour patterns perceived in history. He suggests that they, like art historical styles, cannot be reduced to a series of characteristics.

It is global, not reducible to a unique set of prior criteria more primitive than the similarity relationship itself. One may not replace it with a statement of the form. "A is similar to B, if and only if the two share characteristics c, d, e, and f." .. the cognitive content of the physical sciences is in part dependent on the same primitive similarity relation between concrete examples, or paradigms, of successful scientific work, that scientists model one problem solution on another without at all knowing what characteristics of the original must be preserved to legitimate the process.

Kuhn 1977, 17
A further parallel between the conceptual nature of the paradigm and the literature of art history is the common concept of "world view". For Kuhn the world view represented a holistic vision, of reality, rather than seeing the world, "... piecemeal or item by item" (Kuhn 1970, 128). He exemplifies this through changes in descriptive words:

... the Copernicans who denied its traditional title "planet" to the sun were not only learning what planet meant or what the sun was. Instead, they were changing the meaning of "planet" so that it could continue to make useful distinctions in a world where all celestial bodies, not just the sun, were seen differently from the way in which they were seen before.

Kuhn 1970, 128-9

Panofsky develops his idea of the "world view" by distinguishing between three categories of subject matter in art. Firstly, the primary or natural subject matter of a painting, that which we understand through practical experience. Through such experience we may recognise a girl in a painting. Secondly he identifies the subject matter which relates to our knowledge of types, and our ability to relate the subject to a type, and therefore to literary sources or other works of art: the girl in the painting may be seen as one of the three graces.

Panofsky's third category is more complex, and is, perhaps, similar to the Kuhnian paradigm. It relates to our ability to intuit the cultural symbols of the image. Panofsky compares the skill with that of a diagnostician who may take on a range of physical symptoms and personal characteristics in coming to his conclusion; the art historian seeks to identify,
To relate, say, our picture of a girl as one of the three graces, with all its stylistic and technical characteristics, to the cultural circumstances, or the weltanschauung, the view of the world, which informed the creation of that particular picture. The term weltanschauung was used in discussion of Kuhn's work (Masterman 1970, 67).

Perhaps the closest Panofsky comes to proving an example of his third category of analysis is in his discussion of gothic architecture and scholastic philosophy (Panofsky 1957). Panofsky points out the common element of systematic order, of "... clarification for clarification's sake" (Panofsky 1957, 35) in the architecture and philosophy of the period.

He then elaborates this view by relating the philosophy of the Summa to the architecture in more detail.

He describes the structure of the Summa as follows.

... the classic Summa with its three requirements of (1) totality (sufficient enumeration), (2) arrangement according to a system of homologous parts or parts of parts (sufficient articulation), and (3) distinctness and deductive cogency (sufficient interrelation) ... Panofsky 1957, 31

He then relates these characteristics to the organisation of the gothic cathedral.
Like the High Gothic *Summa*, the High Gothic cathedral is aimed, first of all, at "totality" and therefore tended to approximate, by synthesis as well as elimination, one perfect and final solution . . . In its imagery, the high Gothic cathedral sought to embody the whole of Christian knowledge, theological, moral, natural and historical, with everything in its place, and that which no longer found a place, suppressed . . .

Panofsky 1957, 44

Whilst Panofsky identifies the "world view" with profound cultural characteristics of a work of art, and subject to the art historian’s retrospective view and explanatory role, Kuhn describes it as a more predictive concept in the context of change, in which the conceptual and perceptual constructions of reality are closely identified. Revolutions in science lead to the overthrow of accepted theories and experimental methods, and in doing so they change the view of the world which has informed those theories and methods, confronting the view of the world which informs the activity of their colleagues. They do so from the context within which their own ideas have been formed, and enable revisions of long standing beliefs and ideas which extend well beyond the boundaries of what is normally thought of as science (Feyerabend 1978, 192-3; Feyerabend 1981, 184). Panofsky’s description of the world view also invites comparison with Popper’s remarks on the metaphysical bases of science.

It is important to distinguish between the world view as a stratum in the understanding of a work of art, and as an aspect of historical change, however there are features in common. The processes which Panofsky describes for understanding the world view in a work of art might equally, and with similar scholarship, be applied to works of science, and the structure and process of change in the
sciences, which Kuhn describes, can be similarly applied to the arts.

Baxandall describes a culturally based view which appears to embrace both aesthetic and social factors in the work of artists and the vision of their contemporary onlookers.

Living in a culture, growing up and learning to survive in it, involves us in a special perceptual training. It endows us with habits and skills of discrimination that affect the way we deal with the new data that sensation offers the mind. And because the trick of pictures—that is, marking a flat plane to suggest the three dimensional—puts a premium on expectation and visual inference, it is sensitive to otherwise marginal differences in the beholder’s equipment.

He continues to cite commercial culture as a factor in the making and perception of paintings.

One aspect of Piero della Francesca’s way of painting represents both a culture making a skill available and an individual electing to take it up. Fifteenth century Italy was a culture in which a distinctive sort of commercial mathematics was highly developed, energetically taught in the schools and widely known. A certain kind of geometry was learned for gauging barrels and packs, and a certain kind of proportional activity was learned for calculating such things as partnership dues and rates of exchange. Both were almost fetish skills of the time and they provided a resource for both painters and their middle class public. Seeing was ‘theory laden’.

Baxandall 1985, 107

Kuhn identifies changes of world view closely with changes of paradigm,

... during revolutions scientists see new and different things when looking with familiar instruments in places they have looked before. It is rather as if the professional community had been suddenly transported to another planet where familiar
objects are seen in a different light and are joined by unfamiliar ones as well ... paradigm changes do cause scientists to see the world of their research-engagement differently.

Kuhn 1970, 111

In so far as Kuhn is concerned with the nature of changing beliefs and practices as an aspect of a community, and in relation to specific examples, he provides an model of cultural change which can be related to a number of cultural phenomena.

The assumptions which underlie the style of an artist, or a period or school, or the paradigm of a scientist, gain conscious definition in the context of change; what Kuhn calls "revolutionary science", when two or more paradigms complete for the commitment of a community. In these situations the styles or the paradigms are clarified and brought to consciousness by "incommensurability", they offer mutually exclusive alternatives to the scientific community, which cannot, to quote,

... resort to a neutral language which both use in the same way and which is adequate to the statement of both of their theories or even both of those theories empirical consequences.

Kuhn 1970, 201

In a discussion of the application of his structure to the history of art Kuhn identifies the paradigm with both artistic style and theory.

Both "style" and "theory" are terms used when describing a group of works which are recognisably similar. (They are "in the same style" or "applications of the same theory"). In both cases it proves difficult - I think ultimately impossible - to specify the nature of the shared elements that
distinguish a given style or a given theory from another. My response to such difficulties has been to suggest that scientists can learn from paradigms or accepted models without any process like the abstraction of elements that could constitute a theory. Could something of the same sort be said of the manner in which artists scrutinize particular works of art?

Kuhn 1977, 351

Kuhn here confuses the argument by using artistic style and scientific theory as comparable concepts, which become parallels with the paradigm. His omission of theory from the "constellation" which he identifies with the paradigm, suggests that he was aware of its distinctiveness, and the specific role it plays in science. The scientific paradigm and the artistic style are both quite distinct from theory. In any debate between paradigms or "battle of styles" within communities, theory is a natural means with which to defend or attack a paradigm and its exempla. When this occurs consciousness of that theory, as a basis of particular styles and paradigms, is raised. The "assumed", and sometimes unconscious values and beliefs, or styles, which inform practice might come under a conscious critical and theoretical scrutiny in such "revolutionary" periods, but need not be known to practitioners during their "normal" work.

The parallels between the Kuhnian view of the history of science, and the history of art, are therefore better clarified if the paradigm, rather than the scientific theory, is seen as parallel to the style of an artist or artistic community.

Kuhn describes the scientific community as,
men whose research is based on shared paradigms are committed to the same rules and standards of scientific practice. That commitment and the apparent consensus it produces are prerequisites for normal science, i.e., for the genesis and continuation of a particular research tradition.  

Kuhn 1970, 11

Kuhn's description of the grounds upon which a community chooses between paradigms has been subject to severe criticism, Lakatos describes it as "... irrational, a matter of mob psychology." (Lakatos 1978, 91). The reason for this disquiet is that Kuhn is unable to identify paradigm choice wholly with the criteria which characterise a scientific approach, and the choice therefore is the product of persuasion and argument.

Debates over theory choice cannot easily be cast in a form that fully resembles logical or mathematical proof ... (the) debate is about premises, its recourse is to persuasion as a prelude to the possibility of proof.

The reason for this, he continues, is not,

... that the reasons for choice are different from those usually listed by philosophers of science: accuracy, simplicity, fruitfulness and the like ... such reasons function as values and they can thus be differently applied.  

Kuhn 1970, 199

The paradigm choice, to Kuhn, is a process within a community of scientists, whose criteria, when cast as values, form the basis for persuasion, argument and decision.

The mutual and exclusive relationship between the paradigm and the community, as it is presented by Kuhn, appears to be
compromised in his discussion of the way in which scientific communities "convert" to a new paradigm.

. . . it is only through normal science that the professional community of scientists succeeds, first, in exploiting the potential scope and precision of an older paradigm, and, then, in isolating the difficulty through the study of which the new paradigm may emerge.

. . . Though a generation is sometimes required to effect the change, scientific communities have again and again been converted to new paradigms . . . some scientists, particularly the older and more experienced ones, may resist indefinitely . . .

Kuhn 1970, 152

It would appear from this passage that the concept of a single paradigm community cannot be applied in the process of changing paradigms, when there can be a sustained allegiance to earlier beliefs, values, techniques and examples, and where those who sustain that allegiance do not therefore cease to be scientists. This suggests that, even in Kuhn's view, a mature scientific community can sustain more than one paradigm.

One of the concepts used within Kuhn's discussion of paradigms is Wittgenstein's idea of "seeing as" (Monk 1990, 507-510). One of the most striking examples of how paradigms can control the vision of an observer is that of the Fuegans, whom Charles Darwin visited from the Beagle, when they were excited by the sight of the small boats which took the landing party ashore, but failed to notice the larger ship itself, lying at anchor in front of them (Polanyi 1974 54). It would seem that not only that, "seeing is believing", but also that "believing may be seeing".
The relationship between the conceptual and the perceptual can, as Panofsky suggests, be deeply embedded in a visual culture. One striking example of the association of seeing and believing, between conceptual and perceptual constructs, is discussed by Alpers (Alpers 1983, 80-83). The conflict between Catholic and Protestant in Holland during the 17th century had military and political, as well as religious, dimensions. During the conflict the dark core shown in sections of a felled apple tree near Haarlem were interpreted by the former as the miraculous appearance of Roman Catholic priests, and a drawing showing these was made (Alpers 1983, 80). The sections were re-examined and drawn by the artist Pieter Saenredam, whose published an etching of the sections, Print to Belie Rumors about the Images Found in an Apple Tree (1628), was used to refute the miraculous inferences which had been made.

Saenredam’s print speaks to the nature of images as well as to the issues of faith. He shows us the shape and thickness of the cuts through the tree and then isolates the dark cores for our view. He carefully names the date it was found and the location of the tree. This print, published, as the inscription says, out of the love of truth, seeks to replace a false picture with a true one. Its strategy was to separate the object seen from those beliefs, or interpretations to which it had given rise . . . Saenredam’s image of the tree replaces man’s fancy . . .

Alpers 1983, 81

The quality and detail of the Saenredam drawing, and its annotations, appear to have been preferred when compared with the, original, more schematic representation (Alpers 1983, 81). The evidence was examined through the method of drawing, and it appears that the quality of the drawing which served to reconcile the problem.
Kuhn himself describes the literal observation as it is influenced by different paradigms:

To see oxygen instead of dephlogisticated air, the condenser instead of the Leyden jar, or the pendulum instead of the constrained fall, was only one part of an integrated shift in the scientist's vision of a great many related chemical, electrical, or dynamical phenomena. Paradigms determine large areas of experience at the same time.

Kuhn 1970, 129

This describes a process of "seeing as" which can be distinguished from the example of the Fuegans in that their paradigms totally excluded an incomprehensible object; Kuhn's gives meaning to a comprehensible world of objects.

The relationship between observation and theory which is evident in the phenomenon of "seeing as" is summarised by Feyerabend.

... the interpretation of an observational language is determined by the theories which we use to explain what we observe, and it changes as soon as those theories change.

Feyerabend 1981, 31

According to Masterman the process of "seeing as" distinguishes Kuhn's paradigm from the "hypothetico-deductive" approach. She argues that the paradigm as artefact or construct necessarily entails an analogical process of "seeing as"; that "a paradigm has got to be a concrete 'picture' used analogically because it has got to be a way of seeing".

If a paradigm were only to be an interpretable construct or artefact the use of which had become an established social institution, it might be hard to
distinguish Kuhn’s paradigm view of science from some sociologically sophisticated hypothetico-deductive view . . . What distinguishes the two views from one another is that a puzzle-solving paradigm, unlike a puzzle-solving hypothetico-deductive system, has also got to be a concrete "way of seeing".

Masterman 1970, 76

As an example of this Masterman cites the scientific model:

What Kuhn must be feeling his way to, in talking about an artefact which is also a ‘way of seeing’, is an assertion, not about the nature of his artefact, but about its use: namely, that being a picture of one thing, it is used to represent another - for example, a geometrical model made of wire and beads, though it is primarily a glorification of a well-known kind of child’s toy, is used in science to represent a protein molecule.

Masterman 1970, 76-77

The relationship between the world of propositions and that of images plays a major part in Wittengenstein, who describes propositions and draws analogies.

4.01 The proposition is a picture of reality.
The proposition is a model of reality as we think it is.

4.01 At first glance the propositions - say as it stands printed on paper - does not seem to be a picture of the reality of which it treats. But nor does the musical score appear at first sight to be a picture of a musical piece; nor does our phonic spelling (letters) seem to be a picture of our spoken language. And yet these symbolisms prove to be pictures - even in the ordinary sense of the word - of what they represent.

Wittgenstein 1922, 63-65

Hess projects this argument into painting.
Wittgenstein has said that propositions are pictures of reality: this book suggests that pictures may be propositions of reality.

Hess elaborates his theme,

. . . thought is expressed by scientists not in words but in a language of symbols which become the current equivalent for the reality it attempts to describe. In the same way painters use a language, not of words but of forms and symbols, to depict a form of reality. This reality is neither objective nor subjective, it is collective: the forms are pictorial equivalents for conventions of social and spiritual life.

Hess 1975 7

A similar point has also been made through the juxtaposition of images and words by Magritte in his The Key of Dreams (Berger 1972, 7-8), and other paintings. John Berger (1972) and Norman Bryson (1981) have both pursued the relationship of beliefs and ideas to pictorial imagery. The relationship between conception and sensory experience, in musical performance, was expressed poignantly by Schnabel: "The conception materializes and the materialization redissolves into conception" (Brendel 1990, 250).

The value and character of the paradigm for the individual scientist, or perhaps artist, is described by Polanyi:

This is what the existing body of scientific thought means to the productive scientist: he sees in it an aspect of reality which, as such, promises to be an inexhaustible source of new, promising problems. And his work bears this out; science continues to be fruitful . . . because it offers insight into the nature of reality.

Polanyi 1967, 68-69
An example of a method of generating problems, and examining the nature of reality, in the case of an individual artist devoted to a process of representation has been described by Coldstream, quoted in Brighton and Morris (1977):

I have great difficulty in painting and however much I try to break out of certain ways of doing it, I am always driven back to the same way. For instance, I can't work at all without something in front of me. That's something which, when I try to judge it in an ordinary way seems extremely limiting and quite unnecessary.

Brighton and Morris 1977, 93

I get intense pleasure when I'm painting in just saying that this is two-thirds of that, that this is one-sixteenth more than that. Now, if you get a number of measurements, both on the surface of the canvas and then imagined measurement to some extent in depth working together, it gives you a kind of kick - I don't know why. . . . I'm always driven back to it because it seems to me to be extremely interesting to ascertain something.

Brighton and Morris 1977, 93

The strength of the paradigm in science in the face of difficult, even anomalous, observations is described by Heisenberg in his discussion of the difficulties faced by classical physics when confronted by quantum mechanics.

It has been said before that the mechanism and results of an observation can always be stated in terms of the classical concepts. But what one deduces from an observation is a probability function, a mathematical expression that combines statements about possibilities or tendencies with statements about our knowledge of facts. So we cannot completely objectify the result of an observation, we cannot describe what "happens" between one observation and the next.

Heisenberg 1989, 38

Heisenberg argues for the acceptance of this situation rather than a revision of classical theory.
The concepts of classical physics are just a refinement of the concepts of daily life and are an essential part of the language which forms the basis of all natural science. Our actual situation in science is that we do use the classical concepts for the description of the experiments, and it was the problem of quantum theory to find a theoretical interpretation on this basis. There is no use in discussing what could be done if we were other beings than we are.

Heisenberg 1989, 44

The choice made by Coldstream in retaining his method when he might have doubted it, and by Heisenberg and others in sustaining the paradigm of classical physics when quantum theory generated apparent anomalies, can be contrasted with the experience of the consequences of losing a paradigm when confronted with evidence which seriously undermines the assumptions which had hitherto guided the methods and expectations of a scientist's work is described by Taylor. Upon becoming convinced of the authenticity of Uri Geller's paranormal gifts he wrote that,

One clear observation of Geller in action had an overpowering effect on me. I felt as if the whole framework with which I viewed the world had suddenly been destroyed. I seemed very naked and vulnerable, surrounded by a hostile and incomprehensible universe. It was many days before I was able to come to terms with this sensation.

Taylor 1975, 49

The view of the world, or more specifically the explanatory nature of "seeing as", can be more profound than the relationship of a child's toy to a protein molecule, or the recognition of a pendulum or a condenser, or even traditional aesthetic sensibilities. Kuhn discusses the duck/rabbit diagram of Wittgenstein (Monk 1990, 507), in which one process of recognition excludes the other, although the same retinal impression is received.
The duck-rabbit shows that two men with the same retinal impression can see different things; the inverting lenses show that two men with different retinal impressions can see the same thing.

Kuhn 1970, 126-7

The analogy of the duck/rabbit diagram neglects one fact which is basic if we are to relate the notion of "seeing as" to art. Like any other manufactured visual image it is already one remove from nature. Seeing the diagram is not like seeing a duck which looked like a rabbit, or a rabbit that could be mistaken for a duck. If we extend the analogy to painting, or another representational form of art, this distinction becomes central: we are often asked to view a painted image as if it were an experience of nature: as a landscape, as a still life, or as a figure, and to identify simultaneously, the categories of both perceptual experience and of an artistic genre. The ambiguity is not between two isomorphic representations, it is between our vision of natural phenomena, and our vision of representation. Where artistic style, or paradigm, includes a commitment to the representation of nature this distinction becomes critical.

3.3 The Scientific Research Programme

Lakatos presents an alternative model of scientific development which, as well as providing a critical response to Kuhn's work, might also be viewed as an development of it. He considers and rejects earlier models of scientific method, such as justificationism and "dogmatic" falsificationism, and their attendant concepts, before developing, on the basis of Popper's work, the idea of
sophisticated methodological falsification, which addresses the asymmetry between theory and fact. On this basis Lakatos develops a historical entity, which he calls the "scientific research programme". He relates this to the third world of Popper and to Kuhn's paradigm.

... my concept of a 'research programme' may be construed as an objective, 'third world' reconstruction of Kuhn's socio-psychological concept of 'paradigm'.

Lakatos 1978, 91 n.2

The 'scientific research programme' is identified with the major theoretical/conceptual systems in the history of science, such as, Cartesianism, Newtonian mechanics, and Einstein's theories, and also with what Lakatos describes as "degenerating pseudo-scientific programmes", such as Freudianism and Marxism. The distinction between the two is the ability of the progressive scientific programme to make "... dramatic, unexpected and stunning predictions" (Lakatos 1978, 6). He cites Halley's application of Newton's theory to predict the return of the comet and Einstein's prediction of the different measurements of distance between stars, as examples:

... in a progressive research programme, theory leads to the discovery of hitherto unknown novel facts. In degenerating programmes, however, theories are fabricated only in order to account for known facts.

Lakatos 1978, 5

The scientific research programme is characterised by a "hard core" of theory, with a negative heuristic, surrounded by a "protective belt" of auxiliary hypotheses, with a
positive heuristic. Thus the anomalies which are found in the development of all theory are seen as points of activity within the protective belt, rather than simple falsifications of the hard theoretical core of the programme. If the programme is scientific its theory will have a consistently progressive shift, and it will have an intermittent progressive empirical shift (Lakatos 1978, 48). As a programme loses its scientific status the problem shifts will become negative, adjustments which only serve to accommodate new facts, and which will eventually undermine the central core.

The Newtonian programme is used as an example of a successful programme:

. . . Newtonian science, for instance, is not simply a set of four conjectures - three laws of mechanics and the law of gravitation. These four laws constitute only the "hard core" of the Newtonian programme. But this hard core is tenaciously protected from refutation by a vast "protective belt" of auxiliary hypotheses. And, even more importantly, the research programme also has a "heuristic" that is, a powerful problem solving machinery which, with the help of sophisticated mathematical techniques, digests anomalies and even turns them into positive evidence.

Lakatos continues to provide an example of the "digestion" of an anomaly.

. . . if a planet does not move exactly as it should, the Newtonian scientist checks his conjectures concerning atmospheric refraction, concerning the propagation of light in magnetic storms, and hundreds of other conjectures which are all part of the programme. He may even invent a hitherto unknown planet and calculate its position, mass and velocity in order to explain the anomaly.  

Lakatos 1973, 4
At its inception as a theory the programme is said to have an "excess of empirical content", greater than its predecessor or rival, and leading to the discovery of novel facts (Lakatos 1978, 32). However it may lack the auxiliary hypotheses, and therefore the potential for growth into the programme with its network of theory and practice. In a positive scientific programme such auxiliary hypotheses are required to have explanatory power which digests the anomaly and contributes to the theoretical sophistication of the programme as a whole, generating a progressive problem shift, rather than being what Popper calls ad hoc hypotheses: linguistic devices or conventional stratagems, which only serve to cope with the immediate problem, producing a negative problem shift (Lakatos 1978, 33).

Some genuinely testable theories, when found to be false, are still upheld by their admirers - for example by introducing ad hoc some auxiliary assumption, or by re-interpreting the theory ad hoc in such a way that it escapes refutation. Such a procedure is always possible, but it rescues the theory from refutation only at the price of destroying, or at least lowering, its scientific status.

Popper 1969, 37

It is a property of ad hoc hypotheses that they weaken the theoretical hard core of the research programme; their improvised nature and their role in suppressing anomalies will necessarily generate inconsistencies with it. The result of this is that the hard core itself will become exposed and the subject of activity. The integrity of the programme itself will then be threatened, and should a suitable alternative be available, vulnerable to replacement.
The replacement of a programme takes place when positive problem shifts no longer take place, and anomalies can only be accommodated by means of \textit{ad hoc} hypotheses, thus weakening the central core. The anomalous observations of the perihelion of Mercury, were accepted for some 85 years before it was concluded that they constituted a falsification of the Newtonian programme (Lakatos 1978, 30), and only when the "empirical content" of the Einsteinian programme could account for this, and predict other facts in addition to the Newtonian system, was the replacement of that programme possible (Lakatos 1978, 39).

The ability of the new programme to account for anomalies that are present within the one it replaces should not imply that new programmes are themselves without anomalies: it was common knowledge at the time of its publication that Newton's \textit{Principia} did not even explain the movement of the moon, and Einstein's relativity theory was refuted at the time of its publication (Lakatos 1973, 5). However the positive explanatory and predictive possibilities of each outweighed the difficulties with which they were initially associated. This suggests that theories are only replaced by other theories, and are not readily destroyed by particular facts or observations.

In terms of historical scale the scientific research programme is similar to the broad period/style classifications in the history of art. These also have the characteristic form of a basic and consistent core: the world view. They also demonstrate a peripheral series of problems or issues which are addressed by individual artists, such as: technique, space, form, colour, composition, iconography. The work of the artists within the
style, despite their individual distinctiveness, present a consistency in the work in relation to the world view.

... the traits which make up a style have a quality in common. They all seem to be marked by the expression of the whole, or there is a dominant feature to which the elements have been adapted. The parts of a Greek temple have the air of a family of forms. In Baroque art, a taste for movement determines the loosening of boundaries, the instability of masses, and the multiplication of large contrasts. For many writers a style, whether that of an individual or a group, is a persuasive, rigorous unity. Investigation of style is often a search for hidden correspondences explained by an organising principle which determines both the character of the parts and the patterning of the whole. Schapiro 1953, 87-88

The central core of both a scientific research programme and a style, the "hidden correspondences" may well be seen as tacit, rather than overt, knowledge or skill. Few artists would have been aware of the basis of their period/style other than to associate it with art; similar to those scientists working in the Newtonian programme the concept of science and of the programme may well have been indistinguishable.

It is for this reason that the activity related to a scientific research programme or a major historical style is centred on the auxiliary issues, the protective belt; indeed it is a necessary property of cultural identity that such "organising principles" should have, for most of the time, remained unconscious or, at least, unquestioned, for in order to question such organising principles, it is necessary to stand outside them, and therefore to be situated within another style or programme.
There is a degree of similarity between this notion of a tacit acceptance of a scientific programme or an artistic style and the role of the paradigm in Kuhn's normal science, when the puzzle-solving rules and examples are applied, but the paradigm as a whole may have remained unarticulated.

The "tacit" nature of a research programme appears to have a parallel with the more general experience of one's own culture. In distinguishing between the "understanding" of a culture by its participants as opposed to its observers, Baxandall offers the following description:

The participant understands and knows his culture with an immediacy and spontaneity the observer does not share. He can act within the culture's standards and norms without rational self-consciousness, often indeed without formulating standards as standards. He does not, for instance, have to list to himself the five requirements of altarpiece paintings: he has internalized an expectation about these over a period of experience of altarpieces. He moves with an ease and delicacy and creative flexibility within the rules of his culture. His culture, for him, is like a language he has learned, informally, since infancy: indeed his language is one large articulating part of his culture. The observer does not have this kind of knowledge of the culture. He has to spell out standards and rules, making them explicit and so making them also coarse, rigid and clumsy. He lacks the participant's pure tact and fluid sense of the complexities.

Baxandall 1985, 109

A change in culture, in style, is far more than a change in a particular activity, or the techniques and forms through which it is pursued, it also changes a body of tacit understanding which guides thought and practice, and removes the lucid comprehension of standards and qualities which are only accessible with difficulty, and in a rigid and clumsy form, through observation and study.
The distinction between the participant and observer which Baxandall describes in terms of a national period culture might also be applied to a profession or the sort of subject/community described by Kuhn. In both cases revolutionary change is concomitant with an increased consciousness of the tacit knowledge which characterises the community, and various levels of detachment from it on the part of its members.

In this context the distinction between the participant and the observer might be seen as a spectrum of position, rather than an either/or, and the revolutionary process as one which involves the participant, in part and for a time, taking up positions which can be identified with an observer. A change in tacit knowledge will enable re-engagement as a participant, but may also lead to alienation, and a permanent observer status. Such a spectrum may also be used to describe various roles within a community: the critic may be considered to have an observational role in relation to the practitioner, although he may be a participant in his own field.

Changes in artistic period/style appear to be a far less contained and autonomous process than scientific revolutions, such as, the change from the Newtonian to the Einsteinian research programme.

The change from gothic to renaissance art, for instance, can be associated with socio-economic factors, such as changes in the distribution of wealth and therefore the sources, and often the methods, of patronage; changes in imagery, beliefs and ideas, particularly the interest in classical art and manuscripts; changes in the nature of the works, the
development of panel painting, the exclusion of precious metals and stones, the use of continuous space and the representation of three dimensional form, the concern for particular sorts of representational value, as well as symbolic value, which itself changes in source and structure, all of which required changes in the resources and skills of artists.

It is difficult within such a catalogue of particulars to identify cause and effect; even if we were to reduce the categories to economic, cultural and artistic it might be possible to see the last as the effect of the other two, but the priority between the economic and cultural of change are difficult to establish. It can be concluded, however, that major changes of period/style are a part of a multiplicity of radical changes taking place over a relatively short space of time, whilst the development of a period/style can be identified with relatively minor changes taking place over a longer period.

If this is so the "tacit" aspects of the style, its "hidden correspondences" and unity, might be seen as developing over that longer period and strengthening as it succeeds in assimilating those changes which do occur, and only coming into question, or even consciousness, when major and wide ranging changes occur. Such unity will therefore be weakened by major and successive changes, particularly where these have their source external to the art community of the time, and are responded to by means of *ad hoc* hypotheses; when this occurs the tacit aspects of the practice, the paradigms or the "hard core" of the programme will themselves become the subjects of activity, or act as the auxiliary
hypotheses, and the basic nature of practice and its culture, is brought into question.

3.4 Sir Joshua Reynolds and the Academic Paradigm

The Royal Academy was founded in 1768 with Sir Joshua Reynolds as its first president. It had been preceded by the foundation of the French Académie in 1648; like the Académie it sought to provide a basis for the professional practice of art and art education through an established framework of ideas and examples. The foundation of the French Académie was a conscious action to strengthen the position of artists who were patronized by the court, as opposed to those whose paradigms and organisation were based around the surviving guild system, with its strict rules about the training of artists and the organisation of their professional practice (Bryson 1981, 29).

The paradigmatic character of the Académie was developed through a series of discussions, organised during the 1660s by Le Brun, each of which as based on a single work from the Royal Collection, with a written report, and by the establishment of the Annual Prize in 1663, for which subject matter had to be drawn from the heroic exploits of the French king, and the Prix de Rome in 1666, which initially insisted upon subjects drawn from scripture (Bryson 1981, 29-57).

In the Royal Academy the role of developing a paradigm was largely performed by the President’s address, given on the occasion of the prize giving. Between the first address, in 1769, and 1790, Reynolds delivered 15 such discourses. These
have been described as "tantamount to a statement of policy for the young institution" (Reynolds 1975, xvi).

Reynolds himself was conscious of the importance and responsibility of his Discourses, and the power of examples, in the final discourse; he remarked that,

. . . I have taken up the art simply as I found it exemplified in the practice of the most approved Painters. That approbation which the world has uniformly given, I have endeavoured to justify by such proofs as questions of this kind will admit; . . . by the common congeniality which they all bear to our nature. . . I have succeeded in establishing the rules and principles of our art on a more firm and lasting foundation than that on which they had been formerly been placed.

Reynolds 1975, 269

Reynolds was conscious that the establishment of such a foundation had to be made with the consent of his fellows. He claims that in no part of the Discourses has he lent his assistance,

. . . to foster newly-fledged, unhatched opinions, or to support paradoxes, however tempting may have been their novelty, or however ingenious I might, for a minute, fancy them to be . . .

Reynolds 1975, 269

The values reflected in the discourses are characterised by an idealist, moral and intellectual view of art, and technique and expression are valued as they contribute to these characteristics.

. . . the beauty of which we are in quest is general and intellectual; it is an idea that subsists only in the mind; the sight never beheld it, nor has the hand expressed it . . .
The same passage concludes by uniting the aesthetic quality of taste with the ethical quality of virtue, a combination of the ethical and the aesthetic which has already been noted by Hughes above, and reappears in the thinking of Constable, below. Reynolds writes:

... that contemplation of universal rectitude and harmony which began by Taste, may, as it is exalted and refined, conclude in Virtue. 

Reynolds 1975, 171

The theoretical content of the Discourses was based around a classical idea of art as it was developed in the painting and sculpture of the renaissance and in later texts. The historical examples were drawn from a history dating back to Greek and Roman sculpture, to the Renaissance painters, particularly Raphael and Michelangelo, and their successors among 17th century Bolognese and French painters. Within the Italian renaissance Reynolds placed the art of the Rome, with its order and clarity of style, the idealism of its representation, and its lofty subject matter, above the more sensuous character of Venetian and Flemish painting. The work of the Dutch artists, with their concern with the social life around them, was placed below these. In terms of subject matter portraiture, landscape, genre and still life were considered to lack the moral and intellectual dimensions which could be identified with historical subjects (Reynolds 1975, xxviii).

The painters who have applied themselves more particularly to low and vulgar characters, and who express with precision the various shades of passion, as they are exhibited by vulgar minds, (such as we see in the works of Hogarth,) deserve great praise; but as their genius has been employed on low and confined subjects, the praise which we give must be as limited as its object.

Reynolds 1975, 51
In his approach to the natural world Reynolds indicates that it should be seen within a process of idealizing generalization.

All the objects which are exhibited to our view by nature, upon close examination will be found to have their blemishes and defects. The most beautiful forms have something about them like weakness, minuteness, or imperfection. But it is not every eye that perceives these blemishes. It must be an eye long used to the contemplation and comparison of these forms; and which... has acquired the power of discerning what each one wants in particular. This long laborious comparison should be the first study of the painter, who aims at the greatest style. By this means, he acquires a just idea of beautiful forms: he corrects nature by herself, her imperfect state by her more perfect... This idea of the perfect state of nature, which the Artist calls the Ideal Beauty, is the great leading principle, by which works of genius are conducted.

Reynolds 1975, 44-45

The same process of idealization was also be to applied to history painting; in discussing Raphael's cartoons, still to be seen in the Victoria and Albert Museum, Reynolds comments,

... the painter has represented the apostles, he has drawn them with great nobleness; he has given them as much dignity as the human figure is capable of receiving; yet we are expressly told in scripture they had no such respectable appearance; and of St. Paul in particular, we are told by himself, that his bodily presence was mean. Alexander is said to have been of low stature: a Painter ought not so to represent him... In conformity to custom, I call this part of the art History Painting; it ought to be called Poetical, as in reality it is.

All this is not falsifying any fact; it is taking allowed poetical licence.

Reynolds 1975, 60
Reynolds offered, through his discussion of values, beliefs and techniques, supported by historical examples, an apparent paradigm in his discourses, and one which could be shared by the majority of his fellow academicians. The paradigm informed the teaching of students, the selection of works for exhibitions, and the election of Associates of the Academy, and of the Royal Academicians themselves.

Even within the Discourses, however, the singular and strong paradigm which he articulates appears to be compromised. In his discussion of the training of the artist (Reynolds 1975, 26) he distinguishes three stages: the first is technical, "...what grammar is to literature..." and concerned with the craft skills of drawing, modelling and using colours; the second is intellectual, "...in which his business to learn all that has been known and done before his own time.". In the third stage the student is emancipated from authority, "...but what he himself judge to be supported by reason." He then will "...consider and separate those different principles to which different modes of beauty owe their original", and learns, "...to discriminate perfections that are incompatible with each other." The idea that the individual could develop his work on the basis of reason alone, and the notion of "incompatible perfections", suggests that an idea of incommensurability was significant in the context of the 18th century academy.

From time to time within the Discourses, Reynolds acknowledges the possibility of a pluralistic approach. He acknowledged that, although he accepted the hierarchy of subjects, perfection in an inferior style may be preferred (Reynolds 1975, 130). In his discussion of Gainsborough’s work (Reynolds 1975, 248, 253, 257-259), an artist of very
different background and approach and one whose technique was called into question, Reynolds indicates other criteria than those embodied in the idealising classicism of his dominant arguments, for instance,

... the peculiarity of his manner, or style, or what we may call it - the language in which he expressed his ideas, has been considered by many, as his greatest defect... intermixed, as it was, with great beauties.

Reynolds 1975, 257

... this chaos, this uncouth and shapeless appearance (of the picture surface), by a kind of magic, at a certain distance assumes form...

His handling, the manner of leaving the colours or in other words the methods he used for producing the effect, had very much the appearance of an artist who had never learned from others the usual and regular practice belonging to the art; but still, like a man of strong intuitive perception of what was required, he found out a way of his own to accomplish his purpose.

Reynolds 1975, 258

Further in this discussion Reynolds reflects on its effect on the fundamental purpose of his Discourses.

I think some apology may reasonably be made for his manner, without violating the truth, or running the risk of poisoning the minds of the younger students, by propagating false criticism, for the sake of raising the character of a favourite artist.

Reynolds 1975, 58

Reynolds provided a basic text for artistic practice, with a theoretical and historical sophistication and logic with which alternative paradigms could be compared. He also acknowledged the freedom of the educated artist, guided by reason, and the existence of incompatible perfections, and
cited the example of Gainsborough as an artist whose work did not conform, but was still to be valued.

Reynolds' *Discourses* present us with the constellation of values, beliefs and techniques, and also with the exempla, with which Kuhn describes the paradigm; however it is clear from Kuhn's discussion of scientific revolutions and "seeing as" that a paradigm must also be incommensurable with another paradigm. Reynolds' acknowledgement of "perfections that are incompatible with each other", and his appreciation of Gainsborough as an example of a valued artist whose work was inconsistent with the principles and values he had enunciated, suggest that the *Discourses* cannot fully qualify as a paradigmatic statement in the Kuhnian sense; in that they fail the test of incommensurability.

Various comments made in the *Discourses* indicate that Reynolds' priority was to deliver the materials for a curriculum at the R.A. schools and to give advice to students. Perhaps the stronger claim to paradigmatic status is his belief in the freedom of a trained artist to "consider and separate those different principles to which different modes of beauty owe their original", and to "judge what is supported by reason". In this context the values, beliefs, techniques and examples are seen as a necessary part of the training of an artist, whose professional life should then be guided by the overriding enlightenment virtue.

The ability of the paradigm, as it was fundamentally supplied by Reynolds, to sustain the practice of art within the institutional framework of the Royal Academy can be considered in terms of the artists who succeeded in building
their practice and careers through its formal and informal structures, and also in the way in which it was perceived publicly. Subsequent events and discussion provide examples of some of the tensions of an institutionally based paradigm, indicating that the Academy did not fully represent the community of artists and that its position was at least partially sustained through *ad hoc* elements (Ashwin 1975, 8-24).

Although Reynolds provided a basis through which the Academy could relate British artists and the teaching of the Royal Academy Schools to a well articulated interpretation of the 'grand tradition' and some elements of enlightenment thinking, the role of the Academy, some forty years after his death, entailed substantial dissent among artists and required substantial privileges for its members and punitive rules to sustain its position. It might also be argued that some original artists, whose objectives, values and techniques were very different from those espoused by the more didactic arguments of the Discourses found it possible to build their careers, by exhibiting and membership, through the Academy.

3.5 *John Constable: Painting as Natural Philosophy*

Much of Constable's artistic education and career was pursued through the Royal Academy: he entered the Royal Academy Schools in 1799, first exhibited at an RA exhibition in 1804, he became an ARA in 1819, and was finally elected as a full Royal Academician in 1829; a slow, but ultimately successful progress. He held Sir Joshua Reynolds in high regard: in addition to owning a copy of the Discourses, he
painted his picture, *Cenotaph to the Memory of Sir Joshua Reynolds* (G. Reynolds 1984, 36.1) in 1836. He also purchased one of Reynolds' palettes from the effects of Sir Thomas Lawrence, and presented it to the Academy. Constable also taught at the Royal Academy Schools, he was made Visitor to the Life Academy in 1831 where he set figure subjects, usually after masters who would have been approved by Reynolds, including Raphael's *Eve*, two figures from Michelangelo's *Last Judgement*, and Titian's *St. Peter Martyr*, although he did set them among natural objects (JCD 1970, 75).

Constable's artistic education and career was also affected deeply by experience and institutions external to the Academy; he was a countryman, and his painting was and remained based on his experience of rural life, rather than reflecting the more metropolitan or more obviously academic concerns which provided the subjects for many of his contemporary artists. He valued his experience of the Royal Academy Schools, particularly the advice of Benjamin West, the American history painter, who succeeded Reynolds as president; it was West who recognised Constable's talent while he was a student, and advised him that, "... light and shadow never stand still" (G. Reynolds 1976, 33).

However it was his earlier tutors, particularly J.T. Smith, author of *Remarks on Rural Scenery* (1797), who supported his interest in landscape and provided important influences on Constable's own thinking about art from the "picturesque" ideas of beauty. These were in sharp contrast to many of the attitudes of Reynolds: landscape was perceived as a subject of value, and the irregular and particular was valued against the regular and general.
Constable's greatest professional success was at the French Salon of 1824, where he was awarded a gold medal. He received a further gold medal at Lille, and the innovative and original quality of his work was acknowledged by, and influenced, a succession of French painters from that date: the Barbizon painters, Corot, Delacroix, and subsequent artists. He was not a part of any tradition of equivalent stature in this country.

Constable's admiration for, and his commitment to, the Royal Academy was continually challenged by the small regard in which some of its members held his achievement, which contrasts with the value placed upon it by artists in France and others outside the institution. His firmest friendship was with a clergyman, John Fisher, who was also his patron, and it was to him that he wrote his most illuminating letters about art. Those members of the community of the Academy with whom he made friends, even from his student days, such as Farringdon and Reinagle, ultimately disappointed him until he met Leslie, many years his junior, towards the end of his life. Constable's ideas, as expressed in his lectures, his correspondence and conversation, and much of the positive discussion of his work, took place outside the Academy and its immediate social circle.

This study of Constable started in the context of the latter's commitment to a "scientific" view of art and his interest in the scientific explanations of visual phenomena. It was developed when it was evident that Constable's ideas and work reflect a coherent theory of vision and representation, that this theory generated a particular technique and, eventually, an anomaly in his paintings. It was also evident that Constable's theory of vision and
representation was one aspect of a programme of enquiry that also characterises subsequent painting in the 19th century.

In the summer of 1836 Constable gave a series of four lectures under the title of "A History of Landscape Painting" at the Royal Institution. An average of about 230 people attended each of the lectures (JCFDC 1975, 9), the audience has been described as "... an assemblage of persons eminent in the arts and the sciences."(JCD 1970, 33)

The lectures offer a paradigm of landscape painting. Kuhn provided a definition of the paradigm: firstly as,

... the entire constellation of beliefs, values, techniques, and so on ...

and,

... the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles in normal science.

Kuhn 1970, 175

In the first of his lectures, given on May 26th 1836, Constable described his objectives. "I hope to show", he said,

... that ours is a regularly taught profession; that it is scientific as well as poetic; that imagination never did, and never can, produce works that are to stand by a comparison with realities ...

JCD 1970, 39

In the fourth of the lectures, given on the 16th June, his final remarks included the following:
Painting is a science and should be pursued as an inquiry into the laws of nature. Why then, may not landscape be considered as a branch of natural philosophy, of which pictures are but the experiments? 

JCD 1970, 69

In addition Constable selected examples of art from the past to support his views. His notes for the lectures include the following general comment.

"Let us say what we will of the ideal it ought when embodied to the senses to bear the stamp of the most absolute reality -"

Now I feel confident that no great painter that ever lived would object to this test, and I feel assured that he would consider even his happiest efforts when taken as experiments, but as his experiments, but as abortive and inefficient when compared with his conceptions with what he saw and felt in Nature, and as falling far short of his hopes, his wishes and his intentions

JCFDC 1975, 21

What this paper hopes to demonstrate is that this interest in the relationship of art and science was not merely a polite genuflection to the Royal Institution, and Michael Faraday, its director, but an aspect of Constable's thinking and artistic practice which developed over a period of years.

The earliest evidence for Constable's interest in science comes from the cloud studies which he made around 1820, and the use he made of the meterological descriptions of Luke Howard in his book, The Climate of London. It is possible that he was aware of the earlier publication of Howard's ideas in 1803 (Hawes 1969, 345 n.7; Badt 1950). The evidence of his work also suggests that Constable made a detailed
study of the rainbow between 1827 and 1831 (Schweitzer 1982, 427).

In his lectures Constable suggests that both his practice as an artist and the practice of natural science were seen as processes of enquiry into nature, with paintings acting as "experiments" within landscape painting. However, he does not describe the purpose of such experiments, the hypothesis or hypotheses which they were designed to test, nor the processes by means of which such experiments were to be conducted or evaluated.

An indication of the systematic character of Constable's working approach is hinted at by a rather laborious joke he made about being thought a "methodist" by one his audiences (JCD 1970, 31); in the context of his renown high church opinions this remark suggests that he was conscious of such a systematic approach. His correspondence and other sources provide evidence that he developed a systematic theory of representation based on the idea of chiaroscuro, and that it was this that provided the hypothesis and method which was tested in his work.

Chiaroscuro, the use of light and dark in a painting, has had an important place in the thinking and practice of artists at least since the 15th century. Alberti refers to it in relation to the disposition of black and white on the picture surface and the relief of objects (Alberti 1972, 89-91); Leonardo referred to chiaroscuro as a "very great science" and placed it alongside perspective in importance (Leonardo 1970, 33), and his notebooks show that he examined the casting of shadows on objects in a systematic way (Kemp
In the early 19th century a similar view of chiaroscuro was described by Sir John Opie:

"Chiaroscuro" includes not only light and shadow as it affects each separate part but the proper division and distribution of the whole surface of a picture into bright and dark masses, whether the darkness be produced by shadow, or by the proper colour of the objects represented.

Opie 1809, 295

This view of chiaroscuro was reflected in Constable's writings; however, the concept was enlarged to include not only pictorial qualities, but also as an aspect of visible nature, and as a moral and expressive quality within the work.

His belief in the importance of chiaroscuro is made clear in his letterpress for English Landscape Scenery of 1834:

The object in view in their production has been to display the phaenomena (sic.) of the CHIAROSCURO of Nature, to mark some its endless beauties and varieties, to point out its vast influence upon Landscape, and to show its use and power as a medium of expression

JCD 1970, 84

This stresses both the centrality of chiaroscuro to the landscapist and, perhaps more importantly, demonstrates the extension with which Constable was employing the term. He refers to it being "of nature", indicating that chiaroscuro acted as a structure or property common to both the subject, ie. landscape, and the painting, ie. the image of that landscape. The development of the meaning of "chiaroscuro" beyond its conventional role is further strengthened in another passage from the same source:
the Landscape Painter shall be aware that the CHIAR'OSCURO does really exist in NATURE (as well as tone) - and, that it is the medium by which the grand and varied aspects of Landscape are displayed, both in the fields and on canvas:- Thus he will be in possession of a power capable in itself, alone, of imparting expression, taste and sentiment.

JCD 1970, 11

The role of chiaroscuro is yet further developed by Constable to relate to his most original and powerful pictorial idea: the representation of a particular moment, with its own characteristic climate and time of day:

... to shew the effect in the most striking manner, to give "to one brief moment caught from fleeting time" a lasting and sober existence, and to render permanent many of those splendid but evanescent Exhibitions, which are ever occurring in the changes of external nature.

JCD 1970, 9-10

In English Landscape Scenery a further discussion of chiaroscuro indicates his use of it to generate emotions.

This mode of treatment is perhaps most of all calculated for rich and solemn subjects, as it never fails to give importance to the most trivial scenery.

JCD 1970, 11

In his third lecture at the Royal Institution Constable comments on the spatial illusions achieved through chiaroscuro.

It may be defined as that power which creates space; we find it everywhere and at all times in nature; opposition, union, light, shade reflection, and refraction, all contribute to it. By this power, the moment we come into a room, we see that the chairs are not standing on the tables, but a glance shows us the relative distances of all the objects from the eye,
though the darkest and the lightest may be furthest off. JCD 1970, 62

His conception of chiaroscuro, then, constitutes a series of common propositions about both the visible world and the painted image of it. The propositions were used to create both structural parallels and detailed correspondences between his subjects and his paintings, and acted theoretically to remove the distinction between the landscape itself and its representation in a painting.

One aspect of Constable's representation of nature was a cause of comment among his fellow artists and patrons, and of concern to himself. This was his use of touches of white paint which he used to represent the high-lights. The earliest documentation of Constable's liberal use of white high-lights is in the Journal of a fellow Royal Academician, Solomon Hart, who saw him working on The Haywain of 1821 (Parris and Fleming-Williams 1991, 513). When the picture was exhibited at the Royal Academy, Robert Hunt, for The Examiner, wrote about a "certain sparkle" in the work (Ivy 1991, 88), however the anonymous reviewer for Bell's Weekly Messenger was less positive,

... why all that excess of piebald scambling (sic) in the finishing, as if a plasterer had been at work where the picture hung, and it had received the spirits of his brush? The Artist may say, 'I intend what I paint always to be viewed from a certain distance, you will then get rid of my white spots'.

Ivy 1991, 89

The exhibition of his Hadleigh Castle (Reynolds G. 1984, 29.1) at the Royal Academy in 1829 led to controversy. In the catalogue the full title, Hadleigh Castle. The mouth of
the Thames - morning after a stormy night, is accompanied by a quotation from Thompson's Seasons:

The desert joys
Wildly, through all his melancholy bounds
Rude ruins glitter; and the briny deep,
Seen from some pointed promontory's top,
Far to the dim horizon's utmost verge
Restless, reflects a floating gleam.

The choice of the text, including the terms "glitter" and "gleam", suggests that Constable had recognised this element in his work and sought to prepare his audience for the effect. He also expressed a nervousness about it in a letter which he sent to Leslie in which he sought advice as to whether he should send the picture to the exhibition (JCCIII, 20-21).

Constable introduced the use of multiple highlights through dabbing white spots of paint onto the picture surface with a palette knife or brush to impart what he called a "dewy freshness" (JCCIII, 20). When the work was in the exhibition Turner compared these spots to splashes of whitewash; a description which stuck in the minds of his fellow artists, members of the press, and others.

Constable himself appears to have had mixed feelings about the effect. In both his discussion of the issue and the technical procedures with which to address it he adopted what were clearly ad hoc solutions, as they are described by Popper:

Some genuinely testable theories, when found to be false, are still upheld by their admirers - for example by introducing ad hoc some auxiliary assumption, or by re-interpreting the theory ad hoc in
such a way that it escapes refutation. Such a procedure is always possible, but it rescues the theory from refutation only at the price of destroying, or at least lowering, its scientific status.

Popper 1969, 37

It is a property of ad hoc hypotheses that they generate what Lakatos calls negative problem shifts, and weaken the theoretical core of a research programme (Lakatos 1978, 33). Their improvised nature and their role in suppressing anomalies will necessarily generate inconsistencies in such a programme.

The idea that the pictures should be viewed from a distance has already been referred to; Constable also argued that the effect would be mediated by the passage of time, and that the chemical processes of the painting would reduce the contrast and bring the white passages into unity with the remainder of the painting. He also stated that, it

... is much to my advantage that several of my pictures should be seen together, as it displays to advantage their varieties of conception and also of execution, and what they gain from the mellowing hand of time, which should never be forced or anticipated. Thus my pictures when first coming forth have a comparative harshness which at times acts to my disadvantage.

JCCIV, 129

He also over-painted some of his works. In a letter to John Chalon, dated 29th October 1835, Constable said that he was working on the Valley Farm.

Oiling out, making out, polishing, scraping, etc. seem to have agreed with it exceedingly. The "sleet" and "snow" have disappeared, leaving in their places, silver, ivory, and a little gold.

JCCIV, 278
According to Graham Reynolds, Constable had given the work a glaze of bitumen (Reynolds G. 1984, 274).

Constable welcomed recognition of the purpose of his technique when this occurred; nothing appears to have given him so much pleasure as a remark made by the Countess of Morney when she had visited his studio on 2nd April 1834. On seeing Englefield House she exclaimed: "How fresh - how dewy - how exhilarating!". "I asked her if she was aware what she was saying," wrote Constable, repeating the conversation to Leslie: "Half of it, if true, was worth all the cant and talk of pictures in the world." (JCCIII, 112)

The different responses to this aspect of Constable's work can be considered as examples of "seeing as", and similar to the duck/rabbit diagram. Kuhn provides an example of the relationship between a paradigm and a change of vision in science.

Looking at a bubble-chamber photograph, the student sees confused and broken lines, the physicist a record of familiar subnuclear events. Only after a number of such transformations of vision does the student become an inhabitant of the scientist's world, seeing what the scientist sees . . .

Kuhn 1970 111

The artist himself, and the Countess of Mornay, were both able to see the white marks as representing the dewy freshness of the landscape, whereas Turner and others appear to have seen them as detached and non-descriptive.
The white patches in Constable’s work are an anomaly; the naturalism or realism of his work, to which his method was so systematically devoted, seemed to be threatened by results which, in the eyes of most others, conflicted with natural appearances. The sustained presence of the anomaly confirms, rather than undermines, the scientific and experimental character of the artist’s method.

Whereas in nature, as it is directly observed, we are able to situate major discontinuities of colour and tone in relation to the surfaces on which they appear; in the two-dimensional painting, where the space is illusory, and subject to conventional interpretation, substantial discontinuities can appear independent and detached from such surfaces. They are seen as arbitrary marks without apparent representational value. For this reason artists, particularly before the latter half of the 19th century, tended to work within an even more restricted palette than that imposed by the limitations of the pigments themselves (Helmholtz 1962, 250-286).

Stereoscopic vision is fundamental to our perception of space within a three dimensional world, through accommodation, that is "... changes in the curvature, and therefore the focal length of the eye, ... with the object of focusing for different distances" (Drever 1952, 8), and through parallax:

... one of the conditions upon which the perception of relative distance depends, when movement at right angles to the line of vision alters the relative position of two unequally distant objects; ... (Drever 1952, 197).
However the processes of accommodation and parallax do not affect the perception of an illusion of space on a two dimensional plane; it does not involve accommodation, and parallax is not present. The confusion between the three dimensional reality and two dimensional image is embedded in Constable's theory and method; his belief that the *chiaroscuro* of nature and of art are the same provides a source of the anomaly; he appears to have been unaware that contrasts of tone which would seem perfectly natural in the external world can appear arbitrary and detached and arbitrary in a painting.

Although Constable was prepared to argue that his works would come to appear coherent under certain circumstances, and sometimes adjusted the final appearance of his paintings, he never changed the approach, method and technique which generated the anomaly and he welcomed the recognition of his intention to capture the wetness and shine of surfaces. Indeed the effect in his work increased rather than diminished after he became conscious of it. He probably continued to see what others called, and saw as, his "whitewash" as an integral part of the pictorial description of objects and their surfaces. Subsequent artists were to develop ideas and methods which enabled much of the potentially anomalous territory between the perception of nature and that of the painted image to be overcome.

Constable's most marked influence took place as a result of the exhibition of his works in Paris, at the gallery of the dealer Arrowsmith and then at the Paris Salon of 1824, where *The Haywain* was awarded a gold medal. The influence can be seen among the Barbizon painters: in the work of Theodore
Rousseau and Diaz, for instance, the use of white highlights suggests that Constable's anomaly was sustained.

Delacroix also saw Constable's paintings in Paris (Delacroix 1951, 16, 47) and he repainted his own Massacre at Chios at the same Paris Salon in response to these works (Johnson 1963, 20-26). This work was substantially repainted in the 1840s, so the evidence of the influence of Constable's work on it is now difficult to ascertain.

The role of the anomaly within a process of scientific discovery is described by Kuhn:

"Discovery commences with the awareness of anomaly, i.e., with the recognition that nature has somehow violated the paradigm-induced expectations that govern normal science. It then continues with a more or less extended exploration of the area of anomaly. And it closes only when the paradigm theory has been adjusted so that the anomalous has become the expected."

Kuhn 1970, 52-53

There had already been evidence of Delacroix's systematic use of colour in the water droplets in The Barque of Dante of 1822 (Johnson 1963, 18-19). His painting The Death of Sardanapalus, which was exhibited in the 1827 Salon appears to indicate that Constable's anomaly had been recognised and the methodological problems which it raised had been addressed. The tonal values of the picture as a whole were lightened, reducing the contrast of the highlights, and its chromaticism was strengthened; Delacroix is reported to have to have said that he wished to capture the hue and blond tonality of pastels (Johnson 1963, 37).
Examination of the picture, even though it has darkened with time, shows that the application of the systematic theory of chiaroscuro, which characterised Constable’s work, was replaced by a chromatic structure. In the representation of the cushion, in the foreground, for instance, the form is described through a gradation of reds, from a dark crimson to a lighter scarlet with gold highlights. Using chiaroscuro, this sequence would have been from black to white with the self colour of the object supplying the middle tones. The result of the change from chiaroscuro to colour theory, the lightened tonal range, and the chromatic structure of the representation, is that the highlights appear to be firmly attached to the objects which they represent.

Constable’s theory of chiaroscuro depended upon common structural elements is his subject and his means of expression. Delacroix expanded the latter to involve a systematic use of colour, which was later subject to the theories of colour and appearance of Chevreul. The development of colour theory in Delacroix’s thought and work, his knowledge of Chevreul, and his subsequent influence on the Impressionists and post-Impressionist painters has been well documented (Signac 1899; Johnson 1963; Homer 1964; Trapp 1971; Rewald 1973).

The appearance of nature and its systematic representation was pursued in Helmholtz’s paper, "On the Relation of Optics to Painting" which resulted from lectures given in the 1850s and 1860s. In this Helmholtz describes optical aspects of pictorial representation under three heads: form, shade, and colour, and adds a further section on colour harmony.
The paper was published in translation in von Brücke, *Principles scientifiques des beaux-arts* in Paris in 1878, and was probably known to Seurat and his circle (Homer 1964, 289, n. 29). It is work of Seurat and his colleagues, in the decade before that which was marked by the appearance of expressionism, fauvism, cubism and abstraction, that represents a one culmination for Constable's idea of painting as a "... science ... pursued as an inquiry into the laws of nature". (JCD 1970, 69). The programme of research as it was pursued by Constable, Delacroix, Chevreul, Helmholtz, and others, had run its course.

The scientific nature of the programme is evident in its relationship to the ideas of the paradigm, the anomaly and "seeing as", as they are described by Kuhn. It can also be related to Popper's description of "conjectures and refutations":

... not a digest of observations, but ... inventions - conjectures boldly put forward for trial, to be eliminated if they clashed with observations; with observations which were rarely accidental but as a rule undertaken with the definite intention of testing a theory by obtaining, if possible, a decisive refutation.

Popper 1969, 46

In the case of Constable the elimination of the conjecture did not take place, nor can it be argued that Constable's paintings were made with the definite intention of obtaining a refutation. The descriptive and explanatory power of his theory of chiaroscuro was undermined by ad hoc explanations and revisions, and it was left to others to revise and reconstruct the relationship between the perception of the
subject and the optical properties of the medium in which it was expressed.

These reflections on the epistemological character of Constable's thought and work explain something of the nature of his art. However, it cannot be argued that such a discussion offers a full explanation of his painting. Whereas the experimental products of a falsified scientific theories might be largely ignored by the scientific community, Constable's paintings are still "in play": his vision is still attested to by visitors to "Constable country"; exhibitions of his work attract substantial public and professional interest, and students may still be influenced by it. An epistemological approach, therefore, can address specific traditions and issues within art, without the power or aspiration to explain "art" in any more general sense.

There is much in Constable's thought and practice which distinguishes him from the principles described by Reynolds. The latter established a basis of values for the teaching and professional life of an institution; Constable pursued his artistic objectives personally and individually, and his influence was on succeeding generations of artists. Reynolds saw the history of art as an established hierarchy of artists, period/styles and genres; Constable selected those artists whose aesthetic achievement, subjects and methods could support his own aspirations. Reynolds perceived art as a system of idealized and eternal forms; whilst Constable represented those forms which he perceived within particular and changing patterns of appearance. Reynolds described art as the product of the poetic imagination, Constable
considered this inadequate, and advocated a sustained study of nature as the basis for practice.

Both Reynolds and Constable consider art a moral pursuit, and if we identify the alternative paradigm of the *Discourses* with the idea of a trained artist distinguishing between the "different principles to which the different modes of beauty owe their original", and "judging authority by what he himself judge to be supported by reason", Constable can be seen as a natural successor in the same tradition as Reynolds.

3.6 *Artworlds*

Hitherto this chapter has been concerned with the discussion of epistemological ideas and consideration of their relationship with art historical descriptions, with an academic paradigm, and with the ideas and works of artists. The idea of the subject, or knowledge, community as a necessary context for the work of individual scientist or artist characterises the work of Kuhn and that Polanyi. In this part the character and characteristics of art communities, or art worlds, are discussed.

Danto argues for the necessity of an artworld for art. He begins by examining the arrival of modern art in the context of traditional theories which define art as imitation.

Suppose one were to think of the discovery of a whole new class of artworks as something analogous to the discovery of a whole new class of facts anywhere, viz., as something for theoreticians to explain. In science, as elsewhere, we often accommodate new facts to old theories via auxiliary hypotheses, a pardonable
enough conservativism when the theory in question is deemed too valuable to be jettisoned all at once.

Danto 1964, 572

Danto describes the advent of post-impressionism and later work as a 'new class of artworks' which provided a fundamental challenge to existing theory.

In terms of the prevailing artistic theory . . . it was impossible to accept these as art unless inept art: otherwise they could be discounted as hoaxes, self-advertisements, or the visual counterparts of a madman's ravings. So to get them accepted as art, on a footing with the Transfiguration (not to speak of Landseer's stag), required not so much a revolution in taste as a theoretical revision . . .

Danto 1964, 573

Such a revision, as Baxandall has also described, not only enabled post-impressionist works to be seen as art, but also led to changes of art historical perception. It had the result that,

. . . not only were post-impressionist paintings taken up as art, but numbers of other objects (masks, weapons, etc.) were transferred from anthropological museums (and heterogeneous other places) to musées des beaux arts . . .

Danto 1964, 573

The new theory is identified by Danto with Roger Fry,

. . . the post-impressionists were to be explained as genuinely creative, aiming, in Roger Fry's words, 'not at illusion but reality'. This theory . . . furnished a whole new mode of looking at painting, old and new. Indeed, one might almost interpret the crude drawing in Van Gogh and Cezanne, the dislocation of form from contour in Rouault and Dufy, the arbitrary use of colour planes in Gauguin and the Fauves, as so many ways of drawing attention to the fact that these were non-imitations, specifically intended not to deceive.

Danto 1964, 574

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He continues.

To see something as a work of art requires something that the eye cannot decry - an atmosphere of artistic theory, a knowledge of the history of art: an artworld.

Danto 1964, 580

Danto exemplifies the idea of the artworld through reference to Andy Warhol's Brillo boxes, comparing potential physical modifications of both the boxes as works of Warhol and the real boxes of the commercial world. He concludes.

What in the end makes the difference between a Brillo box and a work of art consisting of a Brillo box is a certain theory of art. It is the theory that takes it up into the world of art, and keeps it from collapsing into the real object which it is (in a sense of is other than that of artistic identification). Of course, without the theory, one is unlikely to see it as art, and in order to see it as part of the artworld, one must have mastered a good deal of artistic theory as well as a considerable amount of the history of recent New York painting. It could not have been art fifty years ago. . . . The world has to be ready for certain things, the artworld no less than the real one. It is the role of artistic theories, these days as always, to make the artworld, and art, possible.

Danto 1964, 581

Danto makes an analogy between the relationship between the works in the art world and the real world, and St. Augustine's City of God and the Earthly City, "... certain objects, like certain individuals, enjoy a double citizenship ..."(Danto 1964, 582).

He identifies a model of artistic progress as characteristic of contemporary art.
An artistic breakthrough consists, I suppose, in adding the possibility of a column to the matrix. Artists then, with greater or less alacrity, occupy the positions thus opened up: this is a remarkable feature of contemporary art, and for those unfamiliar with the matrix, it is hard, and perhaps impossible, to recognise certain positions as occupied by artworks. Nor would these things be artworks without the theories and the histories of the Artworld.

Danto 1964, 584

Danto's model of development appears to be cumulative. When it was seen that imitation was not a necessary condition of art, it appeared also to follow that the quality of imitation was not a necessary value of art, and that successful imitation may necessarily preclude more abstract qualities. Some works, particularly of 19th century paintings, which had been valued before, and have been valued since, were thereby excluded from the new canon, were obscured or revealed as new concepts develop. There the development is not purely cumulative; changes are characterised by exclusion as well as inclusion.

Danto's conception of the artworld provides a conceptual model which, in its structure, is not unlike those of Kuhn and Lakatos. He enables us to situate the platform from which the work of art is perceived and valued, within a theoretical, and by inference a social, context. The differences between Danto and epistemological thinkers are partially terminology, and the extent to which these reveal distinctions of meaning and content is unclear. The use of the term 'theory' for instance, where Kuhn might use 'paradigm' would seem to indicate a substantial difference. However, the contexts in which Danto uses 'theory' might be thought more suitable for 'paradigm', and the issue, which Danto side steps, of the notion of learned theory in
distinction to a paradigm which can be assimilated from examples, would probably make the idea of 'paradigm' more appropriate to the argument that of a 'theory'.

The issues of the "artworld" are discussed by Dickie, who refers to Danto's paper (Dickie 1969, 254), and offers the following definition.

A work of art in a descriptive sense is (1) an artifact (2) upon which some society or some sub-group has conferred the status of candidate for appreciation.

Dickie 1969, 254

In his later work, Dickie changed (2) to read:

. . . upon which some person or persons acting on behalf of a certain institution (the artworld) has conferred the status of candidate for appreciation.

Dickie 1971, 101; Blizek 1974 142

The use of the term 'candidate' is explained by Dickie as excluding reference to actual appreciation, and retains the possibility that the work will not be appreciated. The status of 'candidate for appreciation' is conferred,

. . . just as two persons can acquire the status of common-law marriage within a legal system, an artifact can acquire the status of a candidate for appreciation within the system which Danto called 'the artworld'.

Dickie 1969, 254

In a parallel to Popper's "third world", Danto's artworld consists largely of theories and histories, rather than people. This contrasts with the descriptions of scientific communities found in Polanyi and Kuhn. However Dickie
associates such theories and histories with some 'society or sub-group'.

Dickie argues that his paper, "... takes into account (or at least attempts to) the actual practices of the artworld of the past and of the present day." (Dickie 1969, 256)

Dickie's account has been subject to substantial criticism, particularly in Blizek (1974), on the grounds that both definitions of his second condition, that through which the artworld confers the status of candidate for appreciation, can be undermined by contrary examples of what or who constitutes the artworld, and the meaning of the status conferred. This discussion does not impinge on the central argument with which we are concerned here: the existence of an artworld or artworlds, and their relationship to the paradigms, examples and practice of art.

The account by Dickie places the concept of the artworld, in contrast to the theoretical and historical awareness with which it was associated by Danto, into the more tangible world of societies and sub-groups, institutions and institutional authority, which might be seen as social manifestations of theory and history. The artifact becomes as work of art through the decisions of individuals and groups, as well as through a more abstract relationship with knowledge and ideas.

Becker discusses the social context of the production of works of art, and the nature of change in this context. He summarizes his argument as follows.
Art works can be conceived as the product of the cooperative activity of many people. Some of these people are customarily defined as artists, others as support personnel. The artist's dependence on support personnel constrains the range of artistic possibilities available to him. Cooperation is mediated by the use of artistic conventions, whose existence makes the production of the work easier and innovation more difficult. Artistic innovations occur when artists discover alternate means of assembling the resources necessary. The conception of an art world made up of personnel co-operating via conventions has implications for the sociological analysis of social organisation.

Becker 1974, 767

Becker argues that a basis for collective action is the conventional nature of productions, which embodies, consciously or unconsciously, much of the communication between the individual participants and between the work and its audience. Gombrich (1977) is cited to provide a description of such conventions in works of visual art.

Gombrich . . . has analysed the visual conventions artists use to create an illusion for viewers that they are seeing a realistic depiction of some aspect of the world. In all cases . . . the possibility of artistic experience arises from the existence of a body of conventions that artists and audience can refer to in making sense of the work.

Becker 1974, 771

Becker perceives the systems of conventions as strong conservative influences in an art form. He distinguishes between 'gradualist' change (Becker 1964, 773) and more radical changes. In his discussion of 'disruptive' change in art Becker cites Kuhn's description of a scientific revolution, in which the change not only affects the works themselves, but the value system which the conventions of their production have come to represent (Becker 1974, 773-774).
In addition to the reference to Kuhn in relation to changes in art forms, there are strong parallels between the Kuhnian paradigm and the system of conventions as it is described by Becker. Both are coherent networks of attitudes, values, and techniques, and also have a substantial 'tacit' dimension. Although their primary use is in the activity of science, in the case of Kuhn, or art, in the case of Becker, they also assume values beyond that immediate concern, and the presentation of alternatives, when sufficiently radical, invokes not only criticism of the scientific or aesthetic dimension of the work, but also attacks the reflected moral or social positions; characteristics of Kuhnian incommensurability.

Whereas Danto, Dickie, and Becker are concerned with the existence and description of art worlds in general, albeit illustrated by examples, Painter (Painter 1986) reports on empirical research which differentiated art worlds within a single British city. The work was conducted on the basis of representative samples based on three different samples, referred to as the working class sample, the middle class sample, and the fine art sample (Painter 1986, 42-50). The first two samples were based on housing, the last on membership of the Northern Arts Visual Art Panel. The method employed is described as ethnographic: to "see the objects as their owners use and see them" (Painter 1986, 50).

The enquiry was pursued through the study of all objects hanging on walls, which were observed and photographed; informal interviews, recorded as notes and tape recordings; an analysis of the subjective interpretations of objects and their relationship to ideas of art.
Painter refers to, and his work reflects, the ideas of Dickie and Becker. The works of art which are identified, and their relationship to systems of belief, values, attitudes and examples, characterise distinct communities and generate a structure with a strong similarities to the epistemological ideas.

One fundamental distinction made by Painter is between the fine art and middle-class samples, on the one hand, and the working class sample on the other. Whereas works and comments of the former could be related to ideas of art and its institutions, those of the latter did not reflect such references:

People in the working class Areas rarely spoke of the objects on their walls as part of a public world of art. When, occasionally, individuals did refer to pictures in that way it was usually with uncertainty, and seemed to be the product of the interview situation. The fact that people were not accustomed to thinking of their possessions as part of the world of art was not only apparent when they were directly saying whether or not they thought of them in that way; it showed in all aspects of the ways in which objects were used and talked about.

Painter 1986, 435

This disinclination to contextualize the works within the idea and world of art is not seen by Painter as merely a loss of meaning, or the lack of a paradigm, but also the opportunity for alternative meanings to be identified.

Inherent in the denial that the objects are part of the world of art is the denial that they have any significance beyond their immediate context . . . But it is not a sulky or inactive withdrawal. It is full of energy. It is possible to detect a similar cultural ploy to Dada's 'anti-art' in the non-art materials and bizarre nature of many of the ambiguous 'pseudo-functional' objects found in the working-class Areas.

Painter 1986, 552
The values placed upon the works on the walls of the working class sample were, therefore, distinct from those discovered within the homes of the fine art and middle class samples, where the acquisition of works of art reflected a consciousness of history and institutionalization. The value placed upon the works was often of a personal or family, rather than a social or institutional, character.

... objects had identities. It was simply that their identities rarely existed solely in their characteristics as objects. Nearly always objects were additionally, and often primarily, valued for their significance in relation to some person or event in people's lives. They stood for people; they were points of reference in the passage of time in the lives of families; they were products of doing things - going on holidays, day trips; they stood for affections.

Painter 1986, 469-70

In addition the works within the working-class sample were often of a utilitarian, or pseudo-utilitarian character; unlike those found in the homes of the fine art and middle-class samples, they did not have, nor were they perceived as having, any degree of autonomy as works of art.

In the working-class Areas, objects with images often had utilitarian dimensions. The art world distinction between art and utilitarian things had little currency. In the middle-class Areas and the Fine Art Sample, images were usually pictures with no utilitarian dimensions.

Painter 1986, 549

A further distinction between the discussion of works among the working-class sample and the others was the actual way in which the same works were perceived. This is a strong example of Kuhn's notion of seeing as.
As well as having different objects, different groups had distinctive uses for the objects. An example of this was the presence of reproductions of paintings by Constable in both working-class areas and Area 3 [middle class]. In the working-class Areas these were usually not known as 'Constables' and were not lived with as works of art or, even, as reproductions of paintings. In Area 3, such pictures were known and used as Constables, as reproductions of oil paintings and, in the original, as historical works of art with public significances. His paintings were experienced differently. They 'looked' different to their owners.

Painter 1986, 550-551

The works themselves, and the approaches to them, within the working-class sample raise the issue of whether they can be related to the idea of the paradigm which underpins this discussion. The view of art expressed within the sample is characterised by a strong identification with extra-artistic considerations and does not appear to provide a basis for a distinctive paradigm.

[art] ... was used as a general term in recognition of hard work being carried out with care and diligence. In this usage the work of relatives and friends was sometimes talked about as 'art', precisely because the 'artist' was untrained and had to work so hard to achieve a result.

Painter 1986, 436

This conception of art would be difficult to distinguish in relation to the subject of art, it might equally be applied to many crafts or hobbies. The lack of 'art' contextualization of the works on walls found in the working-class sample indicates the lack of a paradigm. However, Painter does identify a degree of coherence, even if it is distinguished by its contrast with other, more sophisticated, manifestations of taste.
The appearance of everything seemed to speak of unselfconscious ingenuity, a good-humoured and uninhibited celebration of novelty - even the bizarre. Notions like 'truth to materials' had no currency here. Plastic gold figures hung joyfully in plastic gold frames on formica pine planking; mock medieval weapons mocked (or, rather, disregarded) sober notions of 'authenticity' as they hung on synthetic leathers. Painter 1986, 230

The images identifiable with works of art found on the walls of the working-class sample included a very high proportion of reproductions. These included works by acknowledged historical artists, such as Constable. However a Breugel had not been recognised as such (Painter 1986, 473-4), other artists represented included Stubbs, Hals, and Mucha, popular contemporary artists, such as Kenvin Daff and Dallas Simpson; there were also prints of old Newcastle. There were also popular religious images and photographs of Laurel and Hardy and the Cutty Sark. Among the artists referred to positively during the interviews were Rembrandt, Constable, and an artist who presented her own work on a television series, Nancy Kominski. Modern art in general was referred to negatively during the interviews, and a discussion about Leonardo indicated indifference to the artist (Painter 1986, 440).

The works collected, often as gifts or mementos, and frequently from others, such as relations or friends, do not offer a coherent body of interrelated objects which would permit the development of a paradigm of art. The conception of art in a way which does not differentiate it from many other activities, the lack of an art world paradigm, and the values which that would provide, suggests the indiscriminate 'gathering' of objects, or facts, described by Kuhn (Kuhn 1970, 15). Such random and uncontextualized collections of
objects do not provide a basis from which degrees of significance and relationship can be ascertained.

It may also be possible to view the works and perceptions of the working-class sample as an alternative paradigm to those found among the fine art and middle-class samples; there is a coherence to the works and the ideas and values which are placed upon them, although such coherence is not seen as a property of the works themselves, but rather of their associations with other aspects of family and social life. The works refer to personalities, travel and temporal progress; they do not generate practical and theoretical problems, having no clear territory, no boundary which differentiates them from other concerns, and no descriptive or critical vocabulary beyond their external references.

The middle-class and working-class samples shared a rejection of modern art, which exemplified the fine art sample (Painter 1986, 559). The middle class and fine art samples also shares some characteristics.

. . . it can be seen that people both in the Fine Art Sample and the middle class Areas of the Survey tended to share similar notions of art as 'natural'. They also shared a common heritage in the mainstream history of art though they perceive it differently in relation to their own use of pictures. .

Painter 1986, 556

However, they were also fundamentally distinct.

While modernism celebrates progress, experiment and the questioning of reality, traditionalism confirms established values, celebrates established ways of seeing, states reality as uncontentious

Painter 1986, 556
The works owned by the middle-class sample were predominantly pictures, (Painter 1986, 180) many of which were original paintings and drawings. These were either historical, usually 19th century, or "modern traditionalist" (Painter 1986, 187-88). Many were labelled with the artists' names and dates (Painter 1986, 193-4) which provided them with an immediate art historical context.

Although their discussion of the work differed significantly from that within the fine art sample they, unlike the working-class sample, '...' tended to have a vocabulary to talk about their own pictures and the general subject of art'.

Art was mainly thought of as a special category of original objects - particularly pictures. The important qualities in pictures were those of representing the world accurately. At the same time, art was associated with artistic expression and evidence of the artist's intervention was expected in the depiction of reality.  

Painter 1986, 347

Like the working-class sample the works owned by the middle-class sample were often valued through their associations, and were often gifts. However they did not reflect the randomness and frequency of the memento syndrome, being associated with less frequent events, such as marriages, new houses, retirements etc. (Painter 1986 411). A problem of the middle-class sample, which was not identified with the working-class sample, was that of taste: whether a work received as a gift was liked or not by the receiver, and the potential social embarrassment which could ensue from such an event (Painter 1986, 413).
Painter relates Mrs. J’s objection to the picture as cheap (although she likes the idea of it) to the opinion that, 'She wants to have things on her walls that look both expensive and unique to her home' (Painter 1986, 414). Pictures which were inherited tended to have high status among the middle-class sample, and were both compatible with family taste and enjoyed through family associations (Painter 1986, 414).

Amongst the strongest characteristics of the taste of the middle-class sample are various aspects of authority, represented by the historical identity, monetary value, the uniqueness and the associations of objects. Artistically, considerable authority is identified in the notion of 'reality', although this is modified by its relationship to the artist (Painter 1986, 355).

It is this idea of 'reality' as a given, and the role of the artist in modifying it 'within reason', which distinguishes the artistic ideas of the middle-class sample (Painter 1986, 568). The pictures show a reality 'known and under control', which is modified through a kind of romantic and religious idea of the artist (Painter 1986, 569). The intervention of the artist within the framework of authoritative values appears to be anarchic, if limited, within the middle-class canon, and there is little critical debate to elucidate his or her role.

Painter characterises the taste of the middle-class sample as 'traditionalist', and describes its institutional character in the following way.
Traditionalism is more dependent on private organisations [than modernism], which include the Royal Academy. It, too, has some press and media coverage but it is on the one hand less specialist and, on the other, less hostile. The majority of galleries selling 'contemporary art' deal primarily with work that can be called traditionalist. Specialist dealers in period pictures also deal with work in this category. There is little or no serious critical writing that attends to it in its contemporary forms. In its period forms, it is discussed more or less uncritically in journals which deal with antiques.

Painter 1986, 555-6

Many of the original works can be identified clearly with traditionalism, views and other subjects by local artists and portraits particularly, also works by other 19th and 20th century minor figures working in that tradition. However some major figures appear: Constable, van der Velde and Avercamp. The reproductions seemed to confirm this taste, but naturally included more major artists: Gainsborough, Constable, Turner, Monet, and Degas, and also some modern figures, including Marquet and David Hockney.

Among the artists who were referred to positively during the interviews, without the presence of their works, were some modern artists: Magritte, Chagall, Ernst, van Gogh, Lowry; important historical painters also found favour: Murillo, van der Velde and Breugel. Among the traditional artists were Samuel Prout and Sir Peter Scott. Artists and works which were referred to negatively, counter-examples, were Picasso, a modern sculpture in the Scotswood Road associated with T. Dan Smith and a modern work shown at the Royal Academy, which was described with a measure of outrage (Painter 1986, 359).

The idea of art presented by the middle-class sample, as it is described by Painter, meets some of the criteria for a
paradigm. There is a conception of art which distinguishes it from other works, activities and attitudes. This is characterised by an unproblematic view of reality, which can be modified through the romantic idea of the artist; works are contextualized within a historical, theoretical and institutional framework, although within this the historical is the stronger, and the critical, as it relates to artistic values, is very weak. The works of art do have an artistic value beside those derived from other aspects of life, although this is sometimes tenuous and can be marginalised by values related to history, value and associations. Whether traditionalism offers a basis for change and development, and generates problems, explanations and predictions, might be argued; certainly it generates further work, and there is a substantial market for it.

Although traditionalism can be seen as paradigmic it has definite weaknesses as a basis for original practice; its historical basis, established forms, and lack of critical context, make it an unlikely basis for change in terms of the 'revolutionary' process of its paradigm or the creative quality of works it can generate.

A major contrast between the 'traditionalism' of the middle-class sample and the 'modernism' of the fine art sample is in the different notions of 'reality'. For the middle-class sample, as has been stated, this is 'uncontentious', 'commonsense' and 'can be entirely, and without anxiety, comprehended'. In contrast the 'modernism' is based in uncertainty about the nature and the place of reality. There are strong parallels between this distinction and that between the 'imitation' and 'reality' theories of art discussed by Danto. While the historical origins of this
uncertainty are not a subject for detailed discussion here, it can be pointed out that a problematic view of reality has been, since the earlier 20th century, shared by art with science, particularly through work in quantum mechanics (Heisenberg 1989, 44).

Painter identifies an important distinctions between the views representing the fine art sample, and those of the other samples, on the work of art, its relationship to the importance of the individuality of the artist, and to the uncertainty of reality.

Implicit in this was a questioning approach to the nature of 'reality' - or, rather, to the habitual experience and constructions of it. In that sense, it was inherently radical. (Although the people in the Sample did not express particularly politically radical views.) It celebrated alternative ways of seeing, understanding and representing the world. It consciously celebrated challenge. Painter 1986, 567-8

Painter summarizes views of the fine art group on the subject of 'reality' in the following way.

Unspoken in all these views is the premise that perception is an active process; that experience of the world is not fixed and the same for everyone but varies from person to person, and that the perceptions of particular individuals are valuable. Painter 1986, 299-300

The nature of the fine art profession, as reflected by this sample, is discussed at some length by Painter. He examines not only their taste, their choice of works and the ways in which they describe and discuss them, but also considers the nature of their practice and employment, describing something like a modern paradigm.
It is a fact that they inhabit a daily world which offers time to practice as artists (and which also validates their work as art) and offers no challenge to their values and life-styles. (This is not to say that it doesn't offer challenges within that confirmatory framework.) Of course, most people live and work in situations which confirm their values. What is peculiar about contemporary fine artists is that, while being concerned with image making, (an activity which might be expected to involve communication) they commonly reject concern with an audience. The dominant preoccupation with the integrity of personal expression - manifested in this Survey - precludes as 'impure' active attempts to communicate with audiences, at least attempts which impact on the nature of the work. Painter 1986, 108-9

The rather generalised romantic view of the artist which characterised the traditionalist view is changed within modernism to a more specific concept that gives particular value to a work. One lecturer in fine art, was asked to specify what characteristics objects had to have to qualify as art.

They are structured in a particular way that comes out of a kind of inner necessity of the artist's private content - and made from that. They aren't just handsome arrangements about nothing. Painter 1986, 302

A similar view is expressed by another member of the fine art sample in which he emphasises his own individuality as an artist.

I find it difficult to actually qualify what I mean as art. The things I make are to do with my history, my activities, my ideas, my research. Painter 1986, 301
Among the original works hanging on the walls of the fine art sample (Painter 1986, 347-434) were examples by David Jones, Eric Gill, John Bellany, Henri Gaudier Brzeska, Cedric Morris, Winifred Nicholson, Norman Adams, and Henry Mundy. There was a Japanese print, a photograph of an Andrew Goldsworthy sculpture, and another by Tom Bromly. Artists or works referred to positively were predominantly of the 20th century: Douanier Rousseau, Rothko, Christo, Ben Nicholson, Barbara Hepworth, Alfred Wallis, and Morland Lewis; some others were within the English historical tradition: Turner, Constable, and Blake, whilst others represented a more eclectic taste: Peruvian ground drawings, Japanese prints, and child art. The only artist referred to negatively was Heaton Cooper.

The emphasis on picture making, on the primacy of individual identity, and on the uncertainty of reality, all challenge the views expressed by the middle-class sample. However, it is also evident that the radicalism of the fine art sample has become institutionalized, acting as a source of reinforcement rather than critical reappraisal.

Much of the 'challenge' thought to be present in pictures existed only in relation to norms within a tradition of picture making and did not relate to other experiences of the world. In particular, they did not overtly engage with moral vales or interpersonal relationships.

Painter 1986, 568

Painter argues that the attitudes derived from this position form an orthodoxy which permeates areas of life beyond their choice of objects which hang on walls.
They are attitudes that are necessary to membership of the group. Without manifesting these attitudes in some degree it is difficult to qualify for membership (or employment) within the group. It is considerably easier to maintain these attitudes in an environment which offers no challenge to them.

Painter 1986, 108-9

Although Painter seems to perceive the exclusive character of the fine art world, as it is represented by the fine art sample, as somewhat negative, it is, in the context of an epistemological approach, a characteristic which might strengthen, rather than weaken a particular paradigm. The degree to which Painter's sample reflects the fine art world as whole, and whether it provides a basis for change, for positive problem shifts or even Kuhnian revolutions, might be questioned.

If we examine the general paradigmic characteristics of the fine art sample they appear stronger than either of the other groups. The conception of art is distinctive both in relation to art and other activities, and also as a sort of art among other sorts of art. The identity of modernism is differentiated both through positive characteristics: the choice of works, references to works and artists, interpretations and understanding of art, but also through negative characteristics, particularly the dislike and distrust of modernism expressed by the other two groups. It might be argued that this opposition which, if true nationally, represents a difficult situation in relation to modernism in British art and, particularly, art education, has rendered modernism beleaguered and defensive, and lacking the confidence to confront serious challenge or to develop mechanisms for change. The coherent radicalism of
modernism might be seen as a conservative orthodoxy in its own right.

Modernism is strongly contextualized. It has a clearly discernable and sophisticatedly reported history, although the theoretical/critical debate within the community as a whole, one of the agents of change, has been considered to be lacking in rigour (Gombrich 1980, 242). The public and private institutionalization is powerful, with the Tate Gallery and Arts Council and other public support, on one hand, and the dealers specialising in modernism on the other. It is also institutionalized internationally through other public and private galleries, and art journals.

A belief in the autonomy of art in modernism has been one of its most dominating characteristics, and it is deeply rooted in the history and philosophy of modern art, arguably at least since Kant. Whilst this contributes significantly to the strength of its identity has also provides a degree of insulation from society, and may have excluded those positive developments which might be derived from interaction with other fields of activity.

Modernism continues to provide a basis for work and development, and generates problems which are pursued professionally and within art education. It is strongly reinforced, as Painter points out, by the professional situation of many artists who work in art schools and polytechnics which support and encourage the development of their own work, albeit often outside a financial and critical framework. The pursuit of this type of work, and the values it embodies provide the basis for teaching many fine art students.
Danto's paper demonstrates an interaction between works and historical and theoretical knowledge, and provides examples of how such knowledge distinguishes those who are members of the art world from those that are not in their response to works of art, particularly in the case of modern art, where the distinction between the work of art and objects in the real world can be subtle. Dickie suggests that such knowledge can be identified with societies or sub-groups, and that, through the authority of institutions, the application of such knowledge designates particular objects as works of art.

Danto and Becker both distinguish between minor changes in art and the 'revolutionary' changes associated with the development of a new paradigm. Danto does this by reference to the example of the change of theory, and Becker through his description of the character and effects of such a change.

Painter's research has not, in the sense of the other writers, a historical dimension. His distinctions are lateral, between different communities at the same time rather than within a particular community over a period of time. However the distinction between 'traditionalism' and 'modernism', is not only one between classes, but also an historical change, exemplified by the change described by Danto. It will be seen in further discussion that historical change, on the one hand, and social and institutional change, on the other are interdependent. In this context Painter's work appears to confirm the notion of paradigmic change through the distinction between the different communities, the sorts of art which they authenticate, and the incommensurability of these differences.
The model of the paradigm receives support from Painter's descriptions of the middle class and fine art samples: the differences between social groups and their reflection in the 'constellation' of attitudes, values, beliefs and examples is evident, even indicating a degree of incommensurability. His description of the working class sample appears to have strong resemblances to Kuhn's idea of the pre-paradigmatic community; pursuing an undifferentiated activity, with random collections of equally important 'facts' (or works), and the lack of any general system which would create hierarchies of value and significance within them, and provide a basis for future activity.

The strength of the characteristics and distinctions which Painter has been able to derive from his data and methods, and the contextualization and elaboration of the conclusions about the fine art community in this study, enable his work to be valuable as an introduction to the more detailed enquiry and provides propositions which can be tested against further data.

There are two issues of comparability between the working-class and middle-class samples, on one hand, and the fine art, modern sample, on the other. The middle and working class samples were accidental or, at most, amateur, collectors whose professionalism was elsewhere, whereas the fine art sample are a relatively cohesive professional group; drawn from an institutional body: the Visual Arts Panel of Northern Art. They were known to each other, and part of the same community in a more immediate sense than either of the other two groups. Consequently it was to be expected that the sophistication of views elicited from the latter group would display both categorical differences of knowledge and
experience when compared with the former, and a greater coherence of views and attitudes.

In its hypotheses, methods and results, Painter's work supports some of the philosophical and theoretical bases of this project, has enabled them to be examined and tested against data; it also raises other issues which will require further consideration.

The contrasting views and examples of work which distinguish the middle-class and fine art samples might be seen to represent a Kuhnian incommensurability. This, broadly follows the contrasting artworlds of "imitation" and "reality" described by Danto. The theoretical issues which divide the two samples include the fundamental conceptions of reality and of the role of the artist, the differences between the examples are summarized in their different views of "modern art" and particularized in the different works they exhibit in their homes.

It might be inferred, although Painter does not provide evidence for this, that such an incommensurability is a manifestation not only of different views and examples of art, but is also embedded in political and social attitudes and expectations, in "world views", in "ways of seeing", and in the different social groups and interests with which the two samples identify. The incommensurability therefore follows the pattern, suggested by Kuhn, of extending beyond the issues of the subject, and therefore irreconcilable within the discussion of the subject.

It is also evident that there is no call for a reconciliation or resolution: neither group indicated that
the views or examples of the other should be exorcised or expelled from the city. What we have is a plurality, rather than a singularity, of subject communities. Whether such co-existence would have been present had, for instance, they belonged to a less diverse community than the city, if it was believed that the city could support only a single paradigm, or had they had to work in the same institution, or might be doubted.

Painter's view of modernism appears to be largely undifferentiated, although interviews revealed a number of distinguishable attitudes within the fine art sample: the commitment to naivety, the concern for individual expression, and the acknowledgement of a problematic reality are all seen, as it were, as different sides of the same coin, or different aspects of the same paradigm. If it should prove that they are not, or that there are further paradigms with their characteristics within modernism, and that they represent characteristics of two or more paradigms it will appear that modernism is a dual, or multi-paradigm community. Painter hints that this might be the case when he says that modernism 'celebrated alternative ways of seeing, understanding and representing the world' (Painter 1986 567). However it may not be possible to distinguish a multi-paradigm community without incommensurability from a major programme with 'auxiliary hypotheses'.

In addition to not identifying differentiations between alternative paradigms within modernism, Painter's research does not consider, and he does not discuss, the issues of change over periods of time, be they problem shifts or revolutions. There is a degree of dissonance between his
identification of the 'inherently radical' nature of modernism (Painter 1986, 567), the substantial changes which have been apparent in modernism since its inception, and the relatively coherent and homogeneous world of the art school which he describes (Painter 1986, 108-9).

3.5 Conclusions

The discussion of epistemological ideas and their development, their relevance to art, and to aesthetic concepts and sociological considerations has provided a series of concepts. These provide the basis from which the study of a sample of art students, and the discussion of the policies and examples of research in fine art, can be pursued.

Popper's distinction between subjective and objective views of knowledge offers a starting point, although the abstract nature of his "third world" is challenged by the emphasis placed on the community by Polanyi and Kuhn, although both have been subjected to criticism by Feyerabend.

Polanyi offers a description of "tacit" knowledge which he identified with the art of research. It is contrasted with the articulate contents of a subject, and is characterised by learning through a personal relationship, such as that which exists between a master and apprentice. In contrast to Popper's view of the "third world" Polanyi's perception of knowledge is situated with the knowers, with the master and his apprentice, rather than only in their works.
Kuhn supports and elaborates the idea of knowledge being a property of the knower through his description of the scientific community, and the paradigm: the beliefs, attitudes, techniques and examples, which inform their activity. The idea of the scientific community can, without perverting the concept, be translated into other subject communities, including those of the artworld, where a coherent activity is informed by beliefs, attitudes, techniques and examples. Kuhn's paradigm comes closest to paralleling the artistic concept of style in an immediate, descriptive sense as it might be applied to an artist or group of artists.

The idea of the period/style, the sort of phenomena to which terms like "gothic" or "renaissance" might be applied, is paralleled in the work of Lakatos. He describes science in terms of "scientific research programmes", structures based on sustained and comprehensive theories, such as the Cartesian and Newtonian programmes. These are described as having a "core" of fundamental belief, surrounded by a periphery, within which the problems are generated and addressed. Where the problems, or anomalies, intrude upon the core they threaten its existence, and it is therefore said to have a "negative heuristic"; where they remain within the periphery the activity they generate enhances the core, increasing its explanatory and predictive power, and it has, therefore, a "positive heuristic".

In making a study of the students, therefore, the importance and character of personal relationships, such as those described by Polanyi, and the idea of community of a coherent activity, informed by the paradigm, such as that
described by Kuhn, and evident in the work of Danto, Dickie, Becker and Painter, become important.

Painter differentiates between three samples in Newcastle, one of which, the "fine art" sample, was based around the ideas of modernism, and related to fine art in education. It might, therefore, be reasonable to expect the student sample in this study to share characteristics of Painter’s "fine art" sample. Whereas Painter described his "fine art" sample in terms of a coherent paradigm, it might be possible, through a more detailed study of the students, to examine variations within the modernist paradigm, perhaps including alternative paradigms. This would offer alternative activities, informed in different ways, which could be identified as potentially distinct areas of research.

The epistemological literature gives prominence to different ideas of change in knowledge. Popper and Gombrich describe processes of "conjecture and refutation", in the development of scientific theory, and "schema and correction" in the creation of a work of art. Both processes are underpinned by the Popperian idea of falsifiability. Neither describe the magnitude or character of change.

In contrast Kuhn differentiates between two sorts of change. The "scientific revolution", in which basic assumptions and examples of practice are undermined and replaced, and "normal science", which describes the incremental development of knowledge within a single paradigm.

Lakatos, building on Popper’s work, identifies the problem shift. This can either be positive, when it serves to develop and enhance the "core" of the activity, or negative,
where it undermines that "core". The negative problem shift is characterised by ad hoc solutions: responses to problems which are unrelated to the "core", and simply address the issue on a contingent basis.

It will be understood that, in this context, positive does not necessarily mean good, or negative, bad; they only describe the process of change.

The ideas of "scientific research programmes" and "problem shifts" can be translated into the artworld through an identification of modernism as the "core" of the activity. Therefore, where the work of students reflects the range of issues of modernism, it can be identified with the positive heuristic of the periphery; where it challenges the "core"; ie. the central tenets of modernism, it can be seen as having a "negative heuristic", or, in Kuhnian terms, relating an alternative paradigm.

However, a strict correlation of epistemological ideas with artistic activity has certain difficulties. The epistemological models, be they the paradigm, the scientific research programme, or Popper's unfalsified theory, all suggest, rightly or wrongly, that the scientific community is singular. It is characterised at a particular time by a single basis for its activity. Whether or not this is true of science may be doubted, witness Heisenberg's comments above; it will become apparent that it is not true of art. The plurality of paradigms of art in a city has been made evident in the findings of Painter. It will also be seen in the far more limited context of a single year of students.
In order to identify pertinent relationships between epistemology and art in current educational thought and practice it was necessary to pursue the same issues in other contexts; particularly with reference to the idea of incommensurability.

Although any conclusions have to be drawn in the light of historical context, the comparison of the Discourses of Sir Joshua Reynolds, and the ideas and works of John Constable, has enabled an identification of paradigms in art as constellations of values, beliefs, techniques and of examples, similar to Kuhn’s description of the history of science. However, although there are clear differences between the academic paradigm described by Reynolds and that found in Constable they are by no means incommensurable in a Kuhnian sense. If Kuhn’s structure is to be rigorously applied incommensurability is to be sought in the artistic, as well as the scientific, context. Alternatively the Kuhnian notion of incommensurability might be modified, although its specificity, and therefore its explanatory and predictive power would be diminished thereby.

Incommensurability offers a negative definition of a paradigm: the exclusion of constellations and examples. It is difficult to perceive this as a general principle in the history of art, although some evidence suggests examples of artists who have perceived their position in this way. Comments and writings of artists or groups of artists suggest that they define their identify in negative, as well as in positive, terms, attacking aspects of contemporary values or works which served as examples of the opposed style or culture. Ingres, for example, identified Delacroix with evil (Trapp 1971, 293), and as a threat to the neo-
classical academic values which his own work embodied, and the classical versus romantic views of art were seen as a conflict within the art community of France at the time. However Delacroix himself was eclectic in his tastes, and never lost his admiration for the work of neo-classical painters (Delacroix 1951, 29, 82). The Pre-Raphaelites questioned the development of painting since the high renaissance, and particularly the work and ideas of Reynolds, and saw this exclusion as essential in their search for a purer and more Christian mode of expression. Perhaps the clearest rejection of existing paradigms is found in Marinetti's Futurist manifesto of 1909. The example of the new paradigm is expressed in direct opposition to that of the old, "... a roaring motor car, which seems to run on shrapnel, is more beautiful than the Victory of Samothrace . . ."

The museum culture of Italy at the time is attacked in the same document.

Italy has for too long been the market of second hand dealers. We would free her from the numberless museums which completely cover her with numberless cemeteries. Museums, cemeteries! . . . truly identical in their sinister promiscuity of jostling bodies that know each other not.

The Futurists identified change with a process of rejection; not only in terms of their own view of the past, but also as their own contributions might be perceived by the next generation.

The oldest among us are thirty; we have therefore at least ten years to accomplish our task. When we are forty let others, younger and more valiant, throw us
into the waste-paper basket like useless manuscripts. We desire it!

Golding 1972, 25-26

Despite these statements and intentions the art community in general still regards the work of Boccioni, Carra, Balla, etc. with respect and affection, and would have little difficulty in enjoying the Victory of Samothrace at the same time as admiring the beauty of a motor car.

Although incommensurability has, at certain times, appeared within communities and individual artists as they engaged with particular views and practices of art, it does not necessarily follow that such incommensurabilities will also be apparent to those who subsequently view their work as observers or historians. As we move from room to room in any major art gallery we find little difficulty in gaining pleasure from works which, to their makers and some of their contemporaries, might have seemed incompatible, or incommensurable. We may also do this without radical revision of our own paradigm or "world view".

However, if paradigms and their incommensurability are identified with the view of the practitioners, rather than with the observers, in any particular activity, their existence will be related to the historical dimension of the source material. Kuhn contrasts the role of an art gallery with that of the science museum.

Few scientists are ever seen in science museums, of which the function is, in any case, to memorialize or recruit, not to inculcate craftsmanship or enlighten public taste. Unlike art, science destroys its past.

Kuhn 1977, 345
Kuhn acknowledges the value placed on past artists by contemporary ones, in contrast to the judgements of scientists.

Asked why his work is like that of, say, Einstein and Schrödinger, rather than Galileo and Newton, the scientist replies that Galileo and Newton, whatever their genius, were wrong, made a mistake.  

Kuhn 1977, 346

This does not prevent the contributions that were made by such historical figures as Galileo and Newton from being admired from an historical viewpoint, but makes the point that, however admirable, their work has little relevance to current practice. Kuhn has identified a difference between the histories of art and science which is consistent with the relative presence or lack of incommensurability,

... just because the success of artistic tradition does not render another wrong or mistaken, art can support, far more readily than science, a number of incompatible traditions or schools. For the same reason, when traditions do change, the accompanying controversies are usually resolved far more rapidly in science than in art ... even then, the end of the controversy often means only the acceptance of the new tradition not the end of the old. In the sciences, on the other hand, victory or defeat is not long postponed, and the side which loses is then banished. Its remaining adherents, if any, are considered to have left the field.  

Kuhn 1977, 348

The relationship of contemporary art to its historic past is therefore different from that of contemporary science. The values and beliefs of the present still confer contemporary value and significance on the work of the past, and the exempla which act in paradigms may well be drawn from a wide variety of historical periods and places. Present artistic
activity and thought not only values and uses selected artists and the works of the past, but also participates in a continuous process of revision.

An example of this process in visual art is that referred to by Danto, the reconsideration of tribal work in the light of its use as a source by such artists as Picasso, Braque and Moore. Museums had seen tribal works as ethnographic objects, whose over-riding interest was to scholars in that subject; their re-evaluation in the light of 20th century painting and sculpture has caused them to be seen, displayed and studied as works of art.

The world of art does not only value its own history in a way that the world of science does not. Each aspect of that history is still subject to changes in value and significance according to the relationship it has with contemporary work. The works of the palaeolithic artist, the medieval sculptor, the renaissance painter, and any other exempla of art, are potentially "in play" in any art community of any time. The artist identifies his own particular historical sources within the total corpus the art of the past and its literature, and the "constellations" and examples which inform his practice become, as a result of that practice, part of a process of continuous revision.

The idea of objective knowledge, the objective contents of thought, especially poetic thoughts and of works of art, which constitute Popper's third world, provides a starting point to an idea of research in art as something other than a purely personal and expressive activity. Within this discussion there are views of the development of such knowledge through conjecture and refutation or schema and
correction. But towards what? Popper appears to assume that the replacement of one (falsified) theory by another (not yet falsified) theory will lead towards a greater knowledge of "the truth", but this is by no means established in his argument. Indeed the paradoxical process whereby an increasing content of theory is matched by a decreasing probability, suggests that ultimately any broad teleological conclusions are suspect. In any case teleological arguments about the truth are difficult to relate to ideas about artistic development, for which Gombrich's musical description may be more apposite, since it offers a model of change which does not have within it the demands of any teleological conclusion.

Baxandall applies the model of billiards and snooker to this issue.

The classical Humean image of causality that seems to colour many accounts of influence is one billiard ball, X, hitting another, Y. An image that might work better for the case would be not two billiard balls but the field offered by a billiard table. On this table would be very many balls - the game is not billiards but snooker or pool - and the table is an Italian one without pockets. Above all the cue ball, that which hits another is not X but Y. What happens in the field, each time Y refers to an X, is a rearrangement. X has moved purposefully, impelled by the cue of intention, and X has been repositioned too: each ends up in a new relation to the array of all the other balls. Some of these have become more or less accessible or masked, more or less available to Y in his stance after reference to X. Arts are positional games and each time an artist is influenced he rewrites his art's history a little.

Baxandall 1985, 60

Baxandall continues to provide an example of the effect of the influenced on the historical position of the influence.
Picasso acted on Cezanne quite sharply. For one thing he rewrote art history by making Cezanne a that much larger and more central historical fact in 1910 than he had been in 1906: he shifted him further into the main tradition of European painting. Then again, his reference to Cezanne was tendentious. His angle on Cezanne - to revert to the billiard-table image - was a particular one, affected among other things by his having referred also to such other art as African sculpture. He saw and extracted this rather than that in Cezanne and modified it, towards his own intention and into his own universe of representation. And then again, by doing this he changed for ever the way we can see Cezanne (and African sculpture), whom we must see partly diffracted through Picasso’s idiosyncratic reading . . .

Baxandall 1985, 61

Since the relationship of contemporary practice in art to its history is so distinctive from descriptions of science its relationship with its future may also differ: works of art remain potentially a part of a continuous and evolving present. They are neither permanently verified or refuted. If we identify research with the historical processes within a subject or field it would not be logical to expect that verification or falsification should form a corner stone of research in art. It might be more profitable to enquire, following Baxandall’s billiard table analogy, about the way in which the research might affect the balls already on the table, either as a result of direct and intended contact, or as a by-product of such an intention.

Baxandall identifies the principle that he describes in relation to the history of art to the actual process of picture making which emerges with simultaneous adjustment, not as a logical and staged sequence in which various technical processes succeed each other as might be indicated by those stages of work identified with French academic practice: the esquisse, the ébauche the étude, the pochade,
preceding the fini of the final work (Boime 1971, 24-41, 92).

Cezanne has said, and Picasso later quoted him with approval as saying, that every brushstroke changes a picture . . . in the course of painting a picture each brushstroke will modify the effect of the brushstrokes so far made, so that with each brushstroke the painter finds himself addressing a new situation . . . in painting a picture the total problem of the picture is liable to be a continually developing and self-revising one. The medium, physical and perceptual, modifies the problem as the game proceeds. Indeed some parts of the problem will emerge only as the game proceeds.

Baxandall 1985, 62-63

Baxandall identifies the, ' . . . sense of a dimension of process', as

. . . important to our enjoyment of the picture and to our understanding of how styles historically evolve and change.

Baxandall 1985, 63

He continues:

There is not just an intention but a numberless sequence of developing moments of intention.

Baxandall 1985, 63

In empirical terms Painter, perhaps, gets closer to the epistemological model in his interviews with members of different social samples: there the ideas, beliefs and values about art are revealed, and the examples provide the basis of the interviews. However he does not describe a dynamic process; he is not seeking to chart changes of ideas, taste and sensibility within his groups, but to distinguish them through their ideas, taste and sensibility,
and in doing so he clearly identifies three quite different groups.

Danto's historical distinction between the "imitation" and "reality" theories of art, suggests that the ideas, taste and sensibility which distinguish Painter's groups may have their origins within the historical development of art, and can be viewed diachronically, as a reflection of such a development, as well as synchronically, as characteristic of the socially based differences of style and attitude within a contemporary community.

The discussion of the various epistemological sources and their relationship to examples of art and artists establishes that those sources offer a descriptive and explanatory language of aspects of art, and that art can be related to ideas of knowledge and research. However, such relationships do not establish the necessary relationships between research and current art educational thought and practice, which have to be made if the epistemological ideas are to be applied.

This report continues to discuss this issue through a consideration of two aspects of current educational thought and practice. Firstly, a Case Study, in which the epistemological concepts are related to the experience and work of final year undergraduate students; secondly, through discussion of recent approaches to the issue of research in fine art, as exemplified by the development of CNAA policy and the examples of completed projects.
4. Research Methods and Techniques

4.1 Research Methods

4.1.1 Description of Research Method
4.1.2 Text Sources
4.1.3 Case Study
4.1.4 Comparison and Evaluation

4.2 Research Techniques

4.2.1 Text Analysis
4.2.2 The Case Study
4.2.3 Interviews
4.2.4 Tasks
4.2.5 Questionnaires
4.2.6 Students' Paintings and Descriptions
4. Research Methods and Techniques

... every language is a vast pattern system, different from others, in which are culturally ordained the forms and categories by which the personality not only communicates, but also analyses nature, notices or neglects to notice types of relationship and phenomena, channels his reasoning and builds the house of his consciousness.

Whorf 1956, 252

4.1 Research Methods

The aim of the study is to describe a basis for the development of research degrees in fine art reflecting the epistemological concepts discussed in the previous chapter. The aim is to be achieved through the objectives of the study: to relate those concepts to the practice, ideas and experience of fine art students, and to review earlier attitudes to, policies for, and research degree projects in, fine art.

The previous research into fine art in higher education is a relatively small field. It identifies issues within the subject and offers methods through which these issues were identified. This discussion concentrates on the work of four researchers: Madge and Weinberger (1973), Sleigh (1974), Cornock (1980 and 1983), and Wayte, G. (1989). In general terms this research has been largely qualitative in character, although questionnaires, which yielded percentages, have occasionally been used. The research methodology can be described under the heads of theoretical approaches, and methods and techniques. The results are usually seen as descriptive, informing us about the views
and experience of the students. There is also some discussion of the students' work.

The importance attached to theoretical discussion as a basis for research has varied. In the work of Madge and Weinberger it is not explicit, but the text enables one to infer sociological concerns (Madge and Weinberger 1973, 15). In contrast, both Sleigh (1974) and Cornock (1980) offer detailed discussion of their theoretical backgrounds, which in both cases is based on the work of their supervisors: the linguistics of Bernstein and the systems theory of Checkland (Cornock 1980, 11-17). Wayte G. (1989) bases her theoretical approach largely on texts drawn from anthropological and sociological sources.

Madge and Weinberger (1973) made their detailed study of staff and students at a college in the Midlands in the late 60s. It was contextualized through a more schematic study of neighbouring colleges. They can be identified with a broad sociological concern through statements about the socialization of the students into the art world of the College which they enter. They summarized the position of art students in relation to other subjects and callings (Madge and Weinberger 1973, 15)

Their sources: observation, interviews, and tutorial reports, yield largely qualitative data, although they also employed short questionnaires. Their report is a descriptive text describing the behaviour, experience, and opinions of the students, supported by quotations and the results of questionnaires. A few examples of work are illustrated by photographs. Madge and Weinberger's is seminal to the study of art students in higher education; although this is not
always acknowledged. The breadth of their study encompasses many of its particular characteristics, and reflects some of fundamental issues of art in higher education, which have re-appeared in subsequent studies.

The central concern of Madge and Weinberger’s study, the socialization of fine art students, informs the work of two other researchers: Sleigh and Wayte,G., both of whom offer critical comments on the work of Madge and Weinberger. Sleigh (1974) indicates the objectives of her own research in commenting that Madge and Weinberger’s work is,

... descriptive of general trends, rather than an attempt to reveal and understand the specific nature of the students’ experiences in this unusual form of socialization.

Sleigh 1974, 12

Whilst this comment is useful in that it clarifies an objective of Sleigh’s study, it might also be considered a little unfair. Although Madge and Weinberger do not discuss the experience of individual students as sections of the report, it can be used to build quite a full picture of individual students, particularly of "Dave". The point that Madge and Weinberger’s work is descriptive, rather than explanatory, in character is echoed by Wayte,G. (1989). It is said that Madge and Weinberger’s report does not reveal,

... how students acquire their attitudes, and how such apparently bizarre behaviour and expectations could become meaningful to the individuals concerned.

Wayte,G. 1989, 89-90

Sleigh’s research, which was conducted between 1971 and 1973 at the Slade School of Art, is centred on the undergraduate
students, that is those who have entered from secondary school or foundation courses, rather than the post-graduate entry. The enquiry is introduced in historical terms, through a description of the changes which have taken place at the Slade from its inception to the present day, and discussion of the "Slade tradition", and comment on the number of ex-Slade students who are subsequently appointed to its staff (Sleigh 1974, 14).

The methods of enquiry included structured interviews with staff and students, and observations of tutorials and other teaching processes, and also of assessments. During the period of the research Sleigh studied with the students (she had already completed a Dip.AD. at Chelsea School of Art). However, there is little specific reference to the students' works. In addition to its theoretical content her research offers valuable insights into the thinking of individual staff and students.

Her specific findings are preceded by some more general comments on art education in contrast with other disciplines.

In art education there is a minimum verbal body of knowledge to be learned; the emphasis is on doing, ie. the production of an art object. Sleigh 1974, 18

She elaborates this point, apparently supporting Madge and Weinberger's idea of a maelstrom, in discussion of the art world in general.

In contemporary fine art there are few explicit rules and those that exist are often ambiguous and conflicting. Thus despite considerable consensus by artists in their evaluation of art objects, the
reasons which may be given to justify such an evaluation will vary substantially. Thus the student is operating within a more ambiguous set of rules than in other disciplines.

Sleigh 1974, 18

Sleigh also distinguishes the structure of the course from that which is usual in other subjects.

... it appears that both in terms of the structuring of the content and of the significance of the one-to-one personal relationships the system in many ways resembles a one year degree course followed by three years research.

Sleigh 1974, 21

Through her interviews Sleigh discovered a view of the artist as a rather special person. She reports that:

It is assumed that the artist possesses extraordinary attributes, some go as far as claiming an almost genetic difference.

Sleigh 1974, 90

Cornock has contributed an M.Litt. thesis (Cornock 1980), and a number of papers (including Cornock 1983, Cornock, 1982), to the discussion of art in higher education. In the thesis Cornock discusses a theoretical structure based on his interpretation of the "soft structures" of Checkland and others, and develops conceptual models of the art world.

In his paper, "Towards a Methodology for Students of Fine Art" (Cornock 1983) Cornock, working with a sample of six final year students, elicited individual views on their learning experience towards the construction of a pattern of student learning. These discussions included the works of students, but excluded aesthetic comment and criticism
(Cornock 1983 86-87). Among other findings is a relationship between the physical work with the materials of art and intellectual activity, a "working process", which,

... not only generates artefacts (paintings, etc.) but a developed set of ideas and continuity of purpose from one artefact to another. Hence, when a senior student refers to "his work" he will be referring not only to the sum of his material production, but, obviously enough, to a continuity of purpose as well. ... The ability to identify and develop his work at both of these levels marks an increased ability to consider particular artefacts in a wider - even art historical - context.

Cornock 1983, 89

In conclusion Cornock describes the structure of the "emerging methodology" as a,

... pattern of artistic activity ... generation, leading to selection, and synthesis, leading ultimately to the presentation of the work and its critical discussion.

Cornock 1983, 96

Wayte, G. contributes both an unpublished Ph.D thesis (Wayte G. 1989) and a paper, published in collaboration with her husband (Wayte and Wayte 1991). In the thesis Wayte bases her theoretical approach largely on texts drawn from anthropological and sociological sources. She quotes Geertz on the nature of anthropological writing.

Anthropological writings are themselves interpretations, and second and third order ones to boot. They are, thus, fictions: fictions in the sense of 'something made', 'something fashioned' - the original meaning of fictio - not that they are false, unfactual, or merely 'as if' thought experiments.

Wayte, G. 1989, 4
Wayte and also refers to earlier work in art education (Wayte, G. 1989, 47), and inserts a substantial body of information about her own career as an art student (Wayte, G. 1989, 5-17). She studied the students on the Foundation course and, to a lesser extent, those in the first year of a Fine Art course at a polytechnic. Her research methods include "participant observation" and interviews, both of which were recorded in "field notes" (Wayte, G. 1989, 94). She also included a questionnaire and had access to course documentation (Wayte, G. 1989, 135).

One of the major aspects of her thesis is the discussion of "fine art ideology"; the system of beliefs which defines and sustains activity in fine art in higher education. This is a partial description of a paradigm; she identifies its sources and characteristics.

Fine art ideology, ... combines several theoretical sources which have contributed to the development of the structure of fine art education. The main two aspects are the emphasis on the expressive nature of art practice and the notion of the artist as an innately more sensitive and superior being.

Wayte, G. 1989, 47

"Fine art ideology" is also manifested through the idea of an "exemplary biography"; a model, based on a reading of the lives of great artists, which encompasses recognition and obscurity, success and failure, at every stage of an artist's career, and relates this to the achievement of a personal style.

There are substantial strengths in the research which has been pursued, particularly in making visible and problematic some of the characteristics and issues within fine art.
education which had previously existed largely as assumptions and beliefs. Perhaps the major contribution is the identification of the distinctive character of art in higher education, its difference from other subjects, and the character of this distinction.

The research methods have been used with an insight and a sensitivity which has enable students and staff to express opinions and reveal attitudes which have yielded a rich and complex picture of fine art in higher education. Perhaps the major shortcoming of the work hitherto has been the lack of revealed relationships between this picture and the work that students do. Sleigh rightly identifies the emphasis on production within art education (Sleigh 1974, 18). However, the accounts of students' behaviour, opinions and attitudes lack a serious dimension if they cannot be related to the students' work.

The exemplary sources of the art students' experience, the particular works of art which underpin their education and influence their practice also need to be considered. They also have to be related to the attitudes and opinions which they as individuals, and the system as an ideology, have been shown to reflect. Whilst some work has been done, particularly by Madge and Weinberger, in naming influential artists and writers, this did not establish specific relationships between such sources and the work of students. Perhaps the best precedent for such a study is found outside the field of art in higher education, in the socially based study of Painter (1986), where some of the interviews were centred on the discussion of particular works of art.
The choice of research methods beyond those exemplified in earlier examples of work in fine art higher education has, therefore, been motivated by the need to relate attitudes and ideas to works, both as *exempla* and as the product of the students' own education. It also reflects the need to derive coherent conclusions from a distinct variety of research methods.

Such coherence has been sought through a principle of "isomorphism". Isomorphism, literally "the same form", is found in examining and comparing the theoretical concepts with the structure of research methods. Where these structures have a similar form, even if originally developed in different fields or in describing different phenomena, they can be said to be isomorphic; or to have degrees of isomorphism. The results gained from such methods can therefore be compared structurally, and coherent conclusions drawn, in consciousness of the degree of isomorphism present within two methods.

One of the weaknesses of isomorphism between a theoretical model and an experimental method is the possibility of circular argument. If the experimental method has, *a priori*, the same structure as the theoretical model it may generate results confirming the existence of that model, not necessarily from the empirical data itself, but from the way it generates and organises that data: as with the one-dimensional, linear, concept of temperature and its measurement by thermometer. However if we were take a view of hotness or coldness as it is experienced, including the effects of wind and humidity, and the susceptibility of the observer, the thermometer, in that it excludes these
factors, would be inadequate, and a multi-dimensional model and different measuring instruments would be required.

Any method of enquiry, therefore, inherently includes and excludes certain categories of data. The important issue is not that data is excluded, since such exclusion is inevitable, but, that in reporting the data which is collected and the results of analyses, that we do not mistake the part for the whole, and that the limited relevance of the results: their "range of convenience" (Kelly 1955 11), should be acknowledged.

Kelly's epistemology is distinct from that of Popper and Lakatos. Kelly is concerned with the personal constructs, the ways in which an individual finds out about and makes sense of the world. There is no place for notions of objectivity; no "third world". Neither is he concerned with the understanding of those constructs beyond their manifestation through the repertory grid, so the distinction between tacit and articulated knowledge is not relevant to his thinking.

However there is a partial isomorphism in the relationship between Kuhn's paradigm, and Kelly's description of personal constructs,

... each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs.

Kelly 1955 57

The relationship between the epistemology of Kelly's personal construct psychology and other epistemological
traditions has been discussed both by Kelly himself (Kelly 1955 16-17) and by Mahoney (Mahoney 1988). Neither demonstrate the specific relationships as clearly as does direct comparison between Kuhn’s work and Kelly’s theory itself.

Although Kelly’s publication (1955) predates the initial publication of Kuhn’s theoretical work (1970, 1963), Kuhn’s historical discussion of Copernicus (1957) which suggests the idea of the paradigm and the scientific revolution (Kuhn 1957 73-77, 261-265) is nearly contemporaneous. Personal construct theory has, in terms of its structure, a generally positive relationship with the idea of the paradigm as Kuhn described it. In a manner not dissimilar from the idea of a constellation in the paradigm it identifies individual elements and responses, or constructs, which are then analyzed and constructed into systems, "A system implies a grouping of elements in which incompatibilities and inconsistencies have been minimized" (Kelly 1955 57). Kelly does provide one general passage which appears to indicate a model with strong similarities to the paradigm or to the scientific research programme.

Certain widely shared or public construct systems are designed primarily to fit special fields or realms of facts. When one limits the realm of facts, it is possible to develop a detailed system without worrying about the inconsistencies in the system which certain peripheral facts would reveal.

Kelly 1955 9-10

However, in Kelly’s more detailed presentation of his ideas this apparently clear structural correlation is obscured.
The descriptions of changes in constructs (Kelly 1955, 157-170) is strongly informed by the therapeutic concerns of his work and the personal role. However, there are structural similarities with the concepts of the revolution, through the total reconstruction of a system of personal constructs (Kelly 1955, 161), and the problem shift, through adjustments. Kelly also outlines those condition which are favourable and unfavourable to the formation of new constructs. The former include the use of fresh elements, "...relatively unbound by old constructs which would be seen as being incompatible with the new construct" (Kelly 1955, 161), experimentation (Kelly 1955, 162), and the availability of validating data, enabling existing constructs to be critically reviewed.

Among the conditions which Kelly considers unfavourable for the formation of new constructs are threat; a preoccupation with old material, leading to repetition, and "no laboratory", i.e. the context within which new constructs can be tested against a reality (Kelly 1955, 161-170).

One significant difference between the epistemological model provided by Kuhn and that evident in Kelly's writings is in their perception of the group. In Kuhn's description the basis of his analysis is the knowing group; the scientific or subject community which, by holding its constellation of beliefs, values and techniques in common, generates problems, methods and solutions which are exemplified in earlier work.

Kelly, in contrast, bases his analysis on the knowing individual, and the constructs which enable him or her to predict events. Kelly extends his analysis from the
individual to the group or community through his "Commonality Corollary", which he defines in the following way,

... to the extent that one person employs a construction of experience which is similar to that employed by another, his psychological processes are similar to those of the other person. Kelly 1955 90

In his subsequent discussion of this corollary he relates it to cultures, through similarities of behaviour and environment,

... as the term "culture" would imply, ... we see persons grouped according to similarities in their upbringing and their environment. Kelly 1955 93

And also through the mutual expectations of members of the same culture,

Sometimes, however, culture is taken to mean similarity in what members of a group expect of each other. Kelly 1955 93

These comments, when compared to his discussion of other corollaries, seem rather vague and indecisive, and other comments, where he tends to identify culture with stereotypical racial characteristics (Kelly 1955 181), suggest that he had not recognised the full potential of this aspect of his work. Despite this he does provide a basis from which to proceed in a general summary.
Personal construct theory would . . . understand cultural similarity, not only in terms of personal outlook rather than in terms of the impingement of social stimuli, but also in terms of what the individual anticipates others will do, and, in turn, what he thinks they are expecting him to do.  
Kelly 1955 94

He continues,

... our approach to culture and group behaviour is via the study of similarities and contrasts in a person's anticipations and the channels he constructs for making his predictions. . . . in the similarities in their manner of arriving at their predictions.  
Kelly 1955 94

In addition to the Commonality Corollary Kelly also describes a Sociality Corollary. This provides a less fruitful starting point than the Commonality Corollary, since it appears, by inference, to relate to particular therapeutic situations.

... the person who is to play a constructive role in a social process with another person need not so much construe things as the other person does as he must effectively construe the other person's outlook.  
Kelly 1955 95

The relative weakness of Kelly's own thinking on the communal applications of personal constructs has already been noted by Takens.

One of the striking characteristics of Kelly's personal construct theory is the way it stresses the uniqueness of the individual along with his social nature. Despite this view of man as a person in the world, personal construct psychology generally deals more with intrapsychic phenomena than with interpersonal processes. Of the eleven corollaries of the theory, only the last two - the commonality and sociality corollaries - refer to interpersonal
processes explicitly. Unfortunately they both lack the profound elaboration of the other nine. Nevertheless, they provide an interesting theoretical basis for research on interpersonal dynamics. . .

Takens 1981 251

Takens continues to discuss works (Duck 1973 and Triadis 1979) which applied personal construct theory to personal relationships and industrial relations. In a later paper Becker has suggested a role for personal construct psychology in sociology (Becker 1981 10).

Other works in which collective constructs have been sought include Riley and Palmer (1976) and Orley (1976). Both describe a two-stage process in which the appropriate constructs are first identified, and then used through the grid technique. Orley's work on the use of construct psychology in social anthropology is the more relevant to the current enquiry.

Orley describes his general approach to his work in rural Buganda.

In studying another culture, the anthropologist first immerses himself in it in order to understand the opinions and beliefs that sustain it, and then endeavour to translate them into the language of his own culture . . . once a good rapport is established, it may not be difficult to apply grid technique and thus quantify a current system of beliefs.

Orley 1976 219

The initial stage was accomplished through informal means. This yielded eighteen constructs, eg. happy/sad, weak/strong, wise/foolish. In the second stage these constructs were applied, in repertory grid, to eight supplied elements consisting of types: man, woman, child,
thief, madman, epileptic, sorcerer, and hero-spirit (Orley 1976 221).

The methods used here share some of the features which can be found in earlier research in the subject, such as the interviews and short questionnaires. However, these methods have been extended to reflect the epistemological concepts which are guiding the enquiry and the need to include works of art within the scope of the enquiry.

The data and results derived from the different methods of enquiry are both specific to the problems to which they are addressed and comparable each with another. The sources of such comparability, and the basis for linking the data, are in the structure and content of the enquiry generally, and in its detailed parts. In particular in the relationship between the "working approach" of students and the work produced, the presence or absence of the collective identity among institutions, student groups and sub-groups, their characteristics and "working approaches".

4.1.1 Description of Research Method

The various research methods used can be described through the distinctions between the different source materials used, and the methods which are appropriate to those materials.

The sources comprise texts, both published and unpublished, which are used as the means to develop the theoretic aspect of the research. The Case study included interviews with students which reflected on their experience of art
education. They yielded attitudes to art and art education; exempla, which inform the work and the education of the students, and the works of the students themselves. The Case Study also included the tasks relating propositions and exempla, which the students related to each other and to their own working approach. In addition short questionnaires were used.

The analysis of these sources will entail text analysis, the use of the structured interview, to generate comparable results from each of the subjects, and the use of repertory grid techniques with which to administer the tasks and make an analysis of the results.

In addition to the analysis of these sources, there are processes of synthesis: the linking of the data derived from the various methods and materials of the research.

4.1.2 Text Sources

The treatment of texts as data, as information, involves a number of methodological problems. What is sought, as well as contributions to the argument, is some assurance that the use of texts sustains the meaning and the authority which they embodied in their original context.

The use of texts has to take place in a way in which they accurately sustain the views of the original, and not be so used, and removed from their initial context, in a way which will distort the arguments or the point of view. The phrase "quoted out of context" is sometimes used to try to disqualify what may be logically inferred from statements
and texts. All research and other activity which uses texts as sources necessarily removes selected parts of source material from its original context and places it in the new context of an argument or factual report. In all such activities ideas or actual words are, quite literally, "quoted out of context". Indeed the creation of new arguments, or new data, can only be achieved through this process, enabling, as it does, ideas or facts to be placed in a context of new relationships and thereby contributing meaning and significance to another argument.

The chapter "Art and Epistemology" relies, mostly, on synchronic structures: the texts are related to each other directly as if contemporaneous, which many of them are. The use of diachronic structure is limited to particular relationships, such as that between Reynolds and Constable, where the juxtaposition of historically related figures or arguments enhances the role of each within the narrative.

The discussion of the students' interviews is synchronic. Although a diachronic structure is evident as they discuss their experience of art at school and during Foundation courses, these are reminiscences from the standpoint of their position when interviewed, rather than a systematic sequential study of their experience. In contrast the treatment of the texts in the chapter concerned with CNAA research policies is strongly diachronic: a chronological sequence of meetings and papers is described, and the argument is based on the changes and development which took place within that sequence.
4.1.3 The Case Study

The objective of the case study, the identification of paradigms within the student community, presented a very large complex problem, and had, therefore, to be subject to analysis and reduction before the research could take place. To examine the whole body of beliefs, values, techniques and examples, which might inform the students' work presented an impractical task. It was therefore decided that rather than seek such paradigms in their totality, some systematic use of indicators would have to be involved.

The epistemological model which is used as a basis for the enquiry is basically the paradigm, to briefly reiterate Kuhn's description,

... the entire constellation of beliefs, values, techniques and so on shared by the members of a given community.

Kuhn 1970 175

and,

... one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules ... Kuhn 1970 175

Within the study the two aspects of the model, the "constellation" and the "models or examples" have to be related within a single structure which can describe not only the attitudes and opinions of the students, but also the relationship with their work.
The model which is being proposed can be thought of as a multi-dimensional volume in which points, the propositions, works of art, and the students themselves, are positioned in relation to each other.

Within this there are a number of spaces which are occupied by clusters of propositions, examples and students. While each of these clusters contributes to the whole, they also have their own characteristics which distinguish them from other clusters and provide them with a particular relationship to the group as a whole. Within the clusters, and perhaps outside them, there are the particular points, the individual propositions, examples, and students, whose responses both constitute the whole and its clusters, and also relate one student to another, and to the overall structure.

The image of such a galaxy, with its constellations and individual bodies, has little practical meaning if it exists independently of other factors. It gains its significance though its relationship with other source material, particularly the interviews and students' work; it has meaning in that it relates to and describes the problems and solutions which the student pursues, and the works which are their outcome.

The description of the practice of a particular community involving images, as well as ideas, attitudes and beliefs, is necessarily complex, and therefore indicates a variety of research methods and techniques. However, the variety of the research methods used cannot obscure the need for the results of the enquiry to lead to a coherent body of conclusions.
The Case Study of the fine art students was preceded by a pilot study. This took the form of interviews conducted with five individuals aged between about 35 and 55, both male and female, who represented different sorts of experience of the art world, within and outside higher education. While these individuals did not represent a comprehensive view of the whole spectrum of educational and professional experience in art, the distinctive character of their responses to the interviews, and the examples of artists and works which they cited, provided some indication of the variations of paradigm which might be available to the students.

The course within which the Case Study was based on a Student Handbook which formed part of the documentation for the CNAA validation of the course, and was issued to each student. It includes an introductory page which describes the general ideas behind the course and introductions to aspects of the curriculum which develop these more specifically.

To identify indicators within the student group the enquiry was limited to interviews about their views on art and on their experience of art education, tasks involving propositions about art and art education, and examples of paintings, and questionnaires about the different working approaches within the group. One of the limitations of the structure is the exclusion of possible influences, such as religious, political, or philosophical belief, knowledge of other subjects, and a number of experiential factors. To compensate, in part, for these exclusions, the interviews were conducted in a way which enabled students to bring such factors to attention, and students were also able to comment during work on specific propositions and examples.
The interviews sought, generally, to enable the students to describe their experience of art education. In particular they aimed to identify evidence of learning through "tacit" processes: through personal relationships transmitting "inarticulate" knowledge; to seek evidence about the coherence of ideas, sources and techniques within the responses which might be considered indicative of paradigms, in an individual or within groups; and to gather evidence of the nature of change in approaches, and the sources of their ideas and work, of whether these were "revolutionary" or incremental, whether they exemplified a positive or negative "problem shift". In addition emphasis was placed on the relationship of history and theory with the students' approach and practical work. At the end of their interview students were asked to describe and discuss examples of their painting.

The interview schedule was structured, although it was quite broad in character, and the administration of the interviews permitted various degrees of discretion, particularly in enabling students to pursue ideas or recollections beyond the immediate brief of the schedule, and also of omission. Where students had answered questions under another head, or the question appeared otherwise to have lost some point, it was not pursued. The schedule was used as a prompt during the interviews, although it was noticed that some students seemed to resent its presence, and preferred the attention of the questioner to be unwavering. At such times the schedule was used as discreetly as possible, or dispensed with.

In the tasks the field of enquiry was limited by the number of propositions and examples which could be considered. In
general terms it was considered that these should represent the "artworld" within which the students were working; they should be comprehensible to the students, i.e., they should be able to contextualize them in terms of the other propositions and examples; and also that they should be "in play": i.e., pertinent to the students' thinking about and practice of art. To achieve this specific sources for each were identified.

The propositions were selected from texts relating to art in higher education over the past 30 years. This period was chosen largely because many of the issues of the 1960s were still alive in the art world in 1990, and also because it permitted the inclusion of propositions used by the more conservative elements in response to the "modernism" which marked the inception of Dip.AD (see Appendix 2.1 for a list and the sources of the propositions).

The same criteria were applied to the examples. The choice of paintings was made largely from works held in London public galleries, in the hope that the postcard reproduction which was used would remind the student of the actual work, rather than being seen as an object in itself. The examples chosen represented different historical, modern, and contemporary styles or genres, and as the artists selected, like the propositions, had to be "in play", they were drawn largely from those mentioned by students in the course of their interview. This selection was supplemented by the addition of examples supplied by a female student on the ground that my own selection might be "too male-orientated" (see Appendix 2.2 for details of examples).
The nature of the propositions and examples did not enable the use of the bi-polar constructs which characterise normal repertory grids (Kelly 1955 137; Fransella and Bannister 1977 2-3). Neither the examples of paintings, nor the propositions which were elicited from existing texts, permitted the identification or elicitation of opposites.

For the purposes of the analysis of the results each example and propositions was numbered, and the alternative pole had the prefix "not", thus E20 (Nicholson Auberge de la Sole Dieppoise) was opposed by NotE20, and P08 ("Art has to question and change the value structure of society") was opposed to NotP08. The "other poles" were then excluded from the analysis. This process had one useful side effect: the process of analysis was carried out in the number code of propositions and examples, rather than the propositions and examples themselves. The researcher, therefore, worked in terms of the structure of the data, and had no idea of the content of the results until these were translated back into the propositions and examples at a later stage.

4.1.4 Comparison and Evaluation

The variety of the methods employed in pursuing this research necessarily involves issues about the linking of different sorts of data. The starting point is provided by Fieldings (1986); it concerns the necessarily qualitative outcome for all categories of data:

... ultimately all methods of data collection are analyzed "qualitatively", in so far as the act of analysis is an interpretation, and therefore a necessarily selective rendering, of the "sense" of the available data. Whether the data is collected are
quantifiable or qualitative, the issue of the warrant for their inferences must be confronted.
Fieldings 1986, 12

The point underpins what is perhaps the strongest basis for comparison. All the data in this study, whether it comes from interviews, the tests relating propositions and examples, or the paintings of the students, are used as basis for statements. In the context of a particular student, or group of students, such statements become comparable. Such a comparison yields three basic conclusions: the statements support each other, and are therefore consistent; or the statements contradict each other, and are therefore inconsistent; or the statements neither support each other nor contradict each other. From this basis the different degrees of support and contradiction, and the manner in which statements can lead to modifications of each other, can be considered.

If, for instance, different sources of data lead to two statement, both of which are "John has blue eyes", it might be considered strongly probable that John has blue eyes. If the same sources provide two statements, one of which is "John has dark hair", and the other is "John has fair hair" it might be concluded that John has dark or fair hair, or that we do not know what colour John's hair is. If the same sources provide two statements, one of which is "John has blue eyes", and the other is "John has dark hair", we may consider it possible that John has blue eyes and dark hair.

The value of such comparisons of statements from different sources and sorts of data is that they can clarify, modify, or elucidate the statements from single sources.
The Fieldings also refer to the point, made by Becker, that, ...

... even the most hidebound ethnographer cannot help
but be attuned to rudimentary quantitative matters;
the hold of modern culture is such that in some way
our observations are always "implicitly numerical".

Fieldings 1986, 12

The example used could equally well have been presented in a
quantitative form.

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Hair</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Source 1</td>
<td>1</td>
</tr>
<tr>
<td>Source 2</td>
<td>1</td>
</tr>
<tr>
<td>Source 1</td>
<td>0</td>
</tr>
<tr>
<td>Source 2</td>
<td>0</td>
</tr>
<tr>
<td>Source 1</td>
<td>1</td>
</tr>
<tr>
<td>Source 2</td>
<td>0</td>
</tr>
</tbody>
</table>

Table I. Sources and Descriptions

The quantitative presentation of the example clarifies
the data of the example. It shows the categories: eyes
and hair, within which agreement or contradiction are
both possible, but between the categories no such
agreement or contradiction is possible.

Within the Case Study certain categorizations of data are
built in. One pair of the propositions, for instance, are
nearly synonymous:
the fine art work of students should have no predictable end results, and

art education is centred on the personal development of students, where ever this may lead.

Another pair are almost contradictory:

history and theory divert attention from the main purpose of art education, and

history and theory should be an integral part of fine art education.

The students deployment of the propositions in the groups will offer, or fail to offer, some reassurance that the responses are not random. The consistency of the students' responses will also be considered. Each example and proposition will be grouped with others in three different tasks; it would seem reasonable that such groupings should be consistent; that propositions which are considered to "oppose" each other in one task should not be seen as "supporting" each other in another. Examination of the responses in these terms should offer some indication of the value of the data.

4.2 Research Techniques

4.2.1 Text Analysis

The text material included printed work, books, papers, etc. and the transcripts of the interviews. The analysis of the texts developed using WordPerfect 5.1. After reading works and flagging selected passages that were relevant to the project, the passages would be copied into a Resource
directory (suffix .quo). In constructing the sections the principal ideas would be sketched out in a \Drafts directory (suffix .dft), and the supporting source material selected from the \Resource files and copied to the .dft file, with the schematic outline. As the draft progressed quotations would be moved up to be incorporated in the text. In the largest sections a separate source file, (suffix .sou) was created, and passages moved by means of the APPEND command. For the analysis of the interviews this system was augmented by a process of categorization.

The process of copying passages by means of a computer as a whole has substantial advantages over traditional hand copying and "scissors and paste" techniques. If the passages are correct initially it is unlikely that they will be corrupted electronically, and the insertion, extraction and movement of text is speeded up and simplified.

4.2.2 The Case Study

The Case Study commenced with a pilot project which took place in late 1989 and early 1990. Initially it was intended to survey a large number of subjects through the use of questionnaires.

The pilot study comprised of questionnaires and interviews with selected individuals. The decision to change the subjects and methods of research from a large number of subjects, surveyed through a postal questionnaire, to a small group, and limiting the use of questionnaires to specific issues, and the introduction of methods based on personal construct psychology (see above), rendered the
questionnaires used in the pilot redundant in terms of the major part of the enquiry. However, the development the structure of the questionnaire and the methods of analysis contributed to the categorization of the data in the subsequent interviews and tasks.

The pilot interviews contributed substantially to the research ideas underpinning the Case Study, to the development of the interview schedule, and to the methods used in its administration.

The five subjects used in the pilot interviews did not represent the artworld of higher education but rather demonstrated contrasting experiences. Two were staff in a College of Art and Design, differing in their ages and the dates of their training by about 12 years; one taking the Dip.AD followed by the Royal College, the other a CNAA BA followed by the Slade School of Art; both were established members of the fine art community in higher education. Two others could not be said to be still members of that community, although both had received their art education within it: one had been to the Slade as an undergraduate, and followed that by studying teacher training at the Institute of Education, since when she had pursued careers as a teacher and, after further training, as an art therapist. Another took a foundation course and Dip.AD at Portsmouth, and teacher training at Bournemouth, since when she became a member of the teaching profession, which she left on the birth of her children. The fifth subject had a totally different background in art; she had studied privately with an established academic marine and portrait painter, and is an established professional portrait painter.
The schedule for the pilot interviews categorized the experience of art according to the stages of education: home, school, foundation course; diploma or degree course, and post-graduate work. A further category, mature practice, was added to these.

Most of interview questions were repeated in each category, whether the subject had perceived changes in moving from one context to another, the examples of art which were drawn on, the museums and galleries visited, historical or critical text sources, the influence of individual teachers or lecturers, and other sources.

To gain comparative material the responses were compared with a check list, and the various items marked with 1 or 0, except for the examples, where the numbers of 1 - 5 were used to indicate reference to historical, exotic, modern, contemporary and academic works. The subjects were also categorized on an a priori basis according to their sex and the sort of education they had received, and the training and career they had pursued.

A review of the interview transcriptions drew attention to problems in the conduct of the interviews: leading questions, the pursuit of less relevant issues, and a failure to pursue the schedule and other questions which would be more valuable to the research. It was noticed that rather more and different information was elicited, and subjected to analysis, that anticipated in the initial schedule. This indicated that the schedule itself is incomplete and that there is a mismatch between the schedule and the analysis.
As a result of the pilot project, and doubts about the response rate to questionnaires, it was decided to limit the Case Study to a relatively small number of third year students on a single course, and to limit the use of the questionnaires to specific issues: the importance of the students' work, and "working approaches", were recognised and included. The tasks, based on Repertory Grid techniques, were introduced, and the structure of the interviews was modified, and the procedures and techniques were refined.

The Case Study proper took place in two phases during the 1990-91 session. The first phase, during the Autumn Term of 1990, consisted of interviewing the students about their perception of aspects of their art education, asking them to describe and discuss one of their works, and involving them in a series of tasks relating propositions about art and art education to each other and to examples of paintings on picture postcards. Students were also asked to complete a short questionnaire about their working approaches. The second phase, in the Summer term of 1991, included another short questionnaire about the students' work and the photographing of examples from their degree exhibitions.

The sample group were drawn from third year students on a CNAA BA (Hons) course in Fine Art (Painting). Participation was voluntary, and on this basis twelve of the nineteen students in the third year became subjects. In addition the two members of staff who had facilitated the Case Study were also interviewed and participated in the tasks; this familiarized them with the students' experience of the project.
The arrangements for the Case Study can be described as a sequence of events; firstly the permission of the Director and support of the Course Leader were obtained. A discussion took place with the Course Leader and another member of staff, during which the objectives and procedures of the Case Study were described, and arrangements were made to interview him and the other, part-time, member of staff and for them to perform the tasks. A time was also arranged to meet the students.

The meeting with the students was attended by eleven of the nineteen third year students on the fine art painting course. The purpose of the research project and the character of the case study, and the demands it would make on them, were described at the meeting. The students were assured of the confidentiality of the information which would be obtained, and that the researcher would play no part in the assessment. Therefore, they could speak openly in the knowledge that what they said would not influence their degree assessments, or any opinion that staff might hold of them and their work.

The description of the project to the students included the following points: a) the project is concerned with the development of research, or more specifically research degrees, in fine art; b) research is seen as the product of practice, examples and ideas; c) this Case Study was concerned with identifying aspects within the practice, examples and ideas of the students; d) in the interviews and other parts of the Case Study there were no "right answers", the sole concern is to "find out what you do, the examples of artists who you admire and who influence your work, and...
your ideas about art. It is intended to find out how you think about and how you see things".

The students were asked to meet the researcher individually two or three times in that term, and then again when the degree exhibitions were up in the Summer. Permission to photograph examples of the work students’ work was sought and obtained. It was pointed out that the research cannot be conducted in a 'fly on the wall' way: it may influence the way the students think or see their work; towards the end of the project it was suggested that we should meet as a group and discuss whether this had happened, and, if so, what influence the project had.

Of those present one student said that she did not wish to take part. All the others expressed their willingness and were later joined by two other students who had not attended the meeting. Individual meetings were arranged for interviews, lasting about one hour, and for further, two hour, meetings were agreed, for the tasks involving the propositions and examples.

4.2.3 Interviews

As a result of the relative informality of the interview the questions asked of specific students varied, and the words used to ask them sometimes also changed from student to student. In order that these factors can be considered in the analysis and interpretation of the results the interview schedule, and samples of the actual questions asked of each student have been extracted from the transcripts.
Interview Schedule

Identify interviewee

State date, time and place of interview

Outline of career in fine art education

1. School
   i. Were you good at art at school?
   ii. What sort of thing were you good at?
   iii. Who were the influential artists when you were at school?
   iv. Did you go to museums and galleries when you were at school?
   v. Did you read about art at school?

2. Transition from secondary to art school
   i. Was its different at (art school)?

3. Art School(s) (sequence repeated for each art school)
   i. Was/is there a dominant style or approach at art school?
   ii. Who were/are the most important artists at art school to your group?
   iii. Who are the most important artists for you?
   iv. Which galleries and museums did you visit?
   v. Is/was there a curriculum?
   vi. The sort of teaching methods on the course?
   vii. Which journals and books did/do you read?
   viii. Which critics or other writers were/are important?
   ix. The history of art/complementary studies syllabus, its relation to work (Degree course) Essays, their relation to work; Dissertation, relation to work (Degree course)

4. Conclusion
   i. What have you got out of art education?
   ii. What do you expect to be doing in about a year or eighteen months; in ten or fifteen years?

The interviews were concluded by asking students to describe and discuss an example or examples of their painting.

The interviews were audio recorded, and later transcribed, and the works which were discussed were photographed onto slide film. Students were given copies of the interview transcripts, and invited to correct or comment on them.
The primary aim of the analysis of the interviews was to correlate and discuss those aspects of the interview data which could be identified as comparable experience. Firstly, the experience of school, of a foundation or other preliminary course, and the degree course; secondly, those more detailed aspects of these categories: the experience of change, of the approaches of different institutions, of the curriculum, of visits to galleries or museums, of reading,
of doing essays etc. Such a process of analysis necessarily excludes data which is particular to individual students; it does not reflect experiences gained outside the prescribed structure of the analysis, such as work and other educational experience, particularly in the case of mature students. The consideration of the individual students became, therefore, a further stage of the analysis.

The analysis of the interview transcripts generally followed the process described above, but it also employed a system of files and sub-files created through WordPerfect 5.1, using the APPEND command to develop a more specific categorization than had been used with the published texts.

The primary categories of school, foundation and degree courses were established by files: SCHOOL.ALL, FOUND.ALL and DEGREE.ALL. These were then copied to analytical files within each of the primary categories, each with a prefix indicating primary category, an indication of the subject of the file, and a suffix indicating the nature of the file (analytical: ana). Examples: SchGalls.ana (Galleries and Museums visited while at school), FoCurric.ana (the Curriculum on Foundation courses), and DeHist.ana (Degree course History of Art and Complementary Studies syllabuses, essays and dissertations).
Through the use of these analytical files short texts were developed which were then brought together to form the Draft (.dft) files towards the report. These again responded to the primary categories, ie. SCHOOL.DFT, FOUND.DFT and DEGREE.DFT. In drafting the texts, and revising the draft files, one objective is to provide an overview of, and comparisons between, the students' recollected experiences. Another objective is demonstrate the quality of the students' experience and views through the use of quotations which, on the one hand, provide evidence in the overview and comparisons, and, on the other, provide individual insights within what otherwise might become too generalised to be relevant.

4.2.4 Tasks

Procedure

The propositions were written onto index cards and the examples presented as postcard reproductions. The students were placed opposite the researcher, across a table, which was large enough to enable them to see all the propositions and examples simultaneously. These were placed in front of them in random order, and they were asked to group them in columns according to the particular task. Where there was doubt about the
understanding of the instruction, the student was asked to repeat it in his or her own words. The students' performance of the tasks was timed and the time recorded.

Table III. Tasks: Structure of Enquiry and Analysis

1. Propositions.

1.1 Groups.

a) The cards with propositions on were laid out in a random order.
b) The subject was given subject time to read them.
c) The subject was asked to sort propositions into groups according to their agreement with each other. It was added
that the propositions may also be neutral, irrelevant or not understood.
d) When the subject had sorted into columns, they were asked whether any changes were desired.
e) The groups were recorded.

1.2 Agree/Disagree

a) The cards were again laid out in a random order
b) The subject was given time to read them.
c) The subject was asked to sort propositions according to whether they were supportive or not of their "working approach". It was added that propositions may also be neutral, irrelevant or not understood.
d) When the subject had sorted into the propositions into columns they were asked whether any changes were desired.
e) The result was recorded.

Additional Propositions.

a) The subject was asked to add any propositions which they might wish to, and the additional propositions were recorded.

2. Examples.

2.1 Groups.

a) The examples were laid out on the table in a random order.
b) The subject was given time to look at examples.
c) The subject was asked to sort examples into groups according to their agreement with each other. It was added that the examples may also be neutral, irrelevant or not understood.
d) When the subject had sorted the examples into groups they were asked whether any changes were desired.
e) The groups were recorded.

2.2 Agree/Disagree.

a) The examples were again laid out again in a random order.
b) The subject was given time to look at examples.
c) The subjects were asked to sort examples according to whether they were supportive or not of their "working approach". It was added that examples could also be neutral, irrelevant or not understood.
d) When the subject had sorted the examples into groups they were asked whether any changes were desired.
e) The groups were recorded.

Additional Examples.

a) The subject was asked to add any examples which they might wish to.
b) The added examples were recorded.
3. Propositions and Examples.

3.1 Groups.

a) The propositions and examples were laid out in a random order.
b) The subject was given time to look at the propositions and examples.
c) The subject was asked to group examples and propositions as they supported each other or not.
d) When the subject had sorted them into groups, they were asked whether any changes are desired.
e) The groups were recorded.

Question: At the end of the session the question, "Did you find it interesting" was asked, and the reply recorded.

Analysis

All the results of each of the five tasks were tabulated to provide five basic tables. Each of the basic tables were then analysed, and selected data isolated according to criteria, to produce the analytical tables. The analysis was pursued by counting frequencies, for instance: the number of students who had placed particular propositions and/or examples in the same group; the propositions and examples which were found by students to be most supportive of their working approach.

Much of the analysis was done "by hand", however more complicated procedures, particularly the identification of significant relationships and clusters was done though the use of a computer programme, RepGrid2 (Repgrid2 1990) and the colour coding of the resultant tables (Appendix 4). This programme was designed for the analysis of Kellyian personal constructs, as they are recorded through repertory grids.
The tasks employ a similar technique as personal construct analysis (Fransella and Bannister 1977), although the procedure is modified to enable conclusions to be drawn about the student group as a whole and clusters of students, rather than only individual students. The elements and constructs in the "classical" repertory grid are normally elicited directly from the individual participants.

However the objective of this research was to arrive at comparative material through which the individuals could be compared with each other and the group as a whole; therefore it was necessary that each individual should respond to supplied elements and constructs, the propositions and examples. Rather than being elicited from individual they were therefore arrived at, in the case of the propositions, through an analysis of texts relating to fine art in higher education over the past 30 years (Appendix 2.1.1) and, in the case of the examples, from artists referred to by students, or in some cases through the use of cards supplied by one of them.

The analytical procedures supplied by RepGrid2, although designed to work on repertory grids elicited in the normal manner are no less applicable to the use of supplied elements and constructs, as in this case. The programme can reproduce the table in "Display" (Repgrid2 1990 8-2), and the analytical procedures have two principal methods: firstly the "Focus" part of the programme (RepGrid2 1990 9-1), which relates the elements and constructs to each other by rearranging the table and providing diagrams of the clusters within each (Appendix: Tables 4.1, 4.3, 4.5), and secondly through the analysis of "Principal Components" (RepGrid2 1990 10-1), which correlates each element and
construct within a multi-dimensional picture. This is expressed diagrammatically and also as a grid of numbers indicating the positive or negative strength of each correlation (Appendix: Tables 4.2, 4.4, 4.6).

Therefore, as each of the Basic Tables is analyzed through the use of RepGrid2, it generates three tables: the Display, which reproduces the Basic Table, either as the original or in the transposed form; the Focus, which analyses this data to group elements and constructs into clusters which reflect their similarity and differences, and the Principal Component analysis, which shows the same relationships as the Focus, but as a "scatter" diagram, with multi-dimensional axes. The Principal Component Analysis also yields a numerical analysis of the data, which indicates correlations and other characteristics.

The analysis of the students has been made in terms of the characteristics of the student group as a whole, the students in relation to a priori categories of propositions and examples, clusters of students, and individual students. The presentation is written, but the text refers to the data in the Basic Tables, which contain the raw results of the tasks, and RepGrid2 tables.

The major analysis has been devoted to the characteristics and groupings of the students, and how they are described in terms of propositions, examples and working approaches. The relationships and clusters of propositions and examples provided by the students have, except in so far as they inform our view of the students, been treated as of secondary importance. The results of analysis with Repgrid2 are, like the data, subject to the variations resulting from
apparent inconsistencies among the student responses. Therefore differences become evident between, for instance, the clusters of propositions which appear in the straightforward task of "grouping" and those which are evident in the relationship between the propositions and the students' working approaches.

4.2.5 Questionnaires

In addition to the tasks with propositions and examples there were two short questionnaires. The first sought to identify the students' perceptions of the different working approaches in the groups. The students were asked:

a) which students in the group shared related working approaches, and,

b) which students in the group had working approaches which agreed with their own.

This served to provide an extra basis from which to identify clusters of students and with which to check the results as they emerged from the interviews and tasks.

The results of Questionnaire 1 enabled the students to be grouped on the basis of the perception of their different working approaches.

The second phase of the of the Case Study was conducted during the Summer Term of 1991 in connection with the students' exhibitions for the degree assessments. It consisted of a short questionnaire and taking photographs of the students' works. The classification of individual students took place at this time.
The questionnaire had five questions:

1. For whom are you painting? Students were asked to prioritize the following:
   - Yourself
   - Fellow Students
   - The Fine Art Staff
   - The Examiners
   - Other (please specify)

2. What ideas have most influenced the recent work in your exhibition?

3. Who are the most influential artists on the recent work in your exhibition?

4. What other factors have influenced the recent work in your exhibition?

5. What, if any, major changes have occurred in your work since the Autumn Term?

The analysis of the second questionnaire was achieved through comparing the different responses to the same questions, in a way similar to, but on a more limited scale than, that used with the structured interviews.

4.2.6 The Students' Paintings and Descriptions

The paintings are central in their importance to the discussion of the paradigms of the students; they represent the outcome of the course, and are the major basis for the classification of the students' degrees.

The students' general descriptions of their work took place during the interview and more specific description and discussion was elicited after it. Although there were no related questions in the schedule nine students (S01"Barbara", S04"Clive", S05"Doreen", S06"Flora", S07"Frances", S08 "Gerald", S09"Mary", S10"Shirley", and
S11 "Veronica") either described their painting in the context of another question, or the question was put. Following the interview, and after moving to the student's work space, all the students were asked to describe and discuss a particular painting.

The paintings themselves are the most elusive sort of data which is subject to analysis and discussion; they provide information in a different form, and with different values, than that gained from other aspects of the enquiry which exist in, or can be translated into, written or numerical presentation. The discussion of the paintings has therefore been centred on their relationship with the other data, particularly the students' own descriptions and discussions, rather than seeing them as "things in themselves".

The use of examples of the students own paintings in the study allows issues raised by different materials, techniques and imagery to be considered. It enables other data derived from students: the interviews, the discussion of the working approaches, and their choice of elements in the tasks, to be related to their work, and the possibility of causal, or concomitant, relationships to be considered.

The examples of the students' paintings were photographed using relatively long exposures, up to about 30 seconds, on Kodakchrome 64 slide film with natural daylight. This was occasionally supplemented by light from florescent tubes where this could not be avoided. In Phase 1 the works photographed were those selected by the students when asked to discuss one or more of their works; similarly the details were, in nearly all cases, selected by the student. Unfortunately S05 "Doreen" was at the time and her work was
not available to photograph. In Phase 2 the students were not always present, and the works photographed were, in most cases, chosen by the researcher. The students were given copies of slides of their work. A selection of the slides have been printed through the Cibachrome process and are included in the submission.

The study, therefore, includes a battery of methods and techniques with which to describe the perceptions, processes and works of fine art in higher education and relate it to the epistemological concepts which inform views of research. Further study will relate those concepts to the discussion of recent CNAA policy making for research in fine art.
5. **The Case Study**

5.1 **Interviews**

5.1.1 Introduction  
5.1.2 School  
5.1.3 Foundation and BTEC Courses  
5.1.4 The Degree Course  
5.1.5 Conclusions  

5.2 **Tasks and Questionnaire 1**

5.2.1 Introduction  
5.2.2 The Student Group  
5.2.3 A Priori Categories  
5.2.4 Student Clusters  

5.3 **Students’ Paintings and Descriptions**

5.4 **Questionnaire 2**

5.5 **Individual Students**

5.6 **Conclusions**
The two major values were an over-riding belief in the need for individual freedom and autonomy, and an equally strong belief in the need for rational explanations and a questioning attitudes. These two values were often in conflict . . . All the students accepted and greatly appreciated the value of individual freedom. Although they also accepted the need for clear thought and logical analysis to some extent and in varying degrees . . . Learning to strike the right balance between freedom and explanations proved one of the major problems that students (and also staff) had to try to solve

Madge and Weinberger 1973, 43

5.1 Interviews

5.1.1 Introduction

The results of the pilot interviews supported the idea that the beliefs, attitudes, values and exempla cited by the subjects bore a direct relationship to the character of their work. They provided useful distinctions between the subjects, for instance, with the two of the subjects reflected the modernism and avant-garde approach of those involved in current issues in art in higher education. In contrast, another subject, who had served an apprenticeship with an academic painter and worked as a professional portrait painter, was alone in citing such artists as Munnings, Seago and Sargent. The results also revealed the close personal relationships that subjects who had pursued a successful career, in terms of their professional practice and education, had with teachers and lecturers. This lent support to the idea of art education as the communication of
tacit, rather than articulated, knowledge, passed on through an apprenticeship, as described by Polanyi.

The structures and methods of the Pilot were developed for the Case Study itself.

The Case Study yielded a considerable amount of data; too much to analyse and discuss within this report. What is presented has therefore been subject to selection. The bases for that selection included: the arguments from the data to the objectives of the study, the demonstration of the effectiveness of the methods and techniques used in the research, and the elucidation of earlier research in the field. A selection of the data is included in the appendix. All the data can be consulted either in the files of supporting material.

The interviews sought evidence of the students' experience and perception of art education. They identified ideas, sources and techniques within the responses which might help establish paradigms, either of an individual or of sub-groups within the student sample, and examined the evidence of the nature of change in approaches, and the sources of their ideas and work.

In order to compare the objectives and the curriculum of the Degree Course, as it is described in the Student Handbook (1989), and the experience and perception of the students of the Course, discussion of the Handbook appears immediately before the report on the interviews about the Course.

The primary aim of the analysis was to correlate those aspects of the interview data which could be identified with
the common experience of the students. Firstly, the experience of school, of a foundation or other preliminary course, and the degree course; secondly, those more detailed aspects of these categories: the experience of change, of the approaches of different institutions, of the curriculum, of visits to galleries or museums, of reading, of doing essays etc. A secondary process of analysis was concerned with individual students; reflecting ideas and experiences gained outside the prescribed structure of schedule and primary analysis.

5.1.2 School

Of the twelve students, ten considered that they had been good at art while at school, the other two, S04 "Clive" and S06 "Flora", had not done art while at school. Among the ten this ability was associated with three factors: their relationship with a teacher, representational skills, and non-representational skills.

It is important to bear in mind that the question asked was about "what" made the student good at art, and not "who". The comments on teachers were unsolicited and therefore are, perhaps, a stronger component than might appear. Four students (S02 "Brian", S09 "Mary", S10 "Shirley" and S11 "Veronica") identified their ability at school with a teacher, three did so by mentioning the 'newness' of that teacher; in two cases it appears to have been a new appointment (S09 "Mary" and S11 "Veronica"), in one resulting from a change of year (S02 "Brian"). In two cases (S02 "Brian" and S09 "Mary") the relationship with, and support of, the teacher was sustained beyond school.
Six students (S01 "Barbara", S02 "Brian", S07 "Frances" S10 "Shirley" S08 "Gerald" and S12 "Wendy") related their artistic ability at school with skills in representation. Of these two identified their skill with style, such as the "super-real":

I could draw things as I saw them. At school you draw what is in front of you, what's there. I could draw figures and things like that quite well. The usual A level thing of just drawing a coke can how it is, just sort of super real, that sort of thing.  

S02 "Brian"

"Frances" considered her talent to be "illustrative". Three students related their talent to subjects.

Well I did lot of portraits of friends, always figurative. I can't really think, mainly portraits, a lot of paintings of my friends, animals, that kind of thing.  

S10 "Shirley"

Two students described their talent in terms of technique, "drawing with colour" (S12 "Wendy") and generally (S08 "Gerald").

The four students (S01 "Barbara", S03 "Catherine", S09 "Mary", S11 "Veronica") who related their ability to non-figurative work indicated diverse activities including: being "creative" (S03 "Catherine"), "compositions, happenings, circumstances" (S01 "Barbara"). Two of the students indicated strong relationships with the materials of art, "responding to stuff, ripping up bits of paper" (S09 "Mary") and "exploring colour and paint and stuff" (S11
"Veronica"), who describes this in relation to a new teacher.

I met this other woman . . . she was the first one to really get me to just explore colour and paint and stuff.  

S11 "Veronica"

Of the eleven students educated in this country, seven took art at "O" level, and six at "A" level. Two (S04 "Clive" and S06 "Flora") took neither, and the interviews did not reveal details of another two (S05 "Doreen" and S12 "Wendy"). The student educated in Australia (S11 "Veronica") had pursued art throughout her school career.

The visits made to museums and galleries during school days obviously relate to geographical situation. Of the twelve, nine lived in or near London, two (S02 "Brian" and S08 "Gerald") in the West Midlands, and one (S11 "Veronica") in Australia.

In recollecting visits made to galleries and museums in their school days the students revealed whether their visits were made from home, from school, or on their own account, and the places which were visited.

Only one (S10 "Shirley") of the twelve students spoke about being taken by parents, to London from the Midlands.
I went with my family a lot. My family loved going to art galleries, so I went with them, and not with the school. So I had been to the Tate and the National quite a few times with my Dad, and the Turner. It was all old masters really, I feel I didn't know a lot about modern art. I looked at the impressionists if anything when I was at school. You know I was quite keen on Monet and the Impressionists really.

S10 "Shirley"

The same student received support from home in terms of books, but did not relate these sources to her own work until later.

we have an awful lot of art books at home. My dad is very interested and my grandmother was. I remember an awful lot of art, but never being able to put the name to the painting I was looking at. Not until after I left school and went to Foundation.

S10 "Shirley"

Her sources at school very much revolved round the personality of her teacher.

I don't every remember looking at artists, I don't ever remember being told to look at artists when I was actually at school. Even A level, it was always very insular. I respected my art teacher's work, you know, followed after his footsteps, he was a very good teacher, a lot of objective drawing. That's where I got a lot of my ideas from.

S10 "Shirley"

Two students mentioned visits to museums and galleries made on their own account. Three (S04 "Clive", S06 "Flora", and S12 "Wendy") remarked that they were not taken from home. Seven (S01 "Barbara", S02 "Brian", S05 "Doreen", S07 "Frances", S08 "Gerald", S09 "Mary" and S11 "Veronica") recollected being taken by their schools. Two (S04 "Clive",
S06 "Flora") remarked that they were not taken by their schools, in both cases they did not pursue art as a subject at this stage.

The principal place where galleries and museums were visited was London, and the most popular institution was the Tate Gallery, which five of the students (S01 "Barbara", S02 "Brian", S05 "Doreen", S07 "Frances", and S10 "Shirley") remembered having visited during their school days. Other places in the capital comprised the National Gallery, the Victoria and Albert Museum and the British Museum, each of which was visited by two of the students. Provincial galleries were also seen by two students (S01 "Barbara" and S08 "Gerald"). One student (S02 "Brian") participated in a school visit to Italy, and saw works in Venice and Padua.

I went to Venice in the sixth form, and went to Padua, and I saw the church with all the Giottos in it. It was just an amazing sight really. Venice was incredible actually, incredible place, I’d like to go back again.

S02 "Brian"

S11 "Veronica", educated in Australia, had visited a number of galleries in Melbourne.

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Table IV. Schools: References to Artists
Ten of the twelve students mentioned artists or styles who influenced them, or of whom they were conscious, during their period at school. They can be distinguished as contemporary, modern, and historical.

The four examples of contemporary artists in the other category are from "Veronica" who cited contemporary Australian painters. With one exception, Giotto by "Brian", the historical artists are all 19th century painters, such as the Impressionists; the work of students, while at school, was not influenced by work done before the beginning of the 19th century. The predominant culture of their art education was modern.

Among the students, three (S09 "Mary", S11 "Veronica" and S12 "Wendy") referred to belonging to groups of their peers who espoused a special interest in art. Wayte found that future art students were already identified at school. They are seen as being good at art, and form a homogeneous group, characterised by graphic skills and a capacity for self-motivation. She also suggests that it is at school that future art students adopt an "art cant" (Wayte,G. 1989, 277). Certainly the students who pursued art at school appear to have been conscious of a particular talent, although they varied in their description of what this talent was, and the support and friendship of their teachers.

5.1.3 Foundation and BTEC Courses

Ten of the twelve students had preceded their entry onto the BA degree course by taking a Foundation course; the other two had entered by way of BTEC courses. Of those entering
through Foundation three had studied on the same course, at
the same College and during the same year.

Eleven of the twelve students compared their experience on
entering a Foundation or BTEC course with that of school or
other experience which preceded it. Of these ten remarked on
the change that it presented; one (S01 "Barbara") considered
it similar to an earlier experience of further education.
However the common elements which contributed to this change
are hardly apparent from the responses. Four of the ten (S02
"Brian", S06 "Flora", S08 "Gerald" and S12 "Wendy"),
associated the change with freedom, usually freedom in the
kind of work they were able to do.

... we were tailored into doing all this precise
stuff at school, and then at foundation it was,
"liberate yourself" and all that, "find your true
self", as it were. It was a bit strange, but that was
what they tended to teach us there ...  

S08 "Gerald"

... it was a case of, "I've got to do some abstract
painting, I have got to throw some paint around." So I
started off and just in the first week I was there
made a number of very quick, abstract paintings,
which, looking back on it, were pretty useless. The
life drawing classes though were very useful, I think.
The one I remember most was the very first one we did,
which, we were told we had to do these drawings in, I
think it was, five minutes for the first one, and
everyone was trying to draw very, you know, using one
line trying to get it right. And by the end he was
giving us thirty seconds for a drawing, and everyone
was having to whack it down really quickly, and making
some, well I know it helped me, I was making some
quite reasonable drawings in thirty seconds, you know.
It was a real help ... 

S02 "Brian"

Two students (S03 "Catherine" and S05 "Doreen") were
impressed by an energetic atmosphere.
the whole atmosphere was exciting, quite
electric really. Everyone was terribly enthusiastic
and terribly excited to be there, and so worked
incredibly hard, everything that was offered to us,
just like 'drinking it up' in desperation. So,
brilliant. . . . I had a fantastic time there, it was
an experience that I will never forget. If I hadn't
had that experience I would have had the same
enthusiasm for art that I do now.

S03 "Catherine"

There are no other factors which were mentioned by more than
a single student. Those factors which received mention by
individuals included a realization that, compared with
school, the student was not seen as specially talented, nor
received that personal interest and attention from staff
that had been experienced at school.

I got there, and I suddenly realized that I wasn’t the
best. And that I wasn’t absolutely fantastic, and that
I wasn’t going to be a great artist, and I’d had so
much attention from my art master, and I suddenly felt
really lost. Very lost.

S07 "Frances"

The same student found that she was most responsive to the
teaching on her foundation course.

I always felt that I wanted to paint how they told me
to paint, and to work how they told me to work. I
guess that really going back to the school, that’s how
I worked at the school, and I got good results, and so
therefore I wanted to carry on doing that, not
realizing that it wasn’t you must do this, but giving
me ideas and picking the ideas from what they told me.
S07 "Frances"

Among more negative responses, "Mary" found her art school
trendy and fashionable; "Barbara" considered the course
restrictive in the work done and that the students lacked
direction. "Flora" found that, as a mature student, she
became conscious of the age difference, and recollected the demand for justification of her work.

... suddenly you were being asked to talk about every single thing that you were doing. Nobody before had said to me, 'Why are you working in this way, what are you doing when you go to art college. Why are you doing this?'  

S06 "Flora"

"Wendy", who was on a BTEC course, experienced a marked contrast with school.

Complete freedom. The choice of what I did and being free. A lot of us were quite young, a lot of us were sixteen and it was going from a very strict Church of England school to technical college; it was just great. Best time of my life those two years, you know. A complete growing up time I think.  

S12 "Wendy"

From their descriptions of the curriculum the students indicate a standard pattern to the practical aspect of foundation courses. This is characterised by a first term working in a variety of areas of art and design, followed by a choice of main subject, in this case fine art painting, which is then studied during the second term. In the third term applications for places on degree courses are made, and any remaining time is devoted to the main subject again. Seven of the students appear to have experienced this pattern (S01 "Barbara", S03 "Catherine", S05 "Doreen", S06 "Flora", S07 "Frances", S09 "Mary" and S11 "Veronica"). In the case of one student (S02 "Brian") the range of subjects in the first term was restricted to sculpture, print and painting. Another student (S08 "Gerald") simply described the curriculum as, "... very loose... it wasn't a... course at all".
Two of the students, "Clive" and "Wendy", were on BTEC courses which, in the former case at least, had a more detailed and sustained structure.

It was heavily drawing based and heavily based on work from nature, and anything a bit more abstract was pooh-poohed. So that was the basis of it really: straightforward drawing and painting, observation.

S04 "Clive"

In the structured part of the course, teaching was often on a group basis. Some techniques, and the development of the main study, the student's painting, is taught through individual tuition.

... probably one of the most inspiring tutors I have ever had. ... he was very good at looking at things from your perspective. ... you would actually talk for half an hour before you looked at the work, like he could work out what's going on inside your head, and sort of felt right through you in your work.

S11 "Veronica"

Some students also had a personal tutor to whom they could refer according to their needs. Exceptions are the two students who took BTEC courses, where there was a far higher proportion of group teaching.

"Catherine" and "Flora", who were at the same college, mentioned being taken off site for study. "Doreen", at another college, remembered the visit being related to an emphasis on tribal art.

That's [primitive and tribal art] what we were being told to look at... there was an information process really, drawing and general collage. I have
always been interested in notions of kind of collage in painting.  

S05 "Doreen"

Ten students provided information about their experience of the history of art on foundation courses, and one on a BTEC course. Five discussed the lecture course they attended and seven the essays they submitted.

Of the five lecture courses on art history mentioned by students, three, two foundation and one BTEC, were recollected as a "survey", providing a general introduction to art from an early period to the modern movements, and two were insufficiently recollected or described to identify a syllabus. Six students were able to remember the subjects of the essays, these included five who wrote on art, and "Brian" whose essay was about avant-garde surrealist film. The artists who were discussed in essays included Titian (S08 "Gerald"), Turner (S11 "Veronica"), Monet and Rivera (both by S10 "Shirley"), Elizabeth Frink (S01 "Barbara") and Francisco Clementi (S03 "Catherine").

Three of the students who wrote essays about artists found that they had a relationship with their practical work (S01 "Barbara", S03 "Catherine" and S08 "Gerald");

It was towards the end, I think I was getting interested in Titian. I was interested in his painting towards the end of the course. . . . I liked his quite violent use of colour, in his later works, and I guess that sort of energy . . . the energy and colour as my work developed . . .

S08 "Gerald"

"Shirley" and "Veronica" saw their work in the history of art as quite separate from their work in the studio.

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at the time painting was something quite different. One thing was academic work and the other was painting. I couldn’t relate the two things at all.

S10 "Shirley"

Students’ recollections of their reading during the Foundation period were often vague. Three of the twelve (S05 "Doreen", S07 "Frances", and S12 "Wendy") had no meaningful contact with written sources during their foundation year; "Wendy", who was doing a BTEC course had few resources in this respect.

The library was more or less non-existent. There wasn’t a library, so we didn’t really have access to any art books.

S12 "Wendy"

Four of the students recollected having consulted periodicals or read criticism in the press during their foundation courses (S01 "Barbara", S04 "Clive", S09 "Mary", and S11 "Veronica"). Four of the twelve recollected reading particular authors (S01 "Barbara", S03 "Catherine", S07 "Frances", S09 "Mary"); four related their reading to practical work.

Ten of the twelve students considered that there was a "dominant style or approach" on their foundation courses; the two exceptions were "Mary" and "Wendy", both of whom were, in different ways, unhappy with their courses. However, the descriptions of such a style or approach varied considerably. Four of the students identified the approach with various sorts of figuration (S02 "Brian", S04 "Clive", S05 "Doreen", and S10 "Shirley"), and three of these further identified it with drawing (the exception being S02
Three students cited the use of colour (S08 "Gerald", S07 "Frances" and S10 "Shirley"). Two students saw large paintings as characteristic of the style (S06 "Flora" and S07 "Frances").

Among the characteristics of the dominant approach or style, cited by single students, were the devolvement into coherent groups within the year (S01 "Barbara"), the development of a "school" (S02 "Brian"), an approach dominated by degree submissions (S06 "Flora"), and one student identified the approach with an individual tutor (S11 "Veronica").

"Frances" was aware of the conflict between the foundation course and what she had achieved at school.

I had always been quite a small painter, and I was a bit dumbfounded really when all these people were getting these good tutorials and it was, you see, these paintings were brilliant because they were just slapping on colour. And I don't feel I did ever so well at [the] . . . art college simply because of that.

S07 "Frances"

One of the variables within the students responses to questions about the group identities within Foundation courses was their consciousness, or otherwise, of informal student groups which contributed to the learning process. "Brian", "Veronica" and "Wendy" responded positively from within such groups.

There was a group of us on Foundation who were doing sort of, semi-abstract, semi-figurative works, a group of about five or six people, and we always used to talk together, and talk about our works together, and we almost formed this break-off sort of group on Foundation. And, I think there was some quite good works coming out of Foundation course, and there were
various, sort of, cliquey sort of groups, around the course; there were some very colourful, sort of abstract works, some people who tended to rip-off Francis Bacon completely, completely adopted his style...

S02 "Brian"

"Barbara" and "Frances" saw them from outside.

There were different rooms, where it was almost as though people would club together, and paint in the same style. Like you would get the life drawing room, they would all be in there.

S01 "Barbara"

Of the three students who attended the same course, two described the dominant style or approach in terms of a concern with big paintings; one cited the use of colour, and another referred to the importance of preparing submissions for admission on to degree courses.

The responses to questions about visits to galleries and museums during the Foundation or BTEC courses yielded only outline information on this issue. In general it can be stated that visits were more frequent than while the students were at school, both from college visits and, particularly, those made on their own account. Two students had visited Paris while on Foundation, and visits were also made to provincial galleries.

We went to the New Tate in Liverpool, at the docks there, that was just a few weeks after it had opened. It was OK. I was still interested in the surrealists, and I didn’t like the way they put the room there. I don’t know if you saw it. The works were very, very close together, and they were all crammed into this one room, I didn’t like that. But they had some Rothkos there as well, I had seen them before in London, and they were very impressive at that time.

S02 "Brian"
The visits to special exhibitions increased, and students became aware of private dealers, particularly in Cork St.; the Portobello Road was also mentioned. The sources brought some students into contact with kinds of art they had not experienced hitherto.

I remember going to see some installation work at the Small Gallery, just off Tottenham Court Road . . . the time of riots at Brixton and things like that, and they had done a whole installation on the 'violation of the home', 'the violation of the body', and I thought that was amazing really . . .

S12 "Wendy"

Some students during this stage also seem to have become conscious of relationships between what they saw in museums and galleries and their own work.

. . . Lucian Freud very much. I had never looked at his work before, it was completely new, and Diego Rivera at the time I wasn't very interested in it, then, I have become interested in it now, you know it has always been in the back of my mind. . . . his murals, really. Its just a riot of figures covering the whole surface.

S10 "Shirley"

Within the more general discussion of artists who were influential on the students, or the student group, during their foundation year, my questions were, perhaps symptomatically, initially understood by three students (S04 "Clive", S06 "Flora" and S07 "Frances") as references to tutors, rather than artists in the public domain. After clarification the students responded to the meaning of the questions as they were intended. However, two students were unable to cite a single example of an influential artist during this phase of the interview.
Table V. Foundation and BTEC: References to Artists

In addition to the examples of artists and movements which are included in the categories, child art was mentioned by "Wendy".

The distribution of examples can be compared with that from the students’ description of their school career. In both cases the number of examples are modern, suggesting that this might be the dominating concern of art education at this time. The greater number of artists cited may suggest a growing consciousness of the possible sources for their work, and there appears to be a greater awareness of contemporary work. Taken with the new experience of the dealer’s galleries and special exhibitions it can be considered that enabling students to come to terms with current art is one of the roles of the foundation courses. It may be indicative that two of the students who did not cite contemporary artists studied on BTEC, rather than foundation, courses.

5.1.4 The Degree Course

The Case Study involved twelve students in the 3rd year of a Fine Art, Painting CNAA BA Honours course. The course was first validated by the National Council for Diplomas in Art
and Design in 1971. On the merger of the NCDAD and the Council for National Academic Awards in 1974 it automatically became a CNAA BA Honours degree course, subject, as with all other CNAA BA courses, to quinquennial review. The most recent review took place in 1987. The College’s documentation for this review was based on a Student Handbook. The original handbook could not be made available to the researcher, and a revised edition of 1989 has been used. The major revisions concern the College Calendar, but the description of the course has remained relatively constant.

The Introduction describes the broad nature of the course.

Many Course applicants have an ambition to become a practising artist. We provide a Course that will both support and build upon this ambition, whilst also developing a set of transferable skills. Our primary objective is to teach the technical and study skills required to work effectively with the theory history and materials of Fine Art.

Handbook 1989, 2

It states that the course evolves,

. . . in response to individual student ideas and directions identified through tutorials and is reliant on close and continuous contact with staff.

Handbook 1989, 2

And that the course provides a number of possible outcomes for the students.

Many students go on to apply successfully for post graduate college places in Britain and overseas. Others seek art-related careers in secondary school teaching, art therapy, arts administration, technical work, journalism and so on. Others see a Fine Art
Course as offering an education in its own right - an experience which equips the individual to work creatively in any number of other professions.  
Handbook 1989, 2

The relationship of the practical part of the course to its historical and theoretical aspect is also referred to in the Introduction. Each student, "... follows a Course in history and theory which informs their practical studies", and which "... give valuable contextualization to studio work" (Handbook 1989, 2).

The general development of the course is described as three stages. There is a strongly specified programme in Stage 1, ie. the first two terms. This includes the workshops on drawing and painting, and projects (Handbook 1989 16). Each of the terms is characterised by emphases and aims; in the first term there is an emphasis on objective study and investigation through drawing, with the related aims: to investigate and analyse the relationship between surface and structure; to gather information to use as subject matter, and, to explore ways in which to make equivalents to the visible (Handbook 1989 15). The second term has its emphasis on formal inventions, and the students are encouraged to: find an area of research in the history of art of other cultures; to experiment with media and materials, and to explore imagery in radical ways - to transform and re-invent (Handbook 1989 19).

The projects are based on the use and synthesis of specified sources. For the first term three examples are given:

(a) The Assyrian reliefs at the British Museum; newspaper reports concerning a particular event; an incident in personal history.
(b) A Greek myth - Orpheus; the journey home/ to College.
(c) A film or poem; intimate domestic objects, interior or landscape.

Students are expected to do two projects, each of which was of five or six weeks duration, within which two weeks were to be devoted to "research" (Handbook 1989 16). In the second term there is to be a further eight week project "... which will provide a context and framework of reference with which to develop ideas". The examples of areas of study include: Medieval carving and misericords; Mexican murals, African carving, and Florentine frescoes (Handbook 1989 19).

During the first two terms the theoretical and historical syllabus reflected the major concerns of the practical syllabus; the first term being concerned with the, "... construction of reality, from descriptive to Utopian", and the rise of modernism (Handbook 1989 17), the second term examining, "... key movements in the history of formal invention, looking how individual artists have been seen to break with tradition" (Handbook 1989 20), and providing an interdisciplinary course on modernism (Handbook 1989 21).

The Stage 1 assessment takes place through an exhibition of the students' work and submission of essays. The criteria reflect the content of the course in terms one and two, with emphases on drawing, the use of tools and materials, the relationship between taught classes and home-based study, the ability to relate ideas to images in essays, which should, "... demonstrate the ability to research, analyse and express ideas clearly" (Handbook 1989 22).
Stage 2 of the course: ie. terms three, four and five, is more open in character within a system of tutorial guidance, through "... this partnership we aim to define a focus and direct your studies" (Handbook 1989 26). The aims and objectives of the stage refer to: a sense of personal critical awareness, self-reliance through the acquisition of personal research. Students are expected to achieve,

... an awareness of art within a social context through the teaching of the theoretical studies course and relate this to personal practice.

And an introduction to "... the wide range of resources held nationally, locally and within the College" (Handbook 1989 27). There is an emphasis on "personal research" in the description of the syllabus, which also places "great emphasis" on the students, "... working intellectually and socially as a group" (Handbook 1989 28). In addition to the students' concentration on their more personal development there were projects concerned with gallery and project management, working to a brief, and an in-house mural project.

The theoretical studies include a syllabus on the ideas of post-modernism (Handbook 1989 38), the racial and gender sources of identity, and consumption and the audience (Handbook 1989 42). The history of painting for this stage includes a syllabus entitled, "Painting and the limits of expression", which is based on renaissance and post-renaissance painting (Handbook 1989 39).

The criteria for the assessment of the second stage of the course include the ability of students to relate history and
theory to their studio studies, an ability to study a specialism in depth, and to indicate,

... a coherent personal direction, showing development in the following categories:

a) Creativity;
b) Craftsmanship
c) Personal Research Methods

Handbook 1989 46

In the third and last stage of the course, terms six to nine, the course aims to develop the students’

... intellect, knowledge and creativity in such a way that the technical communication and study skills learnt are useful to them and future employers; through this we aim to develop valued and creative members of society.

Handbook 1989, 48

Students, at this stage, are encouraged to expand their specialisms to use other areas of expertise in the College, are required to see their own work in a historical and contemporary context, and to develop relationships between their studies and employment prospects (Handbook 1989 48). The Course provides "... an opportunity for an in-depth relationship with your chosen specialism". In addition the students work on their written dissertation, which, "... we would expect to have a close relationship with your studio studies" (Handbook 1989 49).

The degree assessment requires students to submit essays and their dissertations (Handbook 1989 75) and to mount an exhibition of their work that will "... demonstrate their development, achievement, and critical judgement". The criteria for assessment of the students comprises,
1. Aims and Objectives: The students' success in reaching the prescribed objectives of the course;

2. Creativity: The students' perceptive and inventive capabilities;

3. Craftsmanship: The ability to discover, record and acquire skill with materials and use this to give form to ideas;

4. Research Methods: Evidence of sustained study of historical and theoretical aspects of the Course and an ability to relate ideas to images in presentations and the dissertation;

5. Personal development: Studio work should demonstrate that perceptive and inventive capabilities have developed since the Stage 2 assessment.

Handbook 1989 80

It is noted that the relative importance of each of the criteria may vary from one student to another.

In broad terms the handbook describes a programme of study which both acknowledges both the tradition of individual development within art education, places some emphasis on group activity, and also expresses some concern about social relationships and employment prospects. These had been expressed in the NAB Report, *A Wider Vision* (NAB 1986) to which members of the College had contributed.

... the predominant emphasis in courses on narrow professional fine art practice leads to a preoccupation with narrow professional vocationalism. A broader curriculum (achievable without dilution) could provide students with the capabilities to enter a range of occupations while at the same time providing them with the benefits of art education.

NAB 1986, 13

The description of the course strongly articulates a relationship between source material, both text and image, and the students' own work. The term "research" is used

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frequently, and importance is attached to it. However, its meaning in the Handbook is conditioned by the word "personal" attached to it.

The course as it is described has characteristics which would enable it to be seen as a preparation for research: the projects using specified source materials in Stage 1; the emphasis placed on relationships between historical and theoretical aspects of the course and the practical work of students; and the role of the tutorial relationship, which takes on a supervisory character. However there are also certain lacunae if the course described is to be associated with research: although source materials are cited the idea of a subject, or research topic is absent; there is little or no consciousness of the methods and techniques through which the source materials might be developed towards a painting; and the development of critical understanding is omitted. The source materials are seen as a quarry for images, rather than as exempla of ideas and methods.

In the interviews the changes between the various foundation and BTEC courses and entry onto the Fine Art Painting degree course were discussed with eight of the twelve students. One, S01 "Barbara", entered into the Sculpture course, and only came on to the Painting course for the third year.

Several of the students had experienced and valued close relationships with teachers and lecturers before entering the degree course. Their responses to the more formal approach within the degree course, which had recently been subject to changes in staffing levels, appears to reinforce the importance of such relationships to the students. Of the eight, four commented on the relative lack of staff
involvement with themselves or their work, and the same number referred to the structure of the course or the projects that were set; three noted the relative lack of space. Students responded differently to these situations. Other comments tended to reflect the concerns and opinions of individuals rather than the group.

One student commented on the loss, or change, of objective which was apparent on entry to the degree course.

It [Foundation] was a short course, with the goal at the end which was achieved, and that was it. But here that goal was removed. There was the degree show but that was so far ahead and in the future that you can’t really think about it, and its more to do with, I sort of felt, that we were going to be shown how we were going to be artists, really.

S06 "Flora"

A number of students commented on a lack of staff involvement in their work. One student perceived what she considered to be a social remoteness among the staff.

(On Foundation) the tutors were very much on the level with the students. We would often go down to the pub together, they would always come to the parties, have a few drinks with everyone, they were very friendly. . . you could talk to them much more easily. Like friends really. Coming here, the tutors are, its almost like school, you know, it is an us and them situation.

reference withheld

For another student a lack of staff involvement was related to shortcomings at the commencement of the Course.

. . . we just felt that nobody was coming to see what we were doing. The first six weeks we were given a project, . . . the upshot of it was that we really felt that we hadn’t sort of started in a way. . . . I
think that you need to be told how to think and organize yourself, and they assumed that just comes, you just know somehow, and most people didn’t.

The lack of staff involvement was also seen as a conscious decision.

I got the impression . . . that the idea was that you were artists, and that you had the studio for three years. You just came in and used it.

The loss of the course leader, who left to take a post in another institution, and other changes in staff, tended to augment the students’ feelings of remoteness from the course, rather than present the possibility of improvement.

There is no continuity, there has never really been any feeling of a school or of anything; we are just kind of here. . . . There is so much, sort of, cynicism in different people’s attitudes, I think it has got difficult to deal with them and paint throughout it.

The comments were responses to questions about the changes students found between foundation and the degree courses, and therefore reflect the varied experience of the former, as well as the relatively common experience of the latter. The perception of the situation by students, both individually and collectively, varied considerably. "Doreen", for instance, considered that their experience of the degree course provided greater motivation and that she learned more about colleagues, than on the foundation course.
A lot more self-motivation, just learning a lot more about our fellow painters in the school here; their ideas, styles which I didn't know too much about ...  

S05 "Doreen"

Other students commented on the quality of commitment they recognised among their fellows on entry to the course. "Wendy", who had previously studied on a BTEC course found the experience quite different.

Everyone here had spent so much longer thinking about their art work, they had that much more training. I felt inferior for my first year and a half to everybody else, you know. I thought I would have great difficulty keeping up. The work they were producing, I thought at the time they were much more accomplished than me.  

S12 "Wendy"

This process of relating one's own work to that of others in the group was not restricted to this student. "Veronica" remarked:

It was kind of weird because I think we spent the first term being very nervous of everybody else's painting, we were such a closely knit circumstance, you couldn't be private about you painting everything was on display.  

S11 "Veronica"

The discussion of the curriculum was limited to eleven of the twelve students; S01 "Barbara" entered the course only at the beginning of the third year. The questions distinguished between the curriculum in the studio and that provided in history of art and complementary studies, which were treated as a separate category, albeit with
supplementary questions about its relationship with the students' work.

The outstanding feature of the studio curriculum recollected by the students was the distinctions between Stages 1 and 2 described in the Handbook. The structured first year projects, and the following period of freedom. The response of students to the projects varied substantially. "Veronica" described the project particularly positively.

... I enjoyed the projects that we had because they were limited, yet they were very open. I enjoyed having that sort of discipline and the restriction on me yet I could manipulate it to my own means at the same time, which I thought was good.  

S11 "Veronica"

Some students felt that the briefing and tutoring for the projects were confused, but that this was part of the learning process.

In the first year, there were projects we were given, which everyone started following quite strictly, and ended up not taking that much notice of it. I think that the tutors did not mind that at all, they almost wanted that to happen.

reference withheld

Another student felt that projects themselves were clear and interesting, but that their nature, bringing a variety of sources together, through the use of studies, into paintings, was not understood by many of the students.

I found that exciting; a lot of people didn't know what the devil it was all about and got extremely confused. It was very confusing. It was a massive subject which was very complicated and I think a lot of people it took all the next year to grasp what was
being aimed at, some people have not grasped it at all.

Other aspects of the first year curriculum recollected by students included drawing classes and lectures from visiting artists (S10 "Shirley" and S12 "Wendy").

For some students the projects helped to provide a working approach which informed their subsequent work.

I suppose that once one had been through that first year a couple of assault points [?], one had a rough idea of what would be expected of a painter. What avenues and areas there were opportunities to go, and I suppose as you go along through the projects you would pick up on things that you had found interesting.

After the projects the students were given considerable freedom to develop their work, although some restraint was present in terms of style and subject matter.

You are advised, they persuade you. Obviously there is your tutor's favourite style, direction. S05 "Doreen"

Some guidance was quite specific.

I remember . . . a lot of dos and don'ts; one of the things . . . was never paint about sex and things like that. [It] . . . was such a hackneyed subject. I think so far as styles go, I think you just work and produce things, but I think certain things are off limit, like extreme minimalism, and I don't know, things that go to extremes. S04 "Clive"
"Veronica" found that some of her basic assumptions about her practice were being questioned.

.. I mean I'll never forget in my first and second year I was constantly hounded about subject matter, it was like: "You have got to have subject matter, using the figure is just not enough, you can't just be fascinated by the figure, have got to use it for some reason." And I kept, I remember having this idea plaguing me, you know, why? Why do I have to use the figure, I love drawing the figure, I love painting a figure. And then when I started to work into my own personal subject people started expecting you to be really open. And like there is certain things you paint because you just have to paint them. And you don't need to say why, but I felt like it: "I put that green stripe there because it felt just right putting it there". And I felt it very hard to explain, but they don't seem to listen behind the concept that go behind your work, and they don't take the time.

Sll "Veronica"

"Flora"'s use of source material was subject to adverse staff comment.

... you get the big picture like, there is one in the bottom corner, tiny little two inch portrait of the donor and his family, the donor and his wife and children, and things like that I find kind of humorous. And I think that they were doing things that now we sort of think, we wouldn't realize that they were doing, they're actually kind of strange and surreal...

... I have tried deliberately to take them, and put them in my work. It has been a bit forced. So I came back, and I had the idea of putting cherubs into my work, because, I thought, it is quite an arty sort of effect, and I could get them to say things that one person in a room could not just say. Have these cherubs flying about and they could draw you attention to certain aspects of what the painting was trying to say. And I thought this was a brilliant idea, I had lots of ideas about how I was going to use them. And the tutors came and said, "Oh no, please don't do cherubs, they have really been done to death", that its really too kitsch and too, you know, its a bad idea sort of thing. And they persuaded me, I can see
exactly what they are on about, they didn’t say don’t do it because we don’t want you to, I understand exactly why they have said that.

S06 "Flora"

The lack of structure after the completion of the projects was generally welcomed and valued by the students.

... there is an underlying tendency towards bettering your work by showing you examples. But I don’t think you can actually structure any form of personal research.

S08 "Gerald"

"Clive" and "Shirley" remarked on the lack of painting technique as part of the curriculum. "Shirley" expressed a general views which reflected her own lack of confidence in this respect.

... we didn’t have any painting classes, which struck me as strange, it was always a drawing class. We never, ever, had any formal tuition in painting or about the media that we used, about how to make a stretcher, or any of the basic grounding. I mean when I came here I had only every worked on paper and I’d only ever used acrylic, I had never used oil, I had never worked on canvas. I found the whole thing very frightening.

S10 "Shirley"

"Clive" also thought that more practical instruction in painting would contribute to the course,

... you never saw ... conscious decision making. I thought it would be useful to all sit down in a great big horseshoe and watch and watch somebody paint and then stick your hand up at any time and say: "Excuse me, why are you doing that?" I thought that would be a useful thing to do.

S04 "Clive"
The students' descriptions of the teaching methods on the course follow a similar pattern to those of the curriculum, with a clear distinction between the structured first year and work pursued on an individual basis subsequently, although the transition did not appear to have been easy for some students.

... with tuition we always had to draw a certain object in a certain way, so no one could ever experiment or feel free, and then suddenly we were left on our own, had to find out for ourselves, it was rather frightening, we had no guidance really. Half of us have scraped through OK, and the other half are having real problems still.

S10 "Shirley"

There were differing responses both to the experience of the first year and also the effectiveness of the individual tutoring.

There was the projects set in the first year, but that was it, you know. You are left to your own devices after then, individual tuition ... its good.

S08 "Gerald"

One student considered that the lack, or unevenness, of individual tuition indicated a lack of staff interest in the students during the earlier part of the course; another student considered that the teaching methods had, on occasions, been too confrontational and aggressive.

The responses to questions about group tuition and discussion seemed to suggest that this was seen as a serious, if unresolved issue. However, the students indicated that it had developed over the duration of the course.
In the first year people tended not to say very much at all, but gradually it has got a lot better, people say what they think. I have always tried in, sort of, group tutorials to put in a few words every now and again. A lot of people sit there and don’t say anything.

S02 "Brian"

In nearly all cases the response to the idea of group work was strongly positive.

. . . I think the group tutorials are very useful. More useful than the individual tutoring we have. I always find them very interesting, to hear what other students say.

S02 "Brian"

A number of students commented on the relative rarity of organised group discussion, although still seeing it a positive experience.

They try and get group seminars together but it never seems to really happen, although this term we are having sort of one a week. Not for all of us every week, but from the second and third years they will have about twelve people, and they will be looking at, say, half-a-dozen of those people’s work. Which I think is a good idea. I think there should have been more of it, but it never happened.

S07 "Frances"

The descriptions and evaluations of the actual practice, on the other hand, offered a wide variety of opinions.

I wish people did it a bit more actually, because I think it is very useful when you hear other people talking about, other students. I suppose it is quite difficult to slag off friends standing there. I think it is a very useful thing, it should be done more.

S02 "Brian"
Yes we had group crits. and again I found that incredibly disappointing because not many people would speak up. . . . we had lectures, and we would go off afterwards and have a small seminar, and no one would speak. It would be, it used to be me, often, and this other guy . . . we were about the only two to speak.

S01 "Barbara"

But in group tutorials to get the other people to speak about their work, a lot of the time you might talk to other people, perhaps look at something you have done, and find it interesting, and maybe on the same wavelength as them anyway. But maybe talking to the people who do things that you find incongruous is probably more valuable even. Therefore I think the value of a group tutorial is probably quite paramount.

S03 "Catherine"

Group tutorials; I think they are, yes. But I think too many people just tend to sort of clam up. I think they are, they are good for getting a dialogue going. Once you enter into a dialogue you start realizing some of your more obvious faults, they are good for promoting awareness.

S06 "Flora"

"Mary" felt that the confused experience of their course had precluded any underlying group identity.

. . . as a department we have got no identity at all; there are a lot of separate people doing a lot of separate things, each year at the moment is doing a different thing. We are there as painters, we have always been in the painting school. The second years were the first year so they are probably feeling a bit like guinea pigs, going through this new course, and the first year again are getting kind of, a more refined treatment now, so they can sort it out. So there is very little, there is no common experience really. We have all been treated so differently, have done different things.

reference withheld
Apart from the groups which were organised by the staff the students also reflected more fragmented group discussion amongst themselves. This also was seen as valuable.

Not the whole year group, no. Six or seven of us together at the most, once a week generally. . . . . It was something that we asked for, and then organised for us. It was something that we said we wanted, we felt that we needed.

S12 "Wendy"

"Frances" felt that the development of a group identity was inevitable among a year of students,

. . . because you are very strongly influenced by the people surrounding you. So that if you see someone's work that you really like, and you are going to be seeing every day here, you will, in the end, pick up some of their ideas. I'd say that really, this first year as well, although we are only in the first few weeks of this first year, we all seem to be coming together a lot more now.

S07 "Frances"

When asked to identify the characteristics of the year as a group her reply emphasised an experimental approach to the media of painting.

Basically a lot of it is just experimenting with different paint, and sort of putting an oil down and then water based paint on and seeing the effects that you get and stuff like that. There are very few figurative people working in our year at the moment.

S07 "Frances"

The students' responses to the history of art and complementary studies aspects of the course were varied. They offered different opinions and discussed different parts of the course they chose to discuss, although all
except one did talk about their 3rd year dissertations, or theses. Three students provided general opinions about this part of the course. "Flora" considered that a number of students lacked interest in the subject.

A lot of people, kind of, are not interested in that at all, can't see why we are doing it.  

S06 "Flora"

"Doreen" viewed the academic syllabus positively, if vaguely, in relation to her work.

. . . in the time surrounding various lectures where interesting ideas were thrown up, then it grows more. That's not something I am really conscious of individual . . . I think the time when we were, to say that we are not influenced by artists any more is. . . . I think every one is a bit more concerned with their work now. It is at the stage where we were looking at stuff, drawing comparisons rather than . . . using a lot of ideas.

S05 "Doreen"

Students also recollected specific aspects of the syllabus and its teaching in their responses. One student described a variety of experiences and degrees of interest.

. . . the best lectures that we had were purely personality based, you know, [at this point she mentioned a lecturer] . . . Some of the lectures in fact were rigidly boring, it wasn't, I don't think it was much to do with what they were about. . . . I fell asleep within five minutes, and it was awful, because you kept thinking, "This is interesting, I know it is". But you couldn't stay awake.

. . . we studied the French Revolution for quite a while and then a lecture on Beethoven, stuff like that. I mean I hadn't done any history at school, and I just loved it, . . . for example like the David paintings, I'd never looked at them, if it wasn't for
knowing where they came from, and why they were there, and suddenly they have got a level of interest that they never had. I think it is important to know that history bit, it is very hard. But I find it much easier to go that way round.

S09 "Mary"

Almost without exception the students welcomed the seminars, and expressed positive views of them both in principle and in relation to their own experience.

The most interesting thing, or way of teaching art history that we had was, we were split into little groups and they had so many artists, they were going to cover certain things, and so they made a list of artists and each person took an artist and researched that and then gave a slide presentation. And then we had a discussion. . . . it seems to me that the most interesting thing was when you get people participating, I think you need smaller groups.

S06 "Flora"

I really enjoyed the seminars . . . I suppose we had a very good group; quite an articulate, ready to talk, kind of group of people. And they were very useful because it was very interesting to hear different people's perceptions on paintings that you had seen for years and years, taken for granted I suppose. I think that was one of the most useful aspects, just sort of sitting down and being able to talk and then having to do a seminar about a particular artist.

S11 "Veronica"

Some students approved of the idea of the seminars, but expressed reservations about the way they had worked in practice. Seminar papers which they themselves had presented were recollected as being particularly valuable. In answer to a question about the contribution made to practical work one student recollected that,

. . . when I had to do a seminar to half a dozen people on a particular subject, and it was German
Expressionism. Once I myself had gone to the library, got the books out, it did influence my work.  
S07 "Frances"

"Veronica" found that seminar preparation made a very specific contribution to her work, and addressed the problem of subject matter with which she had been concerned.

I was doing a presentation on Chagall, and that was the time that I was getting hounded about subject matter, subject matter. Then, having read all this stuff about Chagall constantly over and over again, that I realized that my subject matter could be about, you know, me. I suppose in that respect the art history and my work they kind of coincided and they overlapped and intertwined.  
S11 "Veronica"

All the students had some familiarity with written sources, although some appeared to be uneasy with them, either because of initial difficulties or the priorities of their working. "Flora" limited her reading to that required by the demands of essay writing.

The reading that I do is for the essays and that, I really have not read journals and things like that. I mean its a question of time, but its all sorts of things that I want to read. But I just don't find the time to do it, because all the time you are doing that you could be doing the reading for your thesis, and that's getting rather behind, and you should be doing that. Or you could be sketching and could be producing studies and things for what you could be coming and doing here the next day. So, its a bit, kind of, indulgent sitting down.  
S06 "Flora"

In addition to the requirements of the course, most students indicated that their approach to written sources was associated with the wish to find out about particular artists who might relate to their painting.
I read a recent book on Julian Schnable, quite interesting. I am interested in that, that's a major work for me I think.

S12 "Wendy"

A few had pursued theoretical ideas or formed views of individual writers or other sources. One student saw the library as a means of systematically expanding her knowledge of painting.

I always have something different, go and find an artist I have never heard of before, look at their work . . . . quite a lot of people [have influenced my work]. Jawlensky, very much. And Kitaj. Two artists I had never heard of, and I pulled out the catalogues and gosh. Ken Kiff as well . . .

S10 "Shirley"

Five students made specific references to books, authors and periodicals relating to the history and theory of art, these included: Gombrich, Fuller, Berger, Greenberg and Rosenberg; Modern Painters, Art in America, and Art and Artists. In two cases students pursued issues raised by their reading.

"Barbara" discussed some principles behind Fuller's work.

There is one fellow who I enjoyed reading criticism, was Peter Fuller his stuff. And I enjoyed that and I enjoyed reading his books. . . . There is a lot of criticism about the magazine he had, but I liked reading all the different writers and stuff he got in there to do criticism and things like that. . . . his main theme was truth and beauty, wasn't it? Truth I go along with, beauty, I don't know. I don't think you can . . . He wasn't saying he wanted anything prettified, but, you know, if you are going to have truth you just don't have beauty all the time. Because it is such a horrid world, and such a violent world, even if there were no wars and stuff. There are still lots of terrible, like all the famines, and all that. And it is a cruel world, nature is cruel as well as man. . . . I find cruelty and violence so revolting, that I can't find very much to be romantic about it. You can get some beautiful images but they are so
incredibly sad. To me that works out, death. And I find death terrible, unwanted; death, very wasteful and sad.

"Mary" also found some resonance in the writing of a particular critic.

I’ve read quite a lot of John Berger, I think he is the only person really. . . . I find that he talks more about real life, more about, its just a bit more down to earth somehow. Its still, I don’t know, found a bit too much arguing about, maybe its because I read John Berger at a different time, on his own. . . . I don’t know, John Berger, probably because it was more political seemed to have a definite way a pushing you, if nothing else.

. . . , I am more interested in what art is saying. I want to open my mind up, not to be narrative or obvious or any of those things, I want to work at different levels, I want to separate my spoken language from what I am trying to deal with in the art on paper.

However her attempts to extend her interest in criticism generated frustration.

. . . last term I went through this phase of deciding that I was going to read some of this criticism, you know, at least form my opinion on it . . . and I started looking at some of the Abstract Expressionism and I started reading Clement Greenberg and, who’s the other, Harold Rosenberg and it was like reading, I had all these books at once, and I was reading all these bits, and it was sort of like, it almost boiled down to three little kids in a play ground squabbling over something, argh, you know. I began to thing they were just, it was like talk for the sake of talk after a while, no, take it away because if I get too caught up in that I stop painting, . . . I can’t achieve anything, so that is the end of that.

"Mary" rationalized her feelings about this experience.
When I was reading more than one at the same time they were arguing about the same thing from a different point of view. And they were just like negating each other, and you end up thinking, surely at the end of the day, stop going out of the window and just go and look at the painting.

S09 "Mary"

Other students had found valuable source material outside the literature of art; "Doreen" discussed a discovery while on a visit to the USA.

I was reading some Zen stuff, and things like that. That was pretty interesting. . . . I just found that very interesting, the ideas. Seeing everything as a whole, a whole. This basis. I think my paintings try to deal with some sort of landscape or space, and fragmenting the figure, . . .

S05 "Doreen"

Eleven of the students were asked, and responded to, the question about the existence, or otherwise, of a dominant style or approach in the course, the exception being "Wendy". They also sought to describe or identify it, and some students related it to their own work.

Eleven of the students discussed their 3rd year theses, or dissertations. Of these, eight had chosen subjects which related to their work in the studio and three had selected subjects which did not. The most coherent group was represented by three students (S03 "Catherine", S06 "Flora" and S10 "Shirley") working on dissertations about gender or 'feminist' issues. All except "Shirley" appeared to include both a thematic element and references to specific artists. The exception was concerned with the importance of gender.

. . . it is about gender stereotype and sexuality, and the differences between men and women. It is not about
feminism, I have got to make that quite clear. I am not a feminist myself, really, but it is about appreciating your own sex, and the stereotypes which we are forced into. I want to do a questionnaire, asking people how they see their own sexuality and their own gender, is it important to them . . .

S10 "Shirley"

"Catherine" combined a concern for broad issues and their relationship to particular painters.

I am reading around the subject of women and mythologies of women which I find very interesting . . . I was actually told the other day that having given an idea to my tutor about all the things I'd like to bring up, that it might be narrowed into a tighter band. I started off, I suppose, again through looking at the work of Jacqueline Moreau, and also Rose Garrard's has a series of pictures called The Talisman which I find very very fascinating. Again dealing with women in general . . . I suppose keeping women in a certain role in society.

S03 "Catherine"

And, S06 "Flora" centred her thesis on particular artists and their subject matter.

I'm doing Vanessa Bell and Dora Carrington. Well the plan is that I take these two women and research them, and then contrast and compare them . . . they are both sort of figurative, and women, and painting about things that concerned them in their life, domestic kinds of things. I mean Dora Carrington was doing landscapes and still lives that she was actually observing, and Vanessa Bell was doing the people and interiors around her. And so I suppose that I think that my work is about the same sort of thing. About me and how I respond to things, and, sort of my own environment kind of thing.

S06 "Flora"

Four students (S01 "Barbara", S04 "Clive", S05 "Doreen", and S09 "Mary") were examining issues in the works of artists
that referred to their own work. "Clive", was examining related work from a historical period.

... the Dutch tradition: Vermeer, de Hooch, that sort of thing. Their photographic aspects, the camera obscura aspects and ... I don't know its got to be thought about a lot more. ... I've always been interested in photography and its really amazing relationship just between photography and painting. You are going to do a piece of work, so you think to yourself: do I pick up a camera, or do I pick up a paint brush?

S04 "Clive"

"Veronica" was examining her own position in relation to Baltic parentage and an Australian upbringing.

... it is all about one's quest for an identity, I am referring to Latvia and Australia now, and I am also referring to several other artists from different cultural backgrounds. It is basically working on the philosophy that Australia does not have a unique identity in itself, but it is actually the conglomeration of all manners of different cultures.

S11 "Veronica"

The three students whose dissertations are remote from their own painting include S02 "Brian", on avant garde film (the same subject as his foundation essay); S07 "Frances", on druids and stone circles, and S12 "Wendy", who is writing about Solzhenitsyn.

Of the eleven, eight affirmed the existence of a dominant style or approach in the course, one denied its existence, and two gave answers which were ambiguous. However as soon as some descriptive information about such a style or approach was elicited there was a substantial range of disagreement amongst those who had agreed to its existence. "Frances" and "Shirley" considered that it was 'abstract' in
character. Five (S05 "Doreen", S08 "Gerald", S11 "Veronica", S03 "Catherine", and S06 "Flora") thought it figurative, or to do with subjects, of whom "Catherine" and "Flora" related directly to the work of a member of staff.

I think that things may be changing a little now that there is a different leader. But certainly I had difficulty because my work had been very figuratively based and that was pushed away, and I was told to try and see other ways of envisaging, perhaps on a more abstract level, which I found quite difficult to work on because I suppose I was, still am, a fairly figurative painter.

S03 "Catherine"

The other of these, "Doreen", thought it was present on entry to the course, but had ceased to exist subsequently, "It was predominantly figurative, and now everyone is, kind of, right across the board". "Mary" thought that the student group included a number of sub-styles.

Among small groups of it, maybe. But we are quite fragmented, I think, everybody's, I think that's one thing we have retained, our individual way of looking at things. Obviously there is some cross over, I think we are quite communicative as a year, we are always running up and down the corridor gossipping and the spaces are not very, kind of, segregated. A lot of that's to do with the placing of people. Without even thinking about it the third years that they have got this end, the other side of the seminar room, they all seem to be painting, not in a certain way, you couldn't even say that their paintings are particularly the same, but they have a certain attitude that's common, a sort of aggressiveness towards the whole idea, and a scorn for anyone who says too much of what they mean.

S09 "Mary"

Two students identified a style, and then disassociated their own work from it. "Gerald" considered himself to be resisting a figurative dominance.
I think there is a figurative, although I am definitely not part of it. Yes, I think there is, figuratively. The tutors here, they don't want to step out of line too much, they have got their views. On the whole, there is quite a lot of tutors on this course, so you get a varied opinion. I tend to go round getting as many opinions as I can, just draw my own conclusions.

S08 "Gerald"

Reciprocally, "Shirley" saw her own work in contrast to a prevailing abstraction.

. . . people do tend, if anything, to still, well non-figurative work. And being a figurative painter I find that, well, difficult. I feel I am not a true artist, my work is quite amusing, it is quite funny, it is lighthearted, but has serious connotations for me . . .

S10 "Shirley"

During the parts of the interviews concerned with the Degree course the students mentioned a total of 84 artists, who were historically and geographically distributed as follows:

<table>
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<tr>
<th></th>
<th>Britain</th>
<th>Europe</th>
<th>USA</th>
<th>Other</th>
<th>Totals</th>
</tr>
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<td>25</td>
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<td>4</td>
<td>84</td>
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</tbody>
</table>

Table 8: Degree Course: References to Artists

In response to the more limited questions about artists who influenced the group, or artists who influenced their own work, the students were sometimes confused. Only half the students felt able to respond to the first half of the question; some remained silent; "Brian" remarked: "I think
individual people look at whoever interests or influences them at the time" (S02 "Brian").

It is remarkable that, contrary to Kuhn's description, the students' attitudes to historical sources reflected both the idea that the whole history of art was potentially a source for current practice, and that current practice responded only to recent examples. Therefore, the distinction between the historical contexts of scientific and artistic practice represents a partial rather than a whole description.

Among the responses that did emerge, no artist received more than one mention as being influential on the group. All the students were able to identify artists who were influential on their own work. The numbers so identified varied from one (S03 "Catherine"), to seven, including styles, (S08 "Gerald"). In identifying artists who the students considered to be influential on their own work, four artists are each mentioned by two students: Beuys (S08 "Gerald" and S12 "Wendy"); Picasso (S02 "Brian" and S09 "Mary"); Paula Rego (S06 "Flora" and S07 "Frances"); and Julian Schnable (S11 "Veronica" and S12 "Wendy"). Of these only Paula Rego was identified as being influential on the group, by S10 "Shirley".

"Doreen" made a general comment which appears to belie Kuhn's distinction " . . . the more recent stuff is really more important that looking at Giotto and stuff", and commented, "I go to art history for different reasons than art" ("S05 "Doreen").

Other students also tended to find their sources within contemporary or modern work. The simple acknowledgment of an
influence could reflect a variety of relationships with, and perceptions of, the source artist. The identification with artists could be both discriminating, within the artists oeuvre, and dynamic:

... I suppose it is quite obvious, but I do like Picasso, who changed his style quite a lot. There are certain periods of his work, I do like certain periods of him. There is one painting by Francis Bacon which I still admire, which is the one, the man, I think he is sitting on a park bench with a machine gun. Its partially figurative. The artist at the moment I am trying to look at more is Tapies. I saw an article in a Sunday magazine recently, and I was really impressed.

S02 "Brian"

Other students distinguished between the ideas or methods of an artist and the work.

There are the major artists who have moved me anyway. In their way of thinking, not necessarily in their way of working. ... Joseph Beuys

S12 "Wendy"

"Veronica" made a point about the work of Jackson Pollock, and the dilemma of some artists, in response to this question.

Pollock seems to be a good thing for a friend of mine. But its not the idea of the way he paints, its the philosophies behind his painting, and its the idea of paintings coming out of a process, and you are painting that process of painting, and the futility of whatever you can come up with doesn’t really matter. Its not important what you come up with, its important what you have gained on the way.

S11 "Veronica"
"Clive" had found that the lecturers on the course had provided material for uninhibited eclecticism in his own work.

I suppose I’ve ripped off, I’ve sort of tended towards..., most of the lecturer’s styles... I mean you see the work, you go and look at their work and you just end up imitating bits of it after a while, and bits of it stick in your brain.  

S04 "Clive"

He also acknowledged a more distant source with an eye on the eclectic use of the material: "Leonardo’s drawings and things like that, the way he collaged ideas..." (S04 "Clive").

At the end of the interview students were asked what they had got out of art education. None saw the question in terms of a career; most of the answers suggested that it had offered them a sort of consciousness, a way of seeing the world.

Certain freedom of expression or something, that I might not have had. A hell of a lot, but it is hard to pin it down. Development, development of thought...  

S05 "Doreen"

Its not just learning about art, I mean, being in art education is such a growing up process, its a learning about life, its a learning about looking at people, looking at life, a whole different way of perception, I think.  

S12 "Wendy"

"Barbara" compared her experience with that of therapy, in terms of offering her an area of activity which might have marginalise her anger.

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I put it in the same category as therapy. You ask a lot of questions, and you get a lot of answers, but you still keep on asking, and in fact, it doesn't make your life any happier. That's what I find, it gives you moments of satisfaction, and you can think, and it certainly teaches you how to drop a lot of materialistic things in life . . . I think art education has helped me, to make me a fuller person, but I am still a very angry person, and I think it has fired that . . .

S01 "Barbara"

"Shirley" placed emphasis on the personal relationships it had enabled them to have with like-minded people.

I think it is mainly working with other people, my contemporaries and how they feel about something. And I have learned an awful lot just from them, you know, their ideas are so completely different from mine. I often, and comparing the two extremes: my friend is very much into conceptual art, which is so completely removed from what I am doing. I find it very difficult to grasp the whole theory of it, and we often talk about it, and it is very interesting. . . . I think I have got an awful lot about working, you know I get an awful lot of my ideas from other people, that I work with. You know, see how they approach, and try to do that myself.

S10 "Shirley"

"Mary" saw the study of art as something inherently creative, in a way that could not be offered by other subjects.

A big question. Everything really, if I hadn't had the opportunity to do it I'd be very frustrated somewhere. . . . nothing ever made me work until I started painting. I became really interested in English, and I still love writing, as I said, but, I wanted to study English, but then I discovered that when I studied English you studied other people's writing, and you wrote criticism, and that isn't what I wanted to do. Then it just seemed some sort of art education, if you own a place where you can be, kind of, creative and that what you are judged on, not making secondhand remarks on somebody else's work, unless you choose to. I think that's really important I think. There's still
a lot of time for that, I'm still wondering if it's valid what I am doing ... 

S09 "Mary"

"Flora", a mature student, who had developed her work in evening classes before coming on the course, compared what she was doing with the sort of work that she might have done otherwise.

I'm painting now in a way that I would never have, if I hadn't come to art college I would never have ended up painting the things I am painting. Or it would have taken me years to, kind of, I mean to express myself in this way. I would probably have been doing landscapes for years, you know. Because that seems to be how to paint, if you go into a book shop and get a your 'how to paint' book its how to paint boats and how to paint seascapes, so I would never have been painting in this way, or thought about well, I wouldn't say this or ... expressing myself in that way. I wouldn't have had the courage to do that.

S06 "Flora"

In addition students were asked what they expected to be doing in the future. About half of the students hoped to do a post-graduate course.

I can't see me stopping working on painting. Whatever I do I shall being doing that in some way, and I imagine that I will always work towards getting into an MA, and pursuing it. I don't know, I'd like to work just for myself, so I can't see me in art therapy or anything like that. I wouldn't mind coming back into an art school and tutoring or something ... 

S09 "Mary"

Three students (S08 "Gerald", S10 "Shirley" and S12 "Wendy") mentioned art therapy as a definite option.

I am very interested in art therapy, I worked in an old people's home. And, the, sort of, caring
professions. Teaching young children, maybe handicapped children. You know, if my art is useful in that way I would take advantage of it.  

S10 "Shirley"

In the longer term "Shirley" had other ambitions,

... my ambitions are not what people would normally think of as ambitions. I would be quite happy to settle down, have a nice home and get married, and have a studio in a back room, and just paint away to my heart's content, and have lots of children.  

S10 "Shirley"

"Flora" suggested other work in the art world, galleries or museums, if a post-graduate course in painting was not available. At the time of the first stage of the Case Study "Brian" had lost confidence in his work, and seemed to be unable to envisage future possibilities.

I am just trying to keep my options open at the moment. I keep changing, I have thought about teaching. The thing was that in my first and second year I really lost my way with the painting, I really lost my way. I didn't know what I was doing, what I was painting about, everything was really getting on top of me.  

S02 "Brian"

He continued after further questions,

... at the moment I am back into the painting, and my work is going a lot better. I know what I am doing, and I know what I am painting about, and I am happy painting and, when I left school, and I was going on this foundation course, well after I started the foundation course I suppose it was, and I wanted to do painting, I had this very direct, I know what I wanted and there was this one road ahead of me. I knew I was going to be a painter, I knew what I was going to do. That lasted throughout the foundation course, and I came here, and in the first year it started gradually slipping away, and then last year it was like, I just
didn’t know what I was doing. But again that directing towards one goal, being a painter, its sort of coming back at me.

5.1.5 Conclusions

In terms of the epistemological ideas described in the earlier chapter the interviews reveal a number of issues. The relationships with, and influence of, the staff in general, and individuals in particular, indicate the tacit content of the course; the views about a dominant style or approach, indicate an approximation to the ideas of the paradigm; the experience of change, the relationship between history and theory, and practice, the development of individual students, and the grouping of students with a shared approach.

Polanyi’s description of tactic knowledge would lead one to suppose that, in an ‘inarticulate’ area of knowledge the master/apprentice relationship would assume a greater priority than that between the student and the curriculum. The staff were seen, not so much as providing the content of the curriculum, but also exemplifying "the artist" to students.

The tacit aspect is evident positively in the way students’ describe the character of their relationships with teachers at school and lecturers in colleges as they progress. It is particularly apparent that the relationships formed with art teachers at school did much to influence decisions to enter art education. The existence of groups pursuing an interest in art while at school is less strongly apparent, but also
seems to have been a factor in such decisions, indicating an ease with the relationships and vocabulary which underpinned their collective interest in art.

There is also negative evidence of the importance of such tacit aspects of the students' educational experience. The feelings of neglect and indifference described by students when they entered the degree course emphasise the importance of relationships to art education.

On the degree course the relative lack of informal interaction with staff in general, and the identification of the 'dominant style or approach' with staff was evident.

The responses to questions about the "dominant style or approach", suggesting the existence of paradigms, represented a complex area. No student denied the possible existence of a "dominant style or approach", and therefore they might be said to have existed. However not all acknowledged their existence in the circumstances of the course they were describing. Where they were described on foundation courses the descriptions presented a variety of aspects of the course which were said to characterise such dominant styles or approaches. There were also marked inconsistencies: three students had attended the same foundation course, and all described the style or approach quite differently. This was also evident in their descriptions of the degree course, where the students who believed that there was a dominant style or approach described in different, and sometimes conflicting terms. The responses to the linked questions about the important artists to the group also failed to present a consistent
picture, although the importance of artists as exempla to
the students as individuals was most evident.

While there appears to be little consistent evidence of a
dominant style or approach within the course some students
might be considered to have developed such a consistency: to
have developed a sort of paradigm on a more limited scale.

One group which emerges from the evidence of the interviews
centres around 'feminist' concerns. Although a number of
students express such concerns the group is concentrated in
S03 "Catherine", S06 "Flora", S10 "Shirley" and S09 "Mary". While these students have, between them, developed a shared
body of ideas, examples, particularly among contemporary
woman artists, and attitudes, their techniques and subjects
are diverse.

Thus, although they can be seen to share an approach; they
cannot be said to share a common style, although the work of
S03 "Catherine" and S06 "Flora" might be thought comparable
in the figurative and somewhat literal character of their
work. The humour of S10 "Shirley", and her representational
skills are used to express a female view, but the works are
clearly distinguished from those of other members of the
group. The concern for concealed or implied knowledge in the
more abstract work of S09 "Mary" also clearly distinguishes
her work from the others, although she interprets it in
terms of her own femaleness.

Although the responses of most students reflected the
general values which were placed on the relationship between
history and theory, and practical studies in the course
document, the responses to the syllabus varied considerably,
chiefly on the bases of relevance to their own practical interests and the degree of their involvement in presenting papers or writing essays. Certainly the effort and commitment which was evident in relation to works and artists which did inform their painting, their preparation of written work and the use of galleries and exhibitions, suggests that they were conscious of the importance of exempla to their artistic development.

The tables summarizing the artists and movements referred to during the three stages of their careers: school, foundation or BTEC, and the degree course demonstrate both an increasing awareness of such exempla and increasing concern for contemporary work, rather historical or modern examples. In the course of the discussion of art and epistemology the different relationships between practice and history were discussed, with the suggestion that, while scientists found their exempla in most recent work, for artists the whole of art history was always, at least potentially, in play. The artists and movements referred to by the students, and some of their comments, indicate that such a conclusion may not always be justified.

The students described a close involvement with the examples of art to which they gained access, however, they generally did not seem to attach a comparable importance to ideas or theoretical issues. Both their discussion and reading of those aspects of their course, with notable exceptions, appeared to be relatively slight and schematic.

The examples of teaching which the students cite seem to be more concerned with what, or what not, to do rather than with how to do things. There appears, from the evidence of
the interviews, to be a strong emphasis on issues of taste, rather than those of technique. This is also reflected in the lack of objectives based on technical skills within the Handbook. The unifying factors of the course are lodged in the worlds of ideas and examples: what is said, the content, may be shared. How it is said, the style and technique, is left to the individual student.

The interviews provided a substantial amount of detailed information about the students' experience of art education. It is particularly interesting to compare them with the course document, and see how both the general ideas and the curriculum are reflected in the recollected experience of the students. In general, the students interviews reflect many of the principles embodied in the document, such as the use of synthesis of source material, the relevance of text sources, and the ideas of artistic development.

Kuhn's description of the paradigm included specific references to body of shared techniques. The responses of students included some specific comment on the relative lack of teaching in the techniques of painting; their descriptions of their work suggests that the technical means through which they achieve their paintings are often personal and intuitive correlations of the materials and the intention, often seen in the context of examples drawn from modern or contemporary work.

The students did not perceive the course itself as embodying a taught range of methods and techniques. There is also little evidence either that techniques are specified, or that students pursue a series of objective goals in their technical development. Their relationship with the materials
of painting is one of substantial openness and variety, and, while the discussion of their work contained many references to technique these were descriptive rather than evaluative, and no critical concepts were applied in a way which might have been relevant to, say, the development of drawing skills in fine art education about thirty years ago.

The values being pursued by students seem, therefore, to be less specific, and perhaps more personal, than those which might have been associated with art education even in the recent past.

The students' descriptions of change reflected both the change from school into foundation and BTEC courses, and the change from foundation and BTEC courses into the degree course. Earlier literature, particularly Madge and Weinberger (1973) and Wayte (1989), have placed emphasis on art education as a process of socialization, an informing or indoctrination with attitudes which, as described by the former, are in marked contrast with those of the students' personal backgrounds and of society in general.

Students did not appear to find the experience of changing from secondary school to an art school traumatic. For some little change in attitude appears to have been necessary. For others, who found that the experience of art education confronted some of their previous attitudes, the change was viewed as positive.

For most of the students, therefore, the entry into art education seems to have been one of incremental development rather than revolutionary change. Perhaps the most striking comments in this context are from students who saw their
entry and progress in art education as a sort of destiny, an achievement of goals which they had envisaged during their school careers, and which allowed much of the more general culture to which the schools had introduced them to drop away, leaving their central and motivating interest pre-eminent.

Although the data is complex, the interviews suggest that the epistemological concepts embodied in the schedule and the analysis: tacit knowledge; the paradigm as a constellation of attitudes, beliefs and techniques, and the importance of exempla; the different aspects of change, and the relationship between theory and practice; are appropriate and relevant to a description of art in higher education.

Through these concepts the development of students can also be seen as consistent with ideas of research, particularly in their individual commitment and search for value and significance within the dispositions of their art, and in the tacit nature of their learning, with its emphasis on exempla which embody beliefs, attitudes and techniques. But it would be difficult to argue that the evidence of the interviews permits the identification of their work with research degrees.

Much of their development appears to be relatively unsystematic and unreflective, and the consciousness of the process of creating a body of work through a staged procedure, within which ideas or images can be examined for their potential contribution, although present, is not developed. Among a majority of the students there appears to
some difficulty in engaging with some of the current theoretical aspects of art.

However, viewed as it is, as an undergraduate course, the course *Handbook*, and a large proportion of the students' experience and activity, can be seen as suitable preparation for research degree study.

5.2 *The Tasks*

5.2.1 *Introduction*

The interviews provide information about the students' experience of art education, expressed through recollection, as it related to a number of epistemological concepts. The tasks approach the same issues in a different way, by analysing the students' responses to problems and issues at the time of the tests.

In particular investigated the relationships between propositions and examples of art, both in themselves and as they contribute to the idea of the paradigm. The grouping of propositions and examples of paintings was related to the students' working approaches, and also to the students' perceptions of the different working approaches within the group and the relationships between them.

The results from the tasks are used describe the group as a whole, and distinguish between sub-groups within it, and between individual students. In addition the results enable the ways in which examples, or groups of examples, are conceived in relation to the propositions.
The open nature of the tasks, with the students choosing the number of propositions or examples which they categorized, make the data unsuitable for orthodox statistical analysis. However, the value of the data from the tasks can be assessed by considering the degree by which they differs from the data which might have been derived had the students performed the tasks in a random fashion. This was done by observation of the students during the tasks, the concentration which they showed, the questions they asked, and the responses they made. Also, by considering the responses to those propositions which might be considered to be inherently in agreement, or inherently opposed. Two such pairs of propositions were included, one pair being in relatively close agreement: P01 the fine art work of students should have no predictable end results, and P19 art education is centred on the personal development of students, wherever this may lead. And another appearing to contradict each other: P02 history and theory divert attention from the main purpose of art education, and P03 history and theory should be an integral part of fine art education.

In their grouping of propositions, seven of the twelve students included the first pair in the same group, and none of the twelve included the second pair in the same group. In their selection of propositions which the students considered to be supportive of their own working approaches ten of the twelve students chose both P1 and P19, whilst no student of the twelve chose P2 and P3. These results are an indication that the students' responses were not random.

The results below have to be understood within their range of convenience (Kelly 1955, 10-12). The study used a sample
of twelve students on a single course, and the results reflect these students' responses to a restricted number of supplied propositions and examples. The relationships which they identified are true of their responses at the time the tests were administered; they do not necessarily demonstrate the truth of such relationships beyond that context, and are not necessarily characteristic of fine art students in higher education as a whole. However, it can be argued that the data may be indicative of, and are relevant to the broader discussion of education and research in fine art; and also provides hypothetical characteristics which can be examined with other student groups.

5.2.2 The Student Group

The general character of the student group is reflected in two principal aspects. Firstly, in the way in which the group identifies relationships between propositions, between examples, and between propositions and examples, is shown in the clusters derived from the tasks involving the grouping of these elements. Secondly, those propositions and examples which are most identified as supportive or oppositional to their working approach. This represents the consensus of the group in the identification of their own work with propositions and exempla.

The degrees of consensus are indicated by the number of students, out of 12, who identified the elements as supportive of their working approach (Appendix: Tables 3.2, 4.3). The consensus is indicated by the six propositions which are seen as most supportive:
The fine art work of students should have no predictable end results.

Art is a problem solving process.

Art education is centred on the personal development of students, wherever this may lead.

History and theory should analyze the assumptions, implications, potentials and limits of art activity.

History and theory should be an integral part of fine art education.

History and theory of art get students to confront the issues of contemporary culture and society.

A broad consensus is also revealed in the four propositions which are viewed as least supportive. These include:

History and theory divert attention from the main purpose of art education.

Art cannot be taught.

Art is value free.

The aim of art education is the production of a professional artist.

Only one of the twelve students related their work to the idea that "the aim of art education is the production of the professional artist", suggesting that the majority of the students saw the course, and their own futures, in terms of a committed practice or vocation rather than a predictable career. This result appears to confirm the views expressed by students during their interviews, and to cast doubt on the statement in the National Advisory Board report quoted above.

The student group is characterised by a concern with an education which is centred on their personal development rather than, it might be assumed, the development of the curriculum, which would provide a greater common ground.
This view was expressed by the staff and students in the Madge and Weinberger study. However, in contrast to their report, where 63% supported the proposition that "art cannot be taught" (Madge and Weinberger 1973, 67), none of the students in this study considered it relevant.

The choice of supportive and oppositional examples (Appendix: Tables 3.4, 4.5) also shows a degree of consensus, although this is less marked than with the propositions. The following seven works were considered most supportive to the students' working approaches.

9/12  E14a. Kiefer, Märkischer Sand
     E25. Schwitters, Picture of Spatial Growths
8/12  E1. Bacon, Three Figures and a Portrait
7/12  E2. Bonnard, The Table
     E3. Braque, Bottle and Fishes
     E13. Johns, Dancers on a Plane
     E23. Pollock, Number 23

The following four works were considered least supportive to the students' working approaches.

1/12  E18. Mondrian, Composition
     E26. Stella, Hyena Stomp
2/12  E5. Dali, Metamorphosis of Narcissus
     E17. Matisse, The Snail

The strongest relationships between individual propositions within the task where students were asked to group them (Appendix: Table 3.1) are the following:

9/12  P9. art cannot be taught
      and P6. art is value free
7/12  P18. art invents and perfects symbols of discourse
      and P13. art is a problem solving process
      P19. art education is centred on the personal development of the student, wherever this may lead
and P1. the fine art work of students should have no predictable end results

P15. history and theory get students to confront the issues of contemporary culture and society

and P3. history and theory should be an integral part of fine art education

6/12 P7. the aim of art education is the production of the professional artist

and P4. art is measured against standards and disciplines

P6. art is value free

and P12. art is concerned with love and hate, ecstasy and misery

P9. art cannot be taught

and P12. art is concerned with love and hate, ecstasy and misery

These relationships form the basis of clusters of propositions, such as the following two examples.

Cluster PI

P5. art is autonomous excluding extrinsic meanings and values
P6. art is value free
P9. art cannot be taught
P11. imagination and invention are opposites of coherence and rational thought
P12. art is concerned with love and hate, ecstasy and misery

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Table VII. Cluster PI: Frequency of Relationships
(Appendix: Table 3.1)
This cluster is generally seen as unsupportive by the students (Appendix: Table 3.2), although S11 "Veronica" did find four of the five propositions supportive; two students, S06 "Flora" and S09 "Mary", did not find any of them supportive.

In contrast a second, larger, cluster was found to be strongly supportive by most of the students (Appendix: Table 3.2). It comprised the following.

Cluster PII

P1. the fine art work of students should have no predictable end results
P3. history and theory should be an integral part of fine art education
P08 art has to question and change the value structure of society
P15. history and theory get students to confront the issues of contemporary culture and society
P16. the aim of art education is the application of creative activity across a number of different fields
P17 history and theory should analyze the assumptions, implications, potentials and limits of art activity
P19. art education is centred on the personal development of the student, wherever this may lead

Table VIII. Cluster PII: Frequency of Relationships
(Appendix: Table 3.1)
All but one of the students, "Veronica" who only found two of the seven supportive, found most of the propositions in this cluster supportive; "Catherine", found them all supportive, and six students found six out of the seven to be so. It is the best positive indication of the group as a whole in terms of a cluster of propositions.

The grouped examples (Appendix: Table 3.3) provide stronger and more diverse relationships than the propositions.

11/12  E19. Newman, Adam  
and E26. Stella, Hyena Stomp

10/12  E19. Newman, Adam  
and E18. Mondrian, Composition

E18. Mondrian, Composition  
and E26. Stella, Hyena Stomp

E7. van Eyck, The Arnolfini Marriage  
and E28. Vermeer, A Young Woman seated at the Virginal

E10. Hartmann, The Glass Bird  
and E15. Klee, Versunkene Landschaft

9/12  E28. Vermeer, A Young Woman seated at the Virginal  
and E24. Rembrandt, Portrait of Hendrickje Stoffels

E2. Bonnard, The Table  
and E6. Degas, Woman at her Toilet

E21. Picasso, Bottle of Vieux Marc, Guitar and Newspaper  
and E20. Nicholson, Auberge de la Sole Dieppoise

E25. Schwitters, Picture of Spatial Growths  
and E20. Nicholson, Auberge de la Sole Dieppoise

E25. Schwitters, Picture of Spatial Growths  
and E21. Picasso, Bottle of Vieux Marc, Guitar and Newspaper

8/12  E21. Picasso, Bottle of Vieux Marc, Guitar and Newspaper  
and E3. Braque, Bottle and Fishes
The most frequent individual relationships, provide, more markedly than in the propositions, the bases of the clusters. The first cluster made up from those belonging to the a priori historical examples, with the exception of E09 Freud Girl with White Dog, which also has strong relationships within the following cluster.

Cluster EI

E07 van Eyck The Arnolfini Marriage
E08 Piero The Baptism of Christ
E09 Freud Girl with White Dog
E12 Holman Hunt Claudio and Isabella
E24 Rembrandt Hendrickje Stoffels
E27 Titian Bacchus and Ariadne
E28 Vermeer Young Woman Seated at the Virginal

<table>
<thead>
<tr>
<th></th>
<th>E07</th>
<th>E08</th>
<th>E09</th>
<th>E12</th>
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</tbody>
</table>

Table IX. Cluster EI: Frequency of Relationships
(Appendix: Table 3.3)

The examples in Cluster EI evoked a mixed reaction from the students in terms of their being supportive or unsupportive (Appendix: Table 3.4). Although "Wendy" found none of them
supportive. Two students, "Brian" and "Clive" found five of the seven supportive.

Although E09 Freud Girl with White Dog appears in this cluster, it is also close to the following one, particularly in its relationships with E02 Bonnard The Table and E06 Degas Woman at her Toilet:

<table>
<thead>
<tr>
<th>E9</th>
<th>E2</th>
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<th>E10</th>
<th>E15</th>
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<td>2</td>
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</tr>
</tbody>
</table>

Table X. E9. Relationships with other works
(Appendix Table 3.3)

The next cluster includes the examples loaned by "Catherine". They are, with the exception of E10 van Hartmann The Glass Bird from the a priori modern category, and are generally domestic and expressive in character.

Cluster E11

E02 Bonnard The Table
E06 Degas Woman at her Toilet
E10 van Hartmann The Glass Bird
E15 Klee Landscape
E16 Klimt Le Tre Età

<table>
<thead>
<tr>
<th>E02</th>
<th>E06</th>
<th>E10</th>
<th>E15</th>
<th>E16</th>
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</thead>
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<tr>
<td>E16</td>
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</tbody>
</table>

Table XI. Cluster E11: Frequency of Relationships
(Appendix: Table 3.3)
In terms of their being supportive or unsupportive the examples in the second cluster divide the students (Appendix: Table 3.4); three students, "Catherine", "Frances" and "Shirley", found all the examples supportive of their working approaches; two of the students, "Gerald" and "Wendy", found none of them supportive.

The third cluster of examples is drawn wholly from the a priori modern category; the works can be categorized as broadly cubist in character.

Cluster EIII

<table>
<thead>
<tr>
<th>E03</th>
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<th>E21</th>
<th>E22</th>
<th>E25</th>
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</tbody>
</table>

Table XII. Cluster EIII: Frequency of Relationships
(Appendix: Table 3.3)

The examples of the third cluster again divided the students (Appendix: Table 3.4); one, "Barbara", found them all supportive, whilst another, "Flora", found them all oppositional; "Wendy" classified them all as neutral.
The fourth cluster includes both modern and contemporary works, and includes most of the abstract paintings among the examples.

Cluster EIV

E13 Johns *Dancers on a Plane*
E14 Kandinski *Swinging*
E17 Matisse *The Snail*
E18 Mondrian *Composition*
E19 Newman *Adam*
E26 Stella *Hyena Romp*

<table>
<thead>
<tr>
<th></th>
<th>E13</th>
<th>E14</th>
<th>E17</th>
<th>E18</th>
<th>E19</th>
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</tbody>
</table>

Table XIII. *Cluster EIV: Frequency of Relationships*  
(Appendix: Table 3.3)

The examples in the fourth cluster generated a largely negative response in terms of the students (Appendix: Table 3.4) finding them supportive. One student, "Gerald", found four of the six examples supportive, whilst four students, "Brian", "Flora", and "Wendy" considered none of them supportive, "Flora" and "Shirley", found them all oppositional.

The task involving the relationship between both the propositions and the examples (Appendix: Table 3.5) did not yield such a strong consensus as that provided by the relationships between the propositions and examples individually. The highest correlation being made by just over half the students.
7/12 P12. art is concerned with love and hate, ecstasy and misery
and E16. Klimt, Le tre eta

6/12 P18. art invents and perfects symbols of discourse
and E03. Braque, Bottle and Fishes

P09. art cannot be taught
and E23. Pollock, Number 23

P04. art is measured against standards and disciplines
and E07. van Eyck, The Arnolfini Marriage

P03. history and theory should be an integral part of fine art education
and E27. Titian, Bacchus and Ariadne

P12. art is concerned with love and hate, ecstasy and misery
and E15. Klee, Versunkene Landschaft

P12. art is concerned with love and hate, ecstasy and misery
and E10. Hartmann, The Glass Bird

Slightly over one half of the propositions and examples were not related in this way: 226 out of a total of 551.

These individual relationships again provide the basis of clusters between propositions and examples. The first of reflects propositions which can be identified with a professional or academic approach to painting, and these have been related to the historical category of examples:

Cluster PEI

P3. History and theory should be an integral part of fine art education,
P4. Art is measured against standards and disciplines,
and,
P7. The aim of art education is the production of the professional artist,

with,
E7. van Eyck, The Arnolfini Marriage,
E8. Piero, The Baptism of Christ,
E24. Rembrandt, Portrait of Hendrickje Stoffels,
E27. Titian, Bacchus and Ariadne, and,
E28. Vermeer, A Young Woman seated at the Virginal.

Propositions: P03 P04 P07
Examples:

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<tbody>
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<tr>
<td>E27</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>E28</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Table XIV. Cluster PEI: Frequency of Relationships
(Appendix: Table 3.5)

Another cluster includes cubist and abstract works; the
propositions are,

Cluster PEII

P9. Art cannot be taught,
P18. Art invents and perfects symbols of discourse,
and, P20. Works of art are propositions about art.

They are linked with,

E3. Braque, Bottle and Fishes,
E13. Johns, Dancers on a Plane,
E18. Mondrian, Composition, and

Propositions: P09 P18 P20
Examples:

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<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>E03</td>
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<td>4</td>
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<tr>
<td>E26</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Table XV. Cluster PEII: Frequency of Relationships
(Appendix: Table 3.5)
The students' responses to the juxtaposition of propositions and examples provides some informative material, in terms of both the a priori categories and the emergent clusters. They also reinforce some of the clusters identified separately with the propositions and examples.

The data also indicate something of the ambiguity or "valency" (ie. the number of different relationships associated with a particular proposition or example), of the examples and propositions. The most diversely related proposition, P13 art is a problem solving process, was related by at least one student to no less than twenty-six of the twenty-nine examples, while P08, art has to question and change the value structure of society, and P05 art is autonomous, excluding extrinsic meanings and values were each related to twenty-two examples. The least diversely related propositions were P07 the aim of art education is the production of a professional artist, which was related to eight examples and P04 art is measured against standards and disciplines, which was related to ten.

Among the examples the most diversely related was E23 Pollock Number 23, which was related to sixteen of the nineteen propositions. E04 Caulfield Bananas and Leaves and E25 Schwitters Picture of Spatial Growths were each related to fifteen of the nineteen. The least diversely related were E12 Holman Hunt Claudio and Isabella, which was related to only four of the nineteen propositions, and E08 Piero The Baptism of Christ, which was related to eight of them. The ambiguity of works of art has been the subject of substantial discussion; the results here indicate something of the diversity and character of that ambiguity for the students.
The strength of the results suggest that the relationship between text and image is deeply embedded in the experience and practice of art. However the diversity of relationships between the propositions and the examples, indicating degrees of ambiguity or valency, suggests that there is difficulty in identifying specific propositions with specific examples. It would be of interest to discover any changes in the breadth and diversity of such relationships among a group of mature artists.

However, it can be shown, through clustering, that the propositions and examples do group in ways that suggest the existence of links either directly between the propositions and examples themselves, or through some over-arching view of belief or attitude.

In the task relating the examples to their own working approach about three quarters of the students agreed on the most supportive examples, although there was a greater degree of agreement about those considered not to be supportive. Those found most supportive overall comprise a heterogeneous group in terms of subject, period, and style. The two unifying factors appear to be that relatively few students identify with work earlier than the beginning of this century, and that abstract art, with the exception of Jackson Pollock, is absent. The more literal forms of representation, such as that found in Salvador Dali and Lucien Freud as well as the historical examples, tended to be excluded. The works identified with seem to be centred on the problems of representation within a visual language which has its own characteristics and demands, which modify the subject towards the artists' pictorial concerns, be they to do with qualities of light (Bonnard), space (Braque),
expression (Kiefer and Bacon), or of movement (Schwitters and Johns).

The works identified as least supportive to the working approaches of students include some of the more geometric abstract examples (Mondrian and Stella), and one which might incorrectly be thought to be so (Matisse). The more open examples of abstract painting (Kandinski, Pollock) were more closely identified with the students' approaches.

5.2.3 A Priori Categories

As well as considering the propositions and examples in terms of their clustering within the data derived from the students, they were also considered in terms of a priori categories. The propositions were distinguished according to whether they were about art, about art education, or about history and theory in art education.

Art (9):

4. Art is measured against standards and disciplines
5. Art is autonomous excluding extrinsic meanings and values
6. Art is value free
8. Art has to question and change the value structure of society
12. Art is concerned with love and hate, ecstasy and misery
13. Art is a problem solving process
14. Art is concerned with present day rather than timeless values
18. Art invents and perfects symbols of discourse
20. Works of art are propositions about art
Art Education (5):

1. The fine art work of students should have no predictable end results
7. The aim of art education is the production of the professional artist
9. Art cannot be taught
16. The aim of art education is the application of creativity in a number of different fields
19. Art education is centred on the personal development of students, wherever this may lead

History and Theory (5):

2. History and theory divert attention from the main purpose of art education
3. History and theory should be an integral part of fine art education
11. Imagination and invention are opposites of coherence and rational thought
15. History and theory of art get students to confront the issues of contemporary culture and society
17. History and theory should analyze the assumptions, implications, potentials and limits of art activity

The examples were categorized into historical groups, reflecting the time of their painting.

Historical (6):

7. van Eyck The Arnolfini Marriage
8. Piero The Baptism of Christ
12. Holman Hunt Claudio and Isabella
24. Rembrandt Portrait of Hendrickje Stoffels
27. Titian Bacchus and Ariadne
28. Vermeer A Young Woman Seated at the Virginal

Modern (13):

2. Pierre Bonnard The Table
3. Braque Bottle and Fishes
5. Dali Metamorphosis of Narcissus
6. Degas Woman at her Toilet
14. Kandinski Swinging
15. Klee Versunkene Landschaft
16. Klimt Le tre età
17. Matisse The Snail
Table XVI. Categories of Examples: Frequencies of Propositions (Appendix: Table 3.5)
Contemporary (10):

1. Bacon Three Figures and a Portrait
4. Caulfield Bananas and Leaves
9. Freud Girl with a White Dog
10. Hartmann The Glass Bird
11. Hockney A Bigger Splash
13. Johns Dancers on a Plane
14a. Kiefer Märkischer Sand
19. Newman Adam
23. Pollock Number 23
26. Stella Hyena Romp

These were then compared through the frequency of relationships between the propositions and the categories of examples.

Table indicates significant differences between the propositions in relation to the a priori categories of examples. An examination of tables which rank the a priori categories of propositions in relation to the a priori categories of examples demonstrates the content of these differences.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Historical Examples</th>
<th>Modern Examples</th>
<th>Contemporary Examples</th>
</tr>
</thead>
<tbody>
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<td>P20</td>
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</tr>
</tbody>
</table>

Table XVII. Categories of Examples: Ranked Propositions about Art (Table XVI)
Propositions about Art:

P4. art is measured against standards and disciplines
P5. art is autonomous excluding extrinsic meanings and values
P6. art is value free
P8. art has to question and change the value structure of society
P12. art is concerned with love and hate, ecstasy and misery
P13. art is a problem solving process
P14. art is concerned with present day rather than timeless values
P18. art invents and perfects symbols of discourse
P20. works of art are propositions about art

In particular P04, art is measured against standards and disciplines, is frequently linked to historical examples, but rarely to those drawn from the modern and contemporary categories; reciprocally P20, works of art are propositions about art, and P18, art invents and perfects symbols of discourse, are frequently linked to modern and contemporary work, but are rarely linked to historical examples. Similar differences can be discerned in relating the categories of examples to the propositions about art education.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Historical Examples</th>
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</tr>
</thead>
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<td>P1 P16 P19</td>
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</tr>
</tbody>
</table>

Table XVIII. Categories of Examples: Ranked Propositions about Art Education (Table XVI)
Propositions about Art Education:

P1. the fine art work of students should have no predictable end results
P7. the aim of art education is the production of the professional artist
P9. art cannot be taught
P16. the aim of art education is the application of creative activity across a number of different fields
P19. art education is centred on the personal development of the student, wherever this may lead

The most striking difference between the historical works and those associated with the modern and contemporary period is the position of P07, the aim of art education is the production of a professional artist. This is perceived as the most relevant proposition to the historical category, but is rarely identified with the modern or contemporary works. The modern and contemporary categories are also differentiated, particularly by P09, art cannot be taught, which is considered highly related to the contemporary examples, but not to the modern ones. Reciprocally, P19 art education is centred on the personal development of students, wherever this may lead, is strongly related to modern examples, but less so to contemporary ones.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Historical Examples</th>
<th>Modern Examples</th>
<th>Contemporary Examples</th>
</tr>
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Table XIX. Categories of Examples: Ranked Propositions about History and Theory (Table XVI)
Propositions about History and Theory:

P2. history and theory divert attention from the main purpose of art education
P3. history and theory should be an integral part of fine art education
P11. imagination and invention are opposites of coherence and rational thought
P15. history and theory get students to confront the issues of contemporary culture and society
P17. history and theory should analyze the assumptions, implications, potentials and limits of art activity

In the case of these propositions there is again a particular proposition which distinguishes the historical categories from the others: P02 history and theory divert attention from the main purpose of art education. However the contemporary category is also distinguished by P11, imagination and invention are the opposites of coherence and rational thought, which ranks highly for the historical and modern categories, but near the bottom for the contemporary. The modern and contemporary categories are distinguished by the placing of P15, history and theory of art get students to confront the issues of contemporary culture and society, which ranks second for contemporary works, but fifth and last for the modern ones.

There is substantial evidence, therefore, that there are strong and specific distinctions between historical works and those made after about 1900: that these categories of paintings are seen, and thought of, in a different way. This is supported by the evidence of the interviews. The task also suggests that, to a lesser extent, such differences also exist between modern works made earlier this century and those created by contemporary artists.
However the degree to which such conceptualizations are only to do with historical distance, rather than with types of painting, is raised by the students' responses to E09 Freud Girl with White Dog, which, in its literal portrayal of the subject and in the meticulous character of its technique, might be thought closer to some of the historical examples than many of its contemporary works. The propositions which are most frequently associated (3/12) with the Freud are P04, art is measured against standards and disciplines and P13, art is a problem solving process. The former being the proposition most frequently identified with the historical examples; the latter occupying a middle position in relation to all three categories.

There are, therefore, clear conceptual distinctions between the a priori categories of examples, there is also some evidence that these might reflect responses to the types of painting rather than, or as well as, differences of time and culture.

5.2.4 Student Clusters

The student group as a whole shows degrees of consensus in their choice of propositions and examples in relation to their working approaches, strongly in the case of propositions less so in their choice of examples. The consensus is not total, and the variations are sufficient to identify sub-groups within the student sample.

The most important of them is the clustering of students which became evident from the questionnaire about working approaches. The table (Appendix: Tables 3.6, 4.1, 4.2)
showing the students' perception of different working approaches within their group gives the strongest indication of clusters of students. These comprise:

Cluster A
S02 "Brian" S05 "Doreen"
S09 "Mary" S11 "Veronica"
S12 "Wendy"

Cluster B
S01 "Barbara" S03 "Catherine"
S06 "Flora" S07 "Frances"
S10 "Shirley"

Cluster C
S04 "Clive" S08 "Gerald"

If these clusters are compared with the Repgrid analysis of the tasks, involving the students' identifications of propositions and examples with their own working approaches, there are different degrees of correlation. In the case of the examples (Appendix; Tables 4.5 and 4.6) the Cluster C, of S04 "Clive" and S08 "Gerald" is confirmed. However, the other two clusters are dispersed, although particular relationships within the clusters, in the case of Cluster A, between S05 "Doreen", S11 "Veronica" and S12 "Wendy", and in the case of Cluster B, the links between S06 "Flora", S07 "Frances" and S10 "Shirley" are sustained.

In the case of the students and the propositions (Appendix: Tables 4.3 and 4.4) Cluster A is evident, and, to a lesser extent, Cluster B remains; however the close relationship between S04 "Clive" and S08 "Gerald" does not appear. However, through the analysis of the a priori categories the propositions about art reflect the original clusters; whilst the responses to the propositions about art education and
about the history and theory of art generate a mixture of
the clusters.

Having established that the analysis distinguishes the
clusters of students according to their choice of
propositions and examples, it remains to identify the
content of that distinction in terms of the specific
propositions and examples which differentiate between the
different clusters.

In many instances members of the student clusters respond
similarly to propositions and examples, reflecting the
general consensus. However some provides clear distinctions.
Four of the propositions:

P04 art is measured against standards and disciplines,
P12 art is concerned with love and hate, ecstasy and
misery,
P14 art is concerned with present day rather than
timeless values, and
P20 works of art are propositions about art.

And eight of the examples:

E02 Bonnard The Table,
E04 Caulfield Bananas and Leaves,
E06 Degas Woman at her Toilet,
E12 Holman Hunt Claudio and Isabella,
E14a Kiefer Märkisher Sand,
E19 Newman Adam,
E22 Picasso Three Dancers, and
E23 Pollock Number 23.

These propositions and examples are referred to as the
differentiating propositions and examples.

It is remarkable that all the differentiating propositions
are drawn from the a priori category about art, and none
from the other categories, about education and about history and theory in education. These categories, in contrast, provide the propositions which provide a degree of unanimity among the students: nearly all finding them supportive or oppositional.

In the case of two propositions the mixed responses did not distinguish between the clusters:

P15 history and theory of art get students to confront the issues of contemporary culture and society, and P16 the aim of art education is the application of creativity in a number of different fields.

The propositions found supportive by a high proportion of the students included:

P01 the fine art work of students should have no predictable end results,
P03 history and theory should be an integral part of fine art education,
P17 history and theory should analyze the assumptions, implications, potentials and limits of art activity, and,
P19 art education is centred on the personal development of students, where ever this may lead.

Those found oppositional included:

P02 history and theory divert attention from the main purpose of art education,
P07 the aim of art education is the production of the professional artist,
P09 art cannot be taught, and
P11 imagination and invention are the opposites of coherence and rational thought.

Table 20 shows the relationship of the student clusters to the differentiating propositions and examples. The relationships have been analysed through RepGrid2 (Appendix: Tables 4.7, 4.8).
Table XX: Student Clusters with Differentiating Propositions and Examples (Appendix: Tables 3.2 and 3.4)

1 indicates that the student found the proposition or example supportive to their own working approach, 0 oppositional, and x irrelevant or unplaced.

Cluster A is characterised by finding the following propositions and examples supportive.

**P12** art is concerned with love and hate, ecstasy and misery,
**P20** works of art are propositions about art,

**E14a** Kiefer Märkisher Sand, and
**E23** Pollock Number 23.

And the following oppositional.

**P04** art is measured against standards and disciplines,
**P14** art is concerned with present day rather than timeless values,
Cluster B is characterised by finding the following propositions and examples supportive.

P04 art is measured against standards and disciplines, 
P12 art is concerned with love and hate, ecstasy and misery,

E02 Bonnard The Table, 
E04 Caulfield Bananas and Leaves, 
E06 Degas Woman at her Toilet, and 
E14a Kiefer Märkisher Sand.

And the following oppositional.

P20 works of art are propositions about art, 
E04 Caulfield Bananas and Leaves, 
E19 Newman Adam, and 
E23 Pollock Number 23.

Cluster C is characterised by finding the following propositions and examples supportive.

P14 art is concerned with present day rather than timeless values, 

E04 Caulfield Bananas and Leaves, 
E12 Holman Hunt Claudio and Isabella, 
E19 Newman Adam, 
E22 Picasso Three Dancers, and 
E23 Pollock Number 23.

And the following, oppositional.

P12 art is concerned with love and hate, ecstasy and misery, and 

E06 Degas Woman at her Toilet, 

The clearest differentiations between the student clusters are in the contradictions. Cluster A, for instance, found P20, works of art are propositions about art, supportive,
Cluster B found it oppositional. Both Clusters, A and B, both found E04, Caulfield Bananas and Leaves, oppositional, Cluster C found it supportive. Apart from these examples of the isolation of one cluster, there are more frequent instances of the same proposition or examples being found supportive by one cluster and oppositional by another. The grouping of examples and propositions suggested that there were links between them; their relationship with the students' working approaches indicates that such links have a relevance to practice.

5.3 Students' Paintings and Descriptions

The students referred to their own work during the interviews and more specific description and discussion was elicited after it. The responses within the interview varied from a brief and general reference.

I think my paintings try to deal with some sort of landscape or space, and fragmenting the figure, . . .

S05 "Doreen"

There are more discursive contributions, such as that of Mary (Appendix 1.3). The descriptions and discussions of particular works are less varied in length, but did vary in the degrees to which the students require some prompt.

Analysis of the responses within the interview yields relatively few distinct issues, nine, when compared with the descriptions and discussion, which provided twenty-three. The most important appears to have been technique, to which six of the nine students (S01 "Barbara", S06 "Flora", S07
"Frances", S08 "Gerald", S09 "Mary" and S11 "Veronica") referred.

... I should be a bit more, sort of, slapdash with the paint, a bit more sort of expressive with the paint, and its not ... I’ve got a subject matter that I want to sort of portray, and I desperately try and make the materials do that. I suppose I should be a bit more expressive with the paint..

S06 "Flora" Figure 1: S06 "Flora" Painting Autumn 1990

The other major concern was for the boundaries between figurative and abstract art, to which four students (S04 "Clive", S06 "Flora", S07 "Frances" and S11 "Veronica") referred.

... no matter how abstract you always try and get something, it always end up tying back to reality. I think it is just human instinct, just trying to pull things out of the abstract the whole time; that’s always what happens.

S04 "Clive"

The other issues raised within the interviews included landscape, the figure, conceptual art, feminism, social issues, animals, and the relationship of painting to a written text.

In order to establish the importance of the issues raised by the students they are categorised into subjects, technical issues and sources. The instances of their mention is
tabulated, and then discussed through reference to the discussion of the works.

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Table XXI. Summary of issues identified by students in discussion of their work.
1. Subjects: figurative/abstract; landscape; human figure; animals; gender and sexual issues; personal life; symbols; myths; narrative

2. Technical: colour; colour theory; space; light; composition; shapes; materials; techniques; surface

3. Sources: preparatory work; tutors; art historical; text reference; music.

Nearly all the students raised the issue of colour in relation to their own work. However, these references varied in their content and detail. "Barbara" related it to the landscape, and changes in its appearance.

I want to get in all the chalky colours of Salisbury plain, and the ploughed fields, and how everything is, you know, and how the countryside is going back to how it was, . . . all the grass, and that, is all this ghastly Fison green, you know grass seems to be the same colour wherever you go in England now.

"Doreen" related colour to the space within her painting.

It is a kind of predominantly red and grey painting, surfaces are punctured by three bars, floating, not tied into any space in particular. There is a breaking of the picture into two segments by the use of an horizon line. And then, using fragments of figuration, the painting should have a fairly human feel, but be about areas of colour.

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In another example "Flora" used a colour from an art historical precedent in order to create a particular spatial effect.

... the background of it was just a flat blue area because I wasn't quite sure what I wanted the setting to be or that the background would say anything more about the person than the person and what she was doing would say, and I'd seen a painting in the National Gallery, which is a portrait profile of a woman, kind of embedded in this blue background, and I had this idea of, that I would so the same. I suppose the idea was that it would just be a kind of non-specific space.

S06 "Flora"

"Veronica" related ideas of colour harmony to those of pictorial space.

I am far more excited by two colours being next to each other and the reaction between those two colours: sometimes they move forwards, sometimes they move back, sometimes they are tonally the same but different colours. I like the harmony that colours create, I like the nuances which are occurring in this green painting, I like some of the ones with the red as well, where the orange just slightly changes colour, I like that effect.

S11 "Veronica"

"Veronica" described, during the interview, how she related ideas to the pictorial qualities of her work.

I write a lot my thoughts down, then I incorporated some of my thoughts with my figurative images, then I found that the two were not actually working together,
so I explored the idea of creating paintings out of a line, and making marks, and mark become important, and then, from the actual importance of the word, the word became a mark. So it lost its importance, and then I moved from there onto just creating my own symbolic language,

S11 "Veronica"

"Wendy" identifies her colour as sensual, and also sees her colour scheme as having a personal import.

The figure, the body, is actually orange. I never use blues, purely because I don’t really like the colour blue; I’ve used a lot of blacks, whites, orange, very earthy colours. But then again quite sensual colours, I think. They are just colours I like using, they are my colour scheme and my trade mark.

S12 "Wendy"

Three quarters of the students referred to issues of technique during their descriptions. As with colour, this common concern does not indicate similarities of approach.

"Barbara" was concerned with the differences between two mediums.

I always used to find it very difficult to cope with oils because they were so sloppy, but now I find them a much truer way of working, they are more human, because with acrylic you can just peel it all off if you wanted, and also it gives a much better depth. Because acrylic was too flat, even though, when I did all my Californian paintings in acrylic, and brought them back here, and told the tutors they were acrylic, they thought they were oil.

S01 "Barbara"

"Frances" described how her technique allowed the imagery and surface of her painting to develop.

I wasn’t painting a fish directly onto the painting immediately, I was letting it develop as I was painting. So it has . . . it was built up rather than
knowing exactly what I was going to do. I was just letting it happen moving with the painting, and then putting in different colours to see if they worked and taking them out again. And using different marks, not necessarily with a brush: with the end of a brush, with the paint thick, or with the paint thinner. I put PVA in the powder paint so once it had gone on, if I were to paint over the top of it the colours didn't seep though again make a mess with the other colours I was putting on top of it. So in that way I was able to build it up.

The same pattern is repeated with other students and issues, although a general topic of technique may be shared the different individual approaches could hardly be more diverse.

Of the four students who referred to art historical source material, "Clive" provided a memorable description of his use and understanding of van Eyck's *The Arnolfini Marriage*.

The influences I have got for the actual format really come from my own mental images of paintings. The moment when you actually look into a painting. If you stare into a painting for a long time you are actually able to sort of walk around the interior of a painting. So it is a sort of play on entering into the world of a painting. The idea I got for this particular piece the *Arnolfini Marriage* by van Eyck. I saw it over the summer holidays; I was quite impressed by it. Various factors in the painting: its got a very strange, photographic quality, its quite a bizarre interior, and a bizarre image; the painting itself has got a strange rhythmic quality to it as well. There is[sic] large areas of flat paint and tiny, weeny areas of minute detail. There is some really strange neurotic quality to the whole painting. Basically I started off by just look at it for a long time; making
some drawings and some small paintings, and some watercolours and just working from there. But really trying to explore the three dimensional possibilities of walking round an interior space, or something which is an imaginary, something which is an illusion, a painting. Just what is it going to be like walking round the inside of a painting. S04 "Clive"

As individuals all the students, to a greater or lesser extent, demonstrated a coherent approach to their work; there were significant relationships between what was said in the interviews, the sources they cited, the descriptions of their work, and the works themselves.

5.4 Questionnaire 2

This questionnaire was used at the end of the course to identify indications of changes in the sources and character of the student's work since Phase 1 of the research. It also to ask about the audience for whom they were painting in order to examine how they saw their work relating to a broader audience than themselves alone. There were five questions:

1. For whom are you painting? (if more than one, please give order of priority)
   i. Yourself:
   ii. Fellow students:
   iii. The Fine Art Staff:
iv. The Examiners:

v. Others: (please specify)

2. What ideas have most influenced the recent work in your exhibition?

3. Who are the most influential artists on the recent work in your exhibition?

4. What other factors have influenced the recent work in your exhibition?

5. What, if any, major changes have occurred in your work since the Autumn Term?

The difficulty of obtaining responses to questionnaires has been documented (Wayte, G. 1989, 137-138), and attempting to do so during the period of the students' degree exhibition and assessment augmented that difficulty; however eight of the twelve returned the completed questionnaire.

The purpose of the first question was to discover whether the students were seeking audiences for their work beyond themselves, and even beyond their immediate environment in the College.

In response to the question all the eight students, without exception, gave the first priority to themselves. "Flora" gave no other response; of the other seven students, six provided a secondary priority, and one student a third. For most students the second audience was stated unspecifically, e.g: "Anyone who actually takes the time to view the work" (S07 "Frances"); "Anyone else, I hope will look, and see something of what I am painting for myself, and perhaps gain something from my work" (S02 "Brian"). "Veronica" was a little more specific, citing "Family and friends" as an audience.
The idea that an audience, in addition to one's self, can provide a positive influence on the work was only reflected in one response. S04 "Clive" cited "The Fine Art Staff" as an audience; in his response to the second question he again cited members of staff as the sources of ideas which had influenced his work, suggesting positive interaction with the staff as artists, as well as teachers. He indicated a third audience, the "Commercial Market".

The responses to the question about the influence of ideas on their recent work were more varied. However they offer, in general, categories of ideas, such as "role, identity and appearance . . ." (S06 "Flora"), and "More formal aspects of painting . . . colour, surfaces and the materials I am using" (S07 "Frances"), rather than particular ideas themselves.

Of the ideas themselves four of the eight students were concerned with sex and gender: "I have . . . concentrated on certain body parts . . . Most of the work has a theme of sexuality . . ." (S02 "Brian"); "My work has been influenced by ideas of dominance and submission, in relation to the "woman's role" (S10 "Shirley"), "Feminist writers, thinkers and artists. . ." (S01 "Barbara"), and, more obliquely, "I continue to be concerned with role, identity and appearance" (S06 "Flora").

Of the others one was preoccupied with formal aspects of painting, " . . . colour, surfaces and the materials I use" (S07 "Frances"), and another with social issues, "Observations of society . . . of the way man so easily destroys . . . the land" (S11 "Veronica"). Of the other two
students, one (S04 "Clive") supplies a list of sources, including an exhibition, staff, student, and his environment; another (S08 "Gerald"), offers more specific and complex explanations than the other students, in identifying a relationship between consumerism and fetishism.

The question about influential artists gains more significance when compared with the interviews and tasks concerned with examples than by being considered as isolated data. However the subjects of six of the students are about artists within the modern and contemporary *a priori* categories. "Flora" is highly specific.

My research into the lives and work of Vanessa Bell, Dora Carrington and Gwen John . . . has encouraged me to alter my working methods in order to get my ideas onto canvas . . .

S06 "Flora"

"Barbara" cites 12 artists drawn from the 19th and 20th centuries; most of whose work reflects a concern with the various emotions of conflict, with which her own painting is concerned.

"Veronica" has developed her work away from the influence of examples, although she does cite a single artist, Stephen Buckley, as one referred to at "a very early stage".

In response to the fourth question about other factors which have influenced recent work, technical developments had played an important part: "I dramatically changed the size of my canvas . . . more energy went into the painting" (S01 "Barbara"); " . . . my work has become much simpler" (S02
"Brian"); "I am trying to balance the linear and large rectangular blocks of colour with more accidental and self-conscious flooded and splashed marks" (S07 "Frances"); and "Drawing from life" (S10 "Shirley"). Two students (S04 "Clive" and S06 "Flora") mentioned an increased confidence, and three other students (S01 "Barbara", S02 "Brian", and S11 "Veronica") appear to imply something similar. Recent changes and developments in source material also appears to have influenced a number of students (S02 "Brian", S04 "Clive", S07 "Frances", S08 "Gerald" and S11 "Veronica").

The fifth question was about the changes which had taken place in their work since the Autumn term. Even those students who do not state or imply an increased confidence in their abilities seem to have made substantial progress during the six months between the first and second phases of the study. There appears to have been a substantial increase in the lucidity with which they develop their work. "It is no longer self-conscious 'canvas painting' that I produce but a continual flow of thought-process and ideas" (S07 "Frances").

For some technical developments were important as a way of explaining the changes which had taken place in their work since the first phase of the study in the Autumn term.

... expanded the work to make larger paintings. (When I say larger paintings, I don't mean physically larger, but my painting seem to have a greater scale).

The space in the paintings has changed quite a lot ... There seems to room
to breath . . . I have been considering light in the paintings.

S02 "Brian"

For "Clive", the use of photographic imagery on paper presented a number of possibilities, he had, "Explored my ideas of photography more and concentrated less on the sculptural aspects of the paper . . .". Another student had shifted emphases within her particular approach.

I became dissatisfied with working on an illusionist level alone and found it necessary to explore the relationship between realistic and illusionistic space . . . the more formal aspects of earlier work became a tool rather than a primary concern.

S11 "Veronica"

The fundamental purpose of the second questionnaire, to identify changes in the sources, ideas and work of students, can, with reference to the works in the Degree exhibition, be seen to show a variety of changes from the revolutionary to the clear logical progression of established techniques and approaches. These types of change are exemplified in the cases of two students in particular: "Clive" and "Barbara".

The changes in the work of "Clive" are clearly progressive, rather than revolutionary. The basic constituents and concerns were evident in Phase I of Case Study: an open and ingenious eclecticism, an interest and expertise in
photography, and the willingness to see staff as providers of source material, evident in his response to the interview and to Questionnaire 2. The major change can be found in the scale of his conception. The small individual character of the works of Phase I have been refined, and are now placed in an exhibition space, which with thoughtful and skilful lighting, becomes a large scale work in its own right.

During Phase 1 of the Case Study, which took place soon after her return from America, "Barbara’s" work was centred on an English landscape tradition, and as examples of artists who influenced her she cited members of the St.Ives group and similar figures. Her responses to the second questionnaire and the changes in the character of her painting evident during the second phase describe the changes.

In response to the second questions, "What ideas have influenced the recent work in your exhibition?" She wrote:

I do feel that I have managed to return [to] a lot of my humour and story-telling, and this is all made more enthusiastic as I take an interest in the works of Goya, Paula Rego, Cecil Collins, Ken Kiff, Ivon Hitchins, Gerald Scarfe, van Gogh, Salvador Dali, Gauguin, Paul Klee, the Pre-Raphaelites, Eric Fischel!

The presence of Goya, particularly, at the head of this list, indicates the character of her work at this time. An example shown an image of an execution, not unlike Goya’s Executions of the 3rd of May, or some of the same artist’s prints. It also has a resemblance to Manet’s Execution of the Emperor Maximillian. The painting shows a man being shot
by a policeman, while a female face looks on from the top of the painting. In this work "Barbara" appears to have integrated her new sources into her painting, and the change has also registered in her attitudes and techniques.

5.5 Individual Students

The analysis of individual students is an area in which we can relate the data gained from the interviews, questionnaires, tasks, and the actual works of the student. However the overall quantity of data makes a analysis and presentation of each of the twelve students impractical for the purposes of this report. This discussion and comparison will therefore be limited to a single student from each of the three clusters: "Mary", from Cluster A; "Catherine", from Cluster B, and S08 "Gerald", from Cluster C. The three students also vary in terms of their gender, age, and background.

Both "Mary" and "Catherine" come from south-east England. "Mary" had followed a more or less standard process through A levels and a foundation course, although her experience of her foundation course was unsuccessful, and she had a further year's study after leaving that course before entering the degree course. "Catherine" is an older student. She had been married, divorced and had a son before embarking on her art school career, which commenced on a BTEC course before she proceeded to foundation and the degree course. She is about twelve years older than "Mary".
It was "Catherine" who suggested the inclusion of additional picture postcards amongst the examples to avoid what she saw as the researcher's male-orientated selection. "Gerald" comes from the Midlands, where he pursued a foundation course directly after school and before entering the degree course.

In the interviews they appeared to approach the works and artists as exempla in very different ways. "Catherine" identified with a particular female artist, through her "exemplary" biography as well as her work.

. . . we had her here to give a lecture. She is a female artist, probably in her 50s. She recently had an exhibition in Cork St.; it was about the subject of myth and metaphor. Paintings regarding, perhaps, the myths of females and very much to do with the female experience of life. That's what appealed to me. She is also a mother and an artist which I have gathered as I have gone along through this particular journey that is a extremely rare phenomena, and an irritating one to some male artists. I find her paintings very exciting, but I find her subject matter very exciting as well; and her work is very figurative too.

S03 "Catherine"

"Mary", in contrast, identified strongly with specific works, and their relationship with ideas.

I wanted to deal with art that's in some way hidden. I don't know if you know the Anselm Kiefer Bookcase, . . . That's, I thought, "My God", at the time. I just went and sat underneath it for days and days, and I loved it. And I want, somehow in my thesis, I want to involve the quality that I loved in it, which was like the fact that it was enormous lead books that no one could ever read, and yet they were full of this information. You know, made properly like books, but no one was ever going to be able to open them.

S09 "Mary"
"Gerald" presented a more complex picture of his sources, relating them to his work as a series of concerns, which replaced each other as his work developed.

... towards the end of the first year, I was influenced by Vorticism, Futurism and so on. And I have gradually become more interested in Patrick Caulfield and Andy Warhol, I used to think he was a crank, but now I look at his work more now.

S08 "Gerald"

His major concern at the time of the interview was with tribal fetish objects. He was asked whether they interested him as aesthetic or religious objects.

I think the aesthetic qualities are, like, the first thing that actually drew me to the image, these fetish dolls with loads of nails. I don’t know if you have ever seen them, but ... that was the initial appeal ...

S08 "Gerald"

He was able to relate this source material to other interests,

... it has all tied in with an interest in the occult and an interest in music. It is the actual background, the reasons why they did it, that interest me now. Very interesting stuff.

S08 "Gerald"

By the time of his exhibition this interest had been developed to relate to western consumerism; he acknowledged the particular influences of Madonna and David Mac.
A development moving more in the direction of consumerism and the commodity fetish in parallel to the anthropological fetish influences

As a result of the tasks each chose propositions and examples which they considered to be supportive or not of their own working approach.

Table XXII. Three Students: Responses to Propositions and Examples (Appendix: Tables 3.2 and 3.4)

There is a degree of consensus between the three students: all generally share both the supportive and the oppositional propositions and examples which are represented in the consensus of the student group as a whole.
All three agree on five supportive propositions:

- P08 art has to question and change the value structure of society,
- P13 art is a problem solving process,
- P15 history and theory of art get students to confront the issues of contemporary culture and society,
- P17 history and theory should analyze the assumptions, implications, potentials and limits of art activity, and
- P19 art education is centred on the personal development of students, where ever this may lead.

There are also five propositions which none of them find supportive:

- P02 history and theory divert attention from the main purpose of art education,

is seen as oppositional by all three. Four others are seen as either oppositional or neutral.

- P06 art is value free,
- P09 art cannot be taught,
- P11 imagination and invention are the opposites of coherence and rational thought, and
- P20 works of art are propositions about art.

Among the examples there is rather less consensus. Four are found to be supportive by all three students,

- E01 Bacon Three Figures and a Portrait,
- E03 Braque Bottle and Fishes
- E13 Johns Dancers on a Plane, and
- E21 Picasso Bottle of Vieux Marc, Glass, Guitar and Newspaper.

Two are not found supportive by any of the three students:

- E07 van Eyck The Arnolfini Marriage,

which is considered oppositional by all three. And,
E14 Kandinski *Swinging*,

which "Mary" and "Catherine", find oppositional, and "Gerald" considered neutral.

A more general point can be made in terms of the distinctions between the three students. This indicates that "Gerald" is relatively isolated, and the other two students, "Catherine" and "Mary", are closer to the general consensus of the student group.

In terms of the propositions, ignoring the neutral scores, "Gerald" has the most frequency of isolated scores, followed by "Catherine" and "Mary" in that order.

"Gerald" is isolated on three propositions and ten examples. He finds the propositions,

\[
P05 \text{ art is autonomous, excluding extrinsic meanings and values, and} \\
P14 \text{ art is concerned with present day rather than timeless values,}
\]

supportive, whilst the other two find them oppositional. On the other hand they find,

\[
P03 \text{ history and theory should be an integral part of fine art education,}
\]

supportive, whilst he finds it oppositional.

In the case of the examples "Gerald" finds four examples supportive which are found oppositional by the other two students:
E04 Caulfield Bananas and Leaves,
E18 Mondrian Composition,
E22 Picasso Three Dancers, and
E26 Stella Hyena Romp.

Reciprocally, he finds six examples oppositional, which are considered supportive by the other students.

E06 Degas Woman at her Toilet,
E09 Freud Girl with White Dog,
E10 van Hartmann The Glass Bird,
E15 Klee Landscape,
E20 Nicholson Auberge de la Sole Dieppoise, and, E24 Rembrandt Hendrickje Stoffels.

Neither "Mary" or "Catherine" find themselves isolated with any of the propositions. Among the examples "Catherine" is alone in finding,

E02 Bonnard The Table,
E05 Dali Metamorphosis of Narcissus, and
E28 Vermeer Young Woman Seated at the Virginal,

supportive, and the following images oppositional:

E19 Newman Adam, and
E23 Pollock Number 23

Similarly, "Mary" alone found,

E08 Piero The Baptism of Christ, and
E11 Hockney A Bigger Splash,

supportive, and the following oppositional:

E12 Holman Hunt Claudio and Isabella, and
E27 Titian Bacchus and Ariadne,
It is clear from this analysis that "Mary" and "Catherine", are relatively close in the relationship of their working approaches to the propositions and examples. "Gerald", in comparison, is isolated; holding different views and relating his work to different exempla. Consideration of data derived from the interviews, describing the sources and character of their work, sustains this view.

In their descriptions of their work "Catherine" provides a general idea, "... the rather submissive element in the female body. ...", to contextualize her mainly technical description of the work.

This is a large painting of the rear, of the back, of the life model Catrina, works in the College, standing in a corner, with her arms up. I did a number of drawings before of the life model and I was intending to find a way, I suppose, of expressing her rather submissive element in the female body as well as in the position I’ve placed the model in. The painting is quite washy with thin paint; the only really worked areas are the back and the buttocks and the side of the stomach. The background, the corner, where she is standing is a very thinly painted area. And I used ... colour, fairly bright extreme colours for the flesh, simply from an aesthetic point of view I have often of liked mauve and green exaggerated. On the legs there are some rather dark, sort of blue tones, under the arm there is a very turquoise tone.

In the description of her work provided by "Mary", the idea of hidden knowledge, which is evident in her response to the
Kiefer Bookcase, is sustained, and her feminism is one of experience.

... The concern in the whole painting is about self-image and about self-assertion, and I decided that its part of the chain of thought that has been going on that I going to refuse to accommodate. Which is how I have decided the woman is, she accommodates everything that goes on, and man doesn't; he does what he wants, so I'm going to do what I want. So there's a series of drawings going through the middle that are line drawings, which to me are to do with the positions of bodies, they are about femininity, they are about sex in a round about way. They are to do with contortions I could get myself in to, the different roles that I can play before I realize what I am doing. The bottom piece has got, like consistent, heavy graphite marks over it which I spent hours and hours doing. ... that was about a sort of compulsive, possessive behaviour, which is kind of, what I shy away from, this kind of female thing, so that there are compulsions ... So that the kind of frantic marks are about this sort of compulsiveness, ... the whole thing is just about trying to, it is half saying "I don't know and I refuse to say this is the image, this is what it is about". ... 

S09 "Mary"

Gerald, like "Catherine" related a particular work to more general ideas about his source materials. The work in question was developed from an industrial pallet,

... it has taken the idea of fetishism as a commodity fetish. The pallet itself. Because I was working at Boots warehouse over the summer, a really mundane, boring, job. I guess I get the idea from there. I actually tried to change the pallet, I painted it white, I don't think I necessarily needed to do that but I did at the time. You know the whole
thing was an experimental process I think. And I found these machine heads that actually play a tune on the strings. So I actually played a tune with a loaded paint brush, and got this pattern here, that was quite an exciting process, actually to create a kind of image through making sound. And also there is another pointer to fetishism with this piece at the bottom here. We have got nails coming out of the image, and if you press the mouth, it starts laughing. Because I have got one of those laughing boxes rigged up underneath.

"Gerald", related his concern with colour to colour theory and visual effect.

A comparison between the works of the students at the time of the initial phase of the study reflects the distinctions which have appeared in the interviews and tasks. The painting of "Catherine" is highly conventional in nature and addresses the technical problems of painting the figure. In the case of "Mary" the work is exploratory and experimental, seeking to achieve statements through a process of change and development. Gerald, on the other hand, does not work within the conventional flat and worked surface that is present in the painting of "Mary" and "Catherine"; his work.
is an assemblage of made objects which are then sometimes treated with colour. In their work for the Degree exhibition, about six months later, the difference is more marked. "Catherine" produced an exhibition which centred on autobiographical reference, dominated by her relationship with her son, and in a style and with a method which might be described as figurative and literal.

The paintings and drawings of "Mary" had remained related to her autobiographical experience, and continued in their exploratory vein.

"Gerald’s" degree exhibition in the Summer of 1991 consisted of an installation, with large areas surfaced by empty, discarded drink cans, and an exhibition of works, which were based on found objects.

It is clear that the choice of propositions and examples made by these students, and their interviews, are consistent with the distinctive characteristics of their work. The findings describe a territory of concepts and images which generate issues and problems which their work addresses.
This is particularly evident in "Gerald", who identifies common elements in his interests in music, the occult, and tribal fetish works. He relates the last to a European tradition through the absence of a single maker, and uses them as a basis for his work. "Mary" demonstrates a similar coherence through her identification with the Bookcase of Anselm Kiefer, which she identifies with implied, but concealed, texts, her photographs of animal tracks which indicate, but do not represent, activity, the working process she describes, and the content of the work with its emphasis on her own female consciousness. In particular the study demonstrates the synthesis between tribal fetish objects and contemporary consumerism which was sought and achieved by "Gerald". The research findings not only go some way to explain his work to us, but, more importantly, the search for their synthesis generated much of his own activity: raising the issues and problems which his work addresses.

5.6 Conclusions

The research methods and techniques of the Case Study have enabled a large quantity and a wide variety of data to be gathered about the student group. At times this quantity and variety seem to overwhelm the specific objectives of this part of the study: the relationship of the students' experience, views and work to epistemological ideas,
particularly to the paradigm, which were enunciated in a previous section. The limitations placed on the data by the structure of the interview, the specific nature of the tasks and questionnaires, and the discussion of the students' work, have proved sufficiently flexible to permit a complex picture to emerge.

However, that complexity contributed to our understanding of the students. The linking of the data generated through the various methods has enabled them to emerge as individuals in the context of their experience of art education that more limited and specific methods of enquiry might not have achieved.

The importance of the complexity of data is that it parallels the complexity of artistic practice and education. The paradigm, as it is described by Kuhn, might be manifested in relation to scientific practice within fewer parameters, but the strong belief in the individuality of the student, which characterises art in higher education, and the uncircumscribed range of the methods and sources which enable the expression of that individuality, naturally generate a more complex picture. This is assured by the principle of isomorphism between the subject and the research method.

What emerges, therefore, is not a simple, one dimensional, image, such as would be gained from, say, an intelligence test, but a view of multi-dimensional view of the group, of the clusters, and of each student, which makes sense in terms of the consistencies and continuities of thought and practice within fine art in higher education. The data derived from the interviews, tasks, questionnaires and the
students' work emphasise the tacit character of art education, and the importance of personal relationships and exempla, of both artists and works, to the students.

The course itself has many of the characteristics of a research programme: the projects, with their emphasis on enquiry and the development of sources towards a conclusion and the development of the students interests through a tutorial system. Through the consistencies and continuities in the data we can discern paradigms and problem shifts which characterise the work and progress of the students.

The group as a whole emerges with consistencies and issues in their identification of propositions and exempla; the clusters of students takes place around such issues, and the interviews reflect a wish towards their more interactive and critical development. Among the individuals, S04 "Clive's" eclecticism and concern for spatial experience, vividly described in the interview and description of his work, is evident in his constructions, similarly his interest in photographic supports much of his constructed imagery. S03 "Catherine's" overriding concerns with her family and the issues raised by woman in the art world; concerns which seemed to separate her from the principal interests of the course, are profoundly influential on her work. And S09 "Mary"'s intelligent and, in some senses, obscurantist pursuit of parallels between the tactile qualities of her media and her own physical presence, are expressed with energy and sensitivity in her final exhibition.

The evidence indicates that the individual students do work within coherent notions of art which inform their practice and relate it to the context of beliefs, values and
techniques in which they find themselves; and that these beliefs, values and techniques are exemplified by artists and works. They are therefore comparable with the fine art sample described by Painter. The concern for an idea of art is central to their activity, and, although some, such as S04 "Clive" and S08 "Gerald", may use this concern experimentally, it cannot be identified with the rather random view exemplified by Painter's working class sample.

In spite of some traditional attitudes there is little to suggest that the attitudes and work of the students are inimical to the idea of research. The working approaches of students and the values they attach to their work and works of art in general suggest that the processes of the study of art in higher education represent a research activity in a general sense. They indicate the possibility of a research community, and the development of paradigms which might form the basis from which to develop more systematic research.

In general, the student's responses to both the interview questions and the tasks reveal how close the principles and process of their activity is to research. The developing concern for sources and methods revealed in the interview questions, and the priority given to the three propositions:

P13 art is a problem solving process,
P01 the fine art work of students should have no predictable end results, and,
P17 history and theory should analyse the assumptions, implications, potentials and limits of art activity,

in support of their working approaches, indicate that the development of research degrees in fine art would offer a
logical extension to the attitudes and values which are already part of undergraduate experience.

However, some aspects of their practice would require adjustment, and new factors introduced for their study to be wholly appropriate for such degrees. The objectives and subjects of their work would need to be more fully articulated and sustained; theoretical issues would require greater understanding and to be related more securely to the practical work; and group discussions and criticism would need to be more concentrated and systematic towards the development of a research methods course, and records or "research diaries" might be kept, as would preparatory drawings or other studies. These should enable the presentation of their work in the final exhibition to emphasise the sources, and the evolution of the methods and techniques of study, as well as the final results.

The development of a research community, within which the approaches to research might evolve, and a critical language allowed to develop, is the most important element which might contribute to research degrees. Such a community cannot be left to the students, and can only come into being if the fine art community as a whole addresses the issues of administration and funding which it involves.

In general terms there is nothing in the evidence provided by the interviews and the tasks to suggest that the idea of research in inherently inconsistent with the experience of art education, although aspects of that education would not necessarily be consistent with work for research degrees. However it is not only the experience of students and the
character of undergraduate work which leads to the development of research degree programmes and proposals.

In order to consider the idea of research in art in higher education, and the development hitherto of research policy and degree projects, the issues will be considered in the institutional context of the artworld in higher education, and, more specifically, in the role of the Council for National Academic Awards.
6. Research in Fine Art Education

6.1 Attitudes and Policies
6.2 CNAA Research Degrees in Fine Art 1981-1988
6.3 Conclusions
6. Research in Fine Art Education

6.1 Attitudes and Policies

In the earlier chapters it is established that epistemological ideas can be used to describe certain aspects of artistic activity, such as styles, the work of individuals, the artworlds. It was further shown that such epistemological ideas were explanatory in terms of the experience and work of art students. This chapter differs from the previous one in that the epistemological concepts are brought to bear on existing material: the policy documents and projects; rather than forming a basis from which an enquiry was designed or the data generated. It is concerned to describe some of the policy and practical issues of research in fine art in the terms with which they have already been expressed, and their relationship with the epistemological discourse.

The chapter examines the ideas of research in the fine art community through a study of the recent and current attitudes and practice of research within the institutions whose degrees, including research degrees, are validated through the Council for National Academic Awards (CNAA). In particular it considers the development of policies within the Council itself. In its two sections this chapter considers, firstly, the development of attitudes to a policies for research in fine art; and, secondly, the research degree submissions in fine art which have been achieved in the context of those attitudes and policies. These issues of policy and practice are related to the epistemological bases of the study in following chapter, the Conclusions.
In addition to the sources of the CNAA, and its Art and Design Research Degrees Committee (ResCom), the sources of the attitudes and policies include publications relating to art education during the period: government reports, reports and minutes of the National Advisory Council for Art Education (NACAE), the National Council for Diplomas in Art and Design (NCDAD), the National Advisory Board for Public Sector Higher Education (NAB), the Polytechnic and Colleges Funding Council (PCFC), and the Committee for Heads of Institutions for Art and Design (CHEAD).

The period covered in this chapter, from c.1960 to the present day, presents an exponential growth of the discussion of research in art and design, if not in the practice of such research. Such an exponential can be identified with the forms of institutionalization which art and design education have undergone, in particular through becoming part of the responsibility of the Council for National Academic Awards in 1974; the establishment of a sub-committee for research degrees in art and design in 1975, a series of conferences from 1987, and the importance attached to research by various influential bodies in recent years.

Although the basic structure for this chapter is chronological, there are also issues which provide a thematic basis: firstly, the general idea of research in fine art; secondly, the problems specific to research degrees in fine art; and, thirdly, the collective or institutional character of research. Research activity, as a process, is freely and frequently referred to in relation to art education and the making of works of art; the development of research degrees, which can be perceived as
the equivalent of research degrees in other subjects, is a more difficult and contentious issue. As well as such difficulties of relating research degrees to artistic practice the development of such degrees has also been the subject of a degree of resistance from within the fine art community. Concern for the collective and institutional aspects of research is seen as concomitant with, or sequential upon, the development of research degrees.

The starting point for the chronology is the commencement of the Diplomas in Art and Design as a result of the "Coldstream" Report of 1960 (NACAE 1960). It was this which transferred art and design education from further education to higher education: the revised courses for art and design were intended to "... approximate in quality and standard of achievement to a university course of the same length leading to a first degree" (NACAE 1960, 3).

From this point the chronology can be divided into stages: firstly, the period from c.1960 to the amalgamation of the National Council for Diplomas in Art and Design, the body responsible for the administration of the diplomas, with the CNAA in 1974. This led to the diplomas becoming BA Honours degrees and the placing of art and design education in the same context as the many other subjects overseen by CNAA. Secondly, the period between 1974 and the revision of the CNAA research degree regulations to allow the submission of "... practical creative work with the thesis . . ." (CNAA 1983, 31) in 1978. The third, and principal, stage is that between these revisions and the present day.

The first stage is characterised by rather tentative and general statements about research in art and design,
although the discussions during the Hornsey sit-in of 1968 (Hornsey 1969), and the subsequent evidence given to the Parliamentary Select Committee (Report 1969), did place emphasis on research as an aspect of art education. However, before discussing this documentation, it is relevant to refer to the work of Victor Pasmore during the post-war period. This provides an example of research in the artworld.

Thistlewood describes the systematic enquiry which characterised Pasmore's work during this time.

[He] . . . began producing large numbers of austere, uniformly painted objects, often badly made and deliberately without 'finish', which very few people seemed to wish to possess. The objective results of his work has ceased to have significance except as evidence thrown up by methodical research. Pasmore thought of this as 'laboratory research' into fundamentals of the painter's vocabulary. He concentrated on placing a few single elements - points, straight or regularly curved lines, geometric or near geometric areas - in relationship, and exploring large ranges of minute variations, in order to gain experience which was predominantly practical.

Thistlewood 1981b, 37-38

Thistlewood also describes one of the research issues of Pasmore's enquiry:

... he questioned the most basic convention of them all - the premise that the painter's support surface, or picture plane, should be flat and usually rectangular. He experimented with grounds of different shapes, allowing compositions to exert some lateral independence.

Thistlewood 1981b 37-38

Pasmore was a member of the NACAE which produced the "Coldstream" Report, so the idea of research activity in art
was, therefore, already present within, and available to those developing, the curricula of higher education in fine art.

Pasmore was also a member of the Committee of the Council which produced its third report, *Post-Diploma Studies in Art and Design*, in 1964. This report does not identify research degrees as a specific area of such studies in fine art; it refers to "... a period of continued study" (NACAE 1964, 3) rather than specific courses. It refers to research as an aptitude, distinct from those reflected by the classification of the Diploma, which might inform the selection of students (NACAE 1964, 6). Although the report envisages that the period of study under the supervision of a college of art, it also suggests that post-diploma students may "... carry out part of their studies with an approved artist or craftsman" (NACAE 1964, 3). Perhaps a recognition of the tacit nature of art and design education.

One of the earliest of the debates about research in art and design took place during the Hornsey sit-in. It resulted in the following statement.

We regard it as absolutely basic that research should be an organic part of art and design education. No system devoted to the fostering of creativity can function properly unless original work and thought are constantly going on within it, unless it remains on an opening frontier of development. ... It must be the critical self-consciousness of the system, continuing permanently the work started here in the last weeks.

Hornsey 1969, 129

Here research is identified with critical consciousness and original work and thought, and was seen as an organic part of art and design education. In addition to various aspects
of art and design, the proper subjects of research included an emphasis on the educational process. Research was to be valued as an major and necessary part of a college of art and design.

Among the Hornsey students who gave evidence to the Select Committee, Jed Bailey distinguished between academic study and that expected in a school of art:

... we are researching into things. Art and design is an exploratory and research situation. Therefore there is a good deal of community interest of staff and students. Many members of staff ... see themselves progressing forward just as much as the students. Therefore because there is no academic tradition in the sense of a university ..., students tend to be very critical of who says what is to be taught and how they are different from anybody else in terms of being an artist or designer to say what is taught. ... Report 1969, V 20

Bailey uses the word research in this context to identify independent and original acts of enquiry, which is external to any established tradition, rather than the collective and sequential building of a body of knowledge which reflects theoretical and critical processes.

One passage in the Second Report of the National Council for Diplomas in Art and Design (NCDAD 1970) describes art as something resembling a research process, without actually mentioning the word:

The artifacts of the artist whatever the form of manifestation are never final. The practice of art is a self-critical act which is subject to the processes of continuing modification of previous concepts and attitudes. It is not limited by the exactitude of the disciplines and methods of technology or science, nor by the laws of nature even if it profoundly affected by them. It is concerned with ideas believed to be
right at the time of creation but which may or may not be affirmed in the course of time. This is the nature of art education in all its diversity. This diversity is central to its purpose and function in the structure of the education system as a whole.

NCDAD 1970, para.3

The exploratory and critical approach described by Bailey suggests that this might be the case, however the perceived lack of tradition, or '... an exactitude of disciplines and methods', referred to in the 1970 NCDAD report, in an art school suggests that such exploration and criticism make take place in a somewhat random, improvised and personal manner, rather as the pre-paradigmatic activity as it is described by Kuhn. They seem to situate artistic practice in some sort of limbo, to be guided only by personal belief that something is 'right at the time' (NCDAD 1970, para.3).

The Hornsey statement, on the other hand, appears to suggest something more systematic and integral to an institutional environment and its educational processes.

The placing of art and design degree courses within the responsibility of CNAA in 1974, which had already developed research policy for other areas, caused this problem of definition to become an issue of practical administration.

The CNAA stated that,

... in accepting these new responsibilities, [it] recognised that it had a special obligation to encourage research in this field.

CNAA 1984, 4

The strategy of the Council in meeting this obligation can be seen in two phases; firstly to relate existing practice in art and design to the generalized concept of 'research and related activities' which existed in the other subject
areas for which they had responsibility, and secondly to address the more specific problems which stemmed from the idea of research degrees in art and design. The Council had set up a working party on research in 1972 which addressed the issues of definition and policy. The working party's report, Resources for Research in Polytechnic and other Colleges, known as the 'Rochester Report' after the chairman of the Working Party, was published in 1974 (CNAA 1974).

Professional creative practice in art was viewed as a part of 'research and related activities' and included under the general interdisciplinary head of consultancy and private professional practice (CNAA 1984b); however, while this acknowledged the research nature of much fine art practice within CNAA policy, it did not address the specific issue of research degrees, nor particularly that of the submission of practical work for those degrees.

Subsequently the Rochester Review Institutions Inquiry: Research and Related Activities in the Public Sector of Higher Education, by Austin and King (CNAA 1984b), enquired into the ways in which the Rochester Report was reflected in research and related activity in the polytechnics. It was published in 1984, and reports on information gathered over the years 1981-82. As well as embodying the categorizations and policy statements of the initial report it also reflects the subsequent review of research policies and practices conducted by the CNAA in 1981.

The Review is based on returns from 25 polytechnic; of these only 17 included the subject area of Art and Design. The returns from colleges, including colleges of art and design, were not included.
The discussion identified the information gathered on research in the Art and Design subject area. It considered what it revealed, compared research policy, activity and support in Art and Design with that in other subject areas. The authors noted difficulties in identifying research in Art and Design and comment that the analysis of research and related activity in art and design may have been better dealt with through a "separate matrix" (CNAA 1984b, 13). The report, in the evidence it presented about research activity in art and design, contained much confusing and contradictory information. However, it suggested that the general level of student's research in Art and Design is somewhat lower than that in most other subjects (CNAA 1984b, 52). On the other hand, staff activity in research and related activity, as reflected in timetable remission, in Art and Design was, with Social Sciences, higher than any of the other subject areas (CNAA 1984b, 55).

Only 60% of the institutions which include the Art and Design subject area acknowledged the presence of staff research in art and design. However, and paradoxically, the proportion of staff, 94% of FTE, who are actively involved in research and related activity in the Art and Design subject areas is higher than in other subject areas. The conflict between the institutions figures for research in art and design and the number of staff engaged in research reflects differences between institutions and the staff, who included their professional practice on their returns.

In addition to the tabulated data the authors include some more general comment. The remarks which relate directly to art and design help to clarify the characteristics of the area and its distinctiveness from others. It points out, for
instance, that the number of research students in art and design has indubitably been limited by the fact that, "... the tradition of research by thesis is not well developed, ..." (CNAA 1984b, 50). Perhaps as a consequence of that, it, "... gives the highest weighting to staff development as a research policy and its staff engage primarily in consultancy and creative and performance activity ..." (CNAA 1984b, 97), these areas being better defined in art and design than elsewhere (CNAA 1984b, 98). Another reason for this emphasis perhaps being that,

... it is unlikely that many lecturers in this field would be able to survive as credible teachers in front of their students if they were not active in practice at the same time.

CNAA 1984b, 72

However, despite absence data from the colleges, the report contains some useful indications about research and related activity in Art and Design, and its relationship with that in other subjects. It suggests that research and related activity, particularly that involving personal and professional development is an important element in the life of staff, though this is far less true of students, and that, in terms of staff time, it is reasonably well supported. However it is clear that the research and related activities which were pursued in the subject area of Art and Design was done so informally, probably without the knowledge of the administrators of the polytechnic. The activity depended largely on the time derived from a generous interpretation of the contractual hours spent by staff within institutions, and was conducted largely at the financial expense of the member of staff concerned.
The Review marked the end of the "Rochester" phase of CNAA policy making, centred on the broad issues of "research and related activities". The next phase concentrated on the more specific issues of research degrees in art and design. It can be dated to the establishment of the Research Degrees Sub-Committee (hereafter the "Committee") by the Committee for Art and Design, which held its first meeting in October of 1975. The Committee was to continue for a total of thirty-six meetings until 1988, when it was superseded by the Humanities, Art and Design Research Sub-Committee.

The minutes of the first meeting reveal that assistance had been sought from the Royal College of Art and the Slade School of Art, but that they had been able to provide little information, and were facing similar problems of the definition of research degrees in art and design (ResCom 1975, 1.3). The Committee therefore returned to first principles.

It was noted that the Committee could not deal with a proposal involving work of a purely creative nature (ResCom 1975, 1.2). It was considered that, in order for research degrees in art and design to develop, changes in the regulations were required. These would either result in revision which permitted the submission of works of art and design, or the creation of new awards, such as Doctor of Fine Art and Master of Fine Art. It was argued that one solution would be to require the presentation of a supporting thesis or dissertation with the work of art created (ResCom 1975, 1.4).

This . . . would allow the foundation of a theoretical grounding from which the teaching of fine art could proceed on a more methodological basis, and would
cater for the artist who wished to examine his own work in relation to that of others."

ResCom 1975, 1.5

Specific issues were identified as, firstly, the definition of a programme of research; secondly, the evaluation of the worth of research; thirdly, the nature of the thesis, and, last, the final examination (ResCom 1975, 1.2). One major problem would be the examination, or assessment, of the work(s) of art created (ResCom 1975, 1.7). The Committee considered that proposals should show "timeliness and promise". It was considered that,

... research should be regarded not as work leading to the creation of a major work of art but as the achievement of a lesser addition to new knowledge.

ResCom 1975, 1.4

At its meeting held in May 1977 the Committee considered drafts revising the CNAA regulations for research degrees. In terms of the general nature of research it,

... was pleased to note that there had been general agreement that research in Fine Art should accord with a definition of research on the lines of the Oxford English Dictionary, namely, an investigation directed at the discovery of some fact or facts by careful study of a subject or a course of critical investigation. It was agreed that this definition underlined the objective nature of research and emphasised the difference between research and the largely subjective act of self-expression which could be the proper concern of the self motivated MA Fine Art student.

ResCom 1977, 33.5

The revised regulations came into effect from September of 1978. Regulation 3.7, which governed the submission was revised to include the following:
... the Council may approve a programme leading to the presentation of a thesis accompanied by material in other than written form. ... Such proposed arrangements must include details prescribing the form which such the candidate's presentation must take.

CNAA 1983, 8-9

The "Notes for Guidance", which were to accompany the new regulations, retained the conventional and scientific character of research that been supported by the Committee:

... research in Fine Art should constitute an investigation directed to the discovery of some fact or facts by careful study of a subject, or a course of critical investigation; for the degree of Ph.D, candidates in addition complete successfully a programme of work which results in a significant contribution to knowledge.

CNAA 1983, 31

It also reflected the a distinction that had been made within the Committee.

The research must be objective in nature as distinct from the largely subjective act of self-expression which can be the proper concern of the MA Fine Art student.

CNAA 1983, 31

The distinction between the 'largely subjective act of self expression' and the necessary objectivity of 'a significant contribution to knowledge' appears to be fundamental to the discussion of research degrees in fine art, and therefore instrumental definitions of objectivity and subjectivity, with examples, might have been considered a priority; such definitions were not forthcoming.
The examination of a thesis which included both written and practical aspects was summarized by a CNAA officer.

... written and non-written aspects are both equally significant in the assessment of research for an award. Clarke 1988, 5

In terms of the balance between the two in the submission, the proportion which the practical work could contribute to the presentation, was indicated by the regulations governing the length of the written part. For submissions including practical work this should be normally in the range of 10-15,000 words for an M.Phil., and 20-30,000 words for a Ph.D. (CNAA 1983, 20). The normal length of a written CNAA M.Phil. thesis is 40,000 words, and for a CNAA Ph.D. thesis 70,000 words, it can be judged that the proportion of marks allocated to the practical work is between about 60% and about 75%. However, comparison with submissions in the sciences, where the report may contain the results of experiments provide other proportions.

Concern about the application of the regulation led the Fine Art Board to set up a working party on research degrees. They produced a report which was considered at the meeting of the Committee in January 1980. A deputation from the Fine Art Board attended a meeting of the Committee in May 1980, and the issues raised were also discussed at the meeting held in the following October.

The Fine Art Panel argued that the Council were inconsistent in that it, having accepted the submission of creative work for undergraduate and M.A. qualifications, the regulations were insufficiently flexible to permit such work to qualify
for research degrees (ResCom 1980, 104.1). Fine Art students were also thought to be disadvantaged by the revision of the "Notes for Guidance", and by their treatment within institutions. Staff development for research could be inappropriate (ResCom 1980, 113.6).

The Fine Art Panel proposed, over the three meetings, that the regulations and notes for guidance should be further revised, that reconsideration should be given to the establishment of alternative research degrees, such as M.F.A. and D.F.A. (precedents at some UK universities and Yale were referred to), and that the representation from the Fine Art Panel on the Committee should be strengthened. It was also suggested that proposals for research in fine art should be considered directly by the Council, rather than being submitted to the Committee.

The Committee appear to have been unsympathetic to the arguments presented. It was stated that the suggestions, . . . could lead to the distortion of awards which were accepted by the world of scholarship as a training in research methods resulting in the successful completion of an approved programme carried out under a supervisor.

ResCom 1980, 104.2

The Charter of the CNAA, which required them to be comparable in standards to universities, was invoked; and it was argued that the existing regulations, "... already provided sufficient flexibility" (ResCom 1980, 104.2). It was also stated that representation on the Committee could not be strengthened, as the most important criterion for membership being,
The Committee also wished that all research applications in Art and Design to continue to be processed as at present (ResCom 1980, 122.2).

The Committee, therefore, appear to have viewed the meetings with the Fine Art Board and related papers as confrontational, and does not appear to have supported the Fine Art Panel on any of the points it had raised. Neither does it appear to have seen the issues as important to the exercise of its responsibilities.

This response might be considered surprising: it must surely have been in the interests of the Committee to promote research degrees in fine arts as part of their general responsibility for research degrees in art and design; the various arguments from authority with which the Committee defended its position also appear unconvincing. Perhaps paradoxically, the next major issue to which the Committee devoted its time was the relative shortage of applicants to pursue its degree programmes. It was thought that this might be accounted for by a lack of qualified supervisors (ResCom 1981, 137.4).

The discussion was broadened by a paper from Officers of the CNAA on the "Nature and Problems of Research in Art and Design". In consideration of the relative lack of candidates for research degrees in art and design the Committee made a number of points. They appear to have found a way of meeting one point made by the Fine Art Panel through arguing that

... familiarity through personal experience of the standards expected of research degree students at M.Phil. and Ph.D. level.  

ResCom 1980, 104.5
the existing regulations and application form could be more flexibly interpreted than hitherto. In particular, they acknowledge the importance of the collective character of much research, through reference to institutions (i and ii), to the idea of a conference (iii), and the need for precedents, or a "case history" of research in a given area (viii). The institutional aspects of research were to preoccupy the general discussion of the Committee (ResCom 1982, 169).

Its importance was reinforced at the two subsequent meetings, in January and May 1983, when they entered into discussion with Goldsmiths' College about research in art and design (ResCom 1983, 177 and 190). This led to the setting up of a Higher Degrees Sub-Committee in the College.

In September 1983 a seminar, Fine Art Studies in Higher Education, was held at Leicester Polytechnic, which attracted many senior members of the fine art community. Among the topics discussed was research, which was seen to include both research into fine art in higher education and also research degrees which included practical work.

In general the power of research was acknowledged:

Major decisions concerning educational provision are still being swayed by appeals based on tradition, prestige and emotion; but the government has begun to acknowledge at ministerial level . . . reports based on sustained enquiry, . . . to have access to research findings is to be armed in a competitive field.

Cornock 1983b, 9
The lack of such findings about art in higher education, with which to argue the case for fine art was also acknowledged,

. . . there is an astonishing lack of information concerning courses and their effects, and the journals and published indexes to dissertations rarely list accounts of research into fine art studies in higher education. Cornock 1983b, 10

However, the acknowledgement of a lack of research did not foretell all the expression of some fundamental doubts about the research which might take place in forms which might jeopardise the "special" nature of art and art education:

. . . the methodological choice facing the researcher cannot be addressed here, save to note that it is tempting for those setting out to research . . . to seek "respectability" by borrowing the rhetoric of scientific research, by quantifying the essentially qualitative. Cornock 1983b, 10

The point was elaborated:

Educational research would only be welcome were it to produce information relevant to the quality of artistic practice and education; thus the reduction of artistic or educational considerations to quantitative data - to statistics - would not be a positive contribution to our work. Cornock 1983b, 11

Although the seminar report does continue to support the idea of research in general, the confidence felt in the status quo, and the distrust of knowledge, such as that exemplified by research, is illustrated by the question:
Is there . . . any need for fundamental research when we know instinctively the nature and value of practices such as drawing? 

Cornock 1983b, 11

Satisfaction with the status quo was also expressed in considering the effect which might ensue if research in fine art was resourced.

A radical suggestion was that existing provision of resources for postgraduate study in art and design (eg. bursaries, salaries) should be reallocated to include research fellowships; but it was noted that this would have a deleterious effect on the already scanty provision for postgraduate study in this field.

Cornock 1983b, 11

In the following year a conference on research in art and design was planned at Middlesex Polytechnic. Three members of the Committee were to present papers (ResCom 1983, 203). The conference programme was discussed, members of the Committee expressed concern. In particular they wished to emphasise the importance of research methods, and therefore of research training. This became a significant issue for the Committee from this time (ResCom 1984, 218).

The report of the conference at Middlesex Polytechnic identified the absence of a ' . . . council to initiate and support research.' It also identifies problems of definition, supervision and, in relation to design, team research. The emphasis on research methods and training was supported in the Report of the Conference. The Report also emphasises the use of collaboration and team research in developing the research, to enable the participation of smaller institutions.
In 1984 the CNAA published *Research and Related Activities: Policy Statement* (CNAA 1984a). It paid particular attention to creative work and art and design, reiterating the views of the "Rochester" report and also discussing the problems of research degrees. It also noted that although the existing regulations accommodate most subjects satisfactorily, that the changes governing the presentation of practical creative work,

\[\ldots\text{... may not be interpreted as sufficiently conducive to the fullest development of research in art and design and the creative performing arts}\]

*CNAA 1984a, 17*

Research in fine art is also discussed within the specific subject areas, under the heading 'Art and Design'. The section begins with the comment that the Council,

\[\ldots\text{... recognises that most activities in art and design which equate with research as defined in other disciplines result in artefacts, designs, and/or other evidence of practical endeavour. Council wishes to encourage these activities and believes that some will be appropriate for registration for research degrees}\]

*CNAA 1984a, 22*

This section continues to express regret that more applications for research degrees and continues to specify the characteristics such programmes will require. They will have to,

\[\ldots\text{... embrace the concept of research as a systematic investigation of a predetermined subject or a previously identified problem. Such an identification will need to be based on a methodology of the sequential and progressive gathering, testing and evaluation of primary material.}\]

*CNAA 1984a, 22*
The apparent dissonance between the traditional concepts of artistic practice and the requirements of a research programme are reflected in the following passage,

... for those activities in fine art which do not readily lend themselves to these approaches, or which might be entirely aleatoric in nature, it may be necessary that an entirely new award is necessary to mark achievement.

CNAA 1984a, 22

The view of the aleatoric, the importance of the use of chance, in artistic production, and the idea that works or projects might be 'entirely aleatoric', and therefore unsuitable for the award of research degree suggests that some methods and processes which might, at the same time, be a valid contribution to the subject of fine art without being a similarly valid contribution to research. It also suggests that research in other subjects is pursued without chance elements entering into the process. The idea that a work of art might be 'wholly aleatoric' is difficult to contemplate. Even in the work of those artists who used chance, such as Duchamp, the principles and procedures within which the accidental happening occurred were carefully considered and structured.

The statement makes an interesting correlation between the outcomes of work in fine art and other subjects.

... exhibitions and performances can be regarded as the equivalent to publication providing that they are open for judgement by experts in the field rather than by immediate colleagues only.

CNAA 1984a, 14
The paper was considered by the March 1985 meeting of the Committee which made a number of points: firstly it wished to clarify the importance of methodology in research degrees. Secondly, members of the Committee were doubtful about the existence of relevant courses for research students in art and design. Thirdly, members of the Committee wished to emphasise the importance of collective aspects of research within institutions (ResCom 1985, 251).

At the same meeting the Committee considered the problems of supervision in more detail, including the response to students personal difficulties, the compatibility of students and supervisors, and the responsibility of supervisors to supply references after the completion of the project (ResCom 1985, 250).

At their meeting in October 1986 it was suggested by officers of the CNAA that the Committee’s membership "... seemed to show an imbalance in favour of the history of art and design" (ResCom 1986, 284); other members were being sought.

In April 1987 a further conference on research in art and design, sponsored by CNAA, was held in Manchester. It addressed the subject under four headings: supervision, a research community, fine art, and visual aspects and non-traditional formats. The shortage of supervisors, and of suitable training for supervision is noted, and there is more specific comment on the value which institutions place on supervision (CNAA 1988)

The report also suggests there should be a national list of experienced supervisors willing to assist in institutions other than their own, that there should be a system of
postal training for supervisors, and that there should be an incentive for supervision.

The idea of a research community in art and design reflects the acknowledgement that many are working in isolation, and that there is a tendency, in some places to 're-invent the wheel'. It is suggested that there should be an available register of research in art and design; the role of the a society with a journal, as exemplified by the Design History Society, in helping to establish a research community in that area was not reflected in other aspects of art and design (CNAA 1988).

It was noted that fine art, in distinction to the design subjects, had special problems and that some sort of network should be set up to act as a clearing house for information about research in the subject.

The section on "Visual aspects and non-traditional forms" briefly discussed some of the theoretical issues relating to creative work and the idea of knowledge. It states that: "non-written things can be 'knowledge'", and that, "there is considerable uncertainty about the relationship between visual knowledge, research and achievement". It suggests that the idea of "visual knowledge" is an issue in both fine art and design (CNAA 1988)

The Committee discussed the conference making two principal comments: observing the ". . . ignorance of research degrees and of research in general displayed by some delegates from the smaller colleges", and on, ". . . the need for initiatives of what might broadly be called a "political"
nature to create more opportunities for research" (ResCom 1987, 319).

In addition to the Conference Report the meeting received a report of a meeting of some of its members with staff of Birmingham Polytechnic. The committee had several applications for "non-traditional types of research degrees", and

... had found it useful to think in terms of what was the most appropriate end product of a piece of work. While the ... and the production of a work of art were admirable activities, in neither case was the correct end result a thesis nor was a research degree the most appropriate medium to express the work. There was a need for some exegesis or analysis of the work of art as well. It was important that the purpose was research, or exploration, - not just the creation of a work of art - and that the non-written as well as the written material worked towards the final thesis'.

ResCom 1987, Appendix para.2

The question of research had been considered by the CNAA's Committee for Academic and Institutional Policy (CAIP). Their paper stated:

Members reiterated their corporate view that the PhD was conferred not only for a contribution to new knowledge, but for the acquisition of skills in research methods and that the special meaning of the PhD should be preserved. A post-graduate award should not, in the view of the sub-committee, mark professional competence ...  

ResCom 1987, 333

The Committee agreed with CAIP in rejecting the proposal for new named awards. Members were opposed to a new generic award, but observed that the CAIP seemed to reject this option only on the ground of a lack of an appropriate title.
It was pointed out that "Doctor of Praxis" was used in Eastern Europe for doctoral work which including practice.

It was considered that integrated doctoral programmes can be successful for the first year where small cohorts of students can together address the mechanics of research, methodology and research knowledge. The Committee agreed that it would be very useful to convey information and good practice on the taught component of MA and PhD degrees to institutions (ResCom 1987, 333).

At the same meeting the intention to hold a conference in London in 1988 was noted. This was discussed further at the meeting of the Committee in October 1987. Members of Committee supported the conference, but expressed some reservations (ResCom 1987, 332).

At their next meeting these reservations had not been met, and the Committee,

... felt that there was considerable evidence that the administration of the conference was inadequate and wished to reiterate the view expressed at the last meeting that CNAA should not be formally associated with the Conference.  

ResCom 1987, 342

The planned conference, sponsored by CNAA, was held at the Central School of Art and Design in March 1988. The agenda addressed a number of issues and questions relating research in fine art, including the possible definition of the 'parameters' of academic research in art and design, the relationship of notions of creativity to the new technologies, the relationship between research and the curriculum, and the use of inter-institutional research
programmes. Two papers, by Livingstone and Clarke, made particularly pertinent contributions.

Livingstone addressed three issues: the value of research, reasons for its absence in art and design, and ways in which this absence might be rectified. Livingstone considered research was positive and necessary to any academic subject, it contributed to teaching methods and many other issues. He argued that the division of concerns between the "how" and the "why" was dangerous, and that practical work without understanding led to sterility. Without research the serious questions of a subject are neither asked nor answered.

He referred to the lack of a tradition of research in art and design. He felt that there was a pride in this lack, that the art and design community had chosen to ignore research, that the lack of research was self-perpetuating, and that the emphasis on manual skills was not only unquestioned, but generated demand for 'more of the same'. The staff in authority were the products of a non-research tradition, and extending the boundaries of the subjects was alien to many staff who were committed to 'doing it the way we have always done it'. There was a tradition of anti-intellectualism, a contempt for theory and an emphasis on product.

Livingstone argued that the system itself was not conducive to new research developments. In seeking to identify ways of 'tackling the malaise' Livingstone suggested that research could only be generated through institutional and staff support. In general it was argued that BA work did not encourage higher level work, and that it was often carried out within an uncritical perspective. He reported that this
had led to the identification of a lack of rigour and confused objectives. He suggested that the third year of degree courses should be open-ended, and more concerned with the process of making rather than the product: i.e., rather than simply supplying 'more of the same'.

He particularly advocated that research work should be pursued within joint projects with other disciplines and institutions, and not restricted to research degrees (Notes 1988).

Clarke of the CNAA spoke on "Alternative Modes of Presentation". Her paper consisted of an introductory review of research in fine art and video tapes of students' work. In her introduction she remarked on the relative lack of interest, and the lack of examples, therefore, "... best practice largely remains hypothesis" (Clark 1988, 3). She summarized her view of the non-written content of a research degree, it is not, she stated, "... the same as an artist putting up an exhibition supported by notes and sketchbooks ...". She continued.

A research programme undertaken towards a research degree, whatever its mode of presentation, is a systematic investigation of a subject or problem based upon theoretical analysis and the application of research methodology which results in a significant contribution to knowledge. While this is not anathema to creative practice, it does make specific demands, but equally opens up new possibilities. These can allow a critical and objective exploration of the creative process in the context of the production of specific pieces of work.

Clark 1988, 3

The video tapes were of two M.Phil projects completed by fine art students, Greenhill and Miszewska. The work of the
former is discussed in detail below; the thesis of the latter, *The Intelligible Practice of Sculpture*, aimed, 

... to consider the intelligibility of sculpture by setting up an experiment based on the process of working in the medium. The theoretical model was based on the work of the cognitive psychologist Walter Reitmann on the thought processes involved in the creative activity of composing a fugue. 

Clark 1988, 4

During discussion it was argued that, although the case law of research in art and design was minimal, the potential for the area was enormous. Among the issues discussed were the idea of research in art as a contribution to the growth of sensibility, and the relevance of the artistic quality of work submitted for research degrees; the latter was seen as a serious problem (Notes 1988).

A review of the conference reflected a mixed response. It described the conference as "... enjoyable and pertinent" , but also commented that the "... intellectual climate remains cloudy". Of the examples of research presented by the CNAA, it was said that the Council is "apparently canvassing for projects with a practical component ... but it remains difficult to see where such research was taking us" (Cornock 1989, 89).

The thirty-sixth, and final, meeting of the Committee was held in June of 1988. Its role was to be performed within the wider remit of a new research degrees committee for Humanities, Art and Design, which also included social sciences and performing arts. The discussion of issues relevant to research in fine art within the new committee appears, from the minutes, to have been limited.
The foundation of the National Advisory Body for Public Sector Higher Education (NAB) provided a further powerful public body which invited discussion and made recommendations about research policy in art and design. The NAB took a positive view of research in art and design education. The report of the Art and Design Group of 1986 argues for the development of post-graduate work, in particular to

... allow an exploration of the theories which underpin the practices of art and design; to reflect on the nature and purposes of education in art and design; to develop more specialist courses which would not be appropriate at the undergraduate level; and to provide a research base for and have an influence on the standards, expectations and content of undergraduate education.

NAB 1986, 23

Whilst this statement encourages research into fine art in higher education, the issues of research in or through the practice of art is not touched upon. In 1989 the CNAA Committee for Art and Design confronted this issue through a major statement: Research and Related Activities in Art and Design (CNAA 1989). This sought to reflect the 1984 CNAA policy statement in relation to art and design, and in response to the conferences which had been held.

The statement reported on the relatively slow progress of various aspects of research in art and design within the CNAA structure: registrations of research degrees, interdisciplinary and collaborative activities, and research into curriculum and pedagogy. It also described some of the issues which, in the view of the Committee, have contributed to this situation. It sought to clarify some of the theoretical problems which are involved, and indicated the role
of research and the responsibilities of institutions in the
development of research. It concluded by listing the CNAA research degrees in art and design which had been registered and conferred since 1981.

The issues which have affected research in fine art which are identified as lack of support from other subjects, lack of exploitation of the new regulations, the "propositional framework" of research in art and design, and alternative research degree awards for creative and expressive work (CNAA 1989, 1).

In seeking further definition a term, "academic research", is introduced which seems to muddle the issue. It is stated that,

... practical work in art and design can be encompassed by the phrase research and related activity. The difficulties about definition focus specifically on research work which is eligible for a research degree award. In this paper 'academic research' has been used to refer to this category. Academic research is one subset of the activities described in the 1984 statement. It refers specifically to research directed to the discovery of some fact or facts or to a new understanding of some aspect of existing knowledge. This is not the same as professional practice.

CNAA 1989, 1

The references in this paragraph are confused: there is no reference to 'academic research' as a subset in the 1984 document, nor to its definition, "... directed to the discovery of some fact or facts or to a new understanding of some aspect of existing knowledge", although it does appear in the 1983 Regulations (CNAA 1983 31).
The definition of 'academic research', and the relatively conservative view of research, Schon’s notion of reflection is also introduced.

Professional practice and academic research are related. Some, but not all, improvements in practice are based on additions to knowledge. Some, but not all, additions to knowledge lead to an improvement in practice. This distinction may be best understood by thinking of the relationship between practice and reflection on practice as it occurs in other disciplines, in architecture, in engineering and in medicine. Research degrees are not awarded for buildings, patented inventions or successful medical treatments but for the study leading to an original contribution to knowledge on which such achievements may be based and for the study of such achievements.

In the following passage some degree of definition is achieved.

Research degrees therefore denote a specific form of activity characterised by the systematic investigation of an identified subject the openness of methodology and the research results to verification by others and the outcome being an increase in public knowledge. They are not awarded as expressions of the aesthetic value, social worth, or cultural significance of particular achievements.

This passage is also important in that it distinguishes the methods and processes from the outcomes of research.

The following paragraph reports that the Council had decided not to institute separate awards for creative achievement which could be equated with M.Phil or Ph.D degrees. It comments that the CNAA,
is of the view that the proper acknowledgement of professional achievement is a professional qualification or recognition by peers. In common with the universities it has decided not to change the existing scope of research awards. It is confident that CNAA regulations are flexible enough to encompass a wide range of creative work.

The next two paragraphs, emphasise institutional responsibilities.

Institutions have a responsibility to ensure that their policies on research and related activities are applied with the same vigour and imagination in art and design as in other subject areas. The concentration of art and design in the college and polytechnic sector places a particular responsibility on institutions in this respect. It also provides opportunities for interdisciplinary research projects which are not easily duplicated elsewhere in the higher education system. This potential is beginning to be exploited, but the scope for further development remains great.

The next section of the statement offers suggestions about the ways in which the development of research might be implemented, even within the financial constraints and structural changes of the time, within institutions. These include the breadth of research activity, funding, collaborative projects between institutions and departments, and policies for support (CNAA 1989, 2).

The subsequent section, entitled "Research degrees in art and design", offers some general comment on the characteristics of research degree work in the area. It begins by differentiating between 'academic research' and the normal production of creative work. Research degrees are not, "... a means to certificate the creation of a work of
art or design per se' (CNAA 1989, 3). It gives definition to research by quoting from the 1984 CNAA statement, that,

... successful research degree registrations are required:
"to embrace the concept of research as a systematic investigation of a predetermined subject or previously identified problem. Such an investigation will need to be based upon a methodology of sequential and progressive gathering, testing and evaluating of primary material".

CNAA 1989, 3

It adds that "... appropriate research training has to form an integrated part of any proposal".

The next paragraph provides some definition of the relationship between the practical work submitted and the written thesis.

The creative work must be clearly related to the argument contained in a written thesis which establishes the relevant theoretical, critical or historical context of the work. The thesis must conform to the usual scholarly requirements and be of appropriate length. Documenting or summarising alone is not adequate, elements of critical study, interpretation and evaluation must be included.

CNAA 1989, 3

The section proceeds by arguing that the flexibility of the regulations governing submissions for research degrees has not been exploited in art and design. It then identifies the problems that have been discerned.

Problems which arise are mainly related to the preparation and standard of submissions rather than to philosophical or methodological difficulties.

CNAA 1989, 3
In conclusion the Statement refers to the changes that might be expected through the inception of the PCFC, and recommends the future development of research to course teams.

The view of institutions of art and design to the CNAA statement can be gained from discussions during February 1990 by the Committee of Heads of Establishments in Art and Design (CHEAD). Two meetings were held. In addition to the Statement, definitions of research prepared by Touche Ross, a firm of City accountants, for Polytechnic and Colleges Funding Council were also considered. The reports of these meetings, neither of which are paginated, comprise: CHEAD Consultation on Research, a regional meeting which included London, Kent and East Anglia (CHEAD 1990a), and CHEAD Research in Art and Design: a regional seminar held at Lancashire Polytechnic in February 1990 (CHEAD 1990b.)

The Touche Ross paper is appended to the record of the first CHEAD meeting (CHEAD 1990a). It distinguishes seven categories of research: Basic Research, Strategic Research, Applied Research, Scholarship, Creative Work, Consultancy, and Professional Practice. Creative work is described as the invention and generation of ideas, images and artefacts, including design, and usually applied to the pursuit of knowledge in the arts. It also added a note stating that curriculum development was not considered to be a research activity in its own right, but might become one by falling into one of the seven categories.

Although more detailed in its categorizations the Touche Ross report does not add to this argument much beyond the Rochester phase of CNAA policy, in that it is concerned with
research in general and does not address the issue of research degrees.

The reports of CHEAD’s regional meetings offer a useful insight into an uneven understanding of research, and a variety of attitudes towards it, within the artworld in higher education. Some of the comments lend support to Livingstone’s view of a malaise, identified by a view of research as a threat to "doing it the way we have always done it", and to the anti-intellectualism and disregard for theory that characterise some members of the art and design community.

We believe the titles of research degrees to be unhelpful or, more graphically; 'Who wants to be called a Philosopher, in real life it’s like being accused of self-abuse'.

CHEAD 1990a

It is also commented that "... the achievement of research degrees was considered to be a fringe interest ... ", and asserted that "'Doing' is more highly rated than 'reflecting'" (CHEAD 1990a)

Other members of the group recognised such attitudes, and saw them as a weakness of the system.

The resistance to theorization of our disciplines in recent decades had ill-effects in the debate on teaching and learning methods and compared unfavourably with our experience of European students.

CHEAD 1990a

The more detailed discussion reflected in the reports of the CHEAD meetings is, generally, more constructive. It can be considered under a number of headings, a) the reasons for
research, b) definitions of research and research degrees, c) research in art and design, d) institutions, e) problems and issues, f) the funding of research, and g) possible and future action.

The reasons for research are not seen in the way in which its outcomes might benefit the practice or educational aspects of art and design, but rather in terms of the public face of institutions, such as the "... need to court "respectability" through research degrees" (CHEAD 1990a).

The CNAA Statement is referred to in its comment on research as a means for institutions to "... demonstrate their continued academic and professional health". A similar idea is presumed to be a view in Touche Ross: "... regarding research as a measure of institutional vitality ..." (CHEAD 1990a). There appears to have been no reflection of any idea of the value of research beyond the way in which it reflected on the institutions.

Among the definitions of research and research degrees, both groups identified research with the solving of problems and their relation to the curriculum,

The CHEAD discussions reflected a disinclination to engage the issues of research degrees directly, and supported ideas within which research methods and processes might be unnecessary.

Not all higher degree work need involve a formal explanation. A piece of creative work could be rewarded per se, as, for example, the author of a novel might be awarded a PhD without formal examination.

CHEAD 1990b
In considering the requirements for written presentation in CNAA research degrees, we believe it compared unfavourably with the practice use by the RCA in appraising candidates for higher doctorates, where a distinguished record of practice is supplemented only by a viva with three professional peers.

CHEAD 1990a

One means through which it was considered possible to establish research in art and design was in the creation of comparability with established research traditions in other subjects.

The possibility of a conversion table was discussed in order to argue the A&D case within institutional committees - thus, for example, 1 show might equal 3 refereed publications.

CHEAD 1990b

There was an attempt to define what makes personal artistic work 'research'. One answer was in its 'going public' (category 2. of UFC research selectivity exercise) . . .

CHEAD 1990b

One meeting considered that curriculum development was excluded from research activity by Touche Ross.

... we were surprised that the Touche Ross paper omitted curriculum development and believed that this was "the stuff of Ph.D.s".

CHEAD 1990a

In fact the Touche Ross paper does not exclude curriculum development, but declines to give it independent categorical status.

One of the characteristics of the southern regional meeting was a critical attitude to descriptive hierarchies within
earlier discussion. These might be considered marginal issues when compared with others which had been raised in the papers.

... we concluded that we should characterise art and design's contribution as RESEARCH and DEVELOPMENT; without the traditional hierarchy between the two.  

CHEAD 1990a

Even the catholic Toche Ross paper implied a hierarchy of research from the scientific model of 'Basic Research' down to useful application.  

CHEAD 1990a

Among the problems and issues that have arisen within the experience of the members of CHEAD, CNAA are seen as sympathetic to some of the problems, but its regulations and procedures are subject to adverse comment. The problems in gaining acknowledgement and support for research projects in art and design within institutions is also commented on.

We believe CNAA to be out-of-touch with our needs and international trends in resisting the creation of awards at all levels specific to art and design. The whole notion of research degrees as having some utility and attraction to artists and designers might be more widely established by this step.  

CHEAD 1990a

There was agreement on the inappropriate nature of the forms of application for registration for [CNAA] M.Phil./Ph.D. This was particularly true for students who are submitting work in a form other than written. There was seen to be two choices: to 'play the game' and translate the student submission into acceptable language or to 'battle it out' often engaging in a lengthy and dispiriting wrangle.  

CHEAD 1990b
In addition to the problems encountered with the CNAA the polytechnics themselves appear to have been resistant to the development of research in art and design.

The need to explain and justify at length Art and Design research activities within institutions was found to be a common and dispiriting experience.  
*CHEAD 1990b*

Current procedures do not encourage the submission of practical work and this situation should be remedied. The temptation to follow the existing Humanities model should be examined closely.  
*CHEAD 1990b*

The meaning of the "Humanities model" is not made clear; a parallel sentiment was expressed in the other meeting.

We had a residual concern, however, that the 'bibliometric method' still held sway in ranking institutions and individuals.  
*CHEAD 1990a*

One of the issues discussed at length by the Art and Design Research Degrees Committee was the lack of supervisors for art and design research degrees. This concern was also noted in the CHEAD discussions.

The resourcing of research projects was seen as a problem, both in gaining formal support for specific projects, and the use of the tradition staff day-out of the teaching programme, which is traditional in art and design education. The position of staff wishing to pursue research at the Royal College of Art, and the organisation which supports them, is viewed with some envy.
In contrast to the more general discussion the *possible or recommended action* in the reports is almost wholly positive in its approach to the problems. It includes comprehensive list of contributions which CHEAD might make to the situation.

An individual response to the CNAA *Statement* came from Colin Painter. His paper, "Fine Art Practice, Research and Doctoral Awards", was presented to a meeting of specialist advisors at the CNAA early in 1991; a version of the paper was later presented at the *National Research Conference: Art and Design in Education* in December of the same year. The paper is important as the first example of a sophisticated and critical understanding of research methods being brought to bear on the subject. Painter expresses the belief that,

> . . . fine art practice, in its own right and without the support of written statements, deserves the public status associated with doctoral level awards . . .

Painter 1991, 1

Painter sees the problem as,

> . . . tactical and political rather than fundamental in theoretical or philosophical terms. Fine art is a multi-faceted discipline and "good enough" arguments are readily available to support it as research or as a doctoral level activity. (That is not to say that the arguments do not need to be articulated).

Painter 1991, 1

The substance of the paper consists of a critical review of the *Statement’s* definitions of research and art and a discussion of fine art practice as research.
The Statement's definition of research is described by a series of key terms: fact, systematic, verification, and knowledge. Within the statement these are not defined, although, by implication, they can be seen as carrying a "hard" meaning. Painter argues that the idea of fact, for example, is far from unambiguous, and are inseparable from human subjectivity.

... it is surely well established, in academe (and axiomatic in fine art) that the "real world" evokes a multiplicity of "facts" depending upon how it is approached and perceived. "Facts" are human constructions or interpretations which involve human selectivity.

Painter 1991, 3

He continues to relate the idea of "fact" to socio-cultural negotiation, such as professional peer group acknowledgement.

Similarly the notion of "systematic" study, which is emphasised in the Statement, is broadened by relating it to qualitative research methods, which do not necessarily proceed according to a strict procedure of a predetermined hypothesis followed by experiment; Painter emphasises the "looking at", rather than "looking for" aspect of research. Similarly the term, "verification" is subject to critical discussion, with reference to Popper's view that historical accounts are always selective, and therefore may not be testable.

Painter concludes this discussion.

Within an understanding of "knowledge" (the plural "knowledges" is perhaps more appropriate) as humanly and socially constructed and of "verification" as
necessarily being related to the characteristics and limitations associated with particular kinds of knowledge, there seems to be no reason for certain forms of fine art practice to be excluded from the definition of academic research contained in the paper.

Painter 1991, 4

Having considered the implicit restriction, and the potential breadth of the research terminology of the Statement, Painter continues to consider the way in which it reflects a view of art.

Having adopted an unnecessarily alien definition of academic research, the Committee's paper characterises fine art practice in a way which excludes it from qualifying.

Painter 1991, 4

The discussion is centred on those aspects which the Statement excludes from their concept of research, for instance: that research degrees are not awarded as "... expressions of the aesthetic value, social worth or cultural significance of particular achievements", and that alternative doctoral awards are being sought for, "work of a creative and expressive kind" (Painter 1991, 5). Even if such achievements and qualities did not necessarily naturally lead to the award of research degrees, they are far from being characteristics which would naturally exclude any work that had them from such an award.

While fine art practice is "creative", creativity is not peculiar to it and it seems odd that this should exclude it from counting as research. Research in any discipline is creative. While fine art can be "expressive" (not all fine artists would see this as the main thrust of their work) it is not exclusively so - and other disciplines are not free from expression. It is possible to think of physics as an expression of a particular attitude and approach to
Having addressed the views of research and art expressed in the Statement Painter discusses fine art practice as research in a way which is reminiscent of Constable's lectures at the Royal Institution.

For many artists fine art practice is not essentially about producing "works of art" for display. Works of art are "merely" the product - the record - of a form of enquiry.

He continues to argue from descriptions of knowledge and art in the work of Raymond Williams and J.Z. Young towards a notion of artistic discovery.

The process is one of examining experience and systematically attempting to find an adequate equivalent for it in visual and plastic terms. This is not a matter of giving form to what is seen, but of discovering through a process of response. The critical scrutiny of experience and of the evolving material equivalent, constitutes an intense interaction. Experience of the world is modified by the postulated equivalent and vice versa.

Painter's view of artistic discovery resembles Turner's note on Opie's lectures.

In his definitions of the objective and subjective aspects of knowledge Painter argues that both can be seen as specific contributions to knowledge.
While artists - whether producing figurative or non-
figurative works - may be thought of as occupying a
spectrum from the objective (externally or outwardly
concerned) to the subjective (internally preoccupied)
they are all inevitably interacting with the external
world in a way that involves both internal and
external contributions. . . . both can result in new
perceptions of the world, new formulations of
experience, new information about the human condition.

Painter continues the argument by identifying "seeing as"
with "knowing as".

This is not simply a matter of seeing a known and
unchanging "real world" in different ways - as from
different angles. To see "it" differently is to know
"it" differently. There is no separation between
perception and cognition. To see through the process
of painting is to make sense of something - to know
it in a particular way. The "it" itself is transformed
in experience.

Painter 1991, 7

This argument is extended to relate to the idea of a
"working approach" ((g.v.) and the discussion of research in
the Statement.

It would be wrong to characterise this process of
discovery as the making of a single work of art - a
painting or a sculpture. It can proceed over the
production of many works informed by drawings and
other documentation. The methodology involves
"sequential and progressive gathering, testing and
evaluation of primary material". . .

Painter 1991, 7

Such process result in works which can inform a wider
perception and conception than that of the artists. Whether
such a process should result in the award of a research
degree is the decision of the peer group.
Image making shapes understandings of the external world; of ourselves and of each other. Which understandings of the world or of human identity are deemed publicly important or significant is a matter of judgement by particular publics. Which is significant enough to justify the award of research degrees would be a matter for academic peer group judgement as it is in other disciplines.  

Painter 1991, 7

Painter continues to argue that the written requirement in submissions for CNAA M.Phil. and Ph.D. degrees in fine art reflects "a view that the written word is indispensable to the serious sharing and communication of knowledge", and that this view is,

... a symptom of a lack of concern with visual awareness and "qualitative" experience endemic in our dominant way of life.  

Painter 1991, 8

It is the result of the lack of visual aesthetic education in the universities which have provided a role model for CNAA, and has, in the light of his earlier arguments, no serious epistemological basis (Painter 1991, 9). He therefore proposes alternative awards for research degrees in fine art to reflect the different models of research which exist and to achieve appropriate recognition for fine art practice (Painter 1991, 9).

The strength and sophistication of Painter's arguments are such that it might be thought that the case had been made for the inclusion of fine art as an appropriate subject for the award of Ph.D. and M.Phil. degrees in its own right.
In addition to its general discussion and contributions to policies the Research Degrees Sub-Committee (ResCom) also had the responsibility of approving or disapproving the proposals for CNAA research degrees in art and design which came before it. Consideration of the criteria which led to approval, or the failure to approve, proposals can be seen as the practical application of the policies discussed above, and provide a context for the discussion of the submissions which led to the award of degrees.

The criteria which are reflected in the minutes of the Committee mostly refer to aspects of the proposal. Others include: the need for research training, research criteria, the experience of the proposed supervisors, and the experience of proposed examiners. The proposals were criticised on a number of grounds: the subject and its focus, the source material, and the nature of the proposed submission.

Particular examples sometimes include a number of these categories; for instance a decision was made to defer approval of one proposal, it was minuted as an "innovatory application", with problems of language, being "illucid". In addition, although the weight of practical work was admissible, the scope of the project was too large, and neither supervisor had previous supervisory experience. Further information was to be requested, and the applicant might be interviewed.
Another application, for transfer from M.Phil. to Ph.D. registration, was approved, subject to the appointment of a second supervisor. The minute reads that,

. . . supervision should guide the project to avoid the end product becoming merely an additional piece of creative work. They felt that the candidate and his supervisors should realise that under the current regulations on Research Degrees[i.e. before the 1978 revisions] the weight of the final dissertations had to lie in the thesis, rather than practical work.  
ResCom 1977

The need to distinguish research degree projects from other activity within art and design was a problem for another application which was rejected at this time.

On the basis of the information provided, members were not clear how the proposed investigation could satisfy the criteria for an M.Phil., even less a Ph.D., as the work appeared little different from the normal preparation for an M.A. exhibition.  
ResCom 1979

In general the minutes indicate that the criteria were applied in quite a broad way, demonstrating the principal concerns of the Committee, rather than instructing the applicant. However it was suggested that one re-submission should be reconsidered under five specific and detailed heads (ResCom 1986).

While it is difficult to trace the destiny of all proposals through the information which is available, the minutes and computer printouts which have been supplied by the CNAA (which has to preserve some confidentiality) suggest that there were, over the thirteen years of the Committee’s existence, some twenty applications which can be classified
as "fine art" including some aspect of practice. Of these, two resulted in the award of Ph.D. degrees, four in the award of M.Phil. degrees, three were withdrawn after approval, two were rejected before approval, and one remains registered after a period of thirteen years; eight appear to be unaccounted for.

The students and subjects which were awarded degrees were the following:

A. Stonyer    Ph.D.   1978   The development of kinetic sculpture by the utilization of solar energy
L.P.Newton    M.Phil. 1981   A computer assisted investigation of structure, content and form in non-figurative visual imagery
A.Goodwin     Ph.D.   1982   Art and idea
J.Greenhill    M.Phil. 1984   Sculpture from the Northumbrian: using clay to make sculpture inspired by the landscape
A.Miszewska   M.Phil. 1987   The intelligible practice of sculpture
G.J.Power     M.Phil. 1988   Art in architecture and the environment

Since the cessation of the Committee another M.Phil. has been awarded to T. Halliday for his thesis: Painting the mythological figure in landscape (1989). There are currently five students registered for research degrees in fine art (Cornock 1991, 5).
Of the completed projects access has been obtained to the written portion and illustrations of four, those by Newton, Goodwin, Greenhill and Powers.

Newton's thesis was produced at Wolverhampton Polytechnic. It was the first to use the revised CNAA regulations to enable the submission of work in a non-written form. The written submission is divided into theoretical discussion, the concepts and practice of generating imagery, and an analysis of viewer response. The theoretical discussion is divided into "Epistemology" and "Organised Wholes: Structuralism and Systems Theory".

It is distinguished from what might be expected in a more usual form of submission early in the text.

This report . . . does not attempt to develop a single, linear argument, but rather, noting the lack of an existing and readily available cultural context for my practice as an artist, it aims to build up a complex of interrelated concepts to form an ambit within which to view the practical work of the project.

Newton 1981, 4

This distinguishes Newton's submission from the objectives, if not the character, of many submissions in other subjects, and suggests that the clear relationship between cause and effect, or hypothesis, experiment and conclusions, may not be easily discernable when working in fine art.

The thesis abstract identifies the concerns of the study.

The report describes the exploration of the relations between the underlying structure and the surface appearance in a range of computer generated non-figurative images. It also records my engagement, as
an artist, with aspects of the technic enterprise, both as the subject and the medium of my practice. The practical work of the project is developed against a theoretical consideration of epistemological questions in science and the concept of structure in emergent holistic approaches to knowledge acquisition.

Newton 1981, Abstract

The theoretical discussion, which precedes the illustrations and consideration of the responses to the works, is of considerable sophistication. It is centred on two principal concerns, one epistemological, which describes a theory of knowledge which underpins the experimental aspect of the project, and the other linguistic, describing structural content of the computer generated images. Newton argues against what he describes as the 'fragmentation' of modern culture and the illusions of autonomy which are found within the various disciplines. He suggests that, however heterogeneous they may appear in their subjects and methods, the disciplines are, to a substantial extent, 'isomorphic'.

Synchronically their structures, forms and internal functioning exhibit strong parallels . . . Diachronically institutions exhibit strong parallels in their development, both formal and conceptual.

Newton 1981, 1

Newton’s concern with the fragmentation of disciplines, particularly the gulf between art and science, and environmental issues, underpin his initial theoretical concerns.

Originally my attitudes to holistic and structuralistic notions in science could be said to have been affirmative . . . I believed holistic approaches to science represented a significant contribution to the reunification of knowledge and a possible antidote to the problems of fragmentation. Although I still think that holism is in many ways an
improvement over traditional reductionist approaches to scientific enquiry, I have become increasingly sceptical about the technic enterprise as a whole. At my most extreme I would question whether the basic human species survival strategy, as exemplified in high technology societies, of massively transforming the environment to meet perceived human needs is viable in the long term.

Newton 1981, 3

Similar concerns also motivated practical aspects of his research.

... I claim that, despite the esoteric nature of much of my own work, I am attempting to find a social function for art by addressing what I see as very real and significant issues raised by the social and cultural impact of science and technology.

Newton 1981, 2

The structuralist model which Newton developed yields a distinction between deep and surface structures, which were used to develop the programmes which generated the imagery:

... the hypothesed structural model paralleling Chomsky's conception of the deep and surface structure of language. In this model the formal structure corresponds to the syntactical component and the generative structure to its semantics.

Newton 1981, 69

These structures had their visual equivalents:

... the concepts of deep and surface structures evoked within realist and some conventional epistemologies. ... The images are visual equivalents of these structural models. However, the equivalence differs from representation in conventional art. It is a homologous, resulting from certain parallel generative structural processes, rather than an analogous equivalence.

Newton 1981, 2
Newton makes criticism of Gombrich's notion of perspective as an a priori claim to be the true representation of space, as a reflection of Euclidean space and an ordered, rational and deterministic world picture.

Gombrich's defence of perspective is also logically flawed. There are no unique or 'natural' means of mapping 3 dimensional space onto a 2 dimensional plane. It can be shown mathematically that any 2D representation of 3D space results in a loss of information. Perspective representation, ignoring its lack of a temporal aspect, is the view of a single immobile eye. It is the mechanistic view of the camera, not the active construction of human cognition.

Newton 1981, 77-78

Newton makes the points here which also contributed to Constable's anomaly. The methods through which these models were developed are also described.

A suite of computer graphic programmes was developed, each conceptually divided into two sections, the 'generative structure' and the 'formal structure'. The role of each of these underlying 'ordering structures' in determining the appearance of the realised images was investigated. The perception of and response to the images was[g.] assessed through discussions with viewers drawn from different areas of our culture.

Newton 1981, Abstract

Newton's summary of the viewer response to the structural imagery describes interesting results.

The results of these discussions revealed that untrained viewers experienced difficulty in interpreting non-figurative images, and confirmed that a deep gulf exists between the 'two cultures' of the arts and sciences. In the latter stages of the project I was concerned to develop means of establishing a context within which to present the work in order to overcome the problems revealed by the investigation of the viewer response to the images.

Newton 1981, Abstract
Newton’s conclusions suggest a distinction between the ways in which works of art are interpreted and our understanding of everyday language.

Generally the formal structure was seen to have a greater significance in determining the appearance of an image than its generative structure. . . . In normal language use [of] the semantic component is more obvious than the syntactic component, which is held largely unconsciously. Hence it might be expected that the generative structure would be more obvious than the formal structure. But normal language use implies an ability to decode the meaning of utterances, but no parallel ability exists in respect to the images. The situation is, therefore, closer to an observer listening to utterances in a number of foreign languages s/he does not understand. In these circumstances the listener is more likely to distinguish between the languages than to recognise semantically similar utterances made in different languages.

Newton 1981, 69

Newton’s project makes a clear and definable contribution to our understanding of some important issues of art and to the idea of research in fine art; his thesis is well presented with clear relationships between the images and text. It has extensive and sometimes discursive footnotes on secondary sources, which provide his work with its contexts in a number of critical discourses, although there is no bibliography. Other than his citing of Gombrich and a discussion of Gablik’s *Progress in Art* (1976), there is no discussion of, or reference to, the artistic or art educational precedents, or reference to his supervisor. The dichotomies between the individual and the research project, between the aesthetic identity of works and their role in the project, and between the text and the images, which concern some others who have pursued research degrees in fine art are confidently handled by Newton. In contrast
Greenhill and Power reveal inhibitions and reservations on this issue.

Goodwin's Ph.D thesis of 1982, done from Exeter College of Art, relates to a quite different tradition of thought within the artworld. It seeks to bridge the conventional gap between practical activity in art and research through a common reference to philosophy.

... artefacts and ideas are aspects of each other; consequently practical activity can constitute a mode of philosophical research.  

Goodwin 1982, Abstract

It is a highly personal enquiry into the use of meditative philosophy in the development of art as a means of addressing what is seen as an over-emphasis on individuality. In the 'Abstract' Goodwin writes:

The thesis make a new contribution to advanced art education in demonstrating ways and means of collective study, research and communication in the often egocentric programmes of Fine Art. It returns to basic principles of art practice in an up-dating of some aspects of the modern movements through the now widely accepted techniques of Yoga and Meditation; these latter are integrated with art practice in ways which in turn may contribute to new realizations in Western terms

Goodwin 1982, Abstract

Goodwin identifies the 'egocentric' programmes in fine art as related to a romanticised idea of an innocence which should not be compromised through educational and academic concerns. He poses the following question.

Is innocent vision possible or even desirable? And, particularly in the context of education, can such a
silent process be adequate for an understanding between those actively involved? Goodwin 1982, 32

In order to critically examine the over-riding emphasis placed on the individual identity and development of the student Goodwin conducted an experiment, in which the various functions of the single artist are separated into different roles for students, who then have to work together, within those roles, to generate a work of art. He entitled the experiment: 'Subjective/Objective - An Art Experiment', and commented on it in the following way.

It is difficult for the artist as researcher to be critically observant of actions in which he is, at the same time, deeply involved . . . . . . I have externalized it into a group activity. Goodwin 1982, 33

The experiment, entitled "An Art Experiment" is described in some detail.

Aim: to analyse and identify components during a painting process

Method: Group activity by personification

Materials: One large prepared painting board (4' x 5') was used; Acrylic paint.

A group of three students took part in the experiment. The conditions were those of a tutorial. Other students watched and at the conclusion were free to comment on the result. Let is call the participating students A, B, and C. A preliminary briefing took place in which the functions of the three were described and discussed in detail. The functions were as follows :-

Student A was to see his purpose as the covering of the board in whatever way was convenient with the materials available. He was to respond instantaneously to the immediate situation, acting intuitively and with
no concern for any finished results. He would start
the painting.

Student B was to take over from Student A after a
suitable period of A's working. He would attempt a
rationalization or tidying up of the possibly chaotic
initial brush marks.

Student C was not to touch the painting at all but
would have authority to determine the working practice
of the other two. He could stop one of them at any
time and call in the other.

It will be obvious that a personification is taking
place. A is creative energy, B is the guiding
intellect, the designer, and C is the critical
faculty, detached, observing the results after they
have taken place, unable to initiate action directly,
but capable of influencing future results.

Goodwin 1982 34-5

The experiment was repeated, generating a wide variety of
styles, reflecting the personalities and the relationship
between the students involved.

Concerning the visible results; these may range from
the wildest excesses of action painting to the order
of geometric systems according to what components have
been allowed to predominate. Frequently, a balance of
these elements is struck and the results may be most
like a well integrated painting by a single hand . . .
Student C, of course, will have the last word in the
process and will terminate it when the moment is
deemed to be right.

Goodwin 1982 36

Goodwin commented on the results as follows.

The experiment has been repeated on several occasions
with different groups of students. As a seminal
project it has led to a much clearer and informed
appraisal of both art production and art criticism.
Though it was not done for the sake of the material
result - an actual painting, nonetheless in several
instances the results were quite acceptable as art
works even when seen under gallery conditions.
The effect on critical thinking is illuminating. Because of personal involvement, each student may speculate on whether or not they identify with the aspects they have been personifying. Do these aspects in fact represent components of a mixture which constitutes the total personality? Goodwin 1982 35

The findings of the experiment were seen as particularly relevant when applied to the fine art curriculum in the studios, as well as having wider references.

The experiment may throw light on the discipline of studio practice, it may help towards a closer understanding of the importance of the various disparate elements in painting . . . . . . it enables us to construct art works which are externalizations of inner processes. Goodwin 1982 38

Goodwin’s research was done towards the end of his career as Head of Fine Art at Exeter College of Art and Design. It questions some of the assumptions which are common and widespread within art in higher education, particularly the idea of the ‘innocence’ of vision, and what he views as ‘egotism’ in art education. His thesis reflects the deep concern about these issues, and he aims to address them through his engagement with Eastern mystical traditions and experiments in the production and teaching of art. Whilst the bases for his project are clearly defined, they are not related to established texts or works, neither does he refer to any supervision he may have received.

Greenhill’s M.Phil. thesis, was produced from Newcastle-upon-Tyne Polytechnic. It reflects a rich and varied experience of sculpture and wide variety of artistic, literary and experiential sources. It is also a reflective
thesis, both on the relationship of the written report and
the work submitted for the degree and the process of
artistic development itself. It is described by Clark:

The particular direction taken by Joanna was inspired
by her desire to extend her existing work with clay by
digging the raw material from the Northumbrian
landscape to make environmental sculpture after having
studied, processed and improved the quality of the
unrefined clay in her studio. The research
incorporated her poetic and philosophical response to
the site into the main activity of making sculpture.

Clark 1988, 3

The project was jointly supervised by a sculptor and a
material scientist (Notes 1988).

Greenhill considers that the written part of the submission
does not compromise the autonomy of the work itself, not
does she perceive any necessary relationship between theory
and practice:

I would like to emphasise that I consider that the
sculptures work independently from the written
accompaniment; that they are self-sufficient, because,
by choosing to work in sculpture I have chosen to
employ a visual language, which the verbal language
can only serve to embellish in some way.

Greenhill 1984, 2

Greenhill begins her thesis by reviewing her work as an art
student over a period of ten years, summarizing and
generalizing the process of change and development, towards
the completion and exhibition of the work.

The artist deviates and goes back on the track, comes
to cross-roads, t-junctions; circumnavigates pitfalls
and distractions on the way and, eventually, there
comes a pause in which the finished work is placed in
the world to be seen, and the maker as well as the observer stands back and considers it.  

Greenhill 1984, 1

She discusses the role and value of writing

This piece of writing serves . . . to explain my ideas and the path I have travelled to reach this particular point, and to allow you, the onlooker, a closer intimacy with my thoughts in order to allow you to see the intentions that I am attempting to communicate.  

Greenhill 1984 1

The thesis continues to reflect on the experience and associations of landscape, mentioning her home environment in Scotland, and contrasting this with south-east England and Northumbria (Greenhill 1984 3). She mentions a visit to Greece, and the effect of the light on buildings (Greenhill 1984 3-4). She reflects upon her source material in relation to the actual making of a piece.

... when I make I am not aware of conscious ideas in my mind. The work seems to come from an emotional source or need, which is affected by my conscious experience.  

Greenhill 1984, 6

In this passage Greenhill describes her experience in the concentrated act of making, and assumes that, because she works from an emotional source or need, those ideas do not affect her work. However her thesis shows clearly that careful thought that went into determining the principles and procedures from which the process of making proceeded, and the fact that those ideas were not present in her mind when actually making an object does not deny the importance of such ideas and other sources, but suggests that, like an astronomer concentrating on observations who is not, at that
moment, conscious of the theoretical framework which caused him to make such observations, the task in hand absorbs concentration.

She discusses the character of the first sculptures she produced during the period as an undergraduate.

I had very little control over the final appearance of these works, they happened as a direct result of my repeated actions; ... In this way it could be said that they were influenced by the Process Art movements of the 70s which included artists like Richard Serra and Robert Morris, but I have always been concerned with the expression of feeling, atmosphere, and the repeated building method has been the more natural way for me to achieve a meaningful form. Greenhill 1984, 4

The contrast between the 'process art', devoted to the pursuit of materials and methods, and work which was informed with an expressive aim, provides an insight into the concerns of the early 1970s.

Greenhill continues to cite the changes which took place in her work, and the expansion of her source material, when she was at the Royal College of Art.

... Oriental art and philosophy ... had a considerable influence on the change of appearance and atmosphere of the work. I wanted the new work to vibrate in the space - dynamic energy restrained in order to be effective in a more lasting way.

At the end of my second year ... I started to use the modelling clay from the foundry in the sculpture school - I had previously been working in rope and wire - and, by manipulating the clay in a particular way, I was able to build walls of clay that also had a light appearance - the clay was solid and strong in the centre, but fragmentary and delicate on the outside. A quality that I have always wanted/demanded from my work was a density/mass/form that was composed
of many tiny fragments coming together like the density of a swarm of bees or of a globular cluster in space in which each particle/fragment/individual is active and moving, but yet, because of the amount of fragments, the movement is restricted to an intense vibration. This is something that is very important to my work and which is understood by Eliot in the following fragment from *The Four Quartets*:

"At the still point of the turning world. Neither flesh nor fleshness; Neither from nor towards; at the still point, there the dance is, But neither arrest nor movement. And do not call it fixity, Where past and future are gathered. Neither movement from nor towards, Neither ascent nor decline. Except for the point, the still point, There would be no dance, and there is only the dance."

Greenhill 1984, 5

During this period particular overall forms seem to have had an overriding importance in her work.

Of these two different forms, one was columnar, reaching to a height of 5’-5’6", which is the space a standing figure would approximately occupy. The other was shorter and wider - 3’x3/4’, which is the space a sitting or crouching figure would occupy. I use the figures in terms of space because I think it is impossible to achieve a purely "abstract" art, (with the possible exception of computer drawing techniques). I believe that scale and mark and substance all contribute to achieve an art which has a relationship to the human being, however seemingly formal, particularly with sculpture, because the observer cannot fail to be physically affected by the size and three dimensionality of work in this medium. From the early carved figures in Romanesque churches or even earlier tomb sculptures, sculpture has always had a strong relationship with the human figure.

Greenhill 1984, 6

She discusses the placement and the environment of her work and, in some detail, the technical processes which contributed to it (Greenhill 1984 6-10).
Greenhill continues to cite further artistic influences, drawn mainly from exotic or primitive sources. These include African mud huts, dry stone walls and simple early stone dwellings of Scotland and Ireland: borchs, cairns and early tombs, Roman wall and forts, adobe brick structures described by Hassim Fathy, the Great Wall of China, Hadrian's Wall and pigeon towers in Egypt, Turkey and other Eastern countries (Greenhill 1984 6-13). The only time she refers to the European tradition is in a discussion of the artists' use of materials.

Thinking of the most important sculptors in Western art, for example Michelangelo, Donatello, Brancusi, Giacommetti, I would argue that these artists and many more have used the natural qualities of their chosen material, whether it be marble, bronze, clay etc. in order to achieve the qualities in the work which are so appreciated today.

Greenhill 1984, 27

She also refers to literary influences, Jarry's *Ubu Roi* used in title of a sculpture: *Black Ubu*, the *I Ching*, further references to T.S. Eliot, and the drawings and writing of Henri Michaux (Greenhill 1984, 10-19).

Greenhill begins the discussion of clay, the material which she was to use in her project, through consideration of the distinction which is drawn by Adrian Stokes, in *The Stones of Rimini*, between carving and modelling. In discussing this passage she contrasts the qualities of modelling in Giacommetti with the carvings of Brancusi. She writes of 'the stillness of clay . . .', and remarks that clay, ' . . . is an associative material, open and free to interpret the processes of the imagination'. She also considers the relationship of modelling and drawing (Greenhill 1984, 26).
Her references to work in clay, and more specifically in terracotta, include the Haniwa sculptures of Japan - 400-700 AD, Greek figures 2000BC - 500AD, the figures in the Chinese tombs in Shenxi province, and the Nok heads from Nigeria (Greenhill 1984 27-29).

The written part of the submission concludes with a discussion of the broader symbolism in terms of the four elements, referring to Nietzsche, Jung, Bachelard, Pagan/Christian festivals of mid-summer, Catholic Easter, Thoreau, Greek mythology, Buddha, Lao Tzu, Indian, Egyptian and Greek mythology, the Holy Grail, and the 'Squatting Goddess' of labour in Neolithic Britain (Greenhill, 1984 32-38). She concludes her thesis with the following.

Great art helps us to discover within ourselves a joy of looking so that we experience an extension of our intimate space and personal experience ... my ambition is set to achieve in time that particular thing - that taking the looker/observer out of his/her known space and extending the limits of his experience.

Greenhill 1984, 41

This is a valuable statement in that it directly reflects the idea of art contributing to our experience. It also situates it within a personal context, rather than the achievement of a community.

Greenhill’s research resulted from collaborative support, which included Newcastle-upon-Tyne Polytechnic, Sunderland Polytechnic and the British Ceramic Research Association Ltd. It presents a fascinating account of an artist working within a specified framework of a material and imagery which invokes a wide range of reference to works and ideas; the
works cited reflect broad and eclectic interests, historically and geographically, although her work is not specifically situated within current art or theory, and there is no indication that she was aware of the earlier research projects in fine art. The thesis is well presented with both black and white prints and slides of her work and related images. It has a bibliography, but the references are not specific, they do not, for instance, include page numbers. The only reference to a possible supervisor is to Dr. Colin Gill, of Sunderland Polytechnic, as an advisor.

The M.Phil thesis by Power, like that of Greenhill, was produced from Newcastle-upon-Tyne Polytechnic. Its aims are stated in the Abstract.

The aim of the research has been to explore the potential of art in architecture and the environment. The research focuses on art that tries to integrate with a given site and its immediate environment. It is a personal account . . . It attempts to identify and solve some of the challenges an artist faces when trying to make art in architecture a practical reality.


A further similarity with Greenhill is the identification of the past work of the student as the basis from which the research proceeds, this is then related to the subject.

The research begins by looking at my past work and motives for wanting to work in architecture. This is followed by a description of the strategies used to find a site and initiate projects. Two case studies are then used to explore how my ideas were put to the test in an authentic situation.

The report discusses the relationship of the works produced and the written part of the submission. However it also makes the same point as Greenhill in emphasising the autonomy of the work, and its independence from the written part of the submission the, '. . . practical work is also self-sufficient in its own right' (Power 1988, n.p.).

The Introduction, which follows the abstract, restates these points and continues to offer a brief and polemical discussion on the nature of modern architecture and the relative lack of integrated works of art upon and within its examples. Power states that such examples are isolated, although he does not cite those which do exist. However the,

... general trend throughout this century has been for architecture to be functional and for artists to work within a gallery system.

Power 1988, 1

Power accepts that the best examples of modernist architecture were seen,

... as sculpture in themselves, rather than vehicles for applied artifacts, for example in the work of Mies van der Rohe.

Power 1988, 1

He continues:

Unfortunately, Modernist ideas were vitiated and used later by architects, planners, and speculative developers indiscriminately as a cost-effective way of achieving substantial programmes of public sector housing, welfare building programmes, and rapid office development. This has left us with the uniform and anonymous character of today’s urban environment.

Power 1988, 1
The absence both of quality and of works of art has not only degraded our urban environment, but also led to the isolation of artists.

The artist has become marginalised within contemporary culture and alienated from a wider audience. Art today has become cocooned within its own complex terms of reference known only to a handful of cognoscenti. It is exemplified by the commodified portable art object, allowing the market place aided by the museums to become almost the sole arbiters of what is considered valuable in art.

Power 1988, 1-2

This has, according to Power, led to and emphasis on values that reflect the concerns of the art historical context and the vagaries of fashion.

Power goes on to point to the positive characteristics of public art which address these issues.

Working in a sited context helps to undermine this over-emphasis, particularly if the work is integrated and the formal and symbolic meaning of the place is taken into account by the artist. This approach recognises the uniqueness of each location and increases the possibility of creating an audience sympathetic to the work.

Power 1988, 2

Power continues to identify the reasons why he believes that the values of public art are becoming increasingly recognised and the context for its development more sympathetic. He cites the disillusion with Modernism, and the more open approach of architects towards works of art, the formation of groups and bodies in support of public art ventures, the development of courses, and the proliferation of conferences and publications on the subject (Power 1988, 2). He then
identifies the specific objectives of his programme, within which he identifies a tension between his personal being as an artist and the limitations which might be derived from the pursuit of public art.

What I shall be looking at in the research programme is how I as a young artist who wishes to extend my own practice into a more public context can achieve this aim against the background of interest I have outlined. How my own ideas as an artist have been employed, interpreted, questioned and developed through a complex interaction with architecture. This is a particularly important issue to investigate because if artists are to work successfully in architecture it is my view that they must retain an element of personal freedom. Artists must work in architecture from the basis of a commitment to their own work. It is this very personal approach which distinguishes artists from craftsmen, designers and architects and is what could be of value in architecture. What I am seeking to explore is whether a balance can be achieved between the need to maintain this degree of personal freedom with the necessity of working to the constraints working in architecture inevitably imposes.

Power 1988, 2-3

Power’s first approaches to identify projects in public, which could be pursued in his research, were made to architects, whom he considered to be the bridge between the client and the artist, he also had ‘hope of becoming involved in design stages of a building where art and architecture could be considered together’ (Power 1988, 3). In his discussions he found something of the complexities which such projects might involve, including, working to a brief, planning permission, building regulations; consultations with other technical professionals concerning practical issues such as durability and safety etc., and considering the views of the client and the public in an attempt to conclude what role they might play (Power 1988, 3).
Although he found considerable interest and enthusiasm from architects his approaches did not generate the work that he required, he also discovered limitations in the financial support he was able to gain and difficulties in finding sites and the necessary support independently. However arts agencies and slide indexes run by regional Arts Associations were a great help (Power 1988, 136).

He succeeded in identifying and completing two projects, the first at the University of Newcastle, the second at a church at Shiremoor, near the City, which form the basis of the practical aspect of his submission. The former allowed him, by and large, to work with relatively few of the constraints which he had envisaged.

... I was able to maintain continuity with my previous work and adopt a similar strategy by using the geometry of the space as starting points for subject matter. This was largely because the clients did not specify a particular brief, and the collaboration with the architects tended to concentrate on practical and technical issues rather than the fundamental ideas underpinning the work. As the site and contextual limits are used as positive elements in my working method I welcomed them not as constraints, but more as guidelines to form the basis of my work.

Power 1988, 137

The church at Shiremoor site involved considerable more presentation and discussion, particularly with the parishioners.

It was stimulating to gain a response. Their opinion made me reassess my own ideas. The successful interaction between myself and the community was dependent on my ability to make the parishioners feel able to make some creative input and contribution to the sculpture. The slide show and talk I gave of my work was also important in establishing a feeling of
confidence among the parishioners in the way I worked. Consultation clarified the brief rather than defined the form of the sculpture, which was always left to me as I presented ideas for them to select from. The final result would probably not have been so successful if I had constantly been subjected to consensus opinion. The vicar backed my judgement fully and did a lot to communicate my ideas to the parishioners, acting as an important catalyst and bridge.

Power 1988, 143

From this process Power found that,

. . . although I was not a Christian it was possible to create common ground between a language the parishioners found recognisable and a language I had evolved to express my own pre-occupations.'

Power 1988 138-9

The 'common ground' led to the sculpture taking the form of a Crown of Thorns, which embodied a Christian image, but, Power remarks,

. . . still expressed the same ideas and feelings of my more abstract work. The subject had changed from geometrical forms to a more symbolic and representational image but the spiritual content had not.

Power 1988, 138

During the development of his work Power found positive factors in the public aspects of the activity.

Site and context analysis played an increasing role in forming guidelines to what I considered appropriate for each individual site. I found this exciting and a positive challenge. But it was important to set these guidelines within my own personal parameters as I still feel the effectiveness of a particular sited sculpture is rooted in the strength of the artist’s own work and ideas. However my education at art school could have equipped me better to tackle the challenges
of art in a public context rather than concentrating solely on encouraging the development of my own work.

Power 1988, 139

However he expresses a particular consciousness of the potential conflict which might arise between his personal vision and the contextual demands of a site, and the effect of this if the latter was to dominate.

. . . the danger of the artist losing his own personal approach through the process that leads to art in architecture . . . and the acceptance of purely design solutions.

Power 1988, 139

The distinction between art and design, which Power situates in the 'personal approach' of the artist has been referred to by Oliver (Oliver 1973).

In conclusion Power acknowledges the contribution that his engagement with the public has contributed to his 'own' work. He suggests that, in pursuit of further work in the area, it would be desirable for him develop a more planned approach to the communication of his ideas through drawings and models, model making was a skill that he learned during the project and valued as a means of developing his own ideas as well as communicating them to others. He also felt a need to raise his technical competence, in dealing with the relationship of the works to buildings, to a professional level (Power 1988, 141).

Power’s research offers useful insights into the various issues of public art, and more particularly to the tensions, problems and opportunities which can occur when an artist who has been trained within the recent fine art tradition of
individual expression encounters the responsibilities associated with a particular site and public, and the technical issues of building. The idea of a work being developed through a dialogue with its audience, and the role of the vicar as an individual mediating that dialogue is one which is well worth documentation. Although he does not refer to earlier research in fine art internal evidence suggests that he may have had knowledge of Greenhill’s earlier work at Newcastle. He thesis is well presented and illustrated, with a strong relationship between the text and images.

The historical discussion, which contextualizes the project, reflects deeply felt ideas, but might have cited examples of modern art in architecture: Le Corbusier’s Ronchamp Chapel, the work of Matisse at Vence, etc. which would have provided a more complex and interesting picture of that context, and situated his own work within a clearer tradition. He does not provide full references for his quotations, although he does include a bibliography. There is no reference to supervisors, although he does acknowledge the contribution of Cyril Winskill.

6.3 Conclusions

In order to provide some focus to the argument about research degrees in fine art the discussion and formulation of policies for research in fine art can be divided into two parts. The first of these, includes the debate about awards for achievement, and the use of alternative titles for the degrees, such as DFA and MFA. Neither of these discussions
contribute to the central concern of research degrees in fine art.

The remainder of the discussion can be again be distinguished into various areas. Some of these, such as the distinction between the subjective and the objective and the development of a research community, can be directly related to the epistemological discussion. The consideration of research methods and processes, supervision, and the institutional aspects of research can be seen as addressing the practical issues which confronted the groups which addressed the problem.

There was significant progress in the earlier work of the CNAA, following its assumption of responsibility for art and design, was encouraging. The "Rochester" Report correlated a range of activities in fine art and the other subjects for which it was responsible under the general description of research and related activities. The later revision of the regulations provided a basis from which research degrees in fine art could be pursued, although relatively few took advantage of this opportunity.

There appear to be reasons for this within CNAA and the Fine Art community. The former are illustrated by the record of the meetings between the Art and Design Research Degrees Sub-Committee. The Committee made substantial progress in articulating some of the issues of research: eg. the importance of method and training, the skills of the supervisor, and something of its institutional nature. However, their inability to confront the problems of research in fine art is demonstrated by their meetings with the Fine Art Board in 1980. The rigour with which the
Committee, whose membership contained few fine artists, defended abstract notions of standards and authority, and made little or no attempt to gain an understanding of the very real problems which the idea of research raises for artists, indicate an opportunity which was missed.

In addition the fine art community itself has rarely generated informed discussion, and remarks that are recorded in the report of the Leicester seminar and in the minutes of the CHEAD meetings suggest a distrust of the idea of research which is sometimes overt, and at other times expressed through dubious technical, even political, points. With certain exceptions there is, therefore, a general pattern of repetition; each project "re-invents the wheel" in terms of theory and method, even if the subjects and results are distinct and valuable. It can be argued that research in fine art has not been better exemplified than by the work of Victor Pasmore some 40 years ago (or even that of Constable), and that the policy debate had, until the contribution made by Painter's paper (1991), rarely revealed a more profound understanding of the values of research than that evident in the comments made during the Hornsey affair in 1968.

The discussion of the value of research activity reflects some of the comments made by Alan Livingstone about the attitudes he found among the art and design community. It fails to reflect any concern for the quality of things and ideas which research could be expected to generate, the achievement of the individuals who generate them, and the positive influence they would exert within the community and the subject. Research appears to be acceptable, though hardly welcome, because it is seen as an indication of the
health and vitality of institutions, at best, and because it is though to confer some sort of 'respectability' on institutions.

However, Painter's paper establishes arguments, and an epistemological context, for research in fine art. It provides a basis for development which should make the idea of research degrees in fine art, without a written part of the submission, an acceptable idea to the various academic authorities and institutions which will assume the responsibilities exercised hitherto by CNAA. They should also enable research to be seen as a positive contribution by members of the artworld in higher education.

There are two problems which were not addressed within the material considered. The first of these is the contribution which research might be expected to make to a subject. Although this is referred to by Livingstone, it played little or no part in the deliberations of the Committee, and, apart from its relationship to institutional image making, no consideration within the CHEAD discussions. The report of the Leicester Conference suggests that where such contributions were envisaged by the fine art community they may have been resisted rather than welcomed, a view that is supported by Livingstone.

It is difficult to discuss research degree programmes without reference to their outcomes. Without some outcomes such programmes may, temporarily, enhance the reputation of institutions and benefit the careers of individual researchers, but their absence removes the reason for engaging in and supporting research, and without their consideration much other discussion lacks balance and
becomes abstract. Research is engaged in or supported because it has something to offer the individual or the institution. For it simply to be valued as a "good thing" is to miss the point.

Another major issue within research in fine art is the relationship of image to text. This was not discussed by the Committee, although this was touched on in the CNAA Statement (1989). Its centrality only emerged in discussion of the individual submissions, when it became apparent that it is a field within which research in fine art can make a specific contribution. This is not to argue that Painter's suggestion that the need for a written aspect might be dispensed with is wrong. This point will be considered in the Conclusion chapter.

The success, or otherwise, of a policy might be measured in terms of the response it engenders and the quantity and quality of the activity which results. Looked at in this way the development of policy of CNAA, and discussion outside it, appears to have failed.

In considering the four written theses and illustrative material from those projects which ended with the award of a research degree a number of factors became evident. The submissions each represent considerable commitment and energy, and appear to have met the artistic objectives of the programmes. However, indications of the achievement of research methods, and recognition of their potential for development are less clearly apparent.

Although the projects were pursued in relative isolation they have sufficient in common to identify some shared
attitudes problems and methods, which might be seen as starting points for the development of a paradigm.

The projects all contain valuable and specific contributions to our understanding. However, there is little indication of the progressive development of methods which might have occurred if there had been more understanding and reference between the different projects. The work of Pasmore is not referred to in any of the reports and, apart from a passing reference to the work of Greenhill in Power's report, there appears to have been no consideration of earlier research in the formulation of and development of subsequent work. As far as is known no attempt was made to arrange meetings of researchers, supervisors and examiners which might have contributed to the understanding of the particular problems of research in fine art, and the development of the means through which they might be addressed.

The use of historical and theoretical sources tends to be uneven. Newton, for instance, is systematic and critical in employing such sources as a basis for his enquiry; Greenhill, in contrast, includes a considerable number of references to artists and writers, without relating the work of any of them to her own work in a causal way. On the other hand her subject, the use of local clay in the production of sculpture, might have been positively informed by the more limited literature reflecting the debate about truth to materials in art and architecture, to which she does not refer.

It may be characteristic of research in fine art that each of the researchers invoke major general issues, as well as specific artistic ones, as part of the basis for their work:
Newton's work is underpinned by his views on the 'two cultures' and on the technological society; Goodwin questions the traditional western concern with the individual identity and 'innocence' of the artist and the 'egocentric' character of fine art in higher education; Greenhill invokes relationships between materials, the landscape from which they derive and works of art, and Power is deeply concerned with the negative aspects on modernism in its effect on the built environment and the marginalization of the artist.

All the projects offer different methods of contextualizing the central artistic activity: Newton constructs his production as an experiment in the perception of abstract imagery within an epistemological and linguistic context; Goodwin sees his research as fundamentally informed by Eastern mysticism and meditative methods; Greenhill provides a substantial and eclectic range of references as well as relating her activity to a specific material from a particular geographical, and Power develops highly specific relationships between his work and its physical and social context.

All the projects reflect, to a greater or lesser extent, an experimental model. The written submissions begin with a discussion of ideas which either generally contextualize the artistic activity or provide specific bases for action, the processes involved in the production of work is described and conclusions are drawn. However this linear structure is referred to by two of the researchers, although not in the specific context of the project. Greenhill refers to the artist as a driver, deviating from 'the track', or finding his or her own path, coming to cross roads and t-junctions,
and navigating pitfalls and distractions; Newton remarks that he does not 'aim to develop a single, linear argument', but 'to build up a complex of interrelated concepts'.

The computer imagery in the project of Newton, and the work resulting from the experiment of Goodwin, can be considered to fulfil Constable's description, they are the product of the research process and their overriding importance is in relation to the ideas and structure of the project.

Greenhill and Power, in contrast, bestow a dual range of values on the work produced within the projects: they are seen as both artistically valuable, that is valuable as freestanding works of art, and also valuable in terms of research, as an elucidation of the objectives of the project. It might be coincidental, but it can also be said that the written theses of Newton and Goodwin both demonstrate a continuity between the written and the artifacts of the projects.

Both Greenhill and Power might be said to reflect two dominant values of art in higher education: the beliefs that art is inextricably linked to, and can only be produced by the individual artist, and that works of art are autonomous, that they are to be understood either through an innocent eye, which permits an intuitive insight into their meaning, or through the ideas and criteria which are discernable within their own being, rather than through any ideas or values which might be brought by the spectator to the perception of the work. The written content of the theses is therefore seen as necessary to the research project, but at best marginal, and at worst irrelevant, to the artistic nature of the works themselves.
These descriptions of development each reflect a view of history. It is difficult to relate these to the models found in Popper's successive hypotheses and Kuhn's revolutionary communities. They appear to be closer to Baxandall's graphic description as the history of art as a canonic game of billiards (Baxandall 1985, 60).

The structured relationship between the written and the practical aspects of the submissions seemed to generate particular problems for two of the researchers: both Greenhill and Power acknowledge the use of the written word in providing grounds for the understanding of the practical work, but state firmly their belief that such work is 'independent' or 'self-sufficient in its own right'. Goodwin argues for a reciprocal relationship between artifacts and ideas, and for him this problem does not exist. It also appears to be absent from the concerns of Powers. The relationship, even conflict, between the value of the work in the context of the research project and its value in a traditional aesthetic sense, is a general issue which may well continue to surface within the development of research in fine art.

Greenhill pursues the relationship between her ideas and works in more detail, explaining that in working she is not conscious of ideas, but respond to emotions which are, in some way, affected by her conscious experience. This suggests that there may be aspects of process within fine art research which are not necessarily discussable or explicable, that the work of the artist-research may be more informed by his or her tacit knowledge or human condition than that of researchers in other subjects.
On the other hand the emphasis on the essential individual identity of the artist, and the primary role of his or her personal development is viewed negatively by Goodwin, who characterises it as 'egotism'. However if we distinguish between the structure of the project and the concentrated, perhaps 'aleatoric', process of making, we can acknowledge the contribution that both might make to the final submission.

The methods employed in the production of the artifacts are described and conclusions are drawn. In the case of Newton, Goodwin and Powers it is indicated that the projects might be extended or form a basis for future work, or could be applied to particular aspects of art or art education.

Each project can be said to have contributed to knowledge in a general sense, and, indirectly, to a number of peripheral fields. However, where they do not relate to an established body, or bodies, of knowledge, it is difficult to argue that their contribution is specific, or that the contribution has led to our knowledge being advanced in that specific respect. They are, therefore, to be identified with the problem solving type of research identified by Phillips and Pugh (1987, 45), which addresses a problem through an eclectic approach to sources, rather than from within a specific body of knowledge.

The contextualization of the submissions depends on references, not to a body of existing work, but to particular individual works, to general ideas, and to texts and authors. It is therefore difficult to identify them with a particular paradigm; they have to be viewed in the context of others which might be drawn from general ideas about
research, research in other subjects, from the works of art, or from notions of criticism. Perhaps, more than any other, they do embody the concerns of the artworld in higher education: all, except Newton, reflect the issues of individual identity and collective endeavour, of relating the ideas of the written text to the works of art which formed the other part of the submission, and of possible conflict between the kinds of demand that art schools place on a student in terms of the aesthetic character of the work, and the role of that work in a research project.

Critical discussion of the projects can be developed according to the clarity and fullness with which the issue is defined, the acknowledged and selective use of the full range of sources, the 'fruitfulness', scope and appropriateness of the technical procedures adopted, the unity of the synthesis which is achieved, and contribution which the submission makes to our understanding of the issue.
7. Conclusions

7.1 Epistemological Ideas and Empirical Evidence

7.1.1 Epistemology and Art
7.1.2 The Case Study
7.1.3 The Policies and Practice of Research in Fine Art

7.2 Review of Research Methods

7.2.1 Epistemological Texts
7.2.2 The Case Study
7.2.3 Institutional Texts

7.3 Research Degrees in Fine Art
7.1 Epistemological Ideas and Empirical Evidence

Although epistemological ideas can be used to explain art in various situations and from various points of view, alternatives have to be acknowledged. The most important of these is suggested in Feyerabend's interpretation of the Platonic conflict between the philosophers and artists. This position removes art from ideas of knowledge, and has been strongly influential in 20th century aesthetics (Croce 1922), in their application to art education (Read 1961), and in the ideas of artists, such as Picasso statements against research in art.

This view, that research and art are inimical, has resonances within the attitudes evident recent debate. The "special" nature of art, and the overwhelming priority of individualism, have been the basis to significant resistance to scientific ideas, particularly statistics, and the idea of research more generally, by members of the fine art community: in the Leicester Seminar on Fine Art (Cornock 1983b), the meetings of CHEAD (1990a, 1990b) and reported in Livingstone's paper to the CNAA conference on research (Notes 1988) at the Central School of Arts and Crafts.. However, the applications of mathematics and scientific ideas in fine art has been well documented (Panofsky 1921, Kemp 1990), and such ideas cannot be excluded from the domain of art, except by arguing from a specific and partial, rather than a general and universal view.

It is not necessary, in considering the relationship between epistemology and art, to establish that all art is epistemological, or that all epistemological thought is relevant to an understanding of art. The thesis demonstrates
that some epistemological concepts are relevant to the understanding of some art in an historical context and within current art education. It is not argued that they can be so identified in all art and art education; it is argued, not that study towards research degrees is appropriate for all students, but that such study would be appropriate for some students.

This thesis has shown relationships between epistemological ideas and a number of aspects of art: in the general historical descriptions and explanations of art, in the detailed studies of Reynold's *Discourses*, in the thought and work of Constable, in the sociological descriptions of recent work, in the ideas, approaches, and work of students, and in the recent policies and practice of research in fine art.

The study has also demonstrated inconsistencies between epistemological ideas and art: in the attitudes and beliefs of artists and artistic communities, in the limitations of works as experiments, in the distinctive ideas about historical sources, and the idea of progress, among some artists and scientists, and in the difficulties in identifying incommensurabilities in the artworld and the student group.

Therefore, epistemological sources do not provide a comprehensive theory of art, but can contribute to the discussion of specific traditions and issues within it.

In general the evidence establishes that epistemological ideas can provide a descriptive and explanatory context for the discussion of research in fine art. The evidence also
indicates that current thought and practice in fine art in higher education reflect epistemological ideas and research characteristics, and that the development of research in the subject would be part of a continuous evolution, rather than requiring fundamental changes in ideas and practice.

7.1.1 Epistemology and Art

The discussion of epistemological ideas and their relationship to ideas of art provided a series of concepts; these were the basis from which the study of a sample of art students, and the discussion of the policies and examples of research in fine art, was pursued.

Popper's distinction between subjective and objective views of knowledge offered a starting point in identifying the issues of research degrees in art. The influence of Popper's thought on the interpretation of art is evident in the work of Gombrich, particularly in the parallel between the former's description of science as a process of "conjectures and refutations", and the latter's description of process of art as "schema and correction". However, whereas the former applies "conjecture and refutation" to the development of science generally, the latter applies "schema and correction" to the making of individual figurative works of art. It does not, therefore, offer an explanation of the collective endeavour which might be associated with a style.

The application of Popper's "conjectures and refutations" model to Constable's work as "experiments" demonstrated a mis-match in the objective of falsification, indicated by Popper, and Constable's persistence with a method which
generated an anomaly. It might be argued that Popper's model is too rigorous and limited to describe even scientific activity, and that scientists, like artists, seek to develop the positive explanatory powers of their methods rather than design a succession of crucial experiments. However, its application to Constable enables a distinction to be made between art, even at its most scientific (the same arguments might be applied to the development of perspective), and science, and to identify an area of potential discussion and artistic activity.

The abstract nature of Popper's "third world" is challenged by the emphasis placed on the knowing individual or community by Polanyi and Kuhn. Polanyi provides a description of "tacit" knowledge which he identifies with the "art of scientific research". This is characterised by learning through personal relationships, such as that which exists between a master and apprentice. A major issue is the role of tacit knowledge in the processes and outcomes of art and research. It can be argued, therefore, that the art, or processes, of research can be distinguished from its ends or outcomes, and refers particularly to the processes and methods through which knowledge is gained.

Similarly fine art activity is seen as a tacit process within the community, although the ends of such research may well be suitable for public exhibition, and indeed achieve an objectivity, in Popperian terms, through such an exhibition. Therefore, although an understanding of those research processes might be limited to relatively few people who are engaged in various aspects of research practice, as, for instance, research students, supervisors or examiners,
the product of the process, the painting, sculpture, or whatever, comes into the public domain.

Kuhn described the scientific community, and the paradigm: the beliefs, attitudes, techniques and examples, which inform their activity. The idea of the scientific community can be translated into other subject communities, including those of the artworld, where a coherent activity is informed by beliefs, attitudes, techniques and examples. Kuhn's paradigm parallels the artistic concept of style in a descriptive sense as it might be applied to an artist or group of artists, such as is found in the work of Schapiro and Baxandall. It also corresponds to the sociological descriptions of art by Danto and Dickie, and the evidence of Painter's research.

One of the major elements in Kuhn's theory is the notion of revolutionary change, as distinct from "normal science" in that within it the beliefs, attitudes, techniques and examples of one paradigm are overthrown in favour of others. The conflict between paradigms is identified through their "incommensurability". The notion of incommensurability, and with it the idea of revolutionary change, depend upon the uniformity and singularity of the subject community. Therefore, they present difficulties if art is perceived as a pluralistic activity, encompassing a variety of paradigms, each of which complements, rather than conflicts with the others; it may be doubted whether science has such a uniformity and singularity.

One source of scientific change, the anomaly and its relationship to theory, is identified in the work of Constable. However, it is argued, the relationships of his
ideas and work, both to those which preceded him, and to those which followed and addressed the anomaly, is difficult to identify with Kuhnian incommensurability and revolutionary change, but are more consistent with the research programme and problem shifts as they are described by Lakatos.

Lakatos describes science in terms of "scientific research programmes", structures based on sustained and comprehensive philosophical theories, such as the Cartesian and Newtonian programmes. These are described as having a "core" of fundamental belief, surrounded by a periphery, within which the problems are generated and addressed. These have some correlation with the idea of the period/style, the sort of phenomena to which terms like "gothic" or "renaissance" might be applied.

The relationship between belief and perception is indicated by Wittgenstein’s view, that the propositions are pictures of reality, and its extension, that pictures can be propositions about reality, suggested by Hess. The complex nature of this relationship is exemplified by Wittgenstein’s discussion of the duck/rabbit diagram, and references to the work of Polanyi, Kuhn, Masterman, and Alpers.

In addition to the valuable, but generalized, parallels identified between the philosophical and art historical discussion one major problem from this discussion made specific contributions to the argument: the distinctive ideas and uses of history in art and science, and the different historical concepts which they imply.
This problem informed the view that, if research was to make a major contribution to fine art education and practice, a conceptual framework will need to be created which does not depend upon some of the assumptions current in other forms of research, with the overriding emphasis on the most recent (current) sources and the inference, influential if not correct, of some sort of progress.

In general it is apparent that the artworld offers a pluralistic model of knowledge, within which it is small groups and individuals that provide the locus of paradigms.

7.1.2 The Case Study

The importance of the relationship between conception and perception is central to art, and played a major role in the Case Study with the students. In the interviews with the students the importance and character of personal relationships, such as those described by Polanyi, and the idea of community of a coherent activity, informed by the paradigm, such as that described by Kuhn, and evident in the work of Danto, Dickie, Becker and Painter, was significant. In the tasks the ideas and exempla which led to the identification group and individual characteristics, and the relationships between "seeing and believing", the propositions and images, were examined.

The results of the Case Study reflect the responses of the twelve students involved, whether they are typical of all fine art students might be doubted, although the relationship these results have to earlier studies may lead to the inference of broader implications.
The tacit aspect of the students' education was evident positively in the way students' described the character of their relationships with teachers at school and lecturers in colleges. The interviews showed that the staff were seen as exemplifying "the artist" to students and the identification of the "dominant style or approach" with staff was also evident. The negative evidence of the importance of such tacit aspects of the students' educational experience is apparent in the feelings of neglect and indifference described by students early in the degree course, where such relationships did not occur. Both emphasised the importance of personal relationships to art education and indicate the degree of tacit learning that is present.

The responses to questions about the "dominant style or approach", suggesting the existence of paradigms, presented a variety of aspects of the course which were said to characterise such dominant styles or approaches. The responses to the linked questions about the important artists to the group also failed to present a consistent picture, although the importance of artists as exempla to the students as individuals was most evident.

While there appears to be little consistent evidence from the interviews of a dominant style or approach within the courses as a whole, individuals, and perhaps groups of students, might be considered to have developed such a consistency: to have developed a paradigm. However, even in the group which was centred around 'feminist' concerns reflected strong variations between the individuals within it.
It can be argued from the responses of the students that the relative lack of collective paradigms was noted, and that the strong support for the seminar work and informal discussion reflected a wish for a greater degree of a collective approach on the part of some of the students.

The interviews with most students reflected the general values which were placed on the relationship between history and theory, and practical studies in the course document. However the responses to the syllabus varied according to the personal relevance it had to their own interests and their personal involvement in presenting papers or writing essays. The evidence indicates that the students do work within coherent notions of art which inform their practice and relate it to the context of beliefs, values and techniques in which they find themselves; and that these beliefs, values and techniques are exemplified by artists and works. However, these notions are not resourced through exemplary texts in the same way as the images and techniques are informed by exemplary works.

The interviews indicated that the students were conscious of the importance of exempla provided within the syllabuses to their development. Outside the syllabuses the students described a close involvement with the exempla of art to which they gained access, largely through their own efforts. However, they generally did not seem to attach a comparable importance to ideas or theoretical issues. Both their discussion and reading of those aspects of art, with notable exceptions, appeared to be relatively slight and schematic.

The recollections of change in the interviews provided some information about the nature of such change in the
attitudes, approaches, or work of the students, although shifts were apparent; this aspect of the enquiry was necessarily concentrated on the first phase of the Case Study. The questionnaire used in second phase generally indicated some further shifts in development, although in one case (501 "Barbara"), external events appear to have generated a more radical change of approach. There was little indication of an inherently traumatic nature of art education, as it has been described by Madge and Weinberger (1973).

The interviews suggest that the epistemological concepts embodied in the schedule and the analysis: tacit knowledge; the paradigm as a constellation of attitudes, beliefs and techniques, and the importance of exempla; the different aspects of change, and the relationship between theory and practice; are appropriate and relevant to a description of art in higher education.

The tasks present a complex picture, a multi-dimensional view of the group, of the clusters, and of each student. The results describe some of the consistencies and continuities of thought and practice.

The group as a whole emerges with consistencies and issues in their identification of propositions and exempla; the clusters of students takes place around such issues, and the interviews reflect a wish towards their more interactive and critical development.

The results of the tasks involving the choice of propositions and examples supporting the students' working approaches, and those linking propositions and examples,
suggest that relationships between text and image are central to the students' experience and practice of art. However, the diversity of relationships between the propositions and the examples indicated high degrees of ambiguity or valency.

It can be shown, through clustering, that the propositions and examples do group in ways that suggest the existence of links either directly between the propositions and examples themselves, or through some over-arching view of belief or attitude.

The task relating propositions to the students' working approaches enabled some distinctions to be made between clusters and individuals, and related to the students' work.

The evidence of the task relating the examples to their own working approach was stronger than that for the propositions. The unifying factors of the group were that relatively few students identify their approaches with work earlier than the beginning of this century, or with the geometric abstract examples, or with the more literal forms of representation. The works with which the students identified their own working approaches seem to be centred on the broad problems of representation, strongly conditioned by a visual language which has its own characteristics and demands, those which modify the subject towards the artists' pictorial concerns.

The group is also characterised by conceptual distinctions between the a priori categories of examples, particularly in relation to the historical examples, although there is also some evidence that these might reflect responses to the
types of painting rather than, or as well as, differences of time and culture. Indeed this evidence suggested that the view of all art history as an "eternal present" as source material for students may be not be universal, and that most of the sample were more concerned with the issues which had been generated by more recent work, or by recent work of a certain kind, which might be considered to address their own historical and social context.

As individuals all the students, to a greater or lesser extent, demonstrated a coherent approach to their work. In doing so they provided significant relationships between what was said in the interviews, the results of the tasks, the descriptions of their work, and the works themselves.

In general the group is comparable with the fine art sample described by Painter. It was found that the thought and work of the most of students reflected a range of issues within modernism. However, it was also clear that the students' modernism was pluralistic and could encompass a wide variety of subjects, source materials, and attitudes; indeed one suspected that, for the students, the supposed distinction between modernism and post-modernism hardly existed. A few students offered an alternative paradigm; they worked within an approach which was figurative in a markedly literal way, treating their visual realities as unproblematic certainties, and sought individual expression in their work through a highly autobiographic content.
7.1.3 Policies and Practice of Research in Fine Art

The discussion of the policies and practice of research in fine art differs from that in the previous two chapters in terms of the sources and methods which could be applied to the discussion. The first chapter dealt with selected and compared material, pertinent to epistemological discussion, from established works; the Case Study was concerned with data resulting from enquiry which what structured within an epistemological framework.

The development of attitudes to, and policy for, research in fine art is considered in three principle phases: the pre-CNAA stage, before fine art in the public sector had the regulations and mechanisms which would permit the award of research degrees; the "Rochester" phase of CNAA policy, which sought to identify activity in art and design generally with the "research and related activities" which had been used to described work in other subjects within its remit, and the most recent phase, when the policies and other discussion was directed specifically towards research degrees in fine art. The most recent phase was also characterised by the discussion of research in fine art within other institutions and committees, and was the subject of conferences.

The earliest phase, before fine art came within the remit of CNAA, was marked by the outstanding example of Victor Pasmore, who developed his own professional practice through a research process; a precedent which has been largely ignored by succeeding participants in the discussion. It was also characterised by a positive, but general, view of research which is apparent in the Hornsey discussions and
the evidence given in the Select Committee report of 1969.

In the earlier work of the CNAA, following its assumption of responsibility for art and design. The CNAA "Rochester" Report (1974) correlated a range of activities in fine art, and the other subjects for which it was responsible, under the general description of research and related activities. The later Review (1982) indicated a substantial amount of fine art activity within this category.

The attempt to further define research in fine art through the support of the idea of research degrees in the subject had a limited success in terms of both the generating of a policy framework to define the nature of the activity of research in fine art, and which would inform the processes of such degrees, and in the degrees undertaken and completed. The revision of the regulations (1974), to permit the submission of practical and creative work, sought to provided a basis from which research degrees in fine art could be pursued, although relatively few took advantage of this opportunity.

There appear to be reasons for this within CNAA and the Fine Art community. The former are illustrated by the record of the meetings between the Art and Design Research Degrees Sub-Committee. The Committee initially set out some of the criteria and objectives, and later made substantial progress in articulating some of the issues of research: eg. the importance of method and training, the skills of the supervisor, and something of its institutional nature. However, its inability to confront the specific problems of research in fine art was demonstrated by their meetings with the Fine Art Board in 1980.
The evidence of the minutes indicates the rigour with which the Committee, whose membership contained few fine artists, defended abstract notions of standards and authority in a confrontational manner. It also appears to have made little or no attempt to gain an understanding of the very real problems which the idea of research raises for artists, indicate an opportunity which was missed. Perhaps it was a disadvantage that the Committee consisted of members who brought their research experience from a number of other disciplines, and seem to have lacked the means of relating that experience of research to the issues raised by fine art practice.

In addition the evidence of the Leicester Seminar of 1983 CHEAD meetings in 1990 indicate that the fine art community itself has had difficulty in generating positive discussion of the subject. The evidence sometimes suggests a distrust of the idea of research which is sometimes overt, and at other times expressed through dubious technical, even political, points.

The various recent policy and other statements reflect a number of attitudes to the questions raised by research in fine art. The value of research degrees in fine art is sometimes doubted; it is seen as a 'marginal' issue, and some of the discussion has tended to drift away from the substantial questions which such degrees pose towards side issues which contribute little or nothing to the debate.

The 1989 Statement includes some epistemological ideas, but, as Painter (1991) points out, these are tied to the physical sciences. The bald transition of the terms "facts" and "verification" was made without much explanation and with no exemplification. Asking such questions as: what are facts in
fine art? What is meant by verification in fine art? And asking that the answers are illustrated by examples, indicates the complexity and ambiguity of such terms in the context of fine art. It might also be doubted whether the answers and examples, should they be forthcoming, would offer a sufficiently broad and flexible basis for the development of research in fine art. A more sophisticated view of epistemology, reported here and described by Painter, permits the problem to be pursued more discursively and provides opportunities for the researchers themselves to contribute to the debate.

Painter’s paper establishes arguments and suggests another epistemological context for research in fine art. It provides a basis for development which should make the idea of research degrees in fine art, without a written part of the submission, an acceptable idea to the various academic authorities and institutions which will assume the responsibilities exercised hitherto by CNAA. It should also enable research to be seen as a positive contribution by members of the artworld in higher education. However Painter’s suggestion that a research degree might be awarded for a submission that was wholly practical and visual in character raised important problems.

The discussion of the value of research activity has been largely absent from its consideration in relation to fine art. When one considers the contribution of research to many other subjects, the ways in which it, for instance, contributes to knowledge of the subject, enlivens institutions, informs the curriculum at a number of levels, enhances careers within the subject, and helps to sustain public interest, it is remarkable that only the concern for
institutions seems to be evident in discussions. The idea that practice and education might change as a result of research appears at best to be ignored, and sometimes even resisted, by the fine art community. The evidence failed to reflect any consistent concern for the quality of the work and ideas which research could be expected to generate, and the positive influence they would exert within the community and the subject.

It might be argued that one of the significant difficulties has been the esteem in which research degrees are held. For the members of other subject communities this has led to a reluctance to accord to fine art the status which is associated with their own disciplines, and sometimes to view research proposals in fine art as if they were in their own disciplines, an attitude which underpinned the relative failure of the CNAA Art and Design Research Degrees Sub-Committee, particularly in its discussion with the Fine Art Board. Members of the fine art community appear to have responded to the issues of status in principal ways: firstly, it seems to have blinded them to other, more positive and specific, contributions which research could make to their disciplines and institutions. This is evident in the emphasis placed on the respectability with which CHEAD members associated research, and its perception as an "indicator" of the health and vitality of institutions, rather than being aware of the particular qualities which research would bring to them. The second, somewhat petulant, response is to describe research as "marginal" or irrelevant to art education, a response which is also reflected in the reports of the CHEAD meetings.
The perception of research degrees as a summit of an academic hierarchy has had a negative effect on members of both the fine art and other communities; to be sought as an accolade, or defended against degradation. Such a perception has inhibited specific potential contributions of research to fine art, and of fine art to the development of research, from being made. It may well be important, in both the development of policy and practice, that the fine art subject community itself generates a paradigm or paradigms: the beliefs, values, techniques and examples that will guide its research and contribute to its development.

Each of the successful CNAA research degree submissions discussed met the artistic objectives of the researchers. Equally, each provides possible issues for future research. Newton's work provides examples of imagery generated through computers, and methods of examining the responses of an audience; Goodwin's experiments with the collective production of works, with individuals taking on defined roles, offers opportunities for further development in both art practice and education; the interaction between ideas of form and a specific and localized material in Greenhill's research has possibilities for further work, as has Power's study of the evolution of a project in collaboration with a particular community with identifiable beliefs and attitudes.

However, the projects were isolated from each other; making little or limited recognition that the work of earlier researchers, or earlier artists, might contribute the projects. There is, therefore, little indication of the progressive development of methods which might have occurred
if there had been more understanding and reference between the different projects.

One reason for the lack of progression is the absence of a research community, and the development of a paradigm within it. As well as the beliefs, values, techniques and exempla which such a community would engender, it would also be characterised by shared problems and methods, and relate different projects to each other as it was developed.

The evolution of such a research community within the artworld of higher education would enable the development of methods and critical languages of its own. Through such an evolution the artworld could develop coherent strategies with which to address problems of fine art and thereby contribute to the evolution of its practice and education.

7.2 Review of Research Methods

The variety of research methods used in this study has enabled the generation of complex data. This had the advantage of allowing a variety of facts, ideas, attitudes, and works to be included, and the development of linkage processes to produce coherent conclusions. However, the combination of methods and techniques used here might, in future, be considered alongside the potential of more detailed studies; these would enable some of the issues which have emerged in this study to be considered in the light of more limited and directed data than has been possible in addressing the issues of this thesis.
7.2.1 Epistemological Texts

The discussion of epistemological texts was based on their relevance to the argument of the thesis and their authority within epistemological discussion. The authors whose work made the major contribution to the argument: Popper, Polanyi, Kuhn, Lakatos and Feyerabend offered texts of substantial authority and a wide range of views to bring to bear on historical and theoretical discussions of art. The decision was made at an early stage to integrate the epistemological discussion with the work of similarly authoritative art historians: particularly, Gombrich, Baxandall, Schapiro, and Panofsky, to examples of artists' writing and work: Reynolds and Constable, and social and institutional discourse: Danto, Dickie, Becker and Painter.

The importance of the empirical relationships between epistemological ideas and the various examples of art, and their discussion, tended to exclude some of the more recent considerations of epistemological issues in art by philosophers (e.g. Shaw (1986), Brownhill (1987), Hermerén (1988), Säätelä (1988), Kulka (1989)), and art historians (e.g. Harrison and Orton (1984), Frascina (1985)). Some potential theoretical discussion within the field was sacrificed, and some issues and sources of considerable interest, though marginal to the central issues of the thesis, remain to be discussed.

The use and juxtaposition of texts from different sources in the discussion of epistemology and art was considerably assisted by philosophical authors, all of whom applied their ideas to the discussion of art. This provided both precedents for the underlying argument of the chapter, and
some valuable sources from which that argument could be developed.

However, such a comparative method can rarely be conclusive: the selective choice of quotations and references is strongly determined by the a priori structure of the argument. The methods employed only establish that there are some relationships between art and epistemology, and that epistemology provides a descriptive and an interpretative language appropriate to the discussion of some art and artists.

The work of Painter (1986), in identifying the different relationships between images and attitudes among distinct social groups, reinforced the Kuhnian view of knowledge: the idea of the paradigm and the issues of change and incommensurability. It also established methods which provided some positive expectations about the ability of other groups, such as students, to articulate similar, and characteristic, relationships between ideas and works of art. Such expectations informed the structure of the interviews and the design of the tasks in the Case Study.

7.2.2 The Case Study

The Case Study was designed to examine the experience, ideas and work of students in the light of the epistemological concepts, and their relationships with art. In order to pursue this a variety of methods of enquiry were used. This served both as a means of triangulating the data, and also to offer a number of ways in which significant data could emerge. In addition to Painter's work the earlier research
in fine art education by Madge and Weinberger, Sleigh, Cornock, and Wayte provided some general valuable expectations which could be critically examined: the distinctiveness of art in higher education, the individuality and isolation of art students, fine art ideology and the "exemplary biography", but only one idea which was immediately pertinent to the enquiry: Cornock's description of the "working process".

In order to identify potential paradigms the idea of the "working process", or the "working approach" was used. It makes a major contribution to the argument in two principal ways. Firstly, it removes the tyranny of the work as an autonomous object, to be seen only in its own terms and values, without uses or historical and social relationships. It enables a view of the artist or student as a thinking, making human being, using his or her commitment to the attitudes, ideas, techniques and values, either in themselves or exemplified in works, which are available to him or her, and manifesting these in works of art.

The idea of the paradigm also gives this process a context within a group or broader collective, and enables the discussion of relationships between the different "working approaches" of individuals and groups, contemporaneously or historically. The concept is also reflected in Painter's distinctions between social groups through the images in their houses and the ideas and values which they attached to them.

The concept of the "working approach" was introduced to students in the interviews, by asking about the "dominant style or approach" in the courses which they had taken as a
means of identifying possible paradigms. Although by no means all of them identified such dominant styles or approaches, none challenged the idea that they existed, and some provided detailed responses describing the sources and work characterising such dominant styles or approaches.

In the tasks students were asked to relate propositions and images to their own working approach, again none doubted its existence; there was some discussion about the distinction between the images so identified and those which the student enjoyed or liked. This, albeit inconclusive, evidence supports Cornock's finding of the "working process" within his student group and its use as a basis for enquiry.

In the first questionnaire students were asked to distinguished between members of their student group according to relationships between their working approaches. This they did with a degree of precision, and, through their responses, it was possible to identify three clusters of students.

The content of these clusters was examined in terms of the data from the tasks and the students' work. The tasks provided a series of indications of the strengths and weaknesses of the clusters in terms of the propositions and the examples. The differences between the works, particularly as they were evident in the students' degree exhibitions, tended to support the clusters which had been identified through the questionnaire some six months earlier.

The theoretical argument had indicated relationships between the Kuhnian "paradigm", the "artworlds" in Danto, the
different "uses of art" identified by Painter, and the "working process" described by Cornock. So the question was raised, did the different clusters of students, in their characteristic choice of propositions and examples, and the distinctions between their work, constitute paradigms in a Kuhnian sense? To address this question certain aspects of the paradigm, as it was described by Kuhn, had to be identified and examined in relation to the student clusters.

It was not difficult, from the evidence, to argue that the clusters represented distinctions in attitudes, values, techniques and the choice of examples. However the testing aspect of the paradigm emerged as the "incommensurability" between different paradigms, and therefore different clusters. In the course of the interviews little negative evidence had appeared: students seemed able to discuss their relationships with the artists and works of art they admired, liked or which had influenced them, but were disinclined, even when questioned directly, to cite artists or works they disdained, or which seemed to them not to be art. Exceptions to this were two students who criticised the work or approach of their fellows. However the limited character of these comments hardly justified the identification of incommensurability between groups.

The context of the research, within a group of students in a single year on a single course, might also have discouraged the emergence of incommensurabilities. The plurality of views, and the tolerance needed for the group to function in such a context stresses co-operative, rather than conflicting attitudes. The general consensus supporting P19, that art education is centred on the personal development of students, wherever this may lead, indicates that the
emphasis on individuality in fine art education. This might reduce the significance of the group as a whole, and the clusters within it; therefore reducing the potential for incommensurability.

The use of the modified repertory grid technique to enable students to relate propositions to images, and also to their own work is, to the best knowledge of the researcher, the first essay in this technique. Its possibilities within research into fine art, and perhaps design, are considerable. In understanding some of the values, ideas and examples which are related by students or artists to each other, or identified with their work could enhance our critical and historical understanding of art, and might also make significant contributions to art education.

This research used the techniques to examine epistemological content with a limited group of students. To gain an understanding of the fine art community as a whole the techniques would need to be revised to enable larger scale studies with a more representative sample of staff and students.

The relative novelty of applying personal construct theory to relationships between images and propositions suggest that the method employed here could be subject to considerable refinement, as well as new applications. One refinement suggests itself immediately. The use of direct quotations as propositions tends to introduce unnecessary ambiguities into the data, for instance the apparent contradiction between P02, history and theory divert attention from the main purpose of art education, and P03, history and theory should be an integral part of fine art.
education, is compromised by the presence of the word "should" in the latter. Had the proposition read: *history and theory are an integral part of fine art education*, the contradiction would have been more complete, and there would have been less likelihood of the two propositions being held simultaneously.

The creation of a stronger structure of propositions through the more general use of contradictions might also be considered. The administration and analysis of the task might thereby be closer to the bi-polar structure of the usual repertory grid, although the bi-polar structure itself has recently come into question (Yorke 1991). However it would not be possible to apply the creation of contradictions to the images, and such strengthening of the structure should only be sought when it could be achieved without compromising the relevance of propositions to the situation of the subjects.

There are various means through which such a structure might be developed. One would be through the judgement of the researcher in identifying contradictions to those propositions derived from the context of the subject. This was achieved by adding "not" as a prefix to propositions in the course of the analysis. Another means would be to ask the sample group to identify such contradictions in the course of the enquiry. This might enable the propositions, with their negative poles, to have more specific meanings to the subjects than the single pole propositions.

The description of the students which emerges from the Case Study reflects a general maturation similar to that described by Perry (1970) in his study of undergraduates at
Harvard. In this report students at the beginning of their courses (Position 1), are described as living in a world of us/right/good : them/wrong/bad and to invest strongly in the authority of teachers. By the end of the course (Position 9) students (hopefully) are developing an affirmation of identity from the multiple responsibilities available to them, and realizes commitment towards the expression of a 'life style' (Perry 1970, 9 -10). More detailed consideration of texts concerned with student development than has been possible here, and their application to art students and their works, might contribute to the structure of the curriculum, to teaching methods, and to the assessment of student.

7.2.3 Institutional Texts

The discussion of the development of research policy rested on the use of minutes and papers. Alternative methods of constructing the discussion and criteria for the selection of material, were considered.

Amongst these was the an analysis of the different views represented, and their presentation as alternatives; however no such defined groupings of the data emerged from the documents. This not only prevented the presentation of the data synchronically, but was also evidence of the lack of potential paradigms of research in the evidence. The diachronic presentation that did emerge resulted from the development of attitudes to, and conceptions of, research in fine art during the period under study.
Given the chronological description the principal criterion for the choice of texts was the relevance of the text to that chronology. However, the uneven character of the development, and the need to demonstrate the difficulties which had occurred in the development of research degrees provides subsidiary criteria.

From the initial view, from the fine art community, of research as a general activity, which was considered positively, to the much more complex and entangled consideration of problems relating to research degrees offered one line of development. This gave particular point to the recognition, within the Hornsey (1969) papers, of the institutional value of research.

Another line of development was through the changes in CNAA policy, from their willingness to recognise substantial parts of fine art activity within the category of "research and related activities" in the "Rochester" Report, and its later review, to the changes in regulation to enable the submission of practical work in fine art for research degrees, and their active promotion of research in art and design. The failure to achieve a substantial body of such completed research degrees in fine art, and the relative isolation of those which were successful, suggests that CNAA did not, or has not yet, met its apparent objectives in this area.
7.3 Research Degrees in Fine Art

He that has that ruling enthusiasm which accompanies abilities cannot look superficially. Every glance is a glance for study: contemplating and defining qualities and causes, effects and incidents, and develops by practice the possibility of attaining what appears mysterious upon principle. Every look at nature is a refinement upon art, each tree and blade of grass or flower, but what [it] is in relation to the whole: its tone, its contrast, and its use, and how far practicable. Admiring nature by the power and practicability of his art, and judging of his art by the perceptions drawn from nature.

J.M.W. Turner, quoted in Lindsey 1973, 190

The study has identified some issues which bear directly on the character of research degrees in fine art. These include the nature and limitations of epistemological explanations, the view of art as a subject inherently incompatible with research degree study, and the difficulties which this may raise by students wishing to pursue such study, the identification of research methods within fine art practice, nature of the submission, and the development of a research community and an appropriate critical language.

It is clear that, as in other subjects, study for a research degree would offer a welcome and valuable opportunity for some graduates; however, there are many other valued outcomes of fine art education: professional practice, art teaching or art therapy, and the broader spectrum of roles in society to which graduates from art schools have always contributed, in addition to the new roles for artists which will be generated in a changing society.
The evidence presented shows that the epistemological tradition, our understandings of the development of knowledge, can be very similar to our understandings of the development of art. The evidence comes from all the stages of this enquiry: the discussion of historical concepts, the interpretation of historical examples, the work and working approaches of students, and the submissions of those who have gained CNAA research degrees.

Developments in art, although they may be evident in individual works, are not lodged within individual works; in their autonomous aesthetic being. They exist within the "working approach" of the individuals and groups who create works of art, and the ways in which this approach is informed from factors within and outside the communities to which they belong. Works of art, like scientific experiments, are evidence of paradigms, of "working approaches"; the particular "constellations" of beliefs, values, techniques, and their embodiment in exempla. It is these which provide the context through which identity, meaning, value, and significance are associated with the individual works.

In proposing a research degree the student needs to address some of the most deeply held beliefs within his or her own subject community, the artworld of higher education. He or she may also address some of the prejudices of members of other subject communities who see the qualities and characteristics of research, as they perceive it, to be beyond the reach of those working in a visual medium, rather than in an established academic or scientific pursuit.
The study has revealed a number of characteristics of art and art education which distinguish it from other subjects, and must, therefore, be considered is the discussion of research degrees in fine art. Firstly, the historical, sometimes teleological, ideas which might generally inform research in aspects of science and technology, particularly the idea of progress, cannot be applied. The idea of research in fine art as a "contribution to knowledge", has therefore to reflect the idea of development, the extension of sensibility, the development of techniques and methods in representation, or other contributions which are characteristic of art, rather than having direct parallels with other subjects in which research, such as "new facts", is already established.

It is evident that many of the methods and processes of fine art education and practice are consistent with epistemological ideas. The discussion represented within the minutes, and their resulting papers, the conferences devoted to research, and, particularly, the projects which have already been undertaken, indicate that research has become an important issue in fine art education. It suggests that the fine art community is in a position to develop a research degree programme on a more systematic and professional basis, and that such a development would be timely in terms of the artworld in general and the world of art in higher education.

The achievement of research degrees often presents considerable difficulties. Over the past ten years major public research bodies have conducted enquiries about the percentage of non-completion (Wright n.d.), and the British Academy has recently stated its intention to raise the
completion of funded Ph.Ds. in the Humanities after four years from 32% to at least 47% (British Academy 1992, para.35). These figures, taken together with the completion rates of current CNAA research degree projects in art and design, indicate that the development of research degrees in fine art has not been, and will not be, easy from the point of view of the individuals concerned.

The personal as well as the scholarly difficulties encountered by research students have themselves been researched. One of the important aspects of research studentship is the role of, and the relationship with, the supervisor. Evidence establishes that supervision involves considerable personal, as well as scholarly skills (Phillips 1979, Phillips and Pugh 1987). There now exists a substantial literature on the pursuit and management of research degrees which can inform future developments, and, hopefully, mitigate the difficulties and enable the achievement of research degrees to become less of a lottery and more of a predictable expectation.

Recent enquiry has revealed a variety of views and behaviour which are covered by the term supervision. Wright's (1991) study includes descriptions of the research training and of different sort of support offered to students by supervisors, the frequency of meetings, and the efforts made by supervisors to meet their responsibilities. Her conclusions, together with the Codes of Practice for post-graduate training and research published by the research councils (Wright n.d. 2; see also the bibliography), provide a valuable source to inform the training and practice of supervisors in fine art.
Painter (1991) argues that the ultimate responsibility for research in any subject lies with the community, or peer group, of that subject; he suggests that the community relevant to research in fine art is the fine art, rather than the research, peer group. This would lead to proposals for research degrees in fine art being considered by members of a community with, on the whole, little experience of research.

Central to any research practice is research method: the ideas and techniques which inform the process of research. It is the existence of research method within a subject, and expertise in research method in an individual, which leads to the establishment and the award of research degrees. The development of research in fine art has, therefore, to include the development of a research method, or research methods, in fine art.

It can be argued that such methods are already embodied in fine art practice. The process of study and preparation towards the making of a painting can be described as "conjectures and refutations", or "schema and correction", within processes can be seen both as characteristic of fine art practice and as having parallels in other subjects.

One of the characteristics of research degrees is that there contributions are usually incremental in character, rather than making a major contribution to a particular field of study.

... an original contribution can be rather limited in its scope and indeed should be: apply this theory to a different setting, solve this puzzling oddity or review this little-known historical event.
We find that when we make this point, some social science students who have read Kuhn's (1970) work on "paradigm shifts" in this history of natural science say rather indignantly: "Oh, do you mean a PhD has to be just doing normal science?" And indeed we do mean that. Paradigm shifts are major changes in the science's explanatory schemes. Normal science serves to elaborate the general explanatory paradigm in use and to tease out difficulties and puzzles that are not yet sufficiently well explained.

Phillips and Pugh 1987, 31-32

Major contributions are usually made after, rather than within, research degrees:

The theory of relativity was not Einstein's PhD thesis (that was a sensible contribution to Brownian motion theory). Das Kapital was not Marx's PhD (that was on theories of a little known Greek philosopher).

Phillips and Pugh 1987, 31-32

Research in fine art should be seen in a similar light: the process of gaining a research degree is primarily a training in research theory, method and technique. The subject should be derived from problems and issues with well understood antecedents, and directed towards limited and specific achievement.

The audience to whom a research degree project is addressed is more limited than might be expected for a published book, or an exhibition of works of art: it is, fundamentally, the examiners. Unlike published or exhibited work, which might be produced with a general idea of a market, or of an interested community, the work stands or falls as a research degree though the judgement of those who examine it. However, it is difficult to think of such examiners as independent of any subject or body of knowledge which informs their interest in, and judgement of, the work.
submitted. In a sense, therefore, they represent the larger audience of the community of such a subject or body of knowledge: the peer group in Painter’s term.

This distinction between, and juxtaposition of, the processes of research and public character of the works which result, is sometimes expressed in the regulations governing the award of research degrees. The thesis must satisfy the examiners that they make a contribution to knowledge, and should also be suitable for publication, in general (Surrey 1986, 4.1.ii), or in part (British Academy 1992, para. 8).

The judgement of the final submission for a research degree in fine art will therefore necessarily involve criteria other than those which might be applied in the context of an exhibition. The works submitted will not only be seen in their own terms, but also as evidence the understanding and application of research methods and techniques. Such an understanding and application, together with supporting material, will provide an indication of the quality of the research.

The arguments presented by Painter (1991), supporting the view that submission can be wholly visual, may be sufficiently persuasive to lead to the drafting of regulations to meet this view. However, the need for methods and conclusions to be communicated in detail will remain. The question of the wholly visual submission also raises two further issues: the relationship between theory and research, and the presence and articulation of the sources of the research.
The relationship to theory is central to an epistemological view of research in fine art. If Popper's model of conjecture and refutation, and the emphasis which he places on hypothesis is sustained, it is difficult to see how this idea of research can be manifested in a submission that is purely visual, rather as the presentation of a group of experiments, without an explanation of their purpose, would be difficult to recognise as research in a scientific or technological context.

If the project is situated within a Kuhnian context, in examining the problem/solutions generated through a particular paradigm, it may be possible to communicate the bases of research through the illustration of works of art, when these are seen as exemplifying the constellation of beliefs, values and techniques of the paradigm. However, this would limit the scope of any submission, in that it would be difficult to extend its scope beyond the category of "normal" research; reflecting an established paradigm, and would not permit the questioning and discussion of its theoretical bases.

A submission which rested on the exemplification of the paradigm would be subject to the ambiguities, the different valencies, which are apparent in examples. Even if the candidate, supervisors and examiners agree on the importance of certain works to the project, the content of that importance, and the specific relationships between the source work to the candidate's own work, may provide areas of confusion in the contest of the viva.

If the submission is wholly visual it is difficult to envisage the nature and role of the viva. If it is conducted
as is conventional, the candidate would be required to respond to questions about the submission in words, and would therefore need to conceptualize the purpose, methods and conclusions of the project. It is difficult to imagine a viva that is pursued through exchanges of drawings or other sorts of imagery.

The use of a written part of the submission in terms of a role of clarifying the practical work, and enabling discussion of theoretical and other issues, such as the contribution of source material, to be engaged, may well be important to the development of research in fine art. Alternatives to the written thesis, as a means of submitting of such clarifications and discussion might be considered; and would, hopefully, reflect and contribute to the development of a critical language.

As well as promoting individual research projects it is important to develop a research community of students and others. The evidence from the interviews shows that the students welcomed and benefitted from group discussion and seminars, both as participants and in making specific prepared contributions; they generally wished that this had been a more important part of their course. The quality of art education is enhanced as it is shared. A similar process of group development and critical discussion would be equally, if not more, important to the development of research.

Research has the facility to make visible and problematic the assumptions and values of the community, and to identify and address related issues. It can inform the development of its institutions, and enhance the experience of its members;
it can contribute to a profession, and increase public appreciation and understanding. It can also provide individuals with an opportunity to develop higher levels of skill and understanding.

The fine art community in higher education should support a substantial research community; it should value and apply the contributions which have been made in the past, and those which will be made in the future.
3. **Basic Tables**

3.1 **Grouped Propositions**

Table 3.1: Propositions: Groups

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Table 3.2: Propositions: Agree/Disagree

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Table 3.2. Propositions: Agree/Disagree
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*Table 3.3 Examples: Groups*
### 3.4 Examples and Working Approaches

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Total 1s: 16 14 18 16 12 8 11 13 18 11 7 3

Table 3.4 Examples: Agree/Disagree
3.5 Propositions and Examples

Prop: 1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20

Examples

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|   | 3 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 6 | 1 | 3
|   | 4 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 2 | 3 | 1 | 1 | 2 | 0 | 2 | 3 | 2 | 1 | 5 | 2 | 2
|   | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 0
|   | 6 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 2 | 1 | 0 | 0 | 2 | 0
|   | 7 | 0 | 0 | 4 | 6 | 0 | 0 | 4 | 1 | 0 | 3 | 0 | 0 | 2 | 0 | 1 | 2 | 1 | 2 | 2 | 0
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|   | 14| 2 | 1 | 0 | 0 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 1 | 3 | 1 | 5
|   | 14a|2 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 2 | 3 | 1 | 2 | 0 | 1 | 4 | 1 | 2 | 2
|   | 15| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 6 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2
|   | 16| 0 | 0 | 3 | 2 | 0 | 0 | 2 | 1 | 1 | 2 | 7 | 1 | 0 | 1 | 1 | 0 | 0 | 4 | 0
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|   | 22| 2 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 1 | 1 | 1 | 3 | 1
|   | 23| 4 | 3 | 2 | 0 | 1 | 3 | 0 | 4 | 6 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 4 | 1 | 3
|   | 24| 1 | 0 | 3 | 5 | 3 | 0 | 4 | 0 | 0 | 3 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | 2 | 0
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|   | 28| 0 | 0 | 4 | 5 | 1 | 0 | 4 | 1 | 0 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 2 | 0

Table 3.5 Propositions/Examples

3.6 Questionnaire 1: Working Approaches * S201: "Barbara" did not take part in this exercise

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Table 3.6 Related Working Approaches

Appendices/500
4. **Sample RepGrid2 Tables**

FOCUS: WORKING APPROACHES
Elements: 12, Constructs: 12, Range: 1 to 9, Context: CASE STUDY

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Table 4.1 *Working Approaches: Focus*

**Student Cluster Codes:**

A = [Yellow] ; B = [Orange] ; C = [Pink]
Table 4.2: Working Approaches: Principal Components
Table 4.3: Students/Propositions: Focus
Table 4.4: Students/Propositions: Principal Components
Table 4.5: Students/Examples: Focus
Table 4.6: Students/Examples: Principal Components
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