A FRAMEWORK FOR TEACHING AND LEARNING IN ART:
with special reference to
National Curriculum Key Stage One

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A DISSERTATION IN FULFILMENT OF THE REQUIREMENTS FOR
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The research started from the assumption that the point of including art in education is to develop children's understanding of this subject. Its purpose is to consider certain theoretical and practical contexts through which this aim might be helped or hindered. The thesis examines the proposition that in order for young children to begin to understand and develop their work in art it is necessary for their teacher to be able to put them in touch with the basic structure (formal elements, materials and processes) of the subject.

How this might be achieved in practice is analysed in a report of a project carried out by the author with her class of children aged five and six years. Its purpose was to find out whether the children could talk about formal elements, materials and process as well as the content of their pictures in a way which would develop their understanding of art. Teaching and learning were guided by the twentieth century concept of art which emphasises its formal elements and physicality. Analysis of five activities and of individual children's work shows that unexpected developments in picture-making occurred; that the children's activities helped them to talk about a picture by H. Matisse (1953); and that some children had developed an understanding of their work in art. On this basis it is found that 1) it is possible to put young children in touch with the structure of the subject in a way which develops their understanding; 2) children can be
helped to appreciate the work of others through an understanding of their own work. This finding may be useful to other teachers in providing a practical link between At1 and At2 of *Art in the National Curriculum.*
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INTRODUCTION

Policy-making and the improvement of practice

Policies are meant to be statements of courses of action. In common with other primary teachers the author is used to trying to put into practice a variety of policies, some national, others issued by the County Council as well as those made in collaboration with colleagues in school. All aim to inform and improve current practice. However, some policies are more readily put into effective action than are others. The research and findings presented here began with the problems which the author had identified in her own teaching of art; and, in seeking an appropriate course of action, with the dilemma which seemed to result from apparently contradictory policy statements.

The introduction to Part 1 of the thesis shows in which respect the author's practice was found to be deficient and how, in the process of sorting that out, the hypothesis was evolved which forms the core of the thesis. This proposes that in order for young children to begin to understand and develop their work in art it is necessary for teachers to be able to put them in touch with the basic structure of the subject. The main aim of Part 1 'Problems of Art in Education' is to consider whether young children should be put in touch with the basic structure of art; that is, its formal elements, materials and processes. It is concluded that given the appropriate context the hypothesis suggests a favourable course of action. Part 2
'Developing a Framework for Teaching and Learning' considers how this might be possible in practice by developing a simple structure for teaching and learning which is art-based and child-centred.

Of course, improvements in teaching depend, among other things, on the kind of concept which art is held to be. The view of art from which the thesis proceeds recognises the open nature and imaginative adventurousness of this area of knowledge and experience. It suggests that the concept, or concepts, of art which teachers hold should enable children to have the fullest possible access to the subject.

The chosen title of the thesis makes special reference to Key Stage One of the National Curriculum because there are certain views about the capabilities of children under seven which makes provision for their learning an area of controversy. Researches into the work of established authorities in that field form the basis in Part 1 of a thorough re-examination of the ideas behind the provision of art for young children. Three key issues are revisited in different contexts with a view to understanding how provision might be improved. They are: views about what children under seven can and cannot do; the concepts of art which might guide teaching; and the conditions in which individual children might learn effectively. This re-examination is thought to be timely since the 1992 National Curriculum requirements for art are currently being put into practice. In considering how to make that policy
work, it is thought that other teachers might find the arguments and findings presented here useful in making up their own minds about whether or not there is a need to rethink existing provision.

From those examinations there emerged certain practical ideas which were to be of critical importance in suggesting the framework for teaching and learning reported and analysed in Part 2. These ideas suggest that:

1) provision for art should be based on what young children can do as individuals rather than on what they, as a group, cannot do;
2) young children can be introduced to the structure of art through its simple but fundamental ideas which are powerful enough to be revisited continuously;
3) talking is an important way for children to sort out their thinking about picture-making and for giving teachers the chance to assess how they might be helped;
4) the neglected resource for teaching is children's doing, talking and making which, through the challenging concepts of art, can be used to develop understanding;
5) art can be made accessible in school by: conceiving the subject not as a fixed entity but as that which artists do with materials and ideas; and teaching with imaginative sympathy for children's points of view.

Part 2 shows how these statements were converted into a series of picture-making activities for the twenty-two children, aged five and six years, in the author's class.

The introduction to Part 2 shows how the project
'Colour and Shape' was conceived and planned with those ideas as a foundation. Central to the teaching was the twentieth century concept of art which emphasises its physicality, its material quality and formal elements. Two main aims determined the planning; the most immediate one was to investigate whether a form of structured talking about formal elements, materials and picture-making would help in developing individual children's understanding of what they were doing; the other was to find a way of improving teaching.

Five activities were envisaged as a structured series in which what happened during a session would be analysed and used to determine what should happen next. Thus the method of proceeding was in the field of action research. Each activity was to focus on a different colour but each would involve: 1) an introductory discussion about tone, hue, shape, possible spatial relationships and materials; 2) picture-making; 3) reflections with individual children based on how their picture was made and what it was about; 4) a display of all the children's work with their comments. By revisiting the same concepts and skills it was hoped that a shared way of talking about pictures and picture making would grow and provide the author with a way of developing understanding. The medium used was related to the cut-outs of Henri Matisse which came to their most powerful form in "The Snail" (1953). It was thought that if the children were able to talk about the form and content of their own pictures then they might be able to
use that experience to talk about a reproduction of "The Snail".

It was thought that evidence about whether the aims were being achieved would be available to the author in the children's work. In the context of the present thesis it is recognised that for such evidence to have value there needs to be some check as to the fairness and accuracy of the author's judgements about what happened. The pictures and comments which were made by the children are thought to be vital in that respect; they are available for scrutiny throughout. In addition plans and notes were made during the course of the project and these form the basis of the reports and analyses of teaching and learning as they are presented here. Some comments were recorded by the children or the author on audio cassette and are included in the form of transcripts, they appear as part of the text or as appendices. Judgements about whether or not developments are evident are argued in relation to individual children's work.

On the basis of the analyses of the pictures and comments of individual children it was found that unexpected progress in making and understanding had been achieved; that the children's involvement with the activities enabled them to talk in a simple way about a reproduction of "The Snail"; that a shared way of talking about pictures meant that the children had developed an interest in looking at each other's work. Perhaps the most unexpected finding was the way in which some children
developed strong pictorial ideas which were tightly related to the materials and formal elements from which they were made. It is claimed that this is evidence of the extent to which individual children had understood the relationship between the form and content of their own work. It is found that different forms of talking constituted a significant way in which attitudes to picture-making were built up but that on the basis of this teaching episode it is not possible to ascertain which aspects were most valuable. This would require further investigation of a kind outside the scope and resources of the teacher-researcher.

The findings showed how close attention to children's comments and the analysis of their pictures could inform teaching by raising expectations and clearing away assumptions. A shortcoming of the research, in so far as it was aimed at the improvement of teaching, lies in the lack of a more detailed analysis of what the author was learning by listening and observing, and how far adjustments in thinking and teaching were being made on that basis. However, this may require a more objective kind of research than is possible for the teacher in the classroom.

The children's work and the analyses of it are claimed to be evidence in support of the original hypothesis and that this could have implications for the way in which the policy Art in the National Curriculum (1992) is put into effective practice.
PART 1
PROBLEMS OF ART IN EDUCATION

INTRODUCTION: identifying problems

The purpose of Part 1 is to examine some of the problems which seem to have been created for the teaching of art by past and present policy recommendations. Those problems were identified by the author through a critical examination of her own practice. In fact, it was one teaching episode in particular which made clear the dilemma caused by certain recommendations about how young children should be educated. That episode is reported here in full because it began the search for a more effective way of teaching art to infants in Key Stage 1 of the National Curriculum which could be justified on theoretical and practical grounds. The result of that episode was the formation of the hypothesis that in order for young children to begin to understand and develop their work in art it is necessary to put them in touch with the structure of the subject. In Part 1 the implications of the hypothesis are tested out. One aspect of the dilemma for teaching is that the hypothesis seems to run contrary to the influential view which holds that young children learn most effectively through an "integrated" or "topic-based" curriculum. Part 2 presents a report and analysis of the practical application of the hypothesis.

This introduction is intended to show: 1) how the
hypothesis evolved from practice; and 2) why it was decided to make a change from teaching in a way which was topic-based to one which was art-based and child-centred.

Identifying problems in topic-based teaching

The problems which initiated the thesis began with the author's reflection on a picture of an elephant. The making of the picture of an elephant was one of the activities following a visit to the zoo of the author's class of five and six year old children. A different animal was studied each week in the variety of ways that is usual practice in infant education. These included using dance, drawing, painting, sewing, writing, listening to stories, facts and rhymes, as well as singing songs. At the end of each week a different group of children made a large picture of the animal for display in the classroom. The point of this was so that everyone could enjoy looking at the picture and recall what they had learned through the study of that animal. One week a small group of children made a picture of an elephant. It was a guided activity in art. The children talked with the author about the colour and texture of the elephant's skin; about the kinds of shape to draw for the head, body, legs and so on. Since they had recently learned the technique of marbling they were helped to marble grey tissue paper because it resembled the wrinkled, grey skin of the elephant. This was then cut and torn into pieces ready to cover the shape of the elephant. The children used circles of different
sizes for the head, body, ears and eyes. They drew round objects which they found in the room to get the right shapes and sizes and then cut them out. The legs were made by folding a sheet of paper into four and cutting out the resulting oblongs. The parts of the elephant were assembled and stuck onto a background of "grass" and "sky". Pointed, triangular tusks were added, as were eyelashes and toenails. These were anatomical features which the children remembered from a television programme. Reference pictures were used to find out the correct number of toenails and they were made using semicircles of paper. Each stage of the making involved talking about what we were doing and the children made decisions with the author and with each other. In the end the picture of the elephant had two eyes, two ears, four legs, one trunk, one tail, two tusks and four or five toenails on each foot. Numerical correctness was an important part of the children's decision-making as they worked and therefore constituted a major reason for the picture being the way it was. When everyone sat down to talk about the picture the children were encouraged to remember their experiences during the week and the elephant they had seen at the zoo. Then their attention was focused on the picture itself by means of questions about the number of nails on one foot, and on four feet; and about the kinds of shapes which could be seen. Recognising the mathematical nature of the questions the session was developed further so that the children could practise their skills in the cardinal aspect of
number as well as their knowledge of the names and properties of plane shapes. At the time, this session seemed to be successful because: a) the children had been looking at the picture in a detailed way; and b) by using what they had learned in mathematics they had been able to talk about it. In addition, the session had seemed successful as part of a cross-curricular topic because simple mathematics had arisen from an activity which had begun as an activity in art. At the same time however, it seemed that an opportunity for teaching art had been lost. Something had gone wrong. Two questions emerged which put the value of the session in doubt. Were mathematics and art merged because of a mistake in teaching? Was the "merging" of two ways of thinking to do with a confusion about the purpose of the reflection? At that time, unfortunately, these questions did not seem as important, or as intriguing, to the author, as did the question about why art and mathematics appeared to have "integrated" in one activity. Therefore, the important question about whether the session had been an effective way of teaching art was left until later.

Seeing art and mathematics as "integrated"

The reflection on the picture of the elephant had shown that simple mathematical ideas and activities could emerge from the study of a picture, despite the fact that it was a picture which had been planned as an activity in art. The reason why this was possible seemed to be
important and so this was investigated first. The questions which were considered were: a) Do mathematics and art share some fundamental concepts? and b) If they can be shown to share concepts does this amount to an instance of "integration" of the subjects? An investigation of the literature showed that there were many different uses of the term "integration" both in educational theory and practice. These uses were confusing and so clarification was sought, first by reference to The Arts in Schools (1982). There the term is used in so many ways, for example in paragraphs 23, 73, 98 and 177, that it was difficult to decide what was meant. A clearer statement was found to have been made by Richard Pring (1971) in a paper entitled 'Curriculum Integration'. Here he analyses four versions of "integration" and one of these was found to be particularly relevant to the problem of understanding what "integration" could be thought to mean for teaching. R. Pring (op.cit.p.174) considers the notion of "integration" as part of the idea of unity of knowledge:

"Before beginning this examination however it is necessary to draw attention to one logical feature of 'integration'. The word itself means a unity of parts in which the parts are in some way transformed. A single grouping or adding of distinct objects or parts would not necessarily create an integrated whole. There would have to be some formal characteristic of the whole from which the parts gained some new identity, this characteristic belonging only to the whole."

Taking that characteristic into account, the next question to arise was whether the picture-making described above could be considered under such a concept of integration. It was thought that since the children's
interest in numbering was an essential part of how the final image came to be the way it was, then the picture as a whole had gained its particular form through a dependence upon its numbered parts. Numbering was undoubtedly an integral part of the picture-making. Additionally, it was thought that the circles and rectangles from which the image was made could be thought of as "transformed" when they were brought together and seen as an elephant. Furthermore, it seemed that the picture could be an example of "integration" not only because of how it related to Pring's account, but also because of its correspondence to the version described in The Arts in Schools (1982 p.23):

"The arts promote a very real integration in our sense and appreciation of the whole range of meanings that are present in one organic whole. This characteristic of synthesis is to be found in no other mode of discourse. Elsewhere the general thrust - in some, the whole emphasis - is more often on analysis and dissection than on synthesis and unification."

Under this description the picture of the elephant could be seen as a synthesis of picturing and numbering which would confirm the success of talking about a picture in a mathematical mode. Some doubt is implied in the statement about the appropriateness of treating work in art analytically. It is not made clear what is meant by this. One could be left wondering whether the authors consider it appropriate to talk about colour, texture or shape in a picture - since that would be to dissect and analyse it. Moreover, in paragraph 72 it is implied that the explicit consideration of art in primary education is not necessary. Two main points are raised: resources and "integration".
It is stated that no special time is needed for teaching the arts which, at this stage, have to be treated very generally; and that the main point for teachers to bear in mind is that they should recognise and respond to the opportunities which continually arise through the cross-curricular nature of the work. Here the use of the term "integration" seems to be deliberately broad which tends to leave what is actually meant open to any interpretation. What is more, the point of emphasising "integration" for this age group is assumed rather than justified. Fortunately, this recommendation is related to one which is more clearly stated and which is to be found in paragraph 555 of the Plowden Report (1967):

"Throughout our discussion of the curriculum and particularly in this and the previous chapter we stress that children's learning does not fit into subject categories. The younger the children the more undifferentiated their curriculum will be. As children come towards the top of the junior school . . ., the conventional subjects become more relevant; some children can then profit from a direct approach to the structure of a subject"

The teaching episode in which the children made the picture of an elephant and then talked about it probably conforms to these recommendations. But knowing that some recommendations encourage general, undifferentiated learning, does not solve the problem of how to get learning in art started, nor how it can be developed. In any case, the question which needs answering is whether it really mattered that mathematical skills came out of the activity if it was meant to be an experience of working in art? The answer emerged clearly enough. Numbering would matter if
"curriculum integration" was the key purpose of teaching; but, if the main aim was the development of understanding in art then numbering would be unimportant. It seems obvious now that the purpose of teaching had been confused. This is why the talking happened to be mathematical rather than about making a picture. In fact, the picture had been treated simply as a substitute for the real thing. Consequently, the work in art was missed out, neglected. This realisation was accompanied by another problem. If this teaching episode was indeed a practical example of "curriculum integration" then how could a series of similar sessions fulfil the job of helping the children to develop an understanding of their work as art? All these doubts and questions amounted to a genuine teaching dilemma. However, one point was clear, the author had no appropriate strategy for the development of children's understanding of art. Making good this gap in teaching skills became the priority for action and the search for a manageable strategy began. Help came in the form of a project which the author carried out with a class of seven and eight year olds as part of the investigation of how art and mathematics might be related. It was designed to develop each child's mathematical thinking through a continuous process of "doing, talking and recording" (Open University course EM 345). During this process the teacher is able to diagnose the extent to which a specific concept has been understood or misunderstood. On that basis further activities can be planned to meet individual needs. This
seemed to be a strategy which could be adapted for teaching and learning in art. But basing the children's activities in specific concepts in art needed a change in thinking about teaching. It meant putting aside the recommendation to "integrate". In the midst of this dilemma an idea began to shape which seemed to provide a way out. The idea was this: perhaps teaching could be art-based and child-centred. At the same time, the relationship of talking and doing with the development of thinking (i.e. mathematically or artistically) became a major interest. This aspect of teaching and learning played a key role in the search for a more effective approach to the development of understanding in art because it focused teaching on the learner's needs. It eventually emerged as the most important part of the subsequent investigations since it provided an appropriate way of making art-based teaching child-centred.

Formulating the hypothesis

So it was that the hypothesis with which the thesis is concerned began to emerge in response to the practical need for a better way to teach art to young children. Having seen how older children could develop their thinking about mathematical concepts such as subtraction, place value and measurement through the careful design of practical activities, the same seemed possible for the development of thinking in art. However, one matter needed resolution before the idea that children should be put into direct
touch with the basic concept of art was able to mature. That matter was the way in which art could be seen to have many relationships with mathematics.

At this point in the research three inter-related questions emerged. It seemed necessary to investigate the relevance of each to teaching art although the first subsequently became part of the other two. The questions were:

a) whether concepts in art and mathematics can be shared;

b) whether the idea of "integration" of the curriculum is as important to individual learning as teachers have been led to believe;

c) whether talking is necessary to the development of thinking in art.

It is proposed to examine briefly the implications for teaching of the first question here. The other two questions and their implications form the basis of Parts 1 and 2 of the thesis.

The question as to whether art and mathematics do, in fact, share concepts is an important consideration when seeking to justify teaching them separately. For example, opponents of that aim could show how the subjects might be regarded as being unified through the concepts of shape, or pattern, because those concepts may be used artistically or mathematically. When artists use mathematics, it can be argued, are they not thinking in both ways simultaneously? Or, at least, are they not synthesising distinct ways of
thinking?

There are many instances of artists using mathematics in their work. Perhaps the example which first springs to mind is the use of different perspectives to render three-dimensions on two-dimensional surfaces. M. Baxendall (1972, p.96) shows how Italian Renaissance painters could rely on a mathematically-informed audience to appreciate the underlying processes which gave their work its particular form.

"So fifteenth-century people became adept through daily practice in reducing the most diverse sort of information to a formation of geometric proportion . . . For our purpose, the important thing is the identity of skill brought both to partnership or exchange problems and to the making and seeing of pictures. Piero della Francesca had the same equipment for a barter deal as for the subtle play of intervals in his pictures, and it is interesting that it should be in relation to the commercial use that he expounds it."

Mathematics, it could be said, was thought to be integral to an appreciation of art.

In their writings on early abstract art, Adelman L. and Compton M. (1980) examine connections between art and mathematics and give a concise historical account of how mathematics has been used in art up to the beginning of the century. They show how advances in mathematical ideas and methods inspired certain artists in their work.

Carl Andre used series of related numbers to determine form in some of his work. He is quoted by David Bourdon (1966 p.107) as saying that arithmetic was the armature of his work. His arrangement of the 120 bricks at the Tibor de Nagy Gallery in 1966 was arithmetically determined in
two sets of 60 which were subdivided into four sets of 3 by 20, 4 by 15, 5 by 12 and 6 by 10.

An extreme example of an artist who has used mathematics is Hanne Darboven (born 1941). She is described by Michael Compton in *Art Since 1945* (1976 p.82) as using the systems of simple arithmetical operations as the basis of her work in art. The carrying out of arithmetical operations has become the content and form of her work since 1967 which is bound in books and supplied with indices.

However, the most telling insight into these connections, and the one which concluded this line of research, was that written by Suzanne Langer (1957, p.26) in *The Problems of Art* about the difference in significance of a triangle to the artist and the mathematician:

"A given triangle is the same in any position, but to an artistic form its location, balance and surroundings are not indifferent"

To put the point another way, while it is true that an artist may use mathematical elements, it is more importantly true that she or he is using them as an artist, not as a mathematician. It may be true that the connections between art and mathematics are powerful, but it is also true that they are only connections. They may, or may not, be used by artists or teachers. After all, there is no reason to ignore the distinctions between these forms of understanding on the grounds that there are connections.

There are significant early examples of teachers of
art choosing to use mathematical shapes as a basis for drawing. For example, Richard Mulcaster (1582, p.58) proposed that:

"Then because drawing useth both number and figure, where withall to work, I will cull out so much numbering out of arithmetic, the mistress of numbers, and so much figuring out of geometry, the lady of figures, as shall serve fit for an elementarie principle to the child's drawing, without hardness to frighten him or length to tire him."

J. H. Pestalozzi (1801, Eng. Trans. 1894, p.98) claimed that children should be taught to express themselves clearly about number and form because these were the special elementary properties of all things. He further claimed that it was on these two general abstractions that all other means of making ideas clear depended. He devised a system for the teaching of drawing based on certain basic shapes which, like the activities created by F. Froebel (1782-1852) for young children, were misunderstood and misused by British teachers, as the authors of the Plowden Report (1967 p.190) point out. However, it is significant that Froebel's belief in the underlying unity of all things did not prevent him from recognising that distinctions between the subjects of the curriculum were important for teaching. In The Education of Man (1826; Eng. Trans. 1887, p.226) he refers to the relationships and distinctions between the five subjects which constituted his curriculum:

"With one exception all human ideas are relative; mutual relations connect all ideas, and they are distinct only in their terminal points."
Therefore, there is in art, too, a side where it touches mathematics, the understanding; another where it touches the world of language, reason; a third - although itself clearly a representation of the inner - it coincides with religion.

Yet all these relationships will have to be disregarded, when it is considered with reference to the education of man, in order to lead him to an appreciation of art. Here, art will be considered only in its ultimate unity as the pure representation of the inner. We notice at once that art, or the representation of the inner life in art, must be differentiated in accordance with the material it uses."

The point is that the relationships which art undoubtedly has with other subjects, have to be put on one side in the practical task of bringing children to an understanding or appreciation of art. As far as art itself is concerned he draws on the need for differentiation between its forms, while conceiving art in general as a unity. It is these kinds of dilemmas between theory, policy and practice which are to be explored, for at certain points dilemmas seem to become problems which can block rather than advance practice.

Summary

It has been shown how the idea that young children might be put in touch with the fundamental concepts of art in a way appropriate to their age and experience was formed. Part 1 examines the arguments against this position as well at those which support it. The examination concerns three main issues: art in education; young children and the curriculum; and individual learning.
1.1 Education and concepts of art

The problems which can be identified in the teaching of art in infant schools depend to an important extent on the view of education by which this activity is guided. Views about education are many and various but no exhaustive attempt is to be made here to explore them. Rather a selection of views will be examined so that the kind of understanding of education which underlies this thesis can be identified and made available for scrutiny. Taken together these views represent the dilemma for teaching at Key Stage 1 which is the particular concern of the thesis first to identify and then to resolve.

Views of education

The main ideas to be examined are whether the education of young children should be substantially different from that of other groups; and the extent to which art can be part of their education. Of course everything turns on how the words art and education are understood in relation to young children. Therefore a series of examinations is to be made of ways in which these terms have been understood, together with implications for their provision in schools. It is important in the current climate of change to reaffirm the value of education above mere training. Richard Pring (1988) for example, distinguishes education from training by arguing that personal growth is at the centre of what we should be planning and should be doing in primary education. The
reason for this, he continues, is that there is a logical connection between personal development and education. He summarises his view (op.cit. p.44) in this way:

"Here, then, pronounced dogmatically maybe, are the characteristics of personal growth which are the central concern of education - the creation of individuals who are empowered to think and to reflect, who can engage with others in a meaningful and sensitive way, who can take responsibility for their own actions and destiny, and who have a sufficiently strong sense of their own worth and dignity that they are not deflected from the task""

When education is understood to be concerned with individual development then there is a sense that what is possible should not be confined by factors external to the individual. That means, for example, that the way the curriculum is constructed or conceived should not limit an individual's chances for understanding. Education in this sense is about the development of the individual as a person; that is, the development of his or her ways of thinking, acting and feeling. This view of education is focused on individuals. On the other hand, a view of education as training, or the acquisition of certain facts and skills needed for work, seems to put a limit on individual development. Preparation for work is its priority. It follows from this view that an individual's current development can be made subservient to a particular view of his, or her, future needs concerning work. This clearly implies that an individual's development in education can be limited on the grounds that preparation for work is the ultimate goal of an education provided by
government. If this were the view of education used by government, then it is probable that education as preparation for work would be set in the context of the economic needs of the country. Such a view of education as training is implied in the Department of Education and Science pamphlet *Better Schools* (1985 p.2):

"The Government believes that the standards now generally attained by our pupils are neither as good as they can be, nor as good as they need to be for the world of the twenty-first century. School education should do much more to promote enterprise and adaptability and to fit young people for work in a technological age."

School education seems here to be envisaged solely as a preparation of children for work when they are adults. This aim gives provision a clear and finite purpose that would be readily assessed for its effectiveness by government. If, and only if, an individual's education fitted them for work would it be judged successful. It is a view which points out the need for education to be aimed at the world of work in a technological age. By implication, this is an aim which government considers has been neglected by educators, hence the need for stating it.

On first reading, the statement quoted may seem to refer to the education of pupils in their final years at secondary school. However, the view of education as training which it puts forward can be shown to be related to the education of young children too. It could even be argued to have had a direct effect on the content of the curriculum of young children and of their assessment at seven. For example, teachers and parents of young children were given what
could be seen as a clear message by the government about the aspects of learning to which it attached most value through the requirements for reporting the 1992 Standard Assessment Tasks in mathematics. The requirement was to report on whether children could recall certain basic number operations within a specified time limit. This quick recall of number bonds was accorded significance above that of understanding and applying mathematics by means of the format for recording which the government prescribed. The question which arises from this is whether the requirement for teachers to report on one kind of skill, rather than on understanding, is designed to affect the way they accord significance to these different kinds of learning. If teachers see the reported results as partly a test of their own teaching, are they not obliged to give time over to training children to recall answers to sums which they used to spend on developing children's understanding of mathematics?

What does this view of education as training mean for individual growth? Does education for work, or training, include or exclude the full development of individual capacities? The Education Reform Act 1988 places a statutory obligation on schools to provide a broad and balanced curriculum for all pupils which, according to Curriculum Guidance 3 (1990 p.1);

- promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society
- prepares pupils for the opportunities, responsibilities and experiences of adult life.
But is that the same as recognising that education means personal development of individuals as an end in itself; and is it the same as making a commitment to that ideal? Surely some commitment to that ideal by government is important because without it the purposes and aims of provision could become less truly educational in Pring's sense. They could become, for example, more a matter of economic expedience as is reflected in the D.E.S. view which was quoted earlier.

A strong commitment to such an educational ideal is made in article 26 of the United Nations Declaration of Human Rights (1948) which became international law in 1966. It states that:

"Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms."

This view puts value on the quality of education for individuals and, at the same time, puts the development of each person's potential in a wide context. The aims for education are seen on a global scale from which it is envisaged that individuals will learn to value being part of the whole human family. Does the provision of a broad and balanced curriculum for every pupil in state schools accord with this ideal? As it stands there is every reason to suppose that it would. On the other hand, there is evidence that just how broad and how balanced the curriculum will be is now determined, in the end, by one person: the Secretary of State for Education. Should that be a cause for concern or for reassurance? It is the
function of the Secretary of State to ensure that the law can be implemented effectively by everyone concerned. Perhaps it is simply realistic for government to envisage the aim of education as finite rather than infinite; and to discourage aims for education which it regards as unrealistic, or as too difficult to understand, or as too difficult to guarantee in practice. Indeed the limiting of aims in education may be regarded as a prudent and pragmatic approach to a controversial area. The adoption of finite and simple aims may be considered to be the best way of improving the education service. Perhaps this is the case with the government's provision of art in the National Curriculum.

Art and the National Curriculum

The government has laid down statutory requirements for the teaching of art in *Art in the National Curriculum* (1992) which took effect from 1 August 1992. On page 3 of that document are stated the general requirements for the aims or "programmes of study" of art:

1. In all key stages, pupils should be given opportunities to:
   undertake a balanced programme of art, craft and design activities which clearly builds on previous work and takes account of previous achievement;
   work individually, in groups, and as a whole class;
   make appropriate use of information technology;
   work in two or three dimensions and on a variety of scales;
   evaluate their own and other's work.
2. Pupils should understand and appreciate art in a variety of genres and styles from a variety of cultures, Western and Non-Western.
3. 'Art' should be interpreted to mean 'art, craft
and design' throughout and 'artists' should be interpreted to mean 'artists, craftworkers and designers'."

Teachers will welcome the inclusion of the subject in the curriculum as a legal requirement for children aged 5 to 14. But is the welcome wholehearted? It might be tinged with some regret, or concern, especially if the final orders are compared with the Art Working Party's original intentions which were presented in Art for Ages 5 to 14 (D.E.S. 1991). In particular the question arises as to whether there is real cause for concern about the concept of art which the Secretary of State may have used in determining the final form and content of the legal requirements. Concern may be justified if it can be shown that the concept used is flawed. It would be difficult in that case for teachers to carry out their legal duties in the knowledge that an inadequate idea of art was to structure their work. It is true that the legal requirements are meant to make provision for a broad and balanced curriculum. They are also intended to give teachers a flexible means of delivering the curriculum, as the Non-Statutory Guidance shows through numerous examples. So, does it matter whether or not the Secretary of State used a limited view of art by which to make his decisions?

It is important to be clear about the way the term "art" is being used here for it is ordinarily used in two different ways as Morris Weitz (1956 p.177) points out:

"As we actually use the concept, 'Art' is both descriptive (like 'chair') and evaluative (like 'good'); i.e. we sometimes say, 'This is a work of art' to describe something and we sometimes say it to
evaluate something. Neither use surprises anyone."

It may be that the use of the word "art" in the legal requirements has to be descriptive rather than evaluative but does that mean that it has to be limited? In any case to use "art" in a descriptive way involves some criteria for use which can be justified or criticised. Weitz calls these the 'criteria of recognition' of instances of art. Generally, he argues, we recognize something as a piece of work in art if there is some artifact that has been made by human skill, ingenuity and imagination which embodies in the material from which it is made certain distinguishable elements and relations. This point is taken further in discussions of individual children's work in section 2.1 (pp.193, 197, 201). However, it is important to Weitz's explanation that none of these criteria can define work in art, although, if none were present then an artifact would not be describable as art.

For the time being let us see what the consequences might be if a limited concept of art had been used by the Secretary of State to determine the curriculum in art. First of all, the use of a limited concept of art may be considered to be a sensible solution to a difficult problem since there are many conflicting views concerning what art is, and is not. However, such a solution may lead to the criticism that a limited concept of art would be illogical; a contradiction, in fact. According to Morris Weitz (op.cit. p.176) the problem is not to attempt to answer the question "What is art?", but to consider what kind of
concept art is:

"What I am arguing, then, is that the very expansive, adventurous character of art, its ever-present changes and novel creations, make it logically impossible to ensure any set of defining properties. We can, of course, choose to close the concept. But to do this with 'art' or 'tragedy' or 'portraiture', etc., is ludicrous since it forecloses on the very conditions of creativity in the arts."

If it is impossible to define art without having to make exceptions constantly, how can teachers know what to aim for, and how will they know when they have achieved it? Does Weitz mean that anything will do? Does art really mean the same as design or craft as the National Curriculum document suggests (1992, p.3)? Are these terms really interchangeable terms with nothing to distinguish between them? Many more questions arise from these points and though it is useful to raise them here it is not intended to address them all. Rather it is intended to look at those which help clarify the different understandings of art, and of education, which are of importance to teachers of young children.

If a limited form of art is considered to be good enough for the National Curriculum, can more be learned about the Secretary of State's idea of education? Does the concept of education which underlies the National Curriculum measure up to that which R. Pring (1988 p.39) argues is logically necessary? If it does not, then the provision of art in education, using Pring's concept, may well be a different matter to the provision of art in the National Curriculum. Might the latter be used in schools simply as a programme of training in a variety of
techniques which suit the world of work?

There is a case for arguing that policy and provision for art in education should take account of its open nature and that rigorous attempts should be made not to foreclose on its possibilities. Therefore, in schools where art is given an educative purpose teaching would be based in the understanding that this subject, perhaps above all others, affords children limitless possibilities for seeing things as other than they are. This is recognised in the Non-Statutory Guidance (C10) of *Art in the National Curriculum* (1992) where the intention is said to be to convey "the richness of the possibilities available" in the different forms of art of which examples are given.

Richard Pring's idea of education, it will be recalled, put personal growth at the centre of the process. It would be a contradiction were the curriculum itself to be limited through an oversimplification of the subjects from which it is constructed. Since it is the curriculum that is the very means by which children at school are educated then a limited, simplistic curriculum would provide built-in restrictions for personal growth. Art as a subject in the curriculum can be made simplistic if certain of its characteristics are made more important than others; or if some characteristics are left out. There is a real danger that art in schools will be limited if it is based only on an understanding of art as a way of seeing things and copying them as they are. For instance, in the statutory requirements of *Art in the National Curriculum*
(1992 p.4) examples are given of ways in which children may work. These are meant to be practical illustrations of the objectives for Attainment Target 1 'Investigations and Making'. The examples all belong to the figurative/representational category of art and, therefore, could be said to be of a limited range. The omission of examples of ways of working in art that are non-figurative and non-representational indicates that these are not considered important enough to include. The omission may be justified on the grounds that not all teachers would recognise these as helpful; or that it is part of the move to simplify the subject so that anyone can understand the National Curriculum version of it. At the same time, it is true that the legal requirements of the document do not exclude the possibility of teaching from other concepts of art; and that the examples are non-statutory. Nevertheless, the point remains that one idea of art is recognised in the examples for Key stage 1; others are not. It is relevant to note that, for teachers, the statutory requirements are extremely important. The examples which accompany them tend to take on similar importance because they are used to make sense of the orders. They tend to become quick reference points for taking stock of how far everyday practice matches the requirements. Therefore the choice of examples, though not statutory, is highly significant in the process of coming to understand the gist of what is written.
Concepts of art and teaching

The work reported in Part 2 is about the possibility of teaching from another concept of art; that concept of art is based on ideas which 20th century artists have developed (see pp.167-172). The teaching was informed by the ideas that the material, physical aspects of the work in art are as important as the image itself (e.g. pp.239-241 and 284-286); that the physical aspects of the picture and its making may be as much a part of the image as the idea with which it began (e.g. p.295); that the physical aspects of the work may be part of the subject matter of the work (e.g. p.296); and that the materials and formal elements could be a source of ideas in themselves (e.g. p.324). In the view of Jack Flam (1973 p.127) Matisse saw this idea, or something like it, as perhaps his most important contribution to the plastic tradition. Matisse (1951) wrote about his respect for 'the purity of the means' in the introduction to the picture book of the Chapel of the Rosary at Vence (ed. Flam 1973 p.128) which grew out of his rejection of a limited kind of teaching:

"... The teachers at the Beaux Arts used to say to their pupils, 'Copy nature stupidly'. Throughout my career I have reacted against this attitude to which I could not submit; and this struggle has been the source of the different stages along my route, in the course of which I have searched for means of expression beyond literal copy - such as Divisionism and Fauvism. These rebellions led me to study separately each element of construction; drawing, colour, values, composition; to explore how these elements could be combined into a synthesis without diminishing the eloquence of any one of them by the presence of the others, and to make constructions from these elements with their intrinsic qualities undiminished in combination; in other words, to respect the purity of
Matisse was making the point that in his education certain important characteristics of art were neglected in favour of the literal copying of nature as an end in itself. But it could be asked why it should be assumed that art in schools should be related to modern art? What is the point in developing a concept of art in schools that is informed by the work of artists such as Henri Matisse (1869-1954), Wassily Kandinsky (1866-1944), Paul Klee (1879-1940), Pablo Picasso (1891-1973) or Naum Gabo (1890-1977)? Would not a more general concept be better? One answer might be that as the work of those artists is undoubtedly part of the way we know Western art to be now, then to exclude their contributions would be contradictory. It would be a denial of the known facts. How can the work of those artists help with teaching art to young children? Consideration of the aspects of art which they thought to be important can help in clarifying what needs to be held in mind when teaching. Now that it is a legal requirement to relate the work of artists (from our own and other cultures and historical periods) to that of children it is all the more important to be certain about the significance of twentieth-century artists to an informed understanding of art. Would teachers wish to work from any other kind of understanding? Yet Rob Barnes, a teacher educator, in a recent letter to the Newsletter editor of NSEAD (August 1992) is of the opinion that most primary teachers have not grasped the nettle of trying to understand about artists and their
processes, nor that they have heard of "critical studies". So what kind of concept of art are most teachers using to inform their work in the primary phase? One example of the kind of concept of art which some teachers seem to be working from is considered below in section 1.5. But supposing that the argument that art in schools should be related to the work of twentieth-century artists can convince the sceptic, what difference might that recommendation make to teaching?

Richard Wollheim (1970, p.231) in an article entitled 'The work of art as object', has put forward arguments which clarify how a particular theory of modern art has been misunderstood. That theory he describes as follows:

"My suggestion then is this: that for the mainstream of modern art, the appropriate theory is one that emphasises the material character of art, a theory according to which a work is importantly or significantly, and not just peripherally, a physical object."

At one point in his argument Wollheim distinguishes between the concepts of art under which artists worked before and after 1905 by focusing on the differences between the ways they used the surfaces of their paintings. Traditional painters, he claims (op.cit., p.232), thought that the work of art came into being as a result of the changes to the surface of the painting which occurred as they worked. In making their pictures, traditional artists recognised that they were making physical objects but for them the physical object and the picture were not equated. The relevance to the thesis of his view of how artists work under some concept of art is explored in the introduction to Part 2 in
relation to the kind of concept under which teaching of art can proceed.

If schools are being encouraged, albeit inadvertently, to work outside a modern concept of art, or in a pre-1905 context, then it could be objected that they were being encouraged to ignore the facts about art as it has so far developed. Of course, acknowledging the facts about art now and then disagreeing with the ideas behind it is another matter, but acknowledgement there needs to be if the National Curriculum concept of art is to be considered seriously. There is a danger that making the legal requirements simple enough for the lower end of the primary sector, as the Secretaries of State require, may have resulted in the presentation of a lopsided concept of art. Simplicity is not necessarily the best way to promote better teaching; there is a point when simplicity of expression becomes simplistic, even distorted. Perhaps this point has been reached.

The drive for simple statements is evidenced in the letter which Kenneth Clark (then Secretary of State for Education) wrote to the chairman of the National Curriculum Art Working Group in January 1991 (Art for ages 5 to 14 annex c para. 4):

"I realise that you have given very careful thought to the structure and titles of the three ATs you propose, and that you have sought to offer something which would be as readily comprehensible to pupils, parents and non-specialist primary teachers as to the Art specialist. However I am not myself convinced that you have yet identified an AT structure which is clear and simple . . . In particular, I should be grateful if you would consider whether two ATs, covering 'making' and 'understanding' or 'knowing', would not
avoid a degree of overlap between 'Understanding and Evaluating Art' and 'Observation, Research and Developing Ideas'; permit simpler, even one word, titles; and make clear the centrality of 'making' in Art, especially for the early primary age-groups, while still reflecting the importance of appreciation and evaluation."

The Art Working party proposed a concept of art which entailed understanding, making and investigating as equally important, interacting strands within an indivisible whole (op.cit. para. 4.8, 4.11). Their particular purpose seems to have been to emphasise the point that art should not be simply about 'making' at any stage of education on which it was requested to report (op.cit. para. 4.3). However the Secretary of State, while recognising the Working Party's intention to improve art in school through its recommendations, continues with his request for further simplification (op.cit. para.13):

"I look forward to seeing the Group's final conclusions this summer. I know that you will continue to guide it in adopting throughout, in respect of what will become both statutory and non-statutory guidance, simple concepts simply expressed so that they are easily accessible to the widest possible audience and can be readily acted upon."

The Art Working Party's report (1991 para. 2.4) points to the variety of provision that exists in schools which is largely dependent upon "the different experiences and values of the teachers concerned". The limited provision of art in a supporting role to provide illustrations for topic work is compared with the regular periods of time which some teachers devoted to specific teaching and learning in art. That kind of provision would need some knowledge of the subject beyond simple techniques. In the
Non-statutory Guidance (Fl) the point is made that though art is a practical subject it is one in which theory makes a significant contribution, the implication being that in order for teachers to teach effectively some understanding of theory of art is necessary.

It will be argued that the aims for children aged five to seven given in Attainment Target 2 Knowledge and Understanding do provide for an introduction to the art of the past and the present, for certain modern artists are listed in the examples. Those artists include Henry Moore, Mary Cassatt and Elizabeth Frink. However, this is not the point. The point is this: that the whole of the curriculum in art, and particularly making, should be based in the full concept of art which must include developments since 1905. If that point could be argued for successfully then the next problem would be how young children can be presented with these ideas in a simple, but not simplistic, way. The main point is that these ideas, in some appropriate form, should be planned so that they enter into, and become part of, the activities in art. They should not be a separate part of the subject as the layout of the document and the examples seem to suggest.

That there is a fundamental connection in art between making and appreciating was pointed out by James Sully (1884 p.546):

"Connection between Art-Production and Art-Appreciation. The passive contemplation and the active production of works of art are closely connected, and exert a distinct influence on one another. On the one hand, the fashioning of a statue, or the painting of a picture has for its end the
delight of aesthetic contemplation. And in the process of production the aesthetic faculty is called into full play. In order to paint from nature, to reproduce by aid of the colour box and brushes what is presented to the eye, fine attention to colour and form is required. On the other hand, the fact of production makes a difference to our way of looking at a production of art . . . It follows then for a double reason that the full development of taste or appreciative feeling for the beauty of art will include a certain degree of familiarity with the processes of artistic production."

It is in agreement with the importance of that connection from which the thesis is arguing that the appropriate concept of art should form the basis of both making and appreciating. What is more, it is being claimed that a concept of art which is based in twentieth century art is one which makes the connection achievable in practice. If there is a vital connection then it would not make sense to have one concept of art for teaching children how to make their pictures and another one for looking at the work of others. (Section 2.4 'Talking and thinking about Pictures' develops this connection in great detail). Of course, there are many sources to which teachers may look for guidance in the matter of coming to understand what art is about and how this understanding may help in providing appropriately for the subject in school. One source is the different ways in which artists talk about their own work and art as they know it. For example, Antoni Tàpies (1969), in an article he named 'Communication on the Wall', opens up the unlimited possibilities that are part of the nature of art as he understands it:

"Everything is possible! Because the communication takes place in an infinitely larger field than that delimited by the size of the picture or by what
materially exists in the picture. For the work is only a support which invites the viewer to take part in a much broader experience of a thousand and one visions and feelings . . . . The 'subject' then may be found in the picture or may be only in the mind of the viewer."

The broad sweep of this way of thinking about art as an imaginative and aesthetic experience can be seen to relate closely to the way children are able to work in art when they are given the opportunity. The idea to be pursued here is that children's experience of art can be limited by the way teachers think about children's capabilities and about art. In particular, it is considered whether it is possible to make too many assumptions about what children should and should not do in the course of their learning.

Teaching young children

This examination is about working in art with children aged five to six years of age. It is concerned with the way certain assumptions have been made about this group of children in the past which may have meant that their ability to think about their work reflectively; to be responsible for what they do; and to work with intention, has been underestimated. It has been assumed, for example, that teachers should not talk to children about their pictures; or that young children should only use thick brushes and thick paint; or wax crayons, not coloured pencils; or clay, not plasticine; or that anything which young children do with paint, or crayon, or clay is acceptable because they are "natural artists"; or that the process of making is necessarily more important than the
product. The following comment by Edna Mellor (1950 p.173) may be fairly typical of these kind of assumptions:

"Teachers of young children need to remember that the picture or model that is produced is less important than the child's experience while painting, drawing or modelling."

While this observation may be true for some children some of the time, it may have excused teachers from coming to terms with the problem of looking at children's work and discussing it appropriately with them. Let us consider what Edna Mellor's statement might mean were it taken to be a basis for teaching art to young children. If teachers think that the experience is more important to a child than his, or her, picture then it is likely that they would plan a programme of work which would aim to provide experiences that are meaningful only for the time that the experience was going on. The implication is that the experience in itself fulfils the plan and therefore nothing further need be done for the child's learning or progression in the making of pictures (at this age). If the aims for teaching art are to enable children simply to experience paint and clay, and so on, then there is no need to consider how children could progress. When the present experience is all-important what happens in the future is irrelevant. The picture, viewed thus, is a by-product of enjoying, or playing with, or messing around with paint. There is a worrying implication here and it is that the pictures children make can be only accidental because the all-important present experiencing cannot involve plans for how the picture will look or what it will be about. According
to this view, the picture, in effect, would be unintentional; something the child did not know would occur as a result of what she or he was experiencing. (Evidence that this need not be the case may be seen in Section 2.4 (e.g. p.272)). Teaching would mean providing the materials and time for experiencing. It would not mean taking learners on from their present state of skilfullness or thoughtfulness because the experience is the end point of the activity. An evaluation of the activities would be whether the children had experienced paint or clay, or cutting, or sticking, or using pencils or chalks for drawing. Evaluation would not have to be about whether individuals had learned anything from their experiencing because nothing else had been aimed for. Given that experiencing fulfils the aims then there is no need for reflections on teaching and learning.

This concept of provision for art in the infant school can be shown to be based on an influential idea about how young children think. This idea is based on the opinion that children under seven practise a limited form of thinking which is considered to be sufficiently different from all other groups of pupils to warrant a separate kind of teaching and curriculum. The idea derives from the theories of Jean Piaget (1896-1980) and has been interpreted by educators in a particular way. An example of this kind of interpretation can be found in Schools Working Paper 75 Primary Practice (1983 p.172):

"The characteristics of thought among infant children differ in important respects from those
over the age of about 7 years. Infant thought has been described as 'intuitive' by Piaget; it is closely associated with physical action and dominated by immediate observation."

The problem with this sort of statement is that it is taken to be a statement of fact rather than a statement about a research finding. There have been consequences for the educational provision for one group of children as a result of such assumptions (see also Gentle K. 1984 p.13) which can be seen to be inappropriate. In addition it is significant in this context that this particular idea seems to have been handed down uncritically from document to document on education. For example, the passage quoted above is reproduced from an earlier Schools Council publication of 1972 With Objectives in Mind. The 1983 document reproduces the complete table of objectives for science from the earlier one and these are structured on Piaget's findings about the intellectual development of young children. On page 103 (op.cit.) of the original book, the authors state:

"These stages we have chosen conform to modern ideas about children's learning. They conveniently describe for us the mental development of children between the ages of five and thirteen years, but it must always be remembered that ALTHOUGH CHILDREN GO THROUGH THESE STAGES IN THE SAME ORDER THEY DO NOT GO THROUGH THEM AT THE SAME RATES."

In fact the work and research for that publication had begun in the 1960s and Piaget's findings were published long before which makes the claim to modernity somewhat misleading. The inclusion of these objectives in a document which looks forward to the year 2000 and is
intended for teachers in 1983 seems to be equally backward-looking.

The problem with the generalisation that the thinking of young children under seven differs in characteristic ways from that of other children is that it seems to have led to limited expectations and even limited thinking in teaching. This is because the criteria for judging what is and is not appropriate for children under seven years of age seem to have become fixed by these supposed characteristics.

Throughout the thesis, it is claimed that such perceptions as these create problems for the teaching and learning of art. But here it is important, as a preliminary to point out that had the authors of Primary Practice taken into account more recent research they may have modified their reliance on Piaget and subsequently their recommendations may have been very different. More recent and relevant research removes certain of these suppositions about the characteristics of thinking of young children. As a consequence new possibilities for teaching and learning have been opened up.

Talking with young children

In Children's Minds, Margaret Donaldson (1978) argues that the problems which Piaget and his research associates devised to investigate the intellectual development of young children were inappropriate in certain ways. In particular she claims that the problems and the way in
which they were presented do not do justice to children's ability to think. She describes how in suitable contexts and in appropriate language, researchers have shown that children can solve the very tasks which formed the basis of Piaget's highly influential conclusions. This evidence, she argues, compels the rejection of certain features of Piaget's theory of intellectual development. The significant consequence of her claims for education is that where provision for the work of young children has been made according to Piaget's theory then that provision needs thorough re-examination. Each of the sections in Part 1 is such a re-examination of policy, and the provision and practice to which it gives rise. Each points to the need for change and looks forward to how this might be achieved.

In view of the particular relevance of her work to the teaching of art in the infant school it will be appropriate to go into some detail. The account below is based on Margaret Donaldson's analysis (op.cit. Chapter 2) where she argues that at the centre of Piaget's work is the claim that children under the age of six or seven are bad at communicating. The reason for this, it is claimed, is that they are incapable of putting themselves in someone else's position; or in Piagetian terms they are "egocentric". In reading what follows it may be helpful to note that in a guide to Piaget for teachers this term is defined by Ruth M. Beard (1969 p.ix) as follows:

"Egocentricity: distortive interpretation of other people's experiences, and actions or persons or objects, in terms of the individual's own schemas."
Piaget's method of work was to set up tasks for children to do, questioning them about what they did and noting what was said. The task which shows that children are "egocentric", according to Piaget, involves the use of a doll and a three-dimensional model of mountains. The child sits on one side of the model and the experimenter puts the doll on the opposite side. The child's job is to see what the doll sees. The children may be given ten pictures of the model taken from different angles and are then asked to choose the view which the doll sees. Children of under about seven years apparently choose the picture which shows what they can see. Piaget claims that they are limited by "egocentric illusion"; that is children really imagine that the doll's perspective is the same as their own. According to Donaldson (p.20) we are urged by Piaget to believe that children's behaviour in this task gives us deep insight into the nature of their world. She presents a series of examples of research which conflict with Piaget's conclusion. One example is the work of Martin Hughes whose aim it was to present children with a task similar in some ways to that of Piaget but with certain important differences. The most important of these seems to have been that the task presented to children made sense to them in ways that Piaget's task did not. The problem involved the use of two small dolls; one was meant to be a policeman and the other a little boy. Two intersecting walls formed the obstacle which was supposed to block the dolls' views of each other. Children were

* DONALDSON (op. cit.)
asked to hide the doll so that the policeman could not see him. According to Donaldson, once the nature of the task was understood it could be solved. When the researchers made the task more complex the children were still able to complete the tasks successfully simply because they understood the kind of problem with which they were dealing. The dramatic success of young children at these tasks led to further and more complicated experiments in which they again showed their ability to decide what could or could not be "seen" by the dolls. Donaldson (op.cit. p.124) argues that while this task made, what she calls, "human sense" to the children, the "mountains" task was in contrast;

"...abstract in a psychologically very important sense: in the sense that it is abstracted from all basic human purpose and feelings and endeavours. It is totally cold-blooded. In the veins of three year olds, the blood still runs warm."

Here, it is not possible to do justice to the whole of Margaret Donaldson's argument, neither is it possible to do justice to Piaget's considerable research-based theories nor to the extent to which these have influenced infant education. However, Margaret Donaldson's critical analysis of that influential body of work offers teachers the opportunity of looking at what children can do as individuals rather than what they can not do as a group. This finding played a key part in the art-based project which is reported in Part 2 (see also p.173). In this context it is a little ironic that Piaget's detailed talking with children is a good example of how teachers
might work with individuals; albeit with Donaldson's (op.cit. p.25) warning about the 'egocentric' adult strongly in focus:

"What is being claimed is that we are all egocentric through the whole of our lives in some situations and very well able to decentre in others. Piaget would not disagree with the claim that egocentricism is never overcome. The dispute with him is only about extent - and the developmental significance - of egocentricism in early childhood. I want to argue that the difference between child and adult in this respect is less than he supposes; and then to argue that the critical difference lies elsewhere."

What can this mean in practice for the teaching of art in infant school? It means, according to Donaldson, that by placing themselves imaginatively at the child's point of view teachers can guard against failing to understand what he or she means. This is the appropriate point at which to look at the way young children can talk about their experiences of making pictures. It continues the shift away from theories about what is not possible to ways of understanding what may be possible in practice. First, by way of illustration, it may be helpful to refer to a discussion which took place among the author's colleagues at an infant school. It was about how teachers might know when a child had finished a picture. The subject of the discussion reflects a way of thinking about children's work in art that is concerned with the production of pictures for display and not with the processes which brought them about. During the discussion the teachers, who provided for children's experiences in art with that purpose in mind, expressed a concern about the way children did not
know when to stop painting their pictures. They said that they felt obliged to intervene before, in their opinion, it was too late and the work became unsuitable for display because it no longer resembled the subject of the topic the class were studying. This kind of provision for art is at the opposite end of the spectrum from that provided by Edna Mellor above. The problem with these extreme views is that neither treats children as though they are capable of making decisions about their own activities; neither do they acknowledge that children can have intentions about what they do which are valuable enough to take into account. As a result of the discussion the author decided to ask the children in her class about how they decided when they had finished their pictures. Rachel, who was nearly six years of age, answered:

"When you're doing a painting and you just look at it and you think you don't want to do any more on it because there's really nothing you can do - because if you are making sunshine and flowers and a rainbow and you've done everything that was in the world that you could fit on the paper, then you think that you have finished."

This direct and simple statement is both very personal because it is based on her own experiences of making decisions of this kind, and yet it also expresses something of general relevance in picture-making. For example, the statement indicates some understanding of the properly universal scope of the subject matter of the activity because, as she says, all the things in the world are what pictures can be about. There is a definite sense of the limitless possibilities open to the picture-maker. The
question might be raised as to whether many adults have developed this sense of possibility to a similar degree. Certainly this is not the limited kind of thinking by which children under seven years are supposed, by many, to be restricted. In fact Rachel's thinking, far from being restricted, goes beyond her own experience of things to a supposition about everything in the world. There seems to be a conscious recognition of the existence of things beyond those of which she has had personal experience. Such a view of picture-making is both expansive and adventurous. In addition, the statement shows that a young child can stand back from an accumulation of similar experiences (i.e. of finishing pictures) and make a generalisation about them which has about it the unmistakable ring of truth. It is clear from her statement that Rachel is used to looking at her work and making conscious decisions about whether or not to carry on. A discussion of her picture-making can be found on pages 283-286 where the decision about finishing a picture occurs again. She also recognises the physical limitations of working on a piece of paper and seems to imply that were the paper somehow different then more might be possible. Most important is the quality of the reflection on her own experiences, which shows that she already has developed a sense of what it means to work in art and how it can be talked about. She knows this even though she may not know the word "art", and even though she is at the beginning of this development.
However, there is an important point to be raised about how far it is possible to read more into Rachel's words than she intended or that she could understand. Donaldson (op.cit. p.73) asks if the ability to use language is in advance of the ability to understand it. She goes on to point out that understanding is a complex notion and distinguishes between two kinds of understanding in respect of words. We may ask whether a child understands words in the sense that they are in his or her vocabulary; or whether a child understands words in the way the speaker may mean him or her to. So, when the children were asked "How do you know when you have finished a picture?", it is important to consider whether it is possible that any of these words could have been understood by the children in ways which had not been intended. Given the words that were used that possibility is not really likely. On the other hand it could be asked whether there are any words which Rachel used that would be difficult for any child of her age to use; or which would not be expected to be in the vocabulary of a child of her age. Again this is not likely. The criticism would have to lie in the interpretations of her meaning, yet that seems to be quite clear too. If this is accepted as an indication of the way in which children can talk about their own work, then it implies that it is important for teachers to provide the opportunities for this ability to be developed alongside practical work. It is important because the practical work gives a personally meaningful context in which to discuss
more general ideas in art, such as colour, shape or texture. It is relevant that Rachel was not the only child who was able to talk about this decision. Nicky, who was a year younger and had just started school, described the kind of feeling anyone might have when they had completed a job successfully when he said:

"In your breath when you breathe - does it make you think, when you've finished something - like when you've finished your dinner?"

The fundamental assumption which forms the basis of the thesis are: that teaching in art should aim to develop children's understanding of what they are doing (see pages 172-173 for the development of this aim); and that the point of including art in every child's education is to "empower them to think and to reflect" about that work (to repeat Richard Pring's words quoted on page 27). Indeed, as that author points out, to neglect to do so would be a contradiction of the whole enterprise. The problem of thinking about when to finish a picture seemed to be the kind of problem which made sense to these young children. It was probably an effective way of helping them to make thoughtful decisions about finishing their next pictures.

One problem about talking with young children which teachers sometimes express is that children will say anything they think the teacher wants them to say, or that they seem to be inconsistent in what they will say about one picture. Some teachers seem to feel that young children cannot, in a sense, be trusted to mean what they say or do. This is a problem which relates again to the
view which sees individuals as fitting a group identity; a view which there are good reasons for rejecting, as has been shown. It seems strange for teachers who are daily working with children in ways that are meant to be developing their thinking - otherwise they would not be teaching but merely occupying them - to baulk at the task when it comes to thinking and talking about work in art. A good example of how we can trust or respect children as individuals is given by the artist and teacher Paul Klee (1879-1940) who took particular interest in the work which he did as a child. The way in which he regarded individual children's work contains a particularly important idea for teaching for he felt that the work of the individual was in special kind of continuous relationship to that individual's work as an adult. In his diary during a trip to Tunisia in 1914 (ed. F. Klee (1957) p.309), he expressed that idea as the attempt to:

"993. Invent the 'chorus mysticus' that would have to be performed by several hundred children's voices. Whoever knew how to do this, would not need to make any strenuous exertions. In the long run, the many small works lead to it."

According to O. K. Werckmeister (1977 p.143) in an article about the issue of childhood in Klee's work this was an attempt by the artist to conceive of the growth towards artistic achievement which retained the spontaneity of childhood. The term "chorus mysticus", he comments, is meant to evoke the ideal of a harmonious totality of an artist's personal range and style which will never out-grow the simplicity of childhood. In teaching it can be
understood to mean that each piece of work contributes in its own way towards the individual's growth as an artist; or as someone who can understand the work of others. If the child's work is regarded as an integral part of this growth then each piece of work (and process of working) can be valued not only for itself but also as part of a larger framework. This is true of other things that children do in school; for the things that individuals do, think and say as children are the basis from which they as adults will act, talk and think. If this is true then it follows that the ideas, attitudes and skills in art which are developed by the child at school should be capable of continuous development throughout the individual's life. If they are not then perhaps they are not worth doing at all. Consequently the test of whether the content of education in art is worthwhile is the extent to which the concepts on which it is based can be constantly revisited, developed and enriched by experience. Working towards this ideal depends, to a certain extent, on the way in which art is built into the curriculum; for it is the way the curriculum is thought of that determines whether or not it can provide continuous learning and teaching. In order to clarify this view it is intended, in the next section, to develop two points. The first concerns the quality of the content of education in relation to individual development; the second concerns the way in which a connection between the curriculum and ordinary experience can be conceived.

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1.2 Dilemmas for teaching

The purpose of this examination is to look at the basis from which individual development in art might proceed. It develops the issues arising from the view that the curriculum for young children should be different from that of other age groups. The examination proceeds by a series of comparisons between the recommendations of Jerome Bruner (1960), those of the Plowden Report (1967) and the Gulbenkian Report (1982), The Arts in Schools. The aim of the comparisons is to pinpoint some confusions which are caused by apparently contradictory recommendations about the curriculum for young children and the consequences for teaching art. The examination concludes with an example from practice which was art-based. It is suggested that contrary to certain recommendations young children should be put in touch with the structure of the subject. Part 2 takes this idea forward into a series of activities in art.

Young children and the curriculum

In what is now a familiar statement Jerome Bruner (1960 p.33) put forward a principle which is of direct importance to teachers of young children:

"We begin with the hypothesis that any subject can be taught effectively in some intellectually honest form to any child at any stage of development"

The principle is to be considered here with the purpose of seeing how it could be applied to the teaching of art. Such a consideration entails the question of whether children can or should be learning about the basic concepts
of art or whether this work should be approached in a less direct way, such as through a topic; or during the course of an "integrated day"; or as part of an "Integrated Curriculum". An important issue is whether Bruner's hypothesis can provide a strong challenge to the kind of assumption which equates "good" teaching with topic teaching; and which carries with it the implication that teaching which is not channelled through a topic is "bad".

The authors of the Plowden Report may be taken as being representative of the view that young children should be taught through "a topic" or an "integrated curriculum". The authors seem to make clear their objection to subject teaching in paragraph 555 where they state:

"Throughout our discussion of the curriculum, and particularly in this and the previous chapter, we stress that children's learning does not fit into subject categories. The younger the children the more undifferentiated their curriculum will be."

The important message which the authors of the report wish to impress on teachers is that a curriculum for young children should not entail subjects; that their learning should be based in the form of curriculum that is, in some sense, subjectless. The sense of their statements depends on what is means by "subject categories"; "learning"; and "undifferentiated . . . curriculum". However, it can be argued that far from making the meanings of these terms clear, what the authors of the report actually do is to confuse the matter further by apparently contradicting themselves. This is so especially when they consider the curriculum (para.37) as subjects; a notion which they
appear to have rejected two paragraphs earlier. When the authors stress that children's learning does not fit into subject categories it might be expected that some evidence in support of the statement could be provided. In fact the evidence which is provided does little to clear up the matter, for it takes the form of examples of children's work which ironically, tend to work against their stated position. The examples show evidence of learning in particular subjects: in "English" (para.605); in "geography" (para.639); in "mathematics" (para.654); and in "science" (para.675). These are all instances of learning within "subject categories" and, as such, serve to contradict the original statement. The question which arises is whether the examples which are quoted in the document were chosen by the authors because they were instances of good work in mathematics or science or because they were good instances of learning which did not fit into subject categories. Were the authors attempting to show that learning which takes place in a topic can give rise to learning within the subjects? But then it could be objected that the topic would have been planned to give children the opportunities to learn certain skills and to develop particular concepts in mathematics, or science, and so on; and that examples of work from the topic would be work in those subjects. It could be said then, that the topic would have been based in the subjects. For example, the calculation a child might make about the weight of a dinosaur would be a calculation using mathematical methods and understanding. The fact
that the topic was about dinosaurs would be irrelevant to the mathematics used; that would be the same for any topic. If the authors recommend that some children should learn in an undifferentiated way then it should be possible for them to quote examples of children's work in, for instance, mathematics that was indistinguishable from examples of children's work in English. It would have been useful for the reader to have been given some examples of work from an "undifferentiated curriculum" but it is significant that such examples are not included. It is worth considering what a totally undifferentiated curriculum would be like to plan for, to teach and to assess. Would the success of teaching and learning be judged by how little children knew about art, or mathematics or English; or how their concepts and methods could be used? Of course not. The success of teaching and learning through an "undifferentiated curriculum" would be judged by how well children used colour and number and words for their own purposes; that is, how far these concepts and methods had been mastered and could be applied by individual children.

Is the idea of teaching through an undifferentiated curriculum a highly complex and subtle one which is almost too intangible to grasp, or are there other reasons for difficulties raised here? For instance, is the use of the word "subject" at fault? Is this word the source of confusion and if it is then what is it that is confusing about it and the way it is used?

The nature of the confusion may lie in an assumption
which can be shown to be absurd. The assumption seems to be that the word "subject" has to mean the subjects of the secondary school curriculum; or of the university; or as adults understand them. It seems as though these contexts have been used to give a rigid meaning to the word which is thereby rendered inappropriate for use in other contexts. If the authors of the report are simply saying that children in the primary school should not be taught subjects at the level at which they are taught by teachers of pupils in secondary schools and universities then that is not to say anything which is not already obvious. But if the authors are saying that teachers of young children are not thinking in terms of mathematics, or science, or art when they are planning for children's learning (which is what is implied in the phrase "undifferentiated curriculum"), then it is difficult to know just what is recommended instead. If the authors mean that the curriculum (which they detail in Chapter 17) should be made up of separate subjects except the one designed for young children, for whom the curriculum has to be reconstituted and made up of unseparated subjects then, as has been shown, the content and purpose of such provision would still remain subject-based. The whole point of topic work, it will be argued in defence, is that it interests children to learn about things like dinosaurs, and children need to be interested in order to learn. But equally it can be argued that children can be interested in the way numbers work and learn a lot about mathematics from their
investigations. They do not have to be comparing the numbers of dinosaurs, for dinosaurs are irrelevant to the activity of comparing numbers. Again, to apply the same argument to art, children can be interested in what paint does as a medium (see, for example, pp.77-79), an interest through which they could be learning more about what it is to work in art than if they were trying to make paint look like a dinosaur.

If, by the term "undifferentiated curriculum", the authors mean that the sessions of the day should not be organised under subject names then perhaps the word curriculum is the wrong one and the word timetable should be used instead. Then the recommendation would be that the timetable for young children should be undifferentiated. But that refers to the organisation of time and gets no further in the consideration of the content of the work children should do in school. Perhaps the point of the recommendation is not to do with content after all but is simply an organisational one; more to do with motivating children and organising the way the time in school is used than to do with the content of what is taught (see 'Formal Subjects and Studies' pp.113-117 for an examination of the views of John Dewey on this point). Even though those are important issues for teachers they are not of immediate concern here. What is at issue is whether the authors of the Plowden Report are insisting on something more than that and whether this is where the confusion seems to lie.

The view that "subjects" are what older pupils can do
but which younger pupils cannot do has led to a serious dilemma for primary teachers. The dilemma is that they are recommended to do apparently contradictory things; on one hand they are given an example of good mathematics work but on the other they are warned that teaching within the subject is not appropriate. Teachers are then left with this problem: if the subject is not to provide a framework for teaching young children then what is? Chapter 16 of the Plowden Report gives many clues and the main one is to be found in paragraph 529 where it is stated that:

"The child is the agent in his own learning. This was the message of the often quoted comment from the 1931 Report: 'The curriculum is to be thought of in terms of activity and experience rather than of knowledge to be acquired and facts to be stored'."

There is no argument with this as a guiding principle but what is in question is how activity and experience can be given the kind of content which will develop understanding in art, or mathematics and so on, without involving concepts, skills and attitudes that are distinctively mathematical or artistic. Some advice on how teachers might help to give significance to children's play activities is indicated in paragraph 527:

"Sensitivity and observations are called for rather than intervention from the teacher. The knowledge of children gained from 'active' observation is invaluable to teachers. It gives common ground for conversation and exchange of ideas which it is among the most important duties of teachers to initiate and foster."
This advice may provide a way forward if it is applied to other activities and experiences which are designed, rather than which simply occur. The key idea is that teachers should pay attention to what children actually do and say and take them on from there within a planned programme of learning. The authors point out (para.530) that new concepts, or new levels of complex concepts, take longer to master simply through experience than was formerly thought.

In a discussion of these issues Richard Peters (1969 p.20) concludes by pointing out that though there is value in attending to those who hold that the curriculum should be child-centred, not subject-centred, teachers need to be enabled to study the children whom they teach and to develop an intelligent balance of ideas that actually work in practice:

"It is rather that we should do all in our power to help teachers to develop a critical, empirical, adaptable attitude to methods of teaching and encourage them to think on their feet and experiment with different ways of teaching different types of subjects to different types of children."

For teachers of young children, the way children learn in school is as important as what they learn to do and know by way of facts, skills and attitudes. How children learn is as important for teachers to know as what children are legally obliged to learn now, through the National Curriculum. Perhaps the issues in education have now come full circle and soon teachers will be recommended to be on their guard about the problems related to the subject-centred curriculum to which the Plowden Report was a
reaction. It could be argued that it was a reaction which was as much of an over-reaction as the National Curriculum may yet prove to be. While taking all this into account perhaps it would be helpful to return to J. Bruner for some clarification about how subjects can be thought of as being appropriate for the structuring of learning. What can subjects mean for individual learning; and how might the curriculum which takes account of subjects help teaching rather than hinder it as some have supposed?

Can subjects structure individual experience?

If Bruner's hypothesis is taken as a starting point for thinking about the curriculum for young children, then what kind of structure could it give to the content and form of what is taught; and to the way in which individuals learn?

The questions to be considered first are whether the hypothesis enables teachers to make direct links between the content of the curriculum and children's experiences; and, how the curriculum might be seen as an enabling experience. A view of the curriculum which is helpful was expressed in Schools Council working Paper 70 The Practical Curriculum (1981). This view states that the curriculum should be conceived as being each pupil's right of access to different areas of human knowledge and experience. The "effective curriculum" is what each child takes away from school and is the experience which each child has at school. Is it possible to show how ordinary experiences
like playing with water, or painting a picture, or singing a song can be structured in school through the subjects which make up the content of the curriculum? Or, to put the question another way, how can children's ordinary activities and interests become "enabling", "empowering" experiences that are relevant for their present and future learning?

Bruner (1960 p.53) envisaged the structure of the curriculum for different subjects as a spiral, just as John Dewey (1938, p.79) had done when he described the process of education as "a continuous spiral". This concept of continuity and progression in learning and teaching sets the problem of providing for the basic ideas of a subject like art to be revisited and deepened at different levels of understanding by the individual throughout his or her education. This idea is at the centre of the design of the activities described in part 2 (see pp.175-177). In this concept of the curriculum there are no clear-cut stages in learning where individuals suddenly become able to think about basic ideas in mathematics, for example, whereas before that point they were not. Learning concepts in mathematics, as in art, is not an all or nothing affair. The concept of an "undifferentiated curriculum" for some children, who happen to be under seven years of age, sets up the problem of providing for the learning of what might be called "pre-subject" content for some time and subject content later, when the supposed changing point has been reached. This involves thinking of the individual's life
as though it has separate parts and that a sudden change occurs after which the individual is capable of quite a different way of thinking and behaving. It will be recalled that Margaret Donaldson argued that the development of children's thinking is less simple than this "stage theory" suggests. Nevertheless, Keith Gentle (1984 p.21) identifies such a change and he calls it "the second shock" which happens, he states, when children become seven years of age:

"This, I believe, is the significance of the second 'shock'. The mind is able to engage in experience and stand back from it; able to construct and plan ways of developing action as well as participating in it. The mind has entered a new and important phase, when both hemispheres are beginning to interact; when broad concepts, patterns and relationships can be conceived as well as the sequence, order and logic of their structuring."

This view relates to the notion of "readiness" which was given critical importance in the Plowden Report where it was stated (op.cit.p.25) that teachers should not impose anything upon the child because until the child is ready to take a particular step forward it is a waste of time to teach him or her to take it. Alternatively, thinking of a continuous development affords the possibility of regarding the content of the curriculum in a way that means a subject like art can be taught as honestly with young children as with any other pupils. Honesty is an important notion in teaching young children how to work in art. This requires clear thinking about where children's work in art fits into, what might be termed, the whole of art. The problem for some teachers is that while they tend to think that
what young children do cannot be counted as art, they are willing to put children's pictures on display as art and to carry out their plans for work in art. This seems to be contradictory and even dishonest. Such attitudes are perhaps at fault for two reasons, which have been discussed already in other contexts (e.g. pp.44-48). Here, the point needs to be made again; first, that it is a mistake to judge children's work according to assumptions about a whole age group, and second, that the use of the word "art" simply to mean the mature work of adult artists is to put the concept beyond the scope of education. Is it dishonest to think that "real art" is what adults do but children do not? Or is it more to do with the confusion which can result from the oversimplified use of a word that represents a very complex concept? Louis Arnaud Reid (1969 p. 280) warns against answers which are too simple to questions about whether or not children are artists. After all, it is absurd to ask at what age a person can become an artist. This problem and the solution which it provoked are examined more fully in Part 2 where it is claimed that some children can develop understanding of picture making which seems to go beyond general expectations (see, for example, Section 2.5); and that this may indicate an underestimation of what children can do in art.

How effectively can children learn to work in art through an undifferentiated curriculum?

Bruner's description of how the idea of the spiral curriculum developed (1960 p.12) shows how learning might
"Though the proposition may seem startling at first, its intent is to underscore an essential point often overlooked in the planning of curricula. It is that the basic ideas that lie at the heart of all science and mathematics and the basic themes that give form to life and literature are as simple as they are powerful. To be in command of these basic ideas, to use them effectively, requires a continual deepening of one's understanding of them that comes from learning to use them in progressively more complex forms. It is only when such basic ideas are put in formalised terms such as equations or elaborated verbal concepts that they are out of reach of the young child, if he has not first understood them intuitively and had the chance to try them out on his own. The early teaching of science, mathematics, social studies and literature should be designed to teach these subjects with scrupulous honesty, but with an emphasis upon the intuitive grasp of ideas and upon the use of these basic ideas. A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them."

When Bruner's original hypothesis is applied to the teaching of art then it becomes: art can be taught effectively in an intellectually honest form to any child at any stage of development; the basic ideas which lie at the heart of all art are as simple as they are powerful; the curriculum in art should revisit these basic ideas repeatedly so that they can be used in increasingly more complex forms. This hypothesis formed the basis of the art-based project which is presented in Part 2. But first, let us look at how art is meant to be learned in an "undifferentiated curriculum". This recommendation is repeated by the authors of The Arts in Schools (1982 p.52) more than twenty years after Plowden which shows how
influential the idea has been. It is possible to identify a further problem with such recommendations; and that is, they amount to denial of access to the simple and powerful ideas in art to a whole group of children. For example, the authors of the Plowden Report (para.555) seem to be advising that most children in the primary phase be excluded from the important content of the curriculum:

"As children come towards the top of the junior school . . . the conventional subjects become more relevant; some children can then profit from a direct approach to the structure of a subject."

If it is important for children to work in art at school as the Plowden Report (para.676) and The Arts in Schools (para.73) recommend, then their insistence on an "undifferentiated curriculum" remains a puzzle. It may be that there are certain criteria in operation by which the authors of the reports are able to exclude young children; for example, art is what mature artists do. This would be a way of avoiding the issue of whether or not young children are engaged in art. If art is not on the curriculum for children under seven then the issue is resolved; but having a curriculum with no subjects means that we return to the idea that young children do things simply for momentary pleasure, without intention and where progress is the result of maturation not learning.

In contrast to the recommendation in the Plowden Report, Bruner (1966 p.155) argues that children should be put in direct touch with the structure of a subject as the best introduction to it:
There is nothing more central to a discipline than its way of thinking. There is nothing more important in its teaching than to provide the child the earliest opportunity to learn that way of thinking - the forms of connection, the attitudes, hopes, jokes and frustrations that go with it. In a word, the best introduction to a subject is the subject itself.

In this argument it is necessary to acknowledge the special meanings that have become attached to the word "subject" in educational writing and discussion; it is a word loaded with emotional and moral implications. For the time being let us set aside the ideas associated with "subject" and use it in the simple sense as the subject matter of attention, study or activity. Consequently it can be argued that the claim that children can develop their ideas or the content of a picture in relation to the materials they use, is to claim that they will be thinking, in the first place, about basic ideas in art; in that way of thinking, acting and feeling and not another. Talking about developing ideas in a particular subject means just that and nothing else.

However, it has to be recognised that the word "subject" does pose a problem. The problem is that the term has come to mean much more than particular concepts and ways of thinking. For many it has come to stand for all that can possibly be bad in teaching; it is representative of an attitude to teaching that is subject-centred; subject time-tabled; has to be traditionally taught; is formal; involves instruction, drill and learning by rote. This chain of associated ideas can affect the way
in which teaching and learning are spoken of and written about to the extent that the names of subjects are avoided altogether. One example of the search for alternatives to the names of subjects is to be found in The Arts in Schools (1982 para.13) where the authors argue that the arts should be included in the education of each child because the arts are one of the important ways in which humans experience the world:

"The uniqueness of human existence consists, above all, in our capacity to appraise and communicate with each other about our various experiences of the world. We do this in many ways, through many different modes of understanding and communication - not just one. As well as the 'language' of number, or empirical observation and record, of induction and deduction, of morals, or religion and of transcendence, there are other 'languages'. There are, for example, the 'languages' of gesture, posture and visual expression."

To follow their example it would be possible to substitute the phrase 'the language of sound' for the word music. It seems that these alternatives are necessary to the authors' view of the curriculum. In paragraph 73 the authors state that:

"The arts in the primary school need to be conceived of, and organised, as an integral part of every school day. The fact that one teacher is concerned with almost the whole of the child's daily curriculum makes this a real possibility. There are three aspects to this.

First, the arts have to be defined very generally at this stage to embrace a wide range of expressive activity in movement, painting, music, dramatic playing and so on. A major value of these activities, from the earliest days of education, is in promoting the use of imagination, originality, curiosity and sheer pleasure in doing and learning."
The statement which stands out from the rest is the one concerning the defining of the arts for the primary phase; a definition which, it seems, has to be different from that of other stages, according to the authors. Their view is that for young children the definition of the arts has to be very general so that it can include a wide range of expressive activity of various forms (including painting, of course). In the visual arts the curriculum recommended by the authors for children from five to eleven is quite specific. Its structure is based in the concepts, skills and attitudes of art; not, let it be noted, in a version of art indistinguishably merged with the rest of the curriculum (para.69). The contents of paragraphs 73 and 69 seem to repeat the confusions which, it has been argued, were made in the Plowden Report.

Let us consider the argument for fitting art into children's learning and for fitting children's learning into the subject category "art". Let us also consider whether being explicit about planning for the development of the concepts of art can be a positive advantage in structuring children's experience and activities with, for example, clay or paint; and of giving these invaluable experiences some purpose beyond the present moment. There is a case for arguing that if teachers do not hold in mind the basic concepts of art and use them with children as they work, then much of the value of their activities can neither be known nor developed. For example, if it were enough for children just to paint in order to...
their skills and understanding of painting then there would be no need for teachers to have anything in particular in view except, perhaps, whether there was enough paint available. But more often than not children paint, and paint, and nothing more. John Dewey (1899 p.57) describes this problem and its solution as follows:

"All children like to express themselves through the medium of form and colour. If you simply indulge this interest by letting the child go on indefinitely, there is no growth that is more than accidental. But let the child first express his impulse, and then through criticism, question, and suggestion bring him to consciousness of what he has done, and what he needs to do, and the result is quite different."

If the fundamental ideas of the subject are not allowed to enter into the activity in some appropriately explicit and purposeful way, through teaching, then, arguably, there is likely to be little development of understanding, or skill, or attitude. There is a danger that painting could become a limiting cycle of doing the same thing over and over again without getting anywhere. How then can the cycle of painting, and painting, and nothing more be broken? The suggestion being made here is that by referring to ideas about the subject as it is understood beyond the school, teachers could begin to develop their own understanding of art. The ideas of artists were referred to in Section 1.1 as sources of ideas for teachers but art critics and historians can also provide the kind of insights into art which can inform classroom practice. The following example shows how children's activities with paint can be valued and
developed. Bernard Berenson (1952 p.40) makes a significant refinement to the concept of painting which, unlikely as it may first appear, is particularly relevant to work in the infant school:

"It follows that the essential in the art of painting - as distinguished from the art of coloring, I beg the reader to observe - is somehow to stimulate our consciousness of tactile values, so that the picture shall have at least as much power as the object represented, to appeal to our tactile imagination."

The distinction between colouring and painting is not purely academic; after all, teachers often set up activities with paint that emphasise its tactile qualities, such as finger painting, or hand printing. Berenson (op.cit.) points out that the infant's test of reality is touch and that artists attempt to arouse this forgotten connection between touch and the third dimension in their paintings. He further claims that every time our eyes recognise reality we are giving "tactile values to retinal impressions". If Berenson is right then there would seem to be fundamental and vital connections to be made between children's physical experience of paint and their appreciation of its tactile quality in a picture of their own, or someone else's. The following example shows how one six year old child in the author's class, whose name was Oliver, talked about how he had made the marks which formed his picture (p.80). The context from which his work and comments arose was a series of printing experiments. Each session was meant to give the children the experience of using pairs of contrasting materials or tools with which
to apply paint. It was thought that in using very different materials, for example, a sponge and a cork, or a ruler and string, that the properties of each would be emphasised. The author also supposed that the experience would help reflection, by establishing, in the children's minds, the connection between the action of making a mark with a particular material and the mark as evidence of the action performed with the material. This was felt to be an important aspect of understanding how to look at pictures which had been painted by someone else. On the whole the children found it difficult to recall how they had made the marks without closely scrutinising their work. (See Appendix 1 for an example of how one child struggled to do this.) When they did look carefully they remembered how they, for example, had dragged, or twisted, or dabbed the paint. Many did not connect overprinting with one mark having been made before another. This showed that they had not yet had enough experiences of a similar kind. Oliver's comment is being quoted here because it describes so well his involvement in the tactile experience of the materials and paint:

"When you pick up a sponge it feels all squidgey and squasy with paint all over and when you dip the sponge on the paper you get the shape of the sponge. The blue mark that I made with the square sponge - I dragged the square sponge along, it made a kind of dark bluish cloud, so that's how I got the idea for the rain. I made the rain by shaking the sponge.

The cork felt like all the paint was round. It was hard. It made a different kind of shape. I made it fade away by putting it on the paper lots of times without any more paint. I made it run down by tipping up the paper. This mark was made
by the cork that had the hole in the middle."

There is a sense of how Oliver began to get ideas from the materials and the process for the content of his picture. His comments seem to trace the progress from an experiment to the beginnings of the expression of an idea - a very important stage in the development of a picture and in the development of understanding in art. This point is explored in Section 2.5 where the development of a pictorial idea is followed through several stages. Such experiences of working with paint are bound to go to waste if they are not focused on by teachers as part of a whole curriculum for art. Teachers provide many activities which could deepen children's understanding of what they do as art if they were given the opportunity to talk about them. Perhaps it is useful for teachers to see all the doing and talking of which children are capable as the uninvested capital referred to by John Dewey (1899, p.61) and this idea is developed in Section 1.4. Perhaps all that is needed to tap into this natural resource is a widening of the context in which children's work is viewed by teachers. If all the painting that children do were regarded as the beginning of the development of an understanding of many ways of working with paint then the appropriate shift in emphasis may have begun. It is self evident that in order to do justice to each child's capability in art teachers need to know where all the activity fits in, not only with the powerful ideas of the subject, but also with the development of the individual child's skills, attitudes and
understanding. The National Curriculum document for Art goes some way to solving the problems brought out so far. It may be said to represent the view that art is a subject with its own body of theory and practice in which all children from five to fourteen should engage in appropriate ways. The content of the curriculum for art (Art in the National Curriculum (1992 p.4)) includes the formal elements of art and the necessity of talking about work as a way of knowing and understanding art in its many forms. On the other hand, The Arts in Schools (1982) may be said to represent a different view: that the curriculum in art for young children should be thought of as being integrated into general experience of every day activities at school; but that at some stage children should be engaged in specific art based activities. In paragraph 69 it is stated that:

"In the visual arts, the curriculum from 5-11 should enable children to:

a experiment with different media - watercolour, crayon, paper, cloth, clay etc.
b explore different techniques, tools and modes of manipulation in each - modelling, brush-work etc.
c understand the basic ideas of, for example, tone, colour, texture and contrast, and, eventually, or more complicated ideas of, for example, balance focus and proportion
d . . ."

It can be seen that there are similarities to be found in both documents about what is considered to be essential to a curriculum in art for children of statutory school age. Where the differences lie has been indicated but no further
detail will be sought here. Instead, the line of thought to be pursued is how young children might learn from their experiences in art in a way that will enable them to continue to learn effectively.

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1.3 Individual learning in art

Assuming that all good teaching starts from a knowledge of what children can do and takes them on further with particular ideas at any stage of their education, then the problem for teaching is to find out what exactly individuals can do. This problem is solved by teachers in many different ways depending on the kind of learning which it is their intention to develop. Given that it is valuable for children at any age to be involved with the basic elements of art (The Arts in Schools para.69; Art in the National Curriculum p.4) in one kind of context or another then the next problem is to decide how to make learning effective. One strategy used by teachers is to talk to children about their work but it is often difficult to find ways of talking with children about their work in art which goes beyond the subject matter; or which shares a common ground, between teacher and taught, of ideas, attitudes and vocabulary. This point is fundamental to the framework for teaching analysed in Part 2 (e.g. pp.175-177).
Talking about content and form

The purpose here is to examine the idea that together the content and form of children's pictures can provide the common ground from which teaching and learning in art can proceed. But first an explanation is needed of what is meant by content and form in relation to the work of young children. A start can be made by referring to two examples of children talking about their own pictures in this way. As well as being offered as an explanation of the way the terms "content" and "form" are being used, the examples are intended to show how readily and in what detail these children were able to talk about their work soon after they had started school. The context in which the work took place is important to the explanation of content and form, so a short description of the way the children had worked previously is necessary. The first example is the experience of a child who had recently started school, the second is the experience of a child who had been in school two terms. During the time he had been in school Nicholas had become used to making pictures with his own choice of materials and subject matter. On the occasion being considered here a range of different materials was available in one colour, yellow, which was present in many hues and tones. (See Activity 2 (pp.202-203) for a detailed description of this kind of provision). All the children in the class had talked about the differences and similarities of the yellows; the properties of the various materials; how they might have been made; the kinds of
things that might be done with them; their shapes, textures and tones. The purpose behind this talking, looking and touching was to focus the children's attention on the qualities and properties of the materials. This was so that while they were working with them the children would be conscious that not only could they have ideas for what to do with the materials, but also that the materials could give them ideas for what to do too. In other words, the aim was to begin building a sense of the dynamic relationship between ideas and materials that can exist in the activity of making pictures. It was intended that this relationship would help to structure subsequent reflections. After one practical session Nicholas talked to the author about his work (p. 85). He was asked to talk about how he had made his picture and what it was about. What he said was written down so that his words could be displayed with his picture for others to read. His reply needed no further prompting:

"There is some furry yellow and some soft yellow from sheep's wool. I put my little finger in and wrapped a strip round and glued it. This is a little maze - these are hedges. Some of the squares are damaged. I have put hedges across so people don't get in again. Four are damaged - people trampled on them and made them muddy. These are sort of rough soft. I had a long strip and cut it up to make this maze. It was a huge oblong. I made some little squares from it so other people could have them. I was thinking about if all the things in my picture were in a mine, a miner could find them and could make a nice little floor with them."

There are a number of points to be made about this response which will go some way in explaining the meaning of the
words "form" and "content" as they are being used here.
The session during which Nicholas made the picture was
planned as an activity in art and the subsequent talking
was intended to focus on the basic ideas of art, not
science, nor mathematics, nor story-writing, nor any other
kind of thinking, though it would have been possible to
focus on any of these. It would be difficult to establish
that the way Nicholas talked about how he had made the
picture (its form) and what it was about (its content) is
typical of the way children of five years of age talk about
their pictures. In any case there is no wish to make such
a claim. All that can be done is to consider some of the
conditions that gave rise to what he said and to consider
whether these conditions are likely to help Nicholas to
develop his understanding of art, or whether they are more
likely to hinder it.

However, though no generalisations are being made it
is certainly true that Nicholas was by no means unique in
the author's class in being able to talk in this way. The
author has found that children enjoy talking about their
pictures and this may be because they find the whole
aesthetic process of choosing materials, of making and of
reflecting, is one which they find personally fulfilling.
Perhaps enjoyment also comes through a sense that the work
is wholly theirs and that they are the experts who are
being consulted by an interested adult. The way Nicholas
talked about his picture gives an impression of someone who
was in possession of the work; that it was his and his
alone. The picture was the result of his thoughts, ideas and decisions; it is the way it is because he had thought about it and had made it that way. It had not happened by accident and it had not been predetermined by anyone else. The content of the picture is about a maze and what has happened to it. It is not possible to know why Nicholas chose that subject; it was nothing to do with the class topic, but it may have been a mixture of his concerns and interests outside school. On the issue of subject matter for children's work in art, it was the author's policy not to suggest a subject for children's imaginative work, either in story-writing or picture-making, since to do so seemed to be a contradiction in terms. Therefore, the children in the class knew that the content, or the subject-matter, of their pictures was always their own. It is being claimed that this is an important part of provision in art if it is to be aimed at individual development. This claim is based on the author's observations that when they are given this choice children tend to pursue certain ideas for content and form over several pieces of work (see, for example, Kirsty's pursuit of the idea of "Secrets", Section 2.5).

This is an important question for provision and, as such, can be put in a strong form: Do children need to choose the subject of their work in order to fully enter into activities in art? Is the choice of subject necessary to a sense of involvement in working and is it something that is important to an understanding of the work in art of
Developing a knowledge of the kind of decisions that go into making a picture by making pictures oneself is also part of understanding how someone else's picture came to be the way it is. Knowing how to choose the materials one wants for a picture is also part of understanding how materials enter into the making of an image. The connection between medium and image is developed in Section 2.5 (pp.323-331). It is about understanding how the material form and the content of a picture can be more or less interlocked. That is not to say that Nicholas knew of this, or understood it consciously, in a way that could be stated as it has been here; but it is to say that through reflecting on the qualities and properties of materials and how he had eventually used them in a way no one else could have anticipated, he was getting an intuitive grasp of what making in art is about. Many activities of the same kind would be needed for him to develop a fuller and deeper understanding of art.

Of course, it is true that children are routinely left to make their own pictures on whatever subject they like. The point is whether this work is valued by teachers as highly as the work children do for the class topic. Which work is more likely to be displayed or talked about and which taken home that day; the paintings of dinosaurs, to illustrate a topic, or the collage of shapes and patterns which the child made in a free activity time? The important point is that the value of talking about work in art is lost if it is not guided by the teacher in
particular ways that fit within the broader framework of ideas about art that have been indicated here. What kind of provision is needed, then, so that teachers can talk with children about their pictures in ways that will develop their understanding in art? If the emphasis is for young children to experience painting as one activity amongst many during the day what would be the focus of talking? Would it be about what the child was going to do after school; or what the child wanted to do next; or about the colours that the child had enjoyed using; or making up a story to go with the picture; or what? Would the teacher feel it necessary to follow the child's lead in whatever she or he wanted to say, or would the teacher feel it necessary to talk about the experience in art? If the teacher was working with the idea of merging all activities into one whole experience than perhaps the focus of talking would be how the child was feeling or acting at the time, the purpose being, perhaps, the valuable one of getting to know the child in a social way. If the work in art was in the context of a topic about autumn, would the teacher be likely to talk about how well the picture illustrates the signs of autumn that may have been observed? Would many such experiences of observing, illustrating and talking about the match between the two build up a sense of what it is to work in art? Maybe it would, but the question remains as to whether that would be enough? For example, would the children develop their own sense of what it is to work in art if the content of the work was guided by the
class or group topic, or if talking about a picture were always in the form of social intercourse?

The problem which emerges from these questions may be put like this: do teachers talk with children in ways that will develop their understanding of picture-making as art, when the work takes place in the context of a topic? It is being proposed that the development of understanding in art needs specific time and attention. It is probable that if time is not made available for art then talking would be focused on how well the pictures illustrated a topic, or demonstrated a technique, perhaps one that had been taught to fit in with some aspect of the topic. It is not being claimed that illustration, or the learning of techniques which suit a given subject, are not part of coming to understand art; but it is being strongly stated that they are by no means all of it.

What is being argued is that when children can talk with their teacher about what they are doing, or have done, in a context that is based in art - that is, making a picture for its own sake, not for some other purpose - then their thinking and attitudes about colour, or shape, or line, or picture-making can be developed. This is true of development of young children's learning in mathematics. The skills and concepts which children need to learn about in order to understand mathematics often do not fit into topic work. It is quite normal for teachers to provide experiences that are purely mathematical as, for example, with the investigation of numbers (e.g. Plowden Report
It is puzzling therefore, that when it comes to art the same kind of experience is thought unacceptable. Why not give children the same opportunities with concepts in art?

Talking about narrative content

To restate the problem: what kind of talking should take place with young children about their pictures, or models, or constructions? Should the point of what is said be directed to the narrative content of the work rather than its 'art' aspects, which, it seems to be implied, should be left until later in their education? It is possible that talking about the narrative content alone would be of limited value for the development of understanding in art. However, its value could be increased by closely relating the way the picture was made to its subject matter, because the mere retelling of a story or an event or an observation tends to by-pass the point of talking about the picture as a picture. It would merely serve to return our thoughts to the beginning of the process rather than advancing understanding of how and why the work came to be the way it is. Besides, the subject matter is often so adequately depicted that questions concerning it are necessarily redundant. It may be recalled that this point was made quite fully in the Introduction to Part 1 and is also examined in relation to Joan Tough's research into language development in the Introduction to Part 2 (pp.161-165).
Of course, it may be that careful consideration of the narrative aspect of a picture could be the beginning of a process of looking and talking in more complex and personal ways. These may open up opportunities for the many possible associated ideas, or memories, which pictures can evoke for individual onlookers rather than in the way that Tàpies indicated (p.43-44). Some would argue that pictures should be looked at and thought about primarily for such personal meanings; but it is also the case that a more balanced experience of art would be provided if this aspect were regarded as the complement of the formal elements and materials. A good example of what is meant by this is the picture of a man (p.93) and what was said about it by Helen, who was six years old. Helen's comments about how she made the picture and what it is about seem to show the extent to which form and content can be interdependent in a young child's work:

"First I cut out a red thick square. Then I put a great square in. Then I cut a middle-sized circle, then I stuck some dried glue down for the eyes. Then I put a kind of rim with his tongue and he had white pants. Then I made a little hole for my finger to go through to stroke his eyes."

She has chosen and manipulated the materials to suit an extraordinary and powerful idea which is shocking once it is known. Her choice of dried up glue for the eyes, which feel hard, smooth and lumpy when touched, is a highly imaginative and strangely appropriate use of materials. Its particular tactile quality makes sense of the awful idea of stroking the eyes and was perhaps the source of it.
The meaning which the picture holds and its particular form, are undoubtedly personal. Helen seems to have sensed the possibilities of the materials and what she could do with them to give form to her own ideas. This picture was made towards the end of the art-based project which was about colour and shape and is described in Part 2. Another of Helen's pictures can be seen on page 243 together with an analysis of her concept of picture-making (p.245-246).

If it is important for children to begin to understand how materials and ideas can work together then it would seem to make sense to let the complementary elements of content (or subject matter) and form (or materials and formal elements) underpin teaching and learning. If children are not given the chance to reflect in some way about their work - talking privately or publicly - then, it is possible that, an inappropriate understanding of art will result. Moreover, if they are used to thinking about their own work in this way, children will undoubtedly be in a better position to look and reflect on the work of others. The purpose of Section 2.4 is to consider how well children's "making" helped them to look at a picture by H. Matisse (1953) "The Snail". If one activity (talking) can be seen to inform and enrich the other (making) then the right kind of symbiotic relationship can exist. The nature of this connection was made clear by Leslie Perry in a lecture on aesthetics which he gave at the Institute of Education (London University) on 7th October 1980. In the course of the lecture he put forward the view that artistic
knowledge comes from a knowledge of objects which artistic people make. The ability to look at such objects in a contemplative way, he continued, requires, in part, the kind of critical judgement which does not occur naturally but which depends on artistic knowledge and understanding. He then considered this point in relation to teaching and argued that the best starting point for the development of a pupil's critical judgement was his or her own work. One of the reasons he gave for this was that in talking about how far their intentions had succeeded, or failed, in the making of an object pupils could gain valuable insights into artistic procedures. Thus, knowledge of procedures is part of the knowledge we need when we pay thoughtful attention to understanding the work of others. This kind of understanding, therefore, should inform teaching and the construction of a framework for learning.

The reflections made by Nicholas and Helen reveal much about how the formal aspects of their pictures, as well as the processes of making, were a part of the content. It might have been possible to have asked them about their work in greater detail. For instance, when looking at the picture now it would be interesting to know about how Nicholas had arranged the different shapes; about whether it was the difference in the feel of the wool and the ribbon that made him choose them; and about the little face on the tube which he had made by wrapping a strip of fabric round his finger. However, it was the first time Nicholas had spoken about his work. As he spoke very carefully and
quietly the author became involved in the richness of thought that this tiny five year old was revealing: asking him for more would have been wholly inappropriate. Helen recorded her comments on audio cassette for the author to listen to and write up for her after school, but what she said about her picture was so unexpected and gave so much food for thought that there was nothing which could have been asked of her that could have bettered the experience of simply savouring the shock of the image. When looking at those pictures, it is possible to think about the children's thoughts, acts and feelings which made the pictures the way they are; about the movements and markings that have left a map of ideas and associations; and about the parts that were added one by one in a totally absorbing, unique process. The experience of listening to children talk about their work has helped the author to understand more about how to look at pictures than has many a guided tour around an art gallery. It has been important in building up appropriate expectations about the quality of dialogue in which young children can take part, and of the individuality of their work.

Finding a structure for learning that is child-centred and art-based

There may be objections to the way in which the words form and content are being used here. It is recognised that these are technical and theoretical terms having other more complex meanings and relationships in the work of
mature artists. What has been stated here is the way in which the ideas may be used to structure teaching and learning in school. Though this treatment might be considered simplistic, naive, or worse, it is being assumed that, for some purposes, such as the one given here, it is appropriate to take the concepts in their simplest forms knowing full well the context from which they have been borrowed. As has been shown, there are other advantages in this use, for if children can learn to talk about the form and content of their own work then they can extend this experience into talking about work in art, craft and design of many different kinds, from other cultures and other times as well as from their own. Similarly natural and made objects can be looked at, talked about, drawn or painted with regard to their colour, pattern, shape and other properties that go to make up the way that they are. By thinking of form and content as a useful framework for talking then many diverse objects, activities and ideas can be considered and related by the youngest children in school. Rod Taylor (1989 p.38) describes four fundamental standpoints from which work of many kinds can be discussed; these are content, form, process and mood, a classification which is most helpful. For example, in naming process and mood he makes explicit the value of understanding these in art education. In the simpler structure put forward earlier, process was assumed in the idea of "form" because it is to do with the physical state and composition of the work. "Mood" was intended to be included in "content" in
relation to the kind of subject matter used, or the purpose of the work, or its associations. But it can be seen that these assumptions may have left too much to chance and that teaching could be more effective were more explicit attention given to those aspects. To take another example, it would be possible to ask children about how a picture made them feel and then go on to think about which of its aspects made them feel that way. There is an example of a child talking about how she felt when looking at a reproduction of "The Snail" by Henri Matisse (1953) on page 270).

Some important objections to the basic premise that there should be explicit provision for art in the curriculum for young children which goes further than providing materials, time and subject matter have been discussed. However the objections have not undermined the grounds on which the premise is based which is that the fundamental ideas and processes of the subject 'art' are part of children's ordinary experiences and that therefore art in school does not need to be filtered, as it were, through a topic, or through an undifferentiated curriculum. On the contrary art needs to be experienced as art.

Objections

The main objection to teaching art as art has been shown to be on the grounds that young children simply are not capable of thinking within the structure of a subject; rather they are tied to immediate experience and cannot
think of ideas which cannot be made in some way tangible. The answer to that is that while it is true that young children do not think as they will do when they are older - or when they are adults with a great deal of expertise; it is also true that they can think in ways which lend themselves to particular kinds of development. Nicholas and Helen can think and work in ways which could be described as "adventurous". If these ways were sustained and pursued at length, they would become the ways of working that mature artists use. Therefore those children can be said to have been working with the fundamental ideas which structure the subject art.

Another kind of objection to children learning art as art is to be found in the Schools Council Working Paper 22 (1969 p.15):

"As soon as we begin to think in terms of subjects we face the danger of being imprisoned by the discipline"

Although this was written more than twenty years ago it is quoted here because it expresses something which is believed by many teachers in schools and colleges today. It is, therefore, a view which needs to be considered seriously. However, it is a view which the author wishes to contradict.

If it is not advisable to teach from subjects but it is advisable to teach from activities in which subjects are seen to come together, let us examine how this could happen in schools. Take an example of how mathematics and art may be thought to combine in one activity in the context of a
topic about the weather. This example is quoted by the members of the task group on assessment and testing chaired by Professor P. J. Black (TGAT Report 24.12.87 Appendix D) and is meant to show how two subjects can be taught at the same time:

"Two tasks carried out in primary schools.
First example - A task for 7 year olds - Topic 'Winter through to Spring'.
First Activity - discussion, interviewing, collecting data.
Language: How do we keep warm in winter?
Maths: Make a survey of the clothes worn by the children.
Maths/Art: Record this information (graph)."

What an appalling misunderstanding of art this plan reveals. If it is a serious recommendation about how art may be learned through a topic then the need for considering art for its own sake in the curriculum is pressing. Certainly, if provision for art is to be at this level then it constitutes a major problem for the quality of learning in art. From this example topic-centred learning can be seen to be as limiting as the worst kind of subject-centred learning. It will be objected by those who favour teaching art in the context of a topic that the example given is simply a bad one; that other examples could disprove the point that the best context for teaching art is other than through a topic, just as poor examples could be given of art-based teaching to show how it can also limit the experience of art in a similar way. Let us
take an example which may be considered a fairer representation of the view that the curriculum should be integrated through topics or activities. Or, to put the view in a milder form, that relationships can exist between the arts and other areas of the whole curriculum. This example is taken from The Arts in Schools Project (December 1986 p.14) and is a report by the headteacher of a primary school under the title 'A festival of mathematics and the Arts'. She describes the context of the work as follows:

"Part of our policy is to look in some depth at one area of the curriculum in turn. This year our central concern is with mathematics although, in common with the Cockcroft committee we do not believe that the experiences of young children come in separate packages labelled - in educational supermarket terms - science, English or mathematics. Our stated philosophy supports the 'seamless robe' view of education, which means that we follow a thematic approach to the curriculum, making integration natural and easy."

She goes on to describe many exciting activities in which pictures and models and drama activities occurred or were made. All, at some point in their making or occurring, were related to a mathematical idea. The younger children, for example, made up number rhymes and illustrated them in large group pictures. She concludes (op.cit. p.15) that:

"... number work and mathematics, shape, symmetry and pattern, computer work and geometry are all closely related to the creative arts. Through our exploration of one discipline our understanding of another is deepened and enhanced."

This is a conclusion with which the present thesis wholly agrees. The article shows precisely the dilemma in which teachers of younger children are placed, wittingly or
unwittingly. When two of the phrases quoted are put together the dilemma is brought into sharp focus: we do not believe that the experiences of young children come in separate packages labelled science, English or mathematics; through our exploration of one discipline our understanding of another is enhanced. The question here is: while the teachers and children were exploring mathematics across the curriculum was the making up of a number rhyme aimed at teaching the children something about number relationships as well as how words can rhyme, or work to a rhythm? But do children get to know number relations through understanding how rhymes work, or how numbers work? Teachers may be helping children learn about the workings of two disciplines at the same time, or three, if they then help the children to make a picture about the number rhyme. But that is distinctly three ways of working, not one. Surely, there would have to be a change in activity from making up the number rhyme to making the picture: each activity would have a different context and a different form. If they did not, the children would not have produced a number rhyme, or a picture, by the end of the day. Children would know the difference between the number rhyme they made up and the picture they made together about the number rhyme. There is no claim by the integrationists that children do not know the difference between picture and rhyme-making, or rhymes and pictures. In fact, if children were not somehow understanding the differences, there would be no point in their doing these things as a
preparation for more detailed work later using, for example, Fibonacci sequences, or the Golden Rectangle. So is the point as simple as this: children can learn effectively about $2 + 2 = 4$ if they do things like make up a number rhyme about it, and then make a picture about it? Is the point of the "seamless robe of knowledge" that children should do different things with the same idea? But that does not get the integrationists off the hook for it still leaves them with the problem that children are actually doing different things. Simply stating that the curriculum is "integrated" does not make the things children do all the same.

The purpose of all that has been argued so far is to emphasise that thinking of the fundamental concepts of the discipline in relation to children's experiences in art means that unlimited and adventurous ways of working can be opened up rather than being closed. This is a key idea which contributed to the planning of the project in Part 2 and is derived from the view of art given by A. Tàpies and quoted earlier (pp.43-44). However, Schools Council Working Paper 22 tries to show that working within a topic (which somehow each child should find equally rewarding) would not be as imprisoning as working within a subject. In fact a topic can be as limiting as any other context which does not allow sufficiently for individual development in understanding. There is an important question about the quality of individual experience which a class topic can give. How far can a class or school topic engage
individual minds in ways that develop understanding of the fundamental aspects of experience in art? The emphasis or reliance on topic teaching as adequate for all teaching seems to be as wrong as when it was customary, in an art lesson, for fifty children to copy the teacher's drawing of a leaf from the chalkboard.

Let us look again at the idea that there are advantages to exploring one discipline by providing the kind of content which enters individual experience in a way that is living, developing and dynamic so that possibilities are opened up. This point is made by Jerome Bruner (1960 p.31):

"The best way to create interest in a subject is to render it worth knowing, which means to make the knowledge gained usable in one's own thinking beyond the situation in which the learning occurred."

Herein lie the grounds for the contradiction which the present thesis is making. It is being strongly claimed that: far from imprisoning children's minds, subjects are the ways through which minds are developed and freed to pursue personal goals. But teaching through subjects needs to be child-centred: this is the crux of the matter. It means considering how a child's individual experience of an activity, or idea, or feeling, can inform teaching. (See, for example Activity 2, pp.206-208, 'How worthwhile was it?') Children's opinions and observations of what they do, or what happens to them, in other words, their ordinary and extraordinary experiences, should be regarded as the vital resource for teaching. After all, ordinary and
extraordinary experiences are the very stuff from which have arisen fundamental ideas in art, mathematics, science and so on, which over generations have been developed into complex systems of thought. The relevance of those systems of thought to an individual's experience lies in the ways in which they can make better use of it, or improve on it, or make it more enjoyable. It is surely true that a better understanding of one's own experience is the important way in which the fundamental ideas of the various systems of thought can contribute to an individual's development through education. There is nothing new in this, it reiterates much that is taken for granted, but because of this it needs to be kept constantly in mind.

Summary

If the purpose of including art in the curriculum is to develop that way of working which is peculiar to art, then it is important to provide experiences of the kind which have been described through the work of two young children. That work, it has been claimed, is characterised by the free-ranging interests which were generated by the children's ideas for materials and formal elements. In that kind of experience it seems that children do not need some other stimulus; nor does the experience need to be in some other context for it to be meaningful in a personal sense. This truth might be all the justification that is needed for thinking of art as art in everyday practice. However, there are other justifications which are to do
with the development of understanding of the personal experience which art can be. The advantage in thinking of the form and content of children's work is that these can be used as a framework for that development. The main aim of using this framework is the development of understanding of that unique kind of personal experience; and the application of that understanding to the work of others in art. This can be taken further, for if the form and content of work in art can provide a common framework, then the child's personal experience is made, in some sense, more accessible to reflective thought and talk. Such a dialogue, both private and public, can provide the means by which the teacher can help to develop individual children's understanding. This is what is meant by individual development which is art-based. This idea is examined from a different aspect in the next section.

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1.4 The Curriculum as a framework for Experience

The point of this examination is to consider teaching and learning in relation to certain ideas about the curriculum which take the argument forward from the opposing views about an integration of subjects or their separation while still making reference to them. This will be done by trying to see how, in practice, the curriculum can be thought of as those things which children ordinarily and extraordinarily do, think and feel and then to consider the context in which that can happen. That context is seen
as the complex set of relationships which exist between the child, the curriculum and the teacher. Of course there are other important relationships but they are not being examined here. The importance of that network of relationships through which learning in school takes place was given explicit recognition by John Dewey (1938 p.25):

"I assume amid all the uncertainties there is one permanent frame of reference; namely the organic connection between education and personal experience."

The practical meaning of this statement finds its full expression in the actual activities and relationships of teaching and learning. The practical nature of the relationship may account for what might be considered its neglect in debates about education and the recommendations which are passed on to teachers. Somewhere the idea of this connection seems to get lost, or, at least, is assumed to exist as a matter of course; whereas the education of children may be more effective if it were the leading idea in considerations about education. However, certain writers have given these relationships careful expression which, though different, are complementary. Each of the writers to be consulted in this and the following section has taught and is able to add a layer of meaning to the central idea which concerns how teaching may make a child's experiences of learning more effective. Perhaps the problem with the assumption which J. Dewey made is that it remained merely an assumption! In order to find out more about the vital but assumed connection the first writer to be consulted is the author of that assumption, John Dewey.
Starting from Practice. Not Fixed Rules

Through his writing John Dewey (1859-1952) has had a lasting influence on education. His influence has not always been as a result of what he wrote, or meant, but has sometimes been through misunderstandings of, or confusions about, what was written. There is evidence (Dewey 1938 p.9) that he thought this to be the case and he made some attempt to clear up what he considered to be misconceptions about his arguments concerning teaching and learning. In order to understand what Dewey meant about the relationship which should exist between the curriculum and the child it is necessary to refer to the words which he wrote as fully as is appropriate here. There are two purposes in quoting that author's word exactly. The first objective is to see how Dewey wrote about the assumed connection between education and personal experience. The second objective is to show how similar ideas have been presented by the authors of the Plowden Report (1967) in paragraph 555 but with a different emphasis. These objectives are thought to be helpful in mapping out the dilemmas for teaching caused by recommendations about curricular arrangements; and in seeing how others have recognised and given clear expression to these problems. One of Dewey's main concerns, a perennial one for teaching, was the experience of the child in school and how it seemed to be disconnected from the child's way of living out of school. In his address to the parents' association of the University Elementary School, Chicago, in February 1899, he explained
how the teachers of the school tackled this practical problem by asking questions first rather than starting from what he called "fixed rules". His talk was structured on three main questions. One of these seems to go right to the heart of a problem which will always exist in some form because schools are places which children are legally bound to attend (Dewey 1899 p.16):

"What can be done to break down the barriers which have unfortunately come to separate the school life from the rest of the everyday life of the child?"

Dewey's qualification of the question is important in coming to understand what he meant and also for understanding how he has been misinterpreted. The meaning of the question is qualified in a way that focuses on the difference that being in school may be expected to have on an individual's experience. He states that the question does not imply that in school children should simply study the things already experienced at home. Rather, it means that children should be able to bring to school the same attitudes and interests in doing things that they have out of school, that is, to have the same motives for doing things, not a separate set which they only use in school. Do children, for example, do things in school because it is what their teacher has told them to do, or are they doing things for other reasons? Presumably Dewey did not mean simply that children should be able to be themselves in school, though that is very important and sometimes difficult to achieve. The point of the question is part of
the expression of a larger idea which is why it, and its qualifying remarks, are worth restating. After all, it may seem all too obvious to state that children should be able to be as interested and well motivated in their learning in school as they are elsewhere. However, there is more at issue here. It has more to do with helping teachers focus on the achievement of some continuity of individual experience which could make learning in school significant to individual children. Assumptions that the problem of "breaking down barriers" has been solved through different arrangements of the curriculum, or even that it is the kind of thing that can be finally resolved are unwise because, in practice, the problem is renewed not only with each new child in school but also with each new day. Perhaps the most difficult problem in teaching is in trying to make each child's experiences in school significant as learning. That means ensuring that each child is getting a sense that he or she can do more than before; or can do better those things which could be done before; or knows how to do better; or is "empowered to think and reflect", to use Richard Pring's words again. Is the difficulty, then, not what to teach but how to teach? How can teachers teach so that children learn about learning through being increasingly in control of their own thinking, acting and feeling? Is that concept of learning something like the kind of link which Dewey assumed existed between a person's experience and his or her education? Is it something to do with the shift in thinking that is required to "break down
the barriers" between a child's experience in and out of school, which means recognising that though they are bound to be different kinds of experience they might be equally meaningful?

Dewey develops the meaning of the question about what can be done by teachers to break down the differences in experience which being in or out of school can present to the child in two ways. The first puts into context a phrase which has become part of primary education jargon. The second shows how he emphasises the particular quality of experiencing which is integral to the way he believes it is important to understand learning in school (op.cit. p.117):

"It means again, that the motives which keep the child at work and growing at home shall be used in the school, so that he shall not have to acquire another set of principles of actions belonging only to the school - separate from those at home. It is a question of the unity of the child's experience, of its actuating motives and aims, not of amusing, or even interesting the child."

The challenge which teachers are given seems to be one of checking the quality of personal experience which children receive through the curriculum by looking at what actually happens in the process of teaching and learning. This is a challenge which is as relevant today as it was when it was delivered. If it is accepted that the child comes to school already thinking, acting and feeling out of strong motives and for good reasons of their own, then how does this affect the task in teaching? Obviously it means providing the kind of conditions through which those
abilities continue to be used by children in school as effectively as they use them out of school. The problem for teachers is not the acceptance of that idea - it makes obvious sense - rather it is to do with trying to make it work through the curriculum we have got. The first step in making it work is to let what children can already do be a leading idea in planning, teaching and evaluating.

Is it possible that, through overuse, the once illuminating phrase 'the unity of the child's experience' seems to conceal, rather than reveal, a complex notion which has relevance today? Has the phrase accrued too many distracting associations with curriculum policy arguments to mean anything constructive about the child's experiences in school now? Or was it a phrase that used words emotively and confusingly to express an idea about the relationship between individual's living in and out of school? It is an important idea, but difficult to state without sounding sentimental. Thinking of a child living its learning in school opens up other possibilities for understanding the 'organic connection' between education and personal experience. When learning is seen as synonymous with living it is necessarily continuous and personal. In Dewey's words (1902 p.110):

"All depends upon the activity which the mind itself undergoes in responding to what is presented from without."

and so that relationship makes the task in teaching one of engaging children's minds in particular ways through their living. This means taking account of their ways of acting,
thinking and feeling; in short, their individual experiences and their learning. Inevitably certain practical problems arise from this view of learning.

**Formal Subjects and Studies**

The main problem which Dewey envisaged was that of setting up an interaction between the fundamental factors in the educative process, which he described in a later pamphlet (1902 p.92) as:

"... an immature, undeveloped being; and certain social aims, meanings, values incarnate in the matured experience of the adult."

Up to this point an attempt has been made to build up a picture of how a child might live and learn in school from what Dewey wrote. At the same time, some account has been taken of the difficulties this point of view has for teaching. These words from Dewey indicate the context in which he thought the interaction should take place; a context which links the experience of the child with the teacher through the curriculum. (The nature of this network is considered in Section 1.5). The content of the curriculum and the way in which it can be experienced in a significant way by all pupils was the concern of the second question posed by teachers at the University Elementary School and quoted by Dewey (1899 p.117):

"What can be done in the way of introducing subject-matter in history and science and art that shall have a positive value and real significance in the child's own life; that shall represent, even to the youngest children, something worthy of attainment in skill or knowledge; as much so to the little pupil as are
the studies of the high-school or even college student to him?"

The question poses the problem of how the significance of the ways of understanding which the subjects represent can be realised by the youngest children through personal experience. So while the important interrelationship of the curriculum and experience is still in focus more of it is revealed from this angle. It is interesting that Dewey regarded the subjects of the curriculum as representing aspects of hard reality with which "the little pupil" needs to come to terms through experience. There can be no doubt from Dewey's words that he was interested in the contribution which each subject could make to individual experience: even of the youngest. In the case of science he states that it is its particular thought-provoking nature, its organising purpose which are needed for a child's reasoning to be developed, not some indirect contact with it produced by certain extreme methods of teaching which he criticised for missing the point (1902 p.107):

"Those things which are most significant to the scientific man, and most valuable in the logic of actual enquiry and classification drop out. The really thought-provoking character is obscured, and the organising function disappears."

This constitutes a criticism of the traditional subject-centred teaching which he characterises as a way of trying to rearrange and reorganise the discoveries of science into a series of lessons which were ordered logically and taught systematically. This kind of teaching is represented as being based on a narrow view of what children really
learned. The provision made by teachers in the 'new education' movement was also criticised by Dewey (op.cit. p.101) on the grounds that:

"The child is expected to 'develop' this or that fact or truth out of his own mind. He is told to think things out, or work things out for himself, without being supplied any of the environing conditions which are requisite to start and guide thought."

The "environing conditions" and guidance which are referred to, according to Dewey, are provided by the substance of science, history and art. The very subjects which the authors of the Plowden Report called "conventional subjects" as was shown earlier (see p.18). It is significant that Dewey uses the term 'formal subjects' in a totally different way. He contrasts the curriculum of the University Elementary school with the traditional curriculum which he criticises (1899 p.117) on the grounds that it concentrated the child's efforts on "the form - not the substance of learning". By the form of learning he meant the formal symbolic techniques of reading, writing and arithmetic which he claims, though necessary to education, could not increase a child's intellectual and moral experience as can science, history and art which he describes as "studies of more inherent content" (op.cit. p.118). He states that it is these studies which give learning of the "formal subjects" their point. The way in which the studies are meant to be the substance of learning and experience by affording growth is developed in a subsequent paper, The Child and the Curriculum (1902 p.97), where he examines the continuous relationship (the organic
link, perhaps) between the child and the curriculum:

"Just as two points define a straight line so the present standpoint of the child and the facts and truths of studies define instruction. It is a continuous reconstruction, moving out into that represented by the organised bodies of truth that we call studies."

This makes clearer the problem which is at the heart of teaching; that is, how the facts and truths of, for instance, science and maths can be made the facts and truths of personal experience. In other words, made meaningful, or powerful, or useful, to children. This does not mean that personal experience defines facts and truths, nor that individuals define knowledge for themselves. C. D. Hardie (1942 p.55) has argued that Dewey was mistaken in supposing that:

"If an idea is useful to a child then it is true, and unless it is useful it is not true."

But whether this is a fair representation of what Dewey wrote, or whether it is more to do with what Hardie thought was true of Dewey's followers (e.g. op.cit. p.56) is open to question. It is difficult to understand how Hardie was able to put this objection forward when it is considered what in fact Dewey (1902 p.97) wrote about the kind of influence the subjects could have on children's learning and personal experience:

"Hence, the facts and truths that enter into the child's present experience, and those contained in the subject matter of studies, are the initial and final terms of one reality. To oppose one to the other is to oppose the infancy and maturity of the same growing life; . . ."
The difficulty with the idea may be that it seems to be attempting too much. Certainly from the point of view of the teacher of young children the idea works satisfactorily because it means that the ordinary things that children are interested in doing and saying can be valued for themselves and then developed in particular ways. The point that subjects are a critical part of learning about experience, and not opposed to it, is made clearly by Dewey (op.cit):

"Hence the need for reinstating into experience the subject matter of the studies, or branches of learning. It must be restored to the experience from which it is abstracted. It needs to be psychologised; turned over, translated into the immediate and individual experiencing within which it has its origins and significance."

This is most important in adding, as it does, the final touch: that is, putting subject matter back into the experience from which it came. However, Dewey makes a confusing use of the word "experience" in this passage, meaning both the particular experience of the individual child and the general accumulated experience of human kind. Despite this, the statement has obvious relevance for practice because it is a way of viewing subjects as part of children's experiences in school.

Doing and Talking

So far the nature of the relationship that might exist between the child and the curriculum has been indicated but how the teacher fits into this structure has not been given practical expression. This idea perhaps comes closest to the assumed link which Dewey envisaged between education
and personal experience. Using examples of teaching and learning in art, science and history Dewey describes how a child's doing and talking can be regarded as a valuable resource. A resource which he regarded as the neglected resource (1899, p.61):

"Now keeping in mind these fourfold interests - the interest in conversation or communication; in inquiry, or finding out things; in making things or construction; and in artistic expression - we may say they are the natural resources, the uninvested capital, upon the exercise of which depends the active growth of the child."

If children are good at these things when they come to school and if it is important to carry them on from there then the next point to consider is how these interests and abilities can be developed through the experiences offered by the school curriculum. In particular how can doing and talking help to develop children's understanding of art and how to work in art? Is talking necessary to the development of children's thinking about their work in art? (See, for example, Section 2.4 pp.286-287) The connection between language, thought and action were re-examined by Bruner (1985) in an article entitled 'Vygotsky: A historical and Conceptual Perspective'. In the article he describes how both Dewey and Vygotsky interpreted thought and speech as instruments for planning and acting. He expresses agreement with this idea (op.cit. p.88):

"To begin with I liked his [Vygotsky's] instrumentalism ... Or as he put it in an early essay 'Children solve practical tasks with the help of their speech, as well as with their eyes and hands. This unity of perception, speech and action, which ultimately produces internalization of the visual field, constitutes the central
subject matter for analysis of the origin of uniquely human forms of behaviour. Language is (in Vygotsky's sense as in Dewey's) a way of sorting out one's thoughts about things. Thought is a mode of organising perception and action. But all of them, each in their own way, also reflect the tools and aids available for use in carrying out action."

Bruner then goes on to show how this applies to the development of children's understanding through talking, thinking and acting. This is precisely the basis upon which it is being claimed that children's work in art should proceed because those activities are at the heart of each child's personal experience. (In Section 2.3 the relationship of talking and working is considered in the context of individual children's work on pages 238, 241, 244 and 248; in addition Section 2.4 "Talking and making pictures" is a direct development of these fundamental ideas).

Dewey's view of the content of the curriculum has been presented here. He undoubtedly regarded the subjects of the curriculum to be the means by which development of thought could take place; he did not regard them as putting up barriers to experience. The most important lesson to be learned from his writing is, perhaps, that through the potent ideas of the subjects which form it, the curriculum should be regarded as the active agent, or catalyst, for children's development of specific skills, attitudes and understanding. For the teacher of art this is further confirmation of the view that the subject "art" may be related directly to individual children's particular
experiences, in particular through talking.

Summary

It has been proposed that the education of young children should be seen as being on a continuum with that of others, and that the most effective way of developing the of their thinking is through the basic but fundamental ideas of the subjects of the curriculum. Consideration has been given to the practical aspects of teaching and learning which are difficult to put into words and which, therefore, seem to have been neglected. This has given pause for thought about what may only be intuited by teachers about their good practice: that is, how the things which are thought to be important for children to learn actually become part of their thinking, talking and acting. How is it that they seem to learn from the ideas or ways of working, which teachers have shown to them, and which they have found help them to be more effective at whatever it is they are doing? The view has been put forward that good teaching does not come about as a result of theorising about the curriculum, rather, it comes about as a result of examining teaching itself to see whether it effects learning in the ways envisaged. This important view of how teaching can be improved through critical reflection played a fundamental part in the conception of the Project in Part 2. In each of the activities reported there the processes of learning and teaching are examined under headings such as: "What did the children do?" (p.181); "What were they
Learning, similarly, comes about as a result of reflection; of recognising when something is not quite right and of making adjustments. An example of this as a feature of picture-making can be seen on page 272. Reflection by teachers and learners on their practice lies at the heart of Dewey's recommendation to start from practice and not from fixed rules when some improvement is sought. In the end, perhaps the questions which he asked are not the kind to be answered in theory. It may be that they can only be addressed in practice. Hence the real difficulty lies in conveying in words what the vital point about practice is. It took Dewey a lifetime and he was often misunderstood. Certain of his comments have been chosen because they seem to go deep into ordinary practice. Some of these comments have been chosen because they support the present thesis for they recommend the making of fundamental ideas in art an explicit part of children's doing, making and talking. But in the final analysis, his advice is that good practice depends on teachers constantly questioning how far children's individual learning is really informed, modified and improved by their experiences in school. Perhaps, to be fully aware of the network of relationships between the child, the curriculum and the teachers, it takes the kind of imaginative understanding which is the subject of the next section.

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1.5 Understanding teaching and learning

Now, it is proposed to try to map out the relationship between teaching and learning which might exist within the framework provided by the subjects of the curriculum. This is an attempt to get closer to what might be regarded as the heart of teaching and learning in school; the mark of the former being an imaginative understanding and of the latter personal involvement. What is sought is a view of the curriculum which can guide teaching and learning effectively by taking into account the interpersonal nature of those activities.

In writing about the relationship between teaching, learning and the curriculum Louis Arnaud Reid (1962 p.194) pinpoints the need for teachers to develop imaginative sympathy for children's learning. The identification of this kind of need is comparable with the important idea that teachers should think of themselves as living with children which Dewey expressed (1899, p.71); Reid envisages the qualitative side of the relationship in a way that complements that idea. The necessity of understanding personal involvement as fundamental to the processes of being educated and of educating is a strong and complex theme which runs throughout his work; and it is one that belongs to a yet larger idea to which he gave form through his writing and teaching. This might be stated briefly as being about seeing different kinds of understanding as syntheses of cognition and feeling; syntheses which are exemplified in the arts. The purpose here is to indicate
which aspects of his ideas might be used by teachers to inform their own attitudes to teaching art, and which in turn could help to form children's attitudes.

Earlier (Section 1.4), it was argued that an important idea about connections between education and personal experience was in danger of being neglected. This neglect, perhaps, is due to the complex practical origins (i.e. teaching and learning) from which the idea arises. An attempt has been made to show how John Dewey built up a picture of teaching and learning specifically through his direct questioning of what might be done to ensure that children's learning in school matches up to the quality of their learning out of school. In relation to this he raised the issue of the importance to learning of children's ability to talk about their interests and activities and the way that this ability was undervalued and neglected. In School and Society (1899 p.59) Dewey writes about the nature of young children's talking and its educative potential:

"His horizon is not large; an experience must come immediately home to him, if he is to be sufficiently interested to relate it to others and seek theirs in return. And yet the egoistic and limited interest of little children is in this manner capable of infinite expansion. The language instinct is the simplest form of the social expression of the child. Hence it is a great, perhaps the greatest of all educational resources"

Yet that ability is far from straightforward, especially when children become learners at school. Margaret Donaldson (1978 p.74) points out that there is a critical difference between a situation in which children talk about
an idea which is important to them in their own way and one in which they are required to listen to and then respond. The difference may lie in the kind of thinking that is involved:

"He is never required, when he is himself producing language, to go counter to his own preferred reading of the situation - to the way in which he himself spontaneously sees it. But this is no longer necessarily true when he becomes the listener."

The point about talking and listening adds further meaning to what may otherwise seem to be the obvious interpersonal nature of teaching and learning by indicating the complexity of that relationship. This point is illustrated in the form of a dialogue between the author and a child (pp.146-151). Reid's concentration on this somewhat intangible, but nonetheless vital, aspect of practice is helpful, therefore, because it is this very aspect which tends to be missed out, or neglected in official recommendations for teaching. In rethinking the practical problems he argues that: knowledge and understanding are of unlimited rather than limited kinds; the nature of teaching and learning is primarily interpersonal, a central characteristic which is neglected in favour of measurable end products; and that experience of art in education should be viewed as a meeting of thought and feeling rather than an emotional or cathartic means to ends. In considering the problems for teaching and learning in general which are caused by a limited view of the curriculum Reid wrote (op.cit. p.161):
We have got into the habit of thinking of the curriculum too exclusively in terms of subjects to be collected, as though subjects were fixed by independent nature, to be learned and reproduced, whereas they are (in part) artifacts expressive of and revealing vital human interests and activities. As learnt, we know, they are only educative in so far as they become integrated into the mind, the vital interests of the pupil. He must, it is true, possess some 'objective' knowledge of history, science and the rest in order to become an educated person. But he does not really possess it unless it 'possess' him. This inwardness is very easy to overlook because it is much less easily accessible to cursory inspection than the chunks and gobbets which can be readily itemized, checked, added up.

There are three ideas which seem to be central to what Reid meant to be understood about educating a person; they go deep into the nature of practice in general and therefore will be related to the problems of teaching art in particular.

The first idea to be considered is that knowledge and the curriculum are not fixed entities; rather, they can be viewed as being in the same context as the interests and activities of the pupil. The second, is to do with the necessarily interpersonal nature of the process of teaching and learning; and the third is to do with the need to recognise and understand the "inwardness" of learning as it features in children's experiences in art.

**Subjects as entities: subjects as artifacts**

How can the view that knowledge and the curriculum are not fixed by nature help in making the kind of context in which children's interests and activities are of critical importance to the teaching of art? What happens when art
is thought of as fixed or as itemised; and, if it is thought of in that way, why should it cause problems for learning?

The confusion that sometimes exists in the teaching of "art", or "school art" as it could be called, lies in the concept of art from which work is planned by teachers. What happens to learning if the concept held by teachers is one which equates art with pictures or models that illustrate other work in science or language and so on? This could mean that the work that children do during the term or year may be planned according to the kind of illustrations which teachers have decided they need for display. The predetermined subjects of the pictures may determine the kind of techniques and materials to be used. So that not only the subjects but also the methods of working will be decided before children start to work.

What criteria for recognising and evaluating art can be identified here? Using Weitz's criteria of recognition (p.33) the pictures or models would be recognisable as art because there would be a product made by human skill with, perhaps, imagination and ingenuity. So work in art that is wholly initiated and determined by the teacher should not present problems. Yet there seems to be something very unsatisfactory about this. It is true that art in education does put Weitz's criteria of recognition into a context which that author had not intended. If the criteria are considered in their original context then it might be possible to see what has gone wrong here. It is
possible that in drawing up these criteria Weitz made some assumption about the artist initiating his or her own work, or giving some expression to an idea or experience of his or her own. In addition, any consideration of art in education needs to be mindful of what is to count as an educative experience. It will be recalled that Reid gave some guidance on this matter when he refers to the subjects as they are learnt. In order to make what he wrote strictly relevant here the word "subjects" is to be replaced by the word "art". Then his advice becomes; art, as it is learnt, is only educative in so far as it becomes integrated into the mind, the vital interests of the pupil. So if teachers present experiences in art in which the subject and the techniques of the work are predetermined can this be educative? Let us take an example from Art in the National Curriculum (p.4) where it is suggested that children could make a collage on the theme of 'Jungle' with the purpose of enabling children to 'respond to memory and imagination' (POS ii). Supposing this were the subject of the class or group topic then what would the task of the teacher be if he or she wished to ensure that this experience was one of learning in art and not simply one of learning to do as one is told? This would depend upon the kind of work which preceded it and that which was to follow. If the experiences the children were to be provided with were only of this predetermined kind then it would be possible to claim that they could not count as educative on the ground that a) they would not address the
"vital interests of the pupil" and b) that a limited concept of art was being used. The concept of the subject, in Reid's sense of the word, would be limited because it would not be expressive of or revealing the vital interests of the artist. In other words, the teaching of art needs to make reference to the artists who have made art the complex subject it is. How can this view of subjects help teaching? To start with, for art to enter into the vital interests of the pupils means surely that they should at least initiate their own work. It is true that teachers give children opportunities to work on their own pictures when there is time to spare. But should not the balance of experience be the other way around?

What can be done if teachers work under the limited concept of art as pictures or models, for display as a result of existing school policy? It may be helpful, by way of illustration, to take an example of an unwritten policy for art in an infant school. Let us suppose that it is a school in which a teacher has recently been appointed to have responsibility for policy and practice for art, craft and display. This is a subject which is given a high priority by the head teacher. As the appointment suggests, art and display, as well as craft, are thought to be closely connected by the staff of the school but in practice they are treated as being one and the same. At a superficial level the attitude might be excusable (though mistaken), and even understandable, since the teachers have observed that the colleagues whom they judge to be good at
art are also good at display. Incidentally, their mistake lies in not understanding the function of a sense of design in both, or that display is more of an exercise in design than in art. But to return to the point, the connection which these teachers have made is, in fact, an unexamined assumption. The consequence of it for children's experiences in art are serious and this is recognised by the newly appointed teacher. The extent of the problem can be understood when it is realised that in this example display is the main reason for work in art to be undertaken. Assuming that art and display are closely connected has led the teachers to regard art as display. For the children it means that their main aim is to make the predetermined pictures and models required by their teacher for display; they therefore do not have aims of their own in art. The "art for display" approach also means that the form of work in art is limited to figurative representation and the content of the work is restricted to the themes or topics which, more often than not, have been chosen at the beginning of term by the teachers. The amount of time and resources spent on covering all the available spaces in the building is justified on the grounds that pictures and models are pleasing ways of providing evidence of what children have been learning about a topic, or rather, of what they have been taught (which is not at all the same thing!). In addition, they have the function of looking pleasant for visitors and of creating a colourful place in which to be. Thus the school
is conceived on the lines of a picture gallery i.e. simply a collection of pictures that are viewed primarily as end-products and which, therefore, only have value in their finished state. What is more the work on display has been chosen according to criteria which have been unconsciously agreed by the staff and never stated to the children. In fact the criteria underlying the choice is that work should reach as near to adult standards of representation as possible.

Where can a discussion of a policy for art begin when it has already been reduced to the making of products for display? Stated in this way the question highlights the dilemma for teachers with responsibility for art in schools where there is plenty of picture- and model-making going on, but for the wrong reasons. Perhaps at the centre of the problem is the way art can be confused with the production of objects using paint, or clay; that is, the kind of materials and products associated with art. To put it more clearly: there seems to be a common assumption that if a child produces a painting of a dinosaur, because he or she has been asked to by a teacher, then he or she has been doing "art". There is plenty of evidence in schools to suggest that such an assumption is the norm. If this is true then one way out of the confusion would be to question teachers' attitudes to the subject; and the understanding, or misunderstanding, from which those attitudes arise. In the second activity of the project reported below display was used as a way of questioning teachers' concept of, and
attitude to, art (p.203) prior to a policy meeting).

How can Louis Arnaud Reid's idea of "subjects as artifacts" be expected to help resolve this particular dilemma and what has the limited view of art as products or for display got to do with the idea of "subjects as entities"? The first point relates to the sense in which Reid sees the subjects of the curriculum as made; and that as "artifacts" they can be seen as expressions of vital human interests and activities. It has been pointed out that the important lesson to be learned from this is the way school subjects can be understood more appropriately when they are perceived in the lived context from which they have been developed; and how their possibilities can be opened up for children. Without that wider understanding the versions of subjects that are taught in school will have no relevance elsewhere; and it is being claimed here that this is precisely what can go wrong with art in school. Therefore, Reid's reminder about the human side of subjects is a particularly relevant one, especially because it opens up the possibility of providing for a dual kind of experience in which children can get a sense of how others, from different times and places, have given form to their ideas, as they pursue the same kinds of activities themselves. The requirements of the National Curriculum document for art make this kind of provision essential but being able to deliver it needs a shift in the way art is conceived by many teachers. Being prepared to make that kind of provision may depend on whether something like
Reid's conception of subjects as artifacts can be held in mind. From that basis a shift in attitude could be achieved from that of "art as products" of a limited sort for display. Despite the intangible nature of this conceptual basis some concrete form can be given to it. This involves using Reid's words "subjects as artifacts" literally. It has to be admitted that doing so is risky, because the original meaning might suffer some distortion, but for the sake of illustration the risk will be taken. In any case, all that is being done is to parallel Reid's ideas with the practical possibilities which his words suggest; and, after all, it is for just this kind of suggestion that his writing is being consulted.

It may be that learning within subjects can be given the shared, human dimension in concrete form. Having artists working in school is one example, another is the provision of artifacts from other times and places alongside those from every day life. These can put teacher and taught literally in touch with the traditions of thought and skill represented in the curriculum by subjects. This idea was put into practice in the form of a collection of boxes in the author's school. The purpose behind the collection was complex but it began with the simple aim of giving value to the junk materials which are necessary to so many activities in school, not least of which are those in art. Boxes were brought in by children, parents and teachers. They were made from different materials such as wood, leather, card, plastic, reeds and
metal; and in different ways, for example, woven, carved, welded, stapled and sewn. They had been made for many purposes such as to celebrate a coronation, to store tea or grain, to transport a washing machine or a top hat. Some boxes were in their old and new versions like the boxes for Oxo cubes which in their different forms served to span the years in a visible and material way. The children were asked to think of questions which would help someone else to look at the boxes and their questions showed that they were thinking about measurement, materials, purposes, form, information, contents, weight and capacity, instructions, symbols, the countries of origin, age, dates, bar codes, decoration, typefaces and more. The interesting point was that such a simple, everyday artifact as a box could contribute to and provide a rich context for so many aspects of the curriculum. This was made explicit in the children's questions and these were written and placed among the boxes on the walls and shelves.

In the same way, making materials valuable by considering them in their own right is one way of challenging assumptions and redirecting attitudes both to display and to art. For instance, when materials form the content of display then it becomes a resource for learning that has its own dynamic, lived in quality because not only can it provide ideas about how materials can be used but also it can be a physical resource from which children can take materials for use in making objects or pictures of their own and which is eventually the natural place to
exhibit them. Perhaps most important is the discussion which can result among staff about the educative purposes of display in general. This response to the specific problem of display, as it was identified earlier, opens up the possibility for a widening of focus from end products to include materials and process.

There is no wish to underestimate the difficulties of achieving the required shift in understanding from art as a school subject with a fixed or predetermined programme of techniques and subject matter, to seeing it as one which has been, and is being, made by many imaginative individuals. It is recognised that part of the difficulty in getting away from thinking of end products, of techniques to be taught, of how pictures will be displayed and what they look like, is the fact that those matters are important. The argument here is that without the teacher's active acknowledgement of the dimension that the individual child brings to the subject as he or she is thinking, making and feeling, the whole point of work in art is lost.

To assume that learning in art was going on without making explicit provision for individual involvement would be rather like supposing that showing children how to do arithmetic in a sums book would be involving them in mathematics.

Getting away from the notion that subjects are static, fixed objects with simply identified facts, skills and processes means getting away from a common enough misunderstanding according to D. W. Hamlyn (1967 p.26):
"The subjects into which knowledge is divided are not block entities laid out as it were, in a Platonic realm. There is an inclination, I believe, to think that there exists objectively something called, to take one example, mathematics and that it is the aim of education to bring the learner to a confrontation with it."

The attitude which underlies arranging for children to do work in art for display is reminiscent of staging a confrontation with the subject, since it is teacher conceived and initiated for purposes unrelated, unknown to the learner; and even unexamined by the teacher. It is also rather like itemised learning in which the "gobbets" of art are the pictures children are guided to make as evidence of whatever the adults have determined.

What of the value of personal involvement in learning? The kind of personal involvement in mathematics which can be achieved by a child is related in quality to that of an adult by Seymour Papert (1974 p.235):

"The important difference between the work of a child in an elementary mathematics class and that of a mathematician is not the subject matter (old fashioned numbers versus groups categories or whatever) but in the fact that the mathematician is creatively engaged in the pursuit of a personally meaningful project. In this respect a child's work in an art class is often close to that of a grown-up artist."

Most important, perhaps, is the way Papert qualifies the educative experience as one that is personally meaningful and personally pursued. In addition, he compares its quality as an experience to that of the mathematician engaged in advancing the subject. There may be a useful similarity here with Reid's idea of subjects being
artifacts which are expressive of human interests, because both writers explicitly recognise the purposeful, persistent hard work of individuals which goes towards their making. The implication is that some consciousness of the worked nature of subjects needs to enter into teaching and learning for both activities to be effective. This means, simply, having some idea of how artists understand art, rather than assuming that art can be taught from a syllabus.

Vital interests and personal involvement

It is time to return to the issue of how each child's interests and involvement can be equated with "art" in the curriculum; and to see how this way of thinking helps to show that the teaching of the subject "art" may be child-centred. It is intended to continue to use Reid's way of thinking about subjects as "artifacts expressive of and revealing vital human interests and activities". This time the interests and involvement of one child are to be examined together with the context from which his work and comments arose. This example of working in art is then compared with the experience of another child whose comments were developed in a different way. The point here is to explore the importance that a particular kind of talking might have for learning and teaching in art which focuses on individual development, and which is, to some extent, characterised by imaginative sympathy for the child's point of view.
The author has found (see Section 2.5) that sometimes a child will suddenly move forward in her understanding of picture-making. This was certainly true of one child in the author's class who was used to working independently, i.e. choosing the form and content of his own work. His "Sea Monster" was undoubtedly the product of the kind of personally meaningful project to which Papert (see p.132) made reference. The manner in which the activity was carried out was proof of this for it was fervent, single-minded and concentrated. It was sustained by Paul and his helpers, as they worked, over a period of two days. The work is difficult to categorise in the usual ways for it was neither painting, nor collage, nor modelling. He used pieces of paper and card left over from other work which he found in the materials trolley and assembled them into what could be called picture/construction. The size of the work and the variability of its dimensions are characteristics which also made it unusual. Take for example the "tentacles" which were made from long strands of wool; these could be extended to about two and a half metres which made the whole work large, or they could be arranged so that they took up less space by being looped, which made the whole work much smaller. It is representative, but it represents a personal idea of a sea creature rather than an actual creature which could be copied, or re-presented. It is significant here that the work had nothing to do with the class project, or school theme, or seasonal interests - Christmas was not far off; it was not teacher initiated for
display - though it was displayed. It was made purely out
of personal interest.

It is also significant that Paul could not have been
taught how to do this piece of work because he alone has
discovered as he was working what needed to be done to give
form to his idea. Roger Fry (1923) put it plainly enough
when he wrote:

"It does seem rather futile to teach a child how
to draw, when one considers that what it has to
discover is how it alone of all created beings
can draw. The thing to be taught is a thing that
does not exist, but has to be discovered"

Though Fry refers to drawing in particular his comment
could refer to the individual way in which all learning
occurs. This clearly relates to the inward character of
learning towards which Dewey and Reid felt teachers needed
to develop sympathetic understanding. If education is
about individual learning then perhaps the main point to
hold in mind when teaching is how, in Dewey's words, (1899
p.51), the centre of gravity can be kept with the
individual child.

It has been shown (pp.48-58 and pp.83-91) that perhaps
the most effective way of understanding how a child is
learning is to share the experience through talking within
a common framework of ideas. Provision was not made to do
this with Paul though after his completion of the work he
was able to talk about it with the rest of the class. This
was not altogether satisfactory for reasons given later
(pp.142-143), but it was valuable in helping him reflect on
what he had done and to consider his reasons. It also
helped the other children to understand this way of working and how the picture could be talked about. It was a way of reminding everyone that materials can be a source of ideas rather than simply being chosen to fit an existing plan. The context from which the work arose is difficult to explain in a way that does justice to Paul's imaginative thinking about materials, process and the final product. In one way it was entirely his own, but at the same time the attitudes from which it was generated had grown from a particular way of working which was being developed by the author with all the children in the class over a period of more than a year. It was a year which began with the project in art which is described in Part 2. It is doubtful that without that context the work could have been carried out in anything like its actual, imaginative, final form. For many reasons, both now and at the time of its making, it could be argued that this piece of work lives up to the standards set for art by Weitz and Tàpies which were quoted earlier (p.33 and pp.43-44) of adventurousness and of unlimited possibilities. But then the context out of which Paul's work arose was planned (some months after the project reported in Part 2) with these very ideas as a foundation. There are two ways in which Paul's work shows that he has understood the possibilities of forming ideas which activity in art presents. These are best considered in the light of what was said about the work shortly after it was completed. The discussion was initiated by the author (signified by the initials A.D. in the dialogue
below and on pages 146 to 151) who asked Paul how he had got the idea for his work, then the other children continued the questioning:

Paul: "I don't know how I got the idea for it. I started by putting these bits together to make the body but these gaps are the mouths. It's got five mouths."

Child: "What are the long bits?"

Paul: "The long bits are made from wool. They are different sorts of wool and different colours. One is thick and one is thin. The light wool has curly bits coming down like a spring. This word bit has curly bits like a spring as well. These parts are tentacles. They are triangular. They suck bits of food from the water then it goes down the blood veins to the tummy. That purple bit is the tummy - that's from Anna's grapes that she cut out. I made the whole body from bits of old pieces that were cut out.

That is a gland that water comes out of in pipes. Sometimes flies come into the mouth and other times it gets sucked into the triangular mouths."

Child: "What is the blue bit?"

Paul: "The blue bit is the eye."

Child: "What is the pale green part?"

Paul: "The green triangle is the mouth suction thing. The tentacle gets a big creature and it poisons it and gets is where the mouth is and then the mouth eats it."

Child: "What are the paper towels?"

Paul: "The paper towels are two mouths."

Emma: "You've got eight mouths then."

A.D.: "Why have you drawn lots of different coloured marks?"

Paul: "The felt lines are blood vessels."

A.D.: "What is good about drawing lots of different coloured lines on top of one
The author's question about how Paul got the idea for his work was based on the assumption that the materials had given him a start and this is confirmed, in part, when he describes how he began by putting bits of paper together. The important understanding achieved by Paul, which is revealed in the work and what he said about it, is that ideas can grow and change in the process of making; and also that it is by an effort of will that we can see bits of paper and wool as something else entirely. In thinking about the work in front of him Paul seemed to be using it as a support for many ideas that had not occurred to him before, this means that the process of invention was able to continue beyond the physical making. However, in his reflections, it is true that his inventiveness could have been inspired to some extent by his audience rather than by the picture/construction itself. It may also be true that the questions which the children asked him required him to invent an explanation when he could not remember exactly what had caused him to put one shape in a particular place; or what it was meant to be; or whether it was meant to be anything at all. It is possible that Paul needed help to articulate the non-objective aspect of making in which decisions may depend on the state of the work at a particular moment. Without being able to say something on the lines of "That piece of card seemed to be what was needed there" he may have been forced into inventing
reasons for what he did. The need, if it was there, was not obvious to the author who was as involved as the children in finding out about how the picture/construction was made and what it was about. In retrospect that involvement may have obscured Paul's immediate needs; an attitude of detachment and of "imaginative sympathy" may have allowed for a greater sensitivity to the learner's dilemma. Perhaps there is a lesson to be learned from that; reflections on the experience of picture-making have their own processes and criteria according to which they may be more or less appropriate. However important it may be, that aspect of talking with children will not be explored immediately, though it is returned to in Part 2 (pp.309-310). Instead, the value of dialogue as part of the interpersonal context of teaching and learning is to be considered.

Doing, talking and thinking: the meeting place for teacher and taught

While Paul's work grew out of a number of shared contexts such as material provision; attitudes to picture-making; and a common framework for talking there was an important factor missing which could have made this episode a more effective experience for teaching and learning. Formerly it had seemed appropriate to talk to individuals for about ten minutes about their pictures or constructions, as in the activities reported in Part 2, but in this case another way of talking seemed appropriate. Perhaps it was the way in which the work surpassed the
author's expectations which made it important for all the class to share in the discussion. As a consequence, the need to talk about how Paul was thinking about picture-making was overlooked. In this sense an important opportunity was missed for learning more about him and his work; and consequently the provision for his subsequent learning could not have been as good as it might. The missing element in what was otherwise a shared experience was therefore a particular kind of dialogue. Richard Pring describes the kind of network of relationships within which such a dialogue can be given purpose and meaning (1976 p.111):

"... my constant argument in this book has been that a curriculum should seek to provide the meeting place between the already active, and therefore educable, minds of the pupils and the teachers who represent living traditions of thought that are relevant to the pupils concerns and interests."

What is being sought here is an explicit role for the teacher which has the qualities of imaginative sympathy for the learner and clear understanding of the subject of study; whilst at the same time maintaining a balance of interests within that network. That it is possible to talk with children about their work has been shown with the examples of Rachel, Nicholas, Helen, Oliver and Paul. There may well be disagreement about how far this kind of talking can effect learning in art, however it is claimed in Part 2 (Section 2.4iii) that this is possible. Here the line of thought to be followed concerns the kind of part the teacher can play in dialogues with children. In the
first place this role will depend on the point of talking. That is regarded here to be: to focus the "already active" mind of the child on specific details of an experience. At its best this manner of teaching can be likened to running alongside the child so that ideas can be exchanged, as it were, on the move as it were, and the flow of activity and thought is not unnecessarily halted or reversed. This means being in direct contact with children as they are thinking, acting and feeling. It requires the kind of relationship that can come from the shared familiarity with ways of working and the other persons involved; it amounts to a working knowledge of each other. Within that kind of relationship the talking can depend upon the child, the work and the adult's perception of how understanding in a particular case can be sought. The following example is a conversation with a child who asked to talk to the author about her picture of a man (p.145). It was recorded on audio cassette and so the transcript, which is given here in its entirety, is an accurate account of what was said. It shows how a balance between the interests of the teacher and the child eventually occurred as observations about the materials and the way they were used were shared. It also serves as a reminder of how simple, direct talking can inform teaching; not least by the way in which individual children are able to startle adults out of their assumptions. In the author's experience, if they are given the chance this can occur with thrilling regularity. Nicholas's comment about the coalminer (p.83), or Helen's
idea of stroking the man's eyes with her finger (p.92) were
good examples of this. Even if it achieves nothing else,
talking with children can uncover the ideas which
children's pictures embody and which would otherwise be
unknown. (The point about what talking and listening
actually achieves is considered in the concluding remarks,
pp.336-340). The importance of the dialogue below is that
at one point it shows how the teacher can be in direct
contact with the child's interest and learning. It is a
record of being, for a very short time, at the heart of
that continuous process; and it shows one way of coping,
more or less adequately, with the dilemmas of being there!

Laura was nearing the end of her first year in school
and she sat with the author in familiar surroundings as
other children were getting on with their work all around.
When she began to talk about her picture it was the concern
of the author that she should be as precise as she could in
describing the very interesting materials which she had
chosen and used so well.

L.:  "How I made it? I got a piece of paper that
     was painted and . . ."

A.D.:  "How was it painted and is it card or paper?"

L.:  "Card."

A.D.:  "So you got a piece of card that had been
     painted . . ."

L.:  "Yes, and I stuck . . . that mouth on what
     was . . . been cut out, of course."

A.D.:  "Did you find that black . . . with the
     holes already cut out?"

L.:  "No I cut them out and stuck them down . . ."
A.D.: "What's them? It's a long piece of . . ."
L.: "It's a long piece of . . ."
A.D.: "Red . . ."
L.: "paper and I stuck it round there like that and then I stuck it . . ."
A.D.: "Round the card."
L.: "Yes . . . and then I . . ."
A.D.: "Joined it at the . . ."
L.: "At the corners and then I stuck that on."
A.D.: "What's that?"
L.: "A piece of card what's been painted and then I cut a hole out."
A.D.: "How's that card been painted?"
L.: "I don't know."
A.D.: "Don't you know how it's been painted? What colours are they?"
L.: "I think that's a light green and that's light blue or dark blue."
A.D.: "And that's a darkish blue is it?"
L.: "Yes."
A.D.: "And what have you done here with it?"
L.: "I cut a hole out and put it on for the eye and here's the other eye."
A.D.: "Where did you get the other eye from?"
L.: "I don't know I think I got it from a yellow card."
A.D.: "And what about that?"
L.: "Lisa cut . . . Lisa did that and then I cut all these little holes out. That's his nose."
A.D.: "How did you cut the little holes out?"
L.: "Well by doing that and it made sort of . . . these shapes."
"How did you make it come to the middle of that paper?"

"Lisa folded it and I made it come in the middle somehow"

"So you cut it on the middle of the fold?"

"Yes and the holes came in the middle of the paper."

"Were you thinking this long strip would be his arms then?"

"No! That's his legs."

"Those are his legs."

"Yes, curled up like that."

"Oh! Crossing his legs."

"Yes. Like school."

"Like school!"

"This is his floppy hair."

"What's his floppy hair made from?"

"I think it's made from straw or something."

"Do you? It's made from wood actually."

"Yeah and they've curled it all up."

"There's a plane . . ."

"A plane?"

"A plane in the entrance hall on that work . . ."

"The plane I made?"

"No, it's a special tool for shaving bits of wood like that. Do you want to go and look at it?"

It could be argued that rather than getting into harmony with Laura's thinking the author was pushing her in directions which were not of interest to her and which had
taken no part in her activities. It could also be objected that this question and answer sequence was more like an interrogation than a conversation. What is more, it could be pointed out that it was an entirely different activity from the original picture-making. In a sense these criticisms are justified. There is often the dilemma of choosing to be the observing, facilitating, non-participant (as in the reflections on Paul's work); or to get fully (perhaps too fully) involved and consciously contributing ideas or words when it seems helpful to do so; in other words to teach using judgements that are based in the knowledge which is gained from being with particular children every day. For instance, Laura had helped to make painted card like the piece in her picture during colour-mixing experiments. It was thought that she might remember the activity, but even if she did remember it was not something she associated with her picture as had been assumed. At one point she seemed to have a problem in deciding whether the tone of a colour was light or dark although this had been discussed many times. In that case an example of a darkish colour was given as a reminder. The way she had bent the paper round but kept the card flat indicated that she had used their different properties appropriately, it was therefore worth questioning the way she used the word card instead of paper.

When Laura returned from her search she was shown how to use the old plane, then she returned it to its place in a display of tools and the things that could be done with
them. As the talking continued it became more conversation-like because mutual interest grew in the wood shavings the more that was discovered about them:

L.:  "Shall I say I found some rough wood on the table?"

A.D.: "Some rough wood shavings."

L.: "I saw some wood that was rough."

A.D.: "Wood shavings."

L.: "These bits are a bit smoother."

A.D.: "Yes. Feel them, they are a bit rough and these are smooth."

A.D.: "Yes."

L.: "So they are a bit different."

A.D.: "And look, these have got lines in."

L.: "And these have got little lines."

A.D.: "Thin."

L.: "Little tiny, lines."

A.D.: "Yes and these have got very . . .

L.: "big ones. Like that pencil and the other one it's nearly . . . ."

A.D.: "Like the thin pencil!"

L.: "And the thick! It's nearly the same."

A.D.: "It is! Well done!"

L.: "Certainly, when I put it back and just certainly found these and I thought I'd bring them back to show you. Hey look! You can see all these things on it."

A.D.: "All the bits sticking out."

L.: "All the round . . . I can see some round things."

A.D.: "Yes . . . it's . . . hmmm where the wood's breaking up perhaps, is it? Look where those cracks have appeared haven't they?"
As Laura stood with the minutest chip of wood in the palm of her hand, gazing at it in total absorption, the author felt impressed by her interest in, and enthusiasm for, such detail; as well as her desire to share that enthusiasm. Throughout both parts of the talking it was her experience of those particular feelings in relation to her work which carried the conversation on and which finally gave it special value. After all, she could not have been made to say things which were meaningless to her, in fact she seems to ignore or not hear certain prompts which were meant to help, but instead picks up on things which had already become part of her thinking and acting. It may be that those aspects of the materials which she was able to develop on this occasion subsequently became part of her way of working in art. In the same way, the author's experience of it affected her perception of Laura: especially about how persistent in her enquiring she could be. (See Appendix 2 for another example of a child's deep interest in materials). It is certain that each small teaching episode, when it is as intensely shared as this was, opens up new possibilities for teacher and taught because the expectations of both can be pushed further on. Indeed, such episodes become benchmarks by which others can be judged; or, become the standard to work towards.

What of the ideal role for the teacher which holds in equilibrium all aspects of the complex of relationships that teaching involves? What is possible and not possible
in that? The conversation with Laura highlighted some problems which relate to those issues. Of critical importance is the difficulty of balancing the interests of the child with the conceptual framework of art; its language, concepts, and activities as well as the connections between them. Moreover, at the organisational level it is a difficulty which is multiplied by the number of children in the class and that is a reality which has to be taken very seriously. However, it is possible to see each encounter as a guide to thinking which can become part of a continuous reformation by children of their own thoughts and actions. That process probably goes on most of the time without the teacher's presence. It is possible to make time for talking with individuals, but time is the biggest and most significant constraint; there is no getting round the fact that the more children there are the less time there is for each. If it is important to talk with individuals then it is essential that the purpose of the dialogue is clear from the start and that it is worthwhile. The conversation with Laura was longer than any other which took place that term; it was not possible to spend the same amount of time with all the other children. Yet the value of such dialogue, especially for teachers of younger children, cannot be overestimated. In particular, as everyday experience shows it is possible to assume too much of children. As the dialogue shows, it was assumed, mistakenly, that Laura's experience of colour-mixing would carry over into other work; that it would have
become part of her knowledge of the materials she used. This kind of knowledge is essential for the improvement of one's own teaching.

One final point. There is an important reason why it is necessary for teachers to take a positive role in talking with individuals. This is to do with the kind of context in which children are thought to learn to think more effectively. Margaret Donaldson (op.cit. p.88) argues that children learn to reflect upon their own thinking through the challenge which other people can offer:

"A child who is trying to figure out what other people mean must be capable of recognising intentions in others, as well as having them himself. And such a child is by no means wholly unable to decenter. While he may certainly, like the rest of us, fail sometimes to appreciate the relativity of his own point of view, he is capable of escaping from it. Thus he is not debarred by egocentricism from communicating with us and relating to us in a personal way. Indeed personal relations appear to be the matrix within which his learning takes place."

Unless the time is made to talk with young children then it is probable that such relations cannot get started and, if Donaldson is right, that means an important part of the context for learning at Key Stage 1 will be missing.
SUMMARY: recognising solutions

In the course of identifying and examining problems for teaching art certain positive and illuminating ideas about young children's learning have been brought together. Here they will be summarised in order to show how they formed the basis of the development of a framework for teaching and learning in art.

At the beginning of Part 1 it was stated that three main issues would be addressed as part of the process of building up a framework for teaching and learning in art. These were: art in education; young children and the curriculum; and individual learning. They have been thoroughly examined and re-examined in a spiral-like procedure by raising the problems which certain policies seem to have posed for practice. Each issue was revisited in five different, though clearly related, contexts from which key issues emerged and were tested out. It was the strength of those ideas which drove the enquiry forward and which underpins the framework developed in Part 2. The process began at a general level of concern about policies for art in education and progressed to the central point which was an example of individual learning through talking. The contrast, from a practitioner's point of view, between policies and individual learning has characterised each section. It has been used to address the fundamental problem in Part 1 which was to find out the respect in which policies for teaching art to young children might be failing to meet their aims with regard to
individual development.

In Section 1.1 the main point to emerge was that provision for young children, which has been based on Piaget's view of their egocentricity and exemplified in their inability to communicate, needs a thorough re-examination; and that teaching should proceed from what young children can do rather from what they cannot do. In connection with this last point, it was argued that views of modern art which emphasise its formal elements, material character and its limitless possibilities can provide an appropriate concept of art from which to teach art honestly. When form, content and process are of equal importance then the possibility arises for talking about making to help develop understanding and thus a way of appreciating the work of others.

Taking up the implications of these points, Section 1.2 tested out the idea that young children should be put in touch with the structure of art since its basic concepts are part of their ordinary experiences. Of huge significance to the work reported in Part 2 is the idea that the basic ideas of art are as simple as they are powerful and, as such, can be revisited continuously. How this might be effected was considered in Section 1.3 and was thought to depend on what can be found out about what young children can do in picture-making. On this basis it was suggested that a framework for teaching and learning could arise from their ability to talk about the form, content and process of their pictures. This led to the
emergence of the idea that art-based work could be child-centred.

Mindful of the objections which could be raised to the subject base of this kind of provision, the main idea of the next section was to show that children's own experiences can be structured through the basic concepts of art so that they are empowered to think and act for themselves in a personally meaningful way when they make pictures. This, it was thought, could be achieved through the challenge of talking about specific aspects of art, since talking seems to be a fundamental way of sorting out our thoughts.

The final idea to emerge was that learning and teaching should be seen as a fine network of relationships between the teacher, the child and the subject of their study. This relationship was exemplified in dialogue. The way in which the subject "art" was thought to be accessible to the youngest children was by understanding how it is a made thing - it is the work which artists do.

One of the main purposes of Part 1 was to consider whether young children should be put in touch with the structure of art. These considerations resulted in the suggestion that they should. How this might be achieved in practice is the aim of Part 2. The ideas summarised above permeate the thinking behind that work with children but some ideas in particular helped in the design of the project. These are: the role of talking in the development of understanding in art; the importance of form, content
and process as a structure for teaching and learning; the importance of revisiting the simple but powerful ideas of the subject; and basing work on what children can do. The introduction to Part 2 explains how the framework for teaching and learning was conceived and designed.
INTRODUCTION: focusing on basic concepts and skills

It has been argued that teaching and learning are highly complex practical activities in which different levels of thought, feeling and action are engaged simultaneously and more or less consciously depending on what is important at the time. In other words, teaching and learning are interpersonal activities and some indication has been given in Part 1 of what this might mean for practice. Here that theme is developed more fully with particular emphasis on the role which talking could have in the learning of concepts in art. It is recognised that talking with children about their work brings its own set of considerations. Some will be outlined briefly and then put aside for though they are problems which need acknowledgement, they will not be addressed explicitly here. It was shown above (pp.146-151) that talking with a child about his or her work requires the kind of "imaginative sympathy" which Louis Arnaud Reid understood to be part of good teaching. There needs to be an awareness of the way the chosen language is used, for it will give many subtle yet powerful clues to the children about themselves, as well as their work, which they may regard as being almost synonymous. This means that they may regard comments about their work as being comments about themselves. This confusion is often created by
teachers when comments about work take the form of "Good
girl, you have worked hard". The teacher's awareness that
in interpreting these clues children will find out much
that is important to them may help to define the nature of
the comments needed for different purposes. If the purpose
of talking is to improve one aspect of a skill it may be
more appropriate to focus on that, rather than on the moral
state of the child. Young children will be looking for
signs that they are cared for by their teacher and they
will be making judgements about the quality of that caring.
But, it is probable that they will also be expecting a
particular kind of help in their learning. They will be
aware, to some extent, of their own learning needs; of
whether these are being met through their activities; and
how these fit into a pattern of similar experiences from
which they can gain a sense of achievement. This means
that it may be appropriate to focus sharply on one aspect
of work; to have a set of achievable objectives relating
very specifically to what is expected to be done and said
by the teacher and children. The criticism that such a
course of action would be too prescriptive for the
development of young children's understanding in art could
be countered by the argument that teaching in this way can
always be based on a strong awareness of the children's
point of view. It would be important, for example, to
acknowledge that in any teaching episode children may be
deciding whether an activity is personally important; and
whether they have the confidence to proceed in their own
It has been argued (see section 1.5) that for the teacher of young children these interpersonal factors need to be a central concern. This is simply another way of acknowledging that their learning in art should be child centred.

So, given the complexity of thinking and action which teaching can involve, it is sometimes helpful to simplify the task by choosing one aspect of it for detailed examination. The project which is reported below is such an attempt. Its original purpose was to help the author to see whether a particular kind of dialogue could be developed which would help children in her class to understand what they were doing in art activities. The process of focusing on a limited aspect of practice began with the argument put forward by Richard Wollheim (1970, pp. 231-235) concerning art as an activity. It was thought that, if, as Wollheim argues, every activity is carried out under some concept, then it would be helpful to see what this could mean for the improvement of the author's teaching. If, as it seems reasonable to suppose, the development of effective teaching depends upon being clear about the point of what children are doing in a particular activity, then an examination of its underlying concepts would be necessary. Part 1 examined some of the general ideas and problems which, it was argued, seem to be involved in teaching art to young children. The considerations revolved around three points which are closely interconnected: the generalised view of what
children under seven can and cannot do; the concept of art which may be appropriate for teachers to hold in mind while they work with children; and the kind of teaching which provides the conditions in which individual children can learn effectively. Part 2 is presented as a practical response to those issues. It is based on an account of a teaching episode which lasted about five weeks and was designed to put the young children in the author's class in touch with the basic concepts of art through planned talking. The work is an attempt to apply the hypothesis that young children can be put in touch with the structure of art in a way which is child-centred.

In this introduction it is intended to show how the project evolved from particular practical problems relating to the children in the author's class. In order to do this it is necessary to show how the work of the previous term gave rise to the design of the project, to its planning, to the content of the activities and their evaluation. In order to assess how far the teaching episode provides evidence in support of the hypothesis there are three aspects of its design which need clarification. These are: the objectives of the talking; the concept of art used; and the meaning of the term "understanding" as it is used here.

The Objectives of the Talking

It is assumed here that the point of including any subject in the curriculum is for children to have the kind of experiences that will develop their thinking in the ways
that are characteristic of that form of understanding. That was argued in Part 1, together with the claim that children's thinking seems to be developed through talking. If this is accepted then the next step is to consider ways of giving children the right kind of opportunities for talking about what they do when they paint, draw and assemble materials into models, constructions and pictures - as well as developing their dexterity in handling these materials and tools. Joan Tough (e.g.1977) has carried out considerable research into the way teachers can talk with children in ways that help them to learn to use language. The dialogue below is between a teacher and child and is about the child's thoughts as she talks about a picture of an elephant. It is quoted from _Talking and Learning_ (p.251):

"How effective are we?

Emma approaches the teacher with her picture ...  

1.T: (looking at Emma's Fuzzy Felt picture) Orienting ...  
Tell me about your picture.

2.E: There's an elephant, a man and some children Labelling

3.T: What are they doing Enabling ...

4.E: Doing? I've done it Misunderstanding

5.T: What do you think they might be doing with the elephant? (pause). What about the man? Enabling ...

6.E: It's their daddy and they got the elephant from the circus and he's taking it back Reporting ...

7.T: Why did they get the elephant? Enabling ...
8.E: It had a hurt leg and they were looking after it for the circus and they were keeping it until it got better. Towards reasoning ...

9.T: It had a hurt leg! Sustaining

10.E: But now he's trying to take it back and it's kicking him Reporting ...

11.T: Oh, it's kicking him. You think the elephant doesn't want to go back? Checking

12.E: No, he says, you nasty man, I want to stay with the children. Projecting into feelings

13.T: What will happen to the man? Enabling

14.E: He'll get hurt and then he'll be sorry he tried to take the elephant back Predicting ...

15.T Will the elephant try to stay with the children? Focusing

16.E Only till his legs get better. He can't work in a circus with a bad leg Anticipating

The teacher's opening strategy was not effective and resulted only in labelling. Emma's teacher then used enabling strategies (3) and (5) to help Emma make a fuller interpretation, with some success. The follow through strategy (7) resulted in Emma giving fuller information and justification for actions. Once Emma started to talk about the picture sustaining strategies were used to good effect. The checking strategy (11) led Emma to project into reasons for the elephant's action. The teacher's follow-through strategy (13) was effective in that Emma projected and reasoned about consequences (14) and (16)."

Joan Tough's analysis of the effectiveness of the teacher in this dialogue seems to be based on how far she enabled the child to make a full interpretation of the picture. The teacher's purpose, it seems, was to help the child to
speak as fully as possible about the characters in the picture. She asked questions so that the dialogue was sustained long enough for the child to talk about how the characters might act and feel. The subject of the picture, an elephant, is similar to that reported in the introduction to Part 1. There, it will be recalled, talking was centred on certain numerical and geometrical features. It was the fact that this focus had by-passed the work in art which was found to be unsatisfactory as a way of developing the understanding of picture-making as art. The example above serves to underline the point that when talking to children about a picture it is the teacher's purpose which will determine, to an important extent, what is made available to the children to learn. Emma was learning to use her imagination in her conjectures about the characters. However, if the purpose is to develop an understanding of art then the teacher would need to be working with that goal in mind. Therefore, the purpose of talking would be different from that which Emma's teacher was using. It is true that the strategies used by the teacher and Emma are similar to those used in the dialogue between the author and Laura R. which was quoted earlier (pp.146-151). However, there are important differences. One of these concerns the aim of the dialogue from a teaching point of view. The concept under which the author was working was that Laura should be helped to talk about materials and making, as well as the content of the picture, so that her work could be set in the context of
learning to understand art. As it turned out, little was said about the subject of the picture. It is, perhaps, necessary to point out that that dialogue took place some time after the project reported below and so it was based on, and informed by, the results of that work. An indication of how the project informed subsequent teaching is given in the concluding part of the thesis.

Background experiences

The class of children who were involved in the project were used to talking about interesting objects which they brought into school from home. They were also used to talking about their own pictures and those of mature artists which they had seen in reproduction. However the quality and value of those instances of talking was unsatisfactory as a way of developing understanding in art. Each episode of teaching, involving, for example, different techniques, such as painting, or printing, or collage, seemed strangely unrelated. What is more, it was difficult to know what the children were learning from all their activities. Talking with them tended to relate to the subject matter of the work, or the technique which was being used. It tended to be unplanned and anecdotal. The main problem was that it was difficult to see where all the activity fitted in and consequently there was a significant lack of continuity both in teaching and learning. Something important was missing and that was identified as a concept of art which would provide a working framework
which was both child-centred and art-based. The project was
a way of resolving these practical and theoretical problems
by using the key ideas which emerged in Part 1 and which
are summarised on pages 155 to 157.

A brief description of the previous term's work will
serve to put the project into its practical context. The
topic for the first half of the term had been "autumn". The
main focus was to develop the children's observational
skills because these were poor. The development of
observational skills was thought to be vital for
investigational work especially in art and science. The
topic web with which the planning of work began included
headings such as leaves, fruit, vegetable shop, Harvest
Festival, songs, rhymes, story writing, pictures, Van Gogh.
In addition to the general plan detailed objectives were
made for each subject. For example, the planning for
mathematics was arranged in developmental stages and
objectives were given in terms of what children would be
doing and saying. It included a section about sorting and
matching in which it was planned for the children to be
talking about the attributes and properties of objects in
terms of their size, colour, texture, shape, material and
purpose. The planning for art included the aim that
children should talk about their own pictures and those of
Van Gogh which were related to the harvest theme. Unlike
the plans for mathematics the plans for art did not include
the language patterns or vocabulary to be taught. This
omission was later identified as being critical. It was
decided that the content and form of the dialogue which was needed could be based on the ideas of Henri Matisse (1953) in "The Snail" and of Richard Wollheim (1970, pp.231-235). These authorities were referred to earlier in the attempt to determine the kind of concept which would help teaching (section 1.1 pp.37-39). It was by reference to them that a concept of art was found which made sense of the many activities with which the children were involved before, during and after the project.

The concept of art

Richard Wollheim argues that every activity involves a concept and that an activity cannot be engaged in unless a concept of that activity is possessed. He continues (p.231):

"Secondly, two different activities might for some part of their course coincide in what they ask of the agent; nevertheless, there is reason to think that, over this part, the agent is engaged in one activity rather than another, and the answer, which it is, is supplied by the description under which he acts."

If this argument is applied to teaching and learning about autumn, for example through the study of leaves, by collecting, drawing and painting them, then it can be seen to be many activities, not one. The engagement in an activity would seem to imply that a degree of single-mindedness would be necessary, for otherwise one would be doing something else. So the aim of helping children to learn about autumn through a number of different activities could be confused, especially when the time came to assess
what had been learned. Would a drawing of an autumn leaf be judged on how far it could be associated with autumn, or on how good it was as a drawing? Using Wollheim's description of an activity would mean that painting, drawing, collage and so on would be carried out each under its own particular concept. So that for the children to be said to have engaged in the activity of painting they would need to be working under that concept, not under another, such as the concept of colouring, an important distinction which was explored earlier (pp.77-81). It seems that the problem for teaching that activity is to understand how children develop the concept of painting in the first place; and how, should it be faulty or partial, it can be developed in a more appropriate way. However, the acquisition of concepts is not an all or nothing affair. For example, the concept of painting under which Matisse worked as a child would not be the same as that with which he worked as an adult, though it could be argued that it would be related through the continuous development of his understanding of painting. Wollheim points out (op.cit.) that differences in the way concepts are known can be accounted for in the following way:

"... divergences in the way in which the concept of the activity is understood - or disagreement as to the nature of the activity - can lead to differences in the way in which the activity is carried out. Or to put the matter another way round; deviance or eccentricity or behaviour can be explained by differences in conceptual grasp."

This would seem to be a particularly useful way of viewing the way children work. It points to the need to examine
the conceptual grasp of children as they work in art. In section 2.3 'A child's concept of art' this 'grasp' is examined through an analysis of children's pictures and comments. The argument that when we are doing one thing we cannot be doing another led the author radically to simplify the practical tasks given to the children. It provided the author with the justification for the provision of art-based activities which did not relate to a class topic. It was thought that if the long-term purpose of painting and drawing was to build up a broad concept of art, then it would be important for the children to understand these activities as valuable in themselves, not simply as they relate to class topics.

What then of the concept of art itself? The point of Wollheim's analysis of the nature of an activity is to argue that when they work artists are acting with a concept of art in mind. The work which results will have in it the concepts which have helped to fashion it; they reappear. It will be seen that this point is used as one way of analyzing children's pictures after each of the activities reported below (eg.p.287). In the case of twentieth century artists that concept may be a particular theory of modern art which Wollheim identifies and develops. He suggests (op.cit.p.232);

"... that for the mainstream of modern art, the appropriate theory is one that emphasizes the material character of art, a theory according to which a work is importantly or significantly, and not just peripherally, a physical object."
This view of modern art can be interpreted in a way which is helpful in teaching for it emphasizes the importance of the physical aspect of pictures and this seems to be an aspect of pictures which is important to young children. An example of the enthusiastic way in which one child regarded her picture as a physical object as well as an image is to be found on pages 212-216. It was reasoned that since the process of making a picture is an activity which involves children in the manipulation or handling or materials it could be talked about by them in a matter-of-fact way. This was an important realisation and contributed to the way in which the project was designed. It was thought that talking about materials and process would be a good beginning to understanding how other people make their pictures. The connection between making and appreciating is an important idea (see pp.42-43) and it is developed further in section 2.4 'Talking and thinking about pictures'. The physical aspect of materials, their texture and colours, is one which was of interest to the children and so it seemed probable that it could be developed as an integral part of picture-making. The evidence which Wollheim presents in support of his theory of modern art also helped the author to realise that the children's work could be based on the study of colour and shape. Wollheim argues that the evidence for his theory can be seen in a wide variety of phenomena (op.cit. p.232):

"... the increasing emphasis upon texture and surface qualities; the abandonment of linear perspective, at any rate as providing an overall grid within which the picture can be organized;
the predilection for large areas of undifferentiated or barely fluctuating colour; the indifference to figuration; the exploitation of the edge, of the shaped or moulded support, of the unprimed canvas; and the juxtaposition of disparate or borrowed elements, sometimes free-standing, to the central body of the work, as in collage or assemblages."

Although Wollheim concentrates on painting in his argument much of the evidence for his theory can be seen to be embodied in "The Snail" by Henri Matisse (1953) which is displayed in the Tate Gallery, London. According to the education staff there, the picture can be talked about by young children in a simple but significant way which involves its materials and content. They can talk about the way the shapes were cut or torn; and how they relate by touching or overlapping. This knowledge gave the author the idea for the activities detailed below. It was important to the design of the project that Matisse was very interested in the materials he used for his cut-outs; that interest was the reason behind the introductory activity with which each phase of the work with children began. According to The Tate Gallery Review 1953-1963 (pp.95-97) the artist's knowledge of the properties of paper and gouache led him to choose carefully the kinds and brands which suited his purposes. For example, he chose Linel gouache with which to colour the paper for his cut-outs because it was light-fast; and, originally, because the colour range matched the printing inks which were used in the production of his book Jazz which was published in 1947. Matisse's assistants would colour large sheets of paper which were stored for later use. Matisse used to cut
or tear the shapes he needed which would then he pinned to
a large sheet of white paper. In "The Snail" the
background paper has been glued to the canvas so that its
texture would not show through. It was then painted white,
apparently because otherwise the paper would have yellowed
with age and because the white shapes of the picture are
important to the whole composition. The importance of the
background to Matisse was a feature of the way he worked;
this is a consideration of which the author was conscious
in her work with the children (see pp.192 and 241). So too
was the way the coloured shapes were moved around before
their final position was determined. Finally the ideas
that papers could be coloured for the artist by others and
that the very brush-strokes which were made were of
importance because they could give direction to the work
were also made part of the children's work in the project.

The meaning of Understanding

What can it mean for young children to be said to
understand what they are doing in picture-making as art?
It is obviously not to say that their understanding will be
the same as when they are adults. The question really is
about the kind of understanding of art for which it is
appropriate to aim with young children. The physical
aspect of getting to know materials has been emphasized as
part of that understanding, as has the physicality of the
process of making which is associated with, for example,
painting and making cut-outs. The important question is
how this can count towards the development of understanding in art. Leslie Perry (1973 p.116) points out that the interpretation of "understand" as "grasp in terms of a conceptual framework" is not sufficient because:

"Understanding in the fine arts involves cognitive activity, certainly, but in connection with a very specific situation, that of art-making."

The emphasis on making as the central concern in coming to understand art is applied by Perry to appreciation of the work of mature artists by means of the "recreation of the art-making situation for oneself." This view is helpful in seeing how the activities of young children can contribute to the way they look at the work of others. For example, if they have used cut and torn shapes and have chosen colours and materials to make their own pictures then, with the right kind of help, they should be able to use those experiences to look at a picture such as "The Snail". Understanding here, then, is set in the practical context of picture-making and consequently the teaching aims can be grounded in what the children can do and understand. In the project each activity leads into the next on the basis of an examination of what actually happened. It may be recalled that Dewey's advice to teachers was to start from practice when seeking improvements in teaching (pp.108-113) and the work below attempts to do just that. For this reason the tone of the reports is different from the rest of the thesis for they are essentially personal reports of specific teaching episodes taken from notes and tape recordings which the author made at the time. However,
theoretical and practical issues conclude each activity and relate to the major problems detailed in Part 1. They are: whether young children's activities can count as activities in art; developing relations between the aesthetic and the artistic; the kind of concept of picture-making with which the children were working; whether talking is necessary to the development of picture-making; and, what is to count as individual development in art. It will be recalled, perhaps, that the original intention of the project was to see whether the young children in the author's class could talk about their pictures in a way that could develop their understanding of art. The summary of Part 2 examines how far this aim could be said to have been achieved.

Chronology of the project

In view of the comparative observations which are to be made later, a simple chronological chart of the activities is given below.

Project title: Colour and Shape

Week 1 Activity 1: Black and white cut-outs
Week 2 Activity 2: Yellow cut-outs
Week 3 Activity 3: Blue cut-outs
Week 4 Activity 4: Red, yellow and blue cut-outs
Week 5 Activity 5: Painted cut-outs

As can be seen, the project lasted five weeks, about two afternoons each week were spent on guided, as well as unguided, work in picture-making and related activities. The longitudinal nature of the project was extremely
valuable from a teaching point of view as it enabled some assessment of how individual children's work progressed, of how understanding grew and of how effective this teaching episode was.

The design of the project

The design of the project originated in the hypothesis (p.71) that: art can be taught effectively in an intellectually honest form to young children; that the basic ideas which lie at the heart of all art (e.g. colour, shape, texture, composition) are as simple as they are powerful; the curriculum in art should revisit these basic ideas repeatedly so that they can be used in increasingly more complex forms.

The work was planned as five activities so that the children could get to know the primary colours and black and white, then the secondary colours which they would discover through colour-mixing activities.

Each activity was planned to have an introductory part in which talking, looking and handling materials was its main purpose. Then an optional "task" was given to the children which was designed to help them focus on one aspect of the materials as they worked. It was planned that this focus would depend upon the nature of the materials but most importantly on what seemed appropriate from what has been learned from the children by the author during the previous activity.

The main part of each activity was picture-making.
This was to involve the children in choosing from a range of shapes cut or torn from different kinds of paper and card. These were placed in trays and arranged so that the children could help themselves. The children were to be encouraged to try different ways of arranging the shapes before deciding on their final positions. They were also expected to talk to other children about their choices and arrangements.

In view of the demands of the other work to be done (e.g. hearing reading) it was not the author's intention to intervene in the picture-making while it was in progress. However when the work was finished it was intended to set aside time for reflection with individual children. The framework for reflection was simple: the children would be encouraged to talk about how they had made their pictures from shapes and colours in different materials. It was the author's intention to help the children to express their thoughts clearly about these formal elements and the process by which their pictures came to be so that they could be recorded and displayed next to their pictures. This would mean that the formal elements which they had talked about together and used individually would become an explicit part of their reflections too. Thus a common framework for talking could be built up. It would also be possible to see how successful the introductory sessions had been in introducing the vocabulary and language patterns which were thought to be necessary for talking about pictures (for example, see pp.179 and 202-203). The
same elements would be met in the next activity but in a slightly different context. This was, of course, derived from the concept of a spiral curriculum which John Dewey and Jerome Bruner both envisaged (pp.68 & 71). By this means it was hoped that over a period of five weeks the idea that pictures could be talked about in these ways would have been understood by the children. They would then have learned a strategy for looking at, and talking about pictures with each other and the author.

The planning and assessment of each session was detailed. These involved stating what the children and the author would be doing and saying; the author's assessments of the activities were meant to help sort out what needed to be done next. These reflections are recorded below, in each activity, under the following headings: objectives; task; organisation and materials; What did the children do?; What were they learning?; How worthwhile was it?; What did I do?; What did I intend to do next?

The analysis of individual children's work is based on their work and reflections. The content of these depends on the activity and individual responses, this means that the analyses for each activity have a different focus, as was indicated above (p.159).

Part 2 is meant to be a close study of what young children can say and do in art given a simple framework of ideas and materials which make sense to them. Its purpose, in the context of the present thesis, is to attempt to put into practice the hypothesis that in order for young
children to begin to understand their work in art it is necessary to be able to put them in touch with the structure of the subject.

NOTE: the five questions above which form part of the reflections on each activity, are based on those suggested in Curriculum in Action, an Open University short course for teachers.
ACTIVITY 1 BLACK AND WHITE CUT-OUTS

Concurrent with this activity were investigations into mixing black and white powder paint; making rainbows using a mirror in water; looking at and talking about a snow scene by Henrick Avercamp (1585-1634); and trying to imagine what living would be like without colours.

Objectives

a) The children will be sharing their observations with the rest of the class about the differences in the look and feel of a variety of black and white papers and card; they will be encouraged to use words and phrases to describe their properties such as shiny, dull, thin, thick, lets the light through, does not let the light through, darker than, lighter than, torn edges, cut edges;

b) the children will be talking together about how the shapes can be arranged using words and phrases such as overlapping, touching, in its own space, horizontally, vertically, diagonally; and

c) the children will be using the shapes to make their own compositions.

Task "Choose the shapes you want and arrange them in a way that you think is good. Try different ways of arranging the shapes before you stick them down."

Organisation and materials

A collection of papers and card of different shapes and sizes was put together. I chose from what was
available in school, which included matt and gloss gummed paper; tissue and crêpe paper; sugar, play, display and furred paper. Some of the differences in colour and tone were very obvious, some were less so. The process of choosing materials was valuable in that it gave me chance to reflect on their properties and in doing so to notice details which could be used explicitly in teaching. Some papers, for example, were of slightly different tones on each side, a property which is probably to do with the finish given during their manufacture. It seemed important to bring out such points when the children were talking about the materials for then their attention could be directed to the present and past states of particular pieces of paper. Information was given about how the paper had been made from wood pulp, had been dyed and cut in a factory, then packed and loaded into a lorry in order for it to be brought to school for them. It was a way of giving some significance and, perhaps, value to a resource which is usually taken for granted.

The purpose of the activity was to set up conditions in which materials, shapes and colours could be considered for themselves; that is, without any immediate figurative connections. For that reason it was decided to give the children ready-made shapes that were, in that sense, neutral and so the papers were cut and torn into straight-sided shapes ranging from long strips to small squares. Immediately after the class discussion, which is reported below, all the children were able to make their pictures
and some of them talked to me about their work.

What did the children do?

In the introductory activity the children looked at and handled the materials. They talked about the differences between the tissue paper and other kinds of paper. For example, it was noticed that the former was so thin that the colour of the children's hands could be seen through it and this property was used consciously in subsequent picture-making as can be seen in Jonathan's work on page 191. They found out that crepe paper stretched when pulled one way but ripped when pulled in the other direction. The differences in the lengths of the edges of the strips was noted and stated. Torn edges and cut edges were described as being straight or as being wavy. The children found it difficult to describe the torn edges and were not happy with the word "rough" which I suggested. Everyone said that they liked the feel of the furred paper. Some children were able to talk about the differences in tone of the black materials but talking about the different kinds of white was more difficult. In the end it was decided that some were whiter than others. Natalie noticed that the back of the white gummed paper was different in colour to the front and has used both sides in her picture (p.214). This discussion lasted about twenty minutes; the practical work which followed lasted anything from ten to forty-five minutes depending on individual involvement with the work.

The children seemed interested in choosing the shapes,
shades and types of materials which they wanted. They talked together about their choices, or about not being able to have what they wanted because there was none left. Some children stuck their shapes down straight away but others seemed to take pleasure in arranging and rearranging: choosing, rejecting and choosing again.

Time was made available for four children to talk with me about their work. These are reported in detail below and, as can be seen, each child talked, to a greater or lesser extent, about the materials; the way his or her activity had been sequenced; and how the shapes and colours had been arranged. Sometimes reasons for choices and actions were given. It is significant that they were keen to talk about their work and that the content of this was not only about the finished product but also about materials and process. Each child seemed to understand how to talk in this way about their work and to derive satisfaction from it. These children seemed to have understood the purpose and content of the introductory activity and were able to use both the vocabulary and the ideas which it had provided.

What were they learning?
In the class discussion the children were learning to look at, to feel and to handle materials in an investigative way which helped them to focus on the basic concepts of colour, tone, shape and texture. They were also learning to listen to the ideas of others; and to take
turns. At the same time they were beginning to learn that careful observation of the physical properties of materials was a valued activity in itself; and that this was part of a pattern of working which starts with a consideration of materials, colours and shapes.

The children sorted through the materials and then selected the pieces they wanted and rejected others. The decision which was involved in making choices between more or less subtle differences in tone and hue meant that the children were learning to discriminate between materials in a way that may not have been important to them before. The nature of the activity with its limited range of resources means that something about these decisions may be deduced. The decisions about which pieces of paper to choose are likely to have been guided by particular intentions to do with making a collection of materials first and then with their arrangement. In making a collection the children may have had to consider whether the shape or a piece was more important to them than what it was made from, or vice versa. It is possible to think of each picture as a record of the final choice each individual made as well as being a record of how he or she decided to arrange them. This points to the fact that these pictures are intentionally as they are: they are not a result of accident, or random choices. Given that children are making conscious decisions, it is possible to talk to them about their work. Something of the decision-making is revealed in what the children said. It is also possible that the criteria for
choosing or rejecting materials changed during their arrangement and rearrangement according to whether they fitted in with the rest. This may mean that some pieces originally chosen for their shape, or shininess, and so on, had to be rejected because, in the end, they did not look right. When first and second choices were rejected it may have been because they just would not do; and another piece would be chosen because it was just right, or would do better.

Some children found out that by overlapping white tissue on black the tone of each was changed and this observation was then used as part of their arrangement of shapes. Even though the materials were either black or white most children made use of the differences between what was seemingly similar. For example, the idea that one kind of white could be seen to stand out against another was frequently used.

How worthwhile was it?

The materials could have limited talking and picture-making negatively; however this did not prove to be the case. In looking at all the work the author found that there was a surprising diversity and individuality in the compositions. The way in which some of these held together as wholes by means of the relations which the children had set up between shapes and colours (e.g. Jonathan's work, p.191) was impressive. In this particular way these pieces of work went beyond the objectives with which the activity
began and, in doing so, demonstrated that the task, as well as the concepts it entailed, had made more than enough practical sense to enter into individual children's decision-making. It also indicated that further development through an extension of this activity was appropriate. The translation of the ideas into the children's work was partly a result of the class discussion, the usefulness of which was unexpected. Previous experience had shown that class discussions with young children could be far from ideal. The reason for this had been that when one person was speaking, and the rest were supposed to be listening, some individuals switched off until their turn came around. However, in this case everyone was able to handle the materials as these were being talked about so that what was being said could make immediate sense. This meant that listening was potentially more relevant to each child and their participation became rather more active than passive. Listening and speaking in this way seemed to be an effective way of spreading the children's ideas as well as setting a questioning and investigative tone for subsequent work. The discussion seemed to be an appropriate preparation for the practical work and also helped the children to talk about their pictures and the process of making them. It was then possible for me to judge how far the session had been worthwhile by comparing the children's work and comments with the explicit objectives of the activity. In addition it had helped me to see that the
The ideas originally made explicit in the introductory activity can be found in the children's pictures. For example, shapes can be seen to touch at their corners or overlap, to be placed in a horizontal, vertical or diagonal relationship to the card/paper on which they were stuck. This is not to ignore the obvious fact that the children might have done this anyway, but it is to say that the material aspect of the work was made a reasonable, discussable, public feature by the introductory talking; and that these formal elements could be part of looking and talking about pictures and how they were made.

What did I do?

In the first part of the activity the intention was to help the children to articulate their observations about the materials, shapes and colours in ways that would help in their picture-making. This was done by asking the question "What is the same and what is different about these two pieces of card/paper?" The question, together with the choice of materials on offer, was meant to focus subsequent talking on basic concepts. Limiting the materials at an early stage in the proposed series of activities was intended to simplify the process and the product in the hope that this would offer the opportunity for talking on a shared basis which could make sense to
each child; and which would really relate the process and the materials to the product in a way that could be expressed and understood by them. It was thought possible that in constructing a shared basis for thinking and talking about work in art then some development of understanding might begin. It was supposed that the form which that development would take would be shown in the children's work.

Though the choice of black and white did simplify the activity for the children it did not make talking easy because there are not many words in our language to describe white or black. This problems was overcome by the use of words which referred to relative tones. An attempt was made to introduce phrases such as "creamy white" or "brownish black" but these seemed to make no sense to the children at this stage. It was intended that the lack of bright colours would make a good contrast with the subsequent use of primary and secondary colours. This, perhaps, had something to do with an assumption about the connection between colour and mood. This unconscious assumption remained unexamined throughout, which is regrettable on reflection, and criticism of the project would be justified on the grounds that no explicit provision was made for the exploration of feelings. However, children's individual experiences of the feelings which were evoked by colour were not restricted by a lack of specific provision: their responses came out in later work. For example, the mood of Natalie's yellow picture
forms a contrast to the black and white picture which preceded it. This change of mood is plain not only from her comments, but also from the form and structure of the pictures themselves.

Two of the children who talked to me about their work had been in school for two terms and were confident enough to talk in the ways rehearsed at the beginning of the session. They were asked to talk about how they had made their pictures and they began by giving a chronological account of what they had done. As I looked with them at their work there seemed to be more and more questions to be asked, especially about the different kinds of decision that had made the picture the way it was.

As the children spoke I wrote down what they said. I did not record my comments and questions, which were closely tied to the above objectives, because the point of this activity was to display the children's statements next to their pictures. However, an example of the kinds of questions which were asked of a child who had difficulties is given on pages 246 and 248 and though other children did not need the same amount of help it serves as an illustration of how help could be given. In addition it may be helpful to refer to a transcript which illustrates a later more developed form of dialogue (Appendix 1). The children with whom I spoke were not picked out for any particular reason for it was intended that over the course of the project all of the children would have a turn to talk about their work and have their comments displayed for
What did I intend to do next?

The next stage was to display the work, the children's comments and the materials. The ideas which structured the display were: 1) that individual care over the choice of materials was important to this work; 2) that children could talk about this choice; and 3) that children could talk about the process of making and the form of their pictures. It was important to show that the talking could be simple, yet relevant. In order to make the first point explicit the whole range of materials was arranged as a border around the edge of the wall on which the children's work was placed. The intention was primarily for the children to be able to reflect on the activity and its products; but it served the secondary purpose of showing colleagues that work in art did not have to be figurative and/or topic-based. This was important since there was soon to be a staff meeting the aim of which was to begin to consider a policy for art.

The next activity which had been planned for the children was to look at, talking about and use all kinds of yellow materials.

2.1 ACTIVITY 4: ANALYSIS

Is it art?

The pictures and comments of four children are to be analyzed here. In this context certain issues will be
raised concerning: the purpose of talking with young children about their pictures; and the claim that this work is related to art rather than, for example, science or technology.

JONATHAN (p.191)

"I arranged a big long strip and I put furry black on the sides of the picture. I put lots of pieces of black on the long white strip. It was shiny. I put some tissue paper on, some black tissue paper, then some white tissue paper on top, the black showed through a bit. I put three white, furry strips through the middle."

The purpose of talking

The way in which Jonathan talked about arranging a strip shows that he is at the beginning stages of using a new word because he did not see the necessity of indicating how the shape was arranged in relation to anything else. That his placing of shapes in relation to the background was conscious is shown by the way he spoke of the sides and middle of the picture, though he did not refer to the diagonal emphasis of the work. He distinguishes surfaces as shiny, furry or see-through and notices what happened when the materials were overlapped. His comments are a simple account of observations, materials and process. What he said relates to the main objective of the activity but does not reveal much of the complexity of relationships which he actually set up in the picture.

For Jonathan the problem of having to talk about his activity in this way was new, as was some of the vocabulary he used. This seemed to have posed the right kind of
dilemma for this stage of the work. It was the right kind of dilemma because it provided sufficient pause for thought without posing a threat, or creating an obstacle to further development.

Materials

The materials he chose have different qualities and he has arranged them seemingly with this in mind. For instance one kind of black paper has a sheen which contrasts to some extent with both the glossy and with the furred paper. The torn edges of the shiny shapes provide a white outline which helps to make the black shapes stand out. Perhaps it was the fault in the purpose of the activity that the ground was not made as important as the shapes. On the other hand it was important to build on those features of the activity which were readily understood and meaningful to the children. It was thought that at this stage the figure-ground relationship would complicate the task, though ways to tackle this aspect of picture-making need to be worked out because the materials posed this problem by virtue of the fact that some were the same colour as the ground.

Composition

The picture seems to hold together as a whole because of the way the shapes have been balanced across both diagonals. This has been achieved in different ways: from bottom left to top right along the hidden white strip and
its overlapping black shapes; and from top left to bottom right by the repetition of two touching black rectangles on the lower of which is placed a white rectangle; and vertical balance is given in the same way using two furry black rectangles.

Is it art?

But in what respect could this picture be the product of work in art? Simply composing shapes into some kind of balanced relationship does not make the activity an activity in art. If that kind of judgement is appropriate then it would seem to depend on the kind of intention that brought about the arrangement. If the intention was to represent some thing or some place we shall never know; Jonathan’s comments reveal nothing of his thinking in that respect. The comments are technical in nature describing, as they do, the materials and his actions; but that does not exclude from the realm of art what he did or produced; nor does it, necessarily, place his work in science or any other field. In fact it would be difficult to claim that what he said or did or produced was to do with science, if that is about solving problems by hypothesizing and testing hypotheses. Even supposing his activities were guided by the intention to find out about materials through observing and testing their properties, his picture could not be claimed to be evidence of that kind of investigation because there are no pieces of paper that have undergone physical testing. All that has happened to them is that
they have been stuck down. If that process had gone on it must have preceded the picture-making and other bits of paper must have been used. In any case none of this could explain why the picture took its particular form. The picture has another kind of process about it which is not a scientific one. Perhaps all that can be said with certainty is that Jonathan chose these materials, shapes and tones and arranged them according to some intention which remains secret. I can look at his work and find an internal organisation in it which could represent his intentions. The picture which he made conforms to a logic which is bound up with its own space and shapes. That is a pictorial logic. For this reason the picture and the activity which preceded its present state is, without doubt, nearer to art than to science.

LAURA G. (p.195 )

"On my picture were was furry white and furry black. The furry white paper was in squares. Some of the black furry was long shaped and some was square shaped. There were some black shiny and white dull, some black tissue paper and some white tissue paper."

The purpose of talking and materials

Laura talked about the materials which were available to choose from as well as the ones which she actually used in her picture. She has used black and white tissue paper, matt white gummed paper as well as furry black paper. She has limited her choice even within the original restricted range, so for her own reasons she chose eight shapes; four
black and four white. It is interesting that she talks about them in contrasting pairs because she seems to have used this way of thinking about them to structure her work. The purpose of her comments seems to be to focus on the similarities and differences between the pieces of material which she had chosen.

Composition

She has arranged shapes symmetrically along a vertical axis. A strip of white tissue paper is matched by a larger strip of matt white. A black-white-black sequence is matched by a similar arrangement. This latter sequence is different from the first because this time the white shape is a space through which the background shows. The white shape which could have gone in that space is stuck near the end of the second white strip. The shapes each occupy their own space but some are close enough to set up a visual relationship. Three shapes touch along their edges.

There is evidence from her picture and comments that the original talking, as well as the activity of making, had made sense to her. The symmetry of the picture indicates the way she was thinking as she worked and is reflected in the symmetrical form which her comments take. This idea is one that Laura developed throughout the course of the project as can be seen, for example, in her red and yellow picture and the analysis of it (p.273).
Is it art?

Laura has considered shapes and colours for themselves but does that aspect of her picture-making mean that it can count as an activity in art? Her picture has its own logic which depends both on her restricted choice of materials and their arrangement; but a mathematical drawing also has its own logic. Is Laura's picture more like a mathematical exercise than anything else? The purpose of pictorial representation in mathematics is to collate and compare quantitative information; to draw numerical conclusions; to help in solving some problem. Laura does not seem to have made the picture for any reason beyond itself, she cannot use it to solve any problem; nor is it of much use in rehearsing the properties of mathematical shapes since the angles and edges are not regular enough to be measured except very roughly. The use of words to describe shapes as square, for example, does not make the activity mathematical; neither does the fact that the number of shapes used can be counted. For an activity to count as mathematics, or art, single features have to be judged within the whole context of that activity and that must include its purpose and manner of working.

The context in which Laura made her picture was more likely to bring about some understanding of what it is like to work in art than it was to show her what it could be like to work in mathematics.
"The picture is made from black and white paper. There are different kinds of white and black. The colours are different. There is a furry black. I arranged the shapes in a pattern. I put two different kinds of white together."

The purpose of talking

Kirsty was younger than the other two children, she had only been in school a term and was shy; I asked her several questions to help her talk about the work. The questions were about whether the black and white papers were all the same; how she had arranged them; and what the two whites she had used were like. Her picture shows that she chose six different kinds of white and black papers and has crumpled the tissue paper, so while she seems to have been interested in seeking out differences and trying things out she did not have the right kind of vocabulary or experience to articulate this interest; and of course she simply may not have wanted to talk.

It is probable that she was at the beginning stages of using the word "pattern" since the arrangement she made is not a pattern. One of the main purposes of talking with her was to focus on simple differences between the materials without repeating the words she needed so obviously that any comment she then made could not count as her own. In retrospect this was a mistake. The other purpose of talking was to record what she had said, her words and phrases not mine, so that these could be displayed next to her work. All the same this was a
teaching opportunity missed. For example, she might have been able to talk about what it was about the nature of tissue paper that had made her choose to screw it up rather than the other kinds of paper; or whether she could see through one kind of material rather than another - an idea she seems to have used at one point in the picture. She could also have been challenged about her use of the word pattern. Even though the concept of pattern is not one that is easy for young children to understand without a great deal of practical experience and discussion this would have been a good opportunity to see exactly what she thought the term meant.

Composition

She has arranged the shapes on white card so that they touch along their edges, or at corners, or overlap, or have their own space. It would be difficult to say that this arrangement was intentional for it seems to have turned out this way as different pieces were added. This is not to say that Kirsty worked without intention or that the picture is simply a collection of accidents. Almost all the shapes have been placed so that they relate to each other. Together they mark a path which goes around the picture space. Across the centre of the space a visual relationship is set up by the positioning of two screwed up pieces of white and black tissue paper on each side of the picture. What is interesting is how each piece of material was chosen and why it was put in its final position. If
each piece was chosen and positioned in relation to the others then the picture was aesthetically considered in its making. This point is developed, in Section 2.2 'Developing art from aesthetic experience'.

Is it art?

Kirsty had thought and talked about the materials and their arrangement. In talking about her activity in terms of making a pattern she may have been trying to differentiate between making a picture which is about shape and colour and one which is figurative. If this is so it may be possible to say that Kirsty understood the activity as one in which colour and shape were of interest for themselves; that their material and visual properties were the factors which determined which pieces were chosen and which were not chosen. If these are choices which are important in art then Kirsty's work may be safely regarded as being within the field of art. Her work is at an early stage of aesthetic awareness but by the end of the series of activities she had become what could be regarded as a confident picture-maker and was able to talk about her own work (see pp.316-323).

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ACTIVITY 2  YELLOW CUT-OUTS

Concurrent with this activity were: colour-mixing with yellow and white powder paint and painting pictures of the children's choice; collecting all kinds of yellow objects from home for display; and collecting all kinds of yellow
materials to add to a yellow paper chain.

Objectives

a) To enable all the children to share looking at, talking about and handling different kinds of yellow papers to find out what was the same/different about them; and to talk about the different ways they had found to arrange them in the previous activity;

b) to give each child the opportunity to make his/her own choice of materials before making a picture about the colours and shapes they had chosen; and

c) for some children to talk about how they had made their pictures and the materials they had used.

Task "Choose the pieces of yellow which you want to make your picture. While you are working think carefully about how you can arrange the shapes."

Comments on organisation and materials

Thirteen different hues and tones of yellow were collected together and were cut or torn as before. The materials were of the same kinds as previously. This time a greater variety of different sized white card was provided for the backgrounds; some of this card was grey on one side; some had a glossy finish. All these materials were placed in a central resource area so that everyone could help themselves.

For the introductory session the children were all together and the materials were spread out on the floor so
that the full range of yellows could be seen easily.

Time was set aside, as before, for individual children to talk to me. In the end six children had chance to reflect on their work. Their comments were displayed with their pictures. It had been decided to display all the work in the hall with the questions and comments which the children had made. The point of this was so that the whole school could share this way of working in art.

What did the children do?

The children found it difficult to talk about the different kinds of yellow. Some were able to say that one was paler or lighter than another. This had been helped by the colour-mixing activity which was extended later on to the adding of red, or green, to yellow. The reason for that is discussed shortly.

The children restricted their choices of materials to between two and nine kinds. None chose to use all fifteen kinds, which shows that some discrimination was going on. Some children made their pictures representational; some used the ready-made shapes; and others used scissors to cut out the shapes they needed. They arranged the shapes and colours so that they touched, or overlapped, or stood in their own spaces. It was evident from looking at all the children's work that some account had been taken of the picture space because shapes had been arranged in horizontal/vertical/diagonal relations to the edges. The children seemed more confident with the activity and took
initiatives such as getting scissors to cut the shapes they needed to carry out their ideas, rather than using ready-made shapes.

What were they learning?

They were learning: to select their own materials from a limited range that were right for the job which they had in mind; that materials themselves can be a source of ideas; and that picture-making does not have to be representational or figurative.

Some children seemed to be consciously dealing with the constraints of the activity, such as the limits of the picture space and the limited range of materials. It is important that, in doing so, they found that the constraints became possibilities, even a source of ideas and associations. For example, James said:

"I wanted to make my house and garden from yellow. There are different yellows in my picture. There is a thin strip through the middle of my picture - it looks like a snake."

Douglas seems to have got the idea for the content of his picture by finding out first what the materials could do because he said,

"My picture has got a little round thing in the corner. I made it by curling it round on itself. Then I glued it round. It is the little grandma's house."

He goes on to describe how the long strips are the paths through the forest; how he liked using yellow but could have used brown; meaning, perhaps, that had that colour been available he would have used it rather than yellow.
Other children seemed to be learning that the picture space could be either a constraint or a help in structuring their work. Ben's comments show that he has considered the space available (p. 218). The use of the picture space might seem to be too technical an idea for young children to tackle. However, this aspect of picture-making is fundamental to the process and it features as a conscious element of the work shown here. The children seemed to enjoy deliberately letting the material go off the edge of the page. When they were asked whether they wanted shapes to go over the edge of the page the children generally had good reasons for having done so. For example, even before the project began one child said that she wanted the head of an "angel" to go off the edge of her picture because the "angel" was falling down onto a cloud. The question that arises from such comments is whether children are switching deliberately from seeing their work as an image, to seeing their work as simply the materials from which the image is made. It would seem that it is possible for them to make different kinds of decision: that is, either about the material form of the picture, or its visual image.

Finally, the children were learning to talk about the new materials, especially about the fact that one colour could come in so many forms; and that their comments were valued sufficiently to be written down and displayed together with their pictures.
How worthwhile was it?

The initial discussion showed up the difficulties of talking about different kinds of yellow so some modification was made to the planned colour-mixing activities. Phrases which I used, such as greenish-yellow or reddish-yellow, made no sense to the children and because of this it was arranged with the parent who was helping with colour-mixing that in addition to being able to make the yellow paint paler by adding white, the children would be able to make different kinds of yellow by adding red or green. This experience was intended to make practical sense of those phrases which at some stage, might be helpful to their descriptions of the colours they used or made.

The activity of bringing yellow objects from home provided a varied and meaningful resource for observation and discussion which was focused on the attempt to describe which kind of yellow the object (frequently a toy) was.

Another resource for learning about colour was provided by the children who collected various kinds of material from around school. For example, the children found ribbons and scraps of fabric such as felt as well as balls of wool. These were not used for picture-making but were put on display. The choice of materials and colours for picture-making was greater than before and therefore the children had to be more discriminating. This was a development from Activity 1 and the careful way in which children chose their materials showed that it was an
appropriate extension. They were able to work on their own pictorial ideas for the shapes and colours and did so with more confidence than before. This is shown in the comments made by individual children, certain of which seem to be more personal than those of the first activity (for example, p.204, p.212). While that experience had shown that the children enjoyed reflecting on their own work perhaps they were able to respond with more feeling about the colour yellow than they were about black and white. The difference in colour may account for a difference in response so it would be interesting to find out whether it made a difference to picture-making decisions. This point is taken up below as a consideration of the aesthetic and the artistic aspects of picture-making (pp.211-225).

The children found that they could make many more yellows than we had been able to collect but with that came the dilemma of not having the words to name them. This led to the idea that we do not have words for all the different yellows which exist. The problem with the experience of mixing colours was that the children found it difficult to remember how they had made particular colours. This showed that the children would need time to learn from a series of similar experiences before they could be expected to use the knowledge gained. The design of that learning process needs to focus on ways in which children can talk about what they have found out while they are mixing colours, as well as subsequently. The reflections on colour-mixing showed how difficult it is for young children to remember
changing colours. It had been assumed that the process of mixing colours was simple. It was thought that if children added red to yellow they would see what happened, remember it and be able to describe what had been seen. Evidently, this assumption was a mistake.

Despite this difficulty, the work had developed into a much richer experience for the children than the original task had promised and was, therefore, well worthwhile in the context of beginning to develop an understanding of what it is to work in art.

What did I do?
The provision of so many kinds of yellow presented the kind of dilemma which was appropriate for the development of the children's sense of colour. Children's ability to discriminate between the colours was also challenged through questions, such as "Are all the yellows the same?". This question contained the implication that they were not the same, consequently they were led to talk about the differences. The comments of some children were about lighter and darker yellows; this was a good start in considering differences and as it needs time for children to understand that relationship I was prepared for this idea and its articulation to be rehearsed in all the planned activities. It was considered important that the children should be helped to talk as clearly as possible about shapes and materials. In order to achieve this aim useful words were reintroduced, such as, "edges", 
"corners", "overlapping"; and new ones given, such as "opaque" and "translucent". I was also sure that more could be said about the process by which the pictures came to be the way they were.

In setting up the display the purpose was to make explicit as much as possible about the pictures, the process and the materials from which they were made. To achieve that goal questions were devised which were meant to help other people in the school to look at those aspects of the work. The questions were also intended to help them to look in a way that would help them to spend as much time considering the ideas of shape, colour and texture as the children had done while they were in the process of choosing and making. The questions listed below were displayed with the materials around the edge of the wall on which the pictures were arranged.

- What is the difference between the yellow tissue paper and the crêpe paper?
- Does it feel different?
- Does it look different?
- Is there a pale yellow?
- Is there a dark yellow?
- What happens when a shiny yellow is next to a dull yellow?
- How are the shapes arranged?
- Do they touch?
- Do they overlap?
- Do they have a little space or a lot of space around
them?

• Are they tilted or straight?
• Are the edges cut or torn?
• Are the edges straight or curved?
• Are the pictures painted?

These are the questions which also structured the class discussions and the dialogues with five children which are reported below.

What was planned next?

The way in which the children worked through the activities more than fulfilled the original objectives. This was because the objectives had not anticipated the ability of some children to distance themselves from their own work and to talk objectively about colour, shape and materials. The children had been aware of, and had been able to talk about, different kinds of yellow. For some, this had become the subject of their pictures. Making colour the object of concern in picture-making seemed to match these children's interests. How far these interests can be considered to be simply aesthetic or to be artistic is considered below when individual pictures and comments are analyzed.

As the activities seemed well matched to the children's interests and understanding it was decided to proceed with the next activity which was about the study of blue.
2.2 ACTIVITY 2: ANALYSIS

Developing art from aesthetic experience

Developing an awareness of colour, shape and texture may contribute towards the development of aesthetic perceptions of many kinds of things: but this alone cannot develop an understanding of picture-making, or of art. The activities were intended to develop children's understanding of the kind of picture-making that can count as art. In order to see how far that intention was achieved an attempt is made to consider the aesthetic aspect of children's pictures as distinct from the artistic. (For the sake of argument, let us suppose that that distinction is possible). In addition, the point of this section is to see what kind of relationships might exist between the aesthetic and artistic experiences of individual children. To achieve that purpose some definition of aesthetic and artistic is essential but the definition necessarily relates to the context in which it is being used: that is one of young children making pictures. Here, therefore, the aesthetic will be considered to be those responses which concern colour, shape or texture; the artistic will be to do with decisions related to making the picture. It is being claimed that the pictures the children made are not simple aesthetic responses to colour and shape but that they are the result of decisions which are artistic, i.e. related to picture-making.
"I just piled up all the papers on top and when I hold it up all the papers go down and when I jiggle it about all the papers dance. I chose the different papers because some were shiny and some were long and curly. The yellows are all different. There are five different yellows. I liked using yellow."

Natalie has used all the picture space but in quite a different way to her use of it in the black and white picture (p.214). In the yellow picture she has jumbled the shapes all over the place and has made movement a feature of the picture, both visually and physically. She has arranged the shapes so that none of their edges are perpendicular to each other or to the sides of the picture space; and the loops of loose crêpe paper actually move when they are shaken. Movement is also suggested by the shapes which go off the edges in the background; she has chosen to keep the shapes whole rather than cut them to fit the white card which supports them. This concern to keep shapes whole is discussed with Laura G. who had a different solution to this problem (p.272).

In her black and white work Natalie has used the edges of the rectangular picture space to structure her work. The white strips have been placed parallel to its short edges; the black strips are parallel to its long edges. All the shapes are arranged in a vertical or horizontal relationship in a strict, but not simple, balance. The repetition of certain elements is pattern-like; for example, the long white strips of gummed paper are used on both sides, the gummed side is cream coloured and shiny,
and it is alternated with the white matt side: that this was a conscious distinction is shown by her comments about materials. There is an obvious change in mood from the regular arrangement of black and white shapes in her first picture to the chaotic, but lively composition of the yellow picture. Seeing the two pictures together shows how Natalie has responded to her feelings about working with a colour she enjoys and how her knowledge of the way the materials behave have helped her to express this.

**Aesthetic aspects**

It could be said that Natalie's aesthetic response to the yellow materials is the subject of her picture. She seems to have been excited by how much she liked using them and her excitement has contributed to the decisions she made about how to arrange the materials. The way in which she has arranged them is a visual record of two kinds of movement: her own and that of the materials as they settled onto the card after she dropped them. Her aesthetic response to the material seems to have been so strongly felt that the feeling has been translated into physical action. She wants others to join in with her responses for she demonstrated to the author how the papers danced when the picture was shaken. Her response has been as much to do with the physical properties of the materials as to their colour and as much to do with movement as to visual aspects of the picture. It is an aesthetic response which has kinaesthetic aspects both through the picture's making
and through Natalie's reflections on it. The relations between these aspects are tightly woven.

KAREN (p.217 )

"I chose four different kinds of yellow. I chose them because they were nice and bright. I have chosen some shapes with cut edges and some shapes with torn edges. Then I thought how to put them down. I put a long yellow piece of paper along the top. It was nice and light."

Karen's work seems to be a simple record of her choice of materials and the way she chose to arrange them. She talks about her choice of colours and shapes which reflects her interest in the ideas of the introductory talk. She implies that she has distinguished between bright and dull yellows and has decided to use only the former. Some shapes have been overlapped, others have been placed in spaces of their own.

Her comments show that she was able to state clearly her idea of the qualities of the colours and the properties of the materials; and it is evident that thinking about these has entered into her work. She is at an early stage in relating shapes to one another and to the picture as a whole. Her work throughout the project showed a sustained interest in the small differences between colours, shapes and materials. This picture, however, is the least successful at holding together. The judgement that the visual success of a piece of work depends to some extent on how well its parts are related was not planned as part of the children's activities. However, it is true that when they were encouraged to talk about how shapes could be
arranged they were learning to consider those relations.

But, the relationship between shapes is not the same as the relationship of shapes to the whole. That issue was not tackled explicitly in teaching; it seemed too abstract at the time. On reflection it could have been considered by looking with the children at one of their pictures which had that property.

Aesthetic aspect

Karen responded to the materials by choosing the yellows which she felt were "nice", "light" and "bright" and by choosing shapes which had cut or torn edges. She was careful about her choice and about the way she stuck the pieces down. It is as though she were interested in the individual pieces of material for themselves rather than for any other reason. Perhaps the experience of looking at, feeling and enjoying the materials was more important to her than making a picture. Or perhaps the picture-making was a simple conclusion to an aesthetic experience which might have been satisfying enough in itself. It may be that the picture-making was unnecessary.

BEN (p.219)

"I put a frame round the edge. I made it from all different pieces of paper. My picture has got a robot's face. There is only one bit of tissue paper because I couldn't find any more. There are five different yellows."

Ben has limited his picture, in the physical and visual sense, for he has made a frame around it. He has done this by using the edge of the white card against which
to line up a continuous series of shapes. At the same time he has gone beyond its physical limits when he talks about the picture having a robot's face. This point needs some explanation. It is probable that it was not Ben's original intention to make a face. It is more likely that when he looked at the picture after its completion he noticed that he could make the shapes relate in a way that suggested to him a particular kind of face. Ben's reflection on his own picture shows that he is giving himself over to looking and is able, thereby, to gain access to other experiences and associations. Reference was made earlier (p.43-44) to the way in which Tàpies describes the picture as only a support which invites the viewer to take part in other experiences so that the "subject may be found in the picture, or only in the mind of the viewer". Ben has let two four-sided shapes above a horizontal strip of paper represent to him a robot's face and so he seems to be using the picture he made as a support for further ideas, just as Tàpies describes.

Aesthetic Aspect

Ben has responded to the edge of the picture space by arranging shapes so that it is emphasized. He has used the shape of the white card to structure part of his picture. Within that framing structure his decisions seem less determined. Was his indecision to do with the materials? His remark about using only one piece of tissue paper because there was no more left puts into doubt the idea that he was able to choose his materials. Perhaps the
materials he has used are simply those which remained after everyone else had finished choosing theirs. If he was not able to choose the materials he wanted then is comment about the aesthetic aspect of his picture appropriate? Are there any clues about his aesthetic experience? He makes a comment about different kinds of yellow but there is no hint about what he thought or felt about them there. It may be that his lack of aesthetic response has something to do with the way the picture turned out.

CHRISTOPHER (p.222)

Christopher has let a shape represent his chest of drawers, but there is evidence from what he says that this was his intention from the start:

"I chose three different kinds of yellow. The tissue paper tears easily, it's very thin. The furry yellow is my chest of drawers. It feels very soft. Some shapes are long squares. I like the furry yellow."

Aesthetic response

Christopher has worked with the materials intending that they should represent his bedroom. It seems likely that the furry paper has set off a series of associations which led him to think of his bedroom and to make a picture of it. If this was the case, then, it could be said that his aesthetic response to the feel of the paper is basic to the subject matter of the picture and, consequently, was an important aspect of its making. His reflections show that the furriness of one kind of paper was important to him.
The experience of handling the materials while he was making his choice, during the making of the picture and as he reflected on it was aesthetic. Therefore, the picture could be said to be a record of that personal, aesthetic experience.

Relations between picture-making and art

It was stated above that here the artistic aspect of picture-making, as distinct from the aesthetic aspect, would be regarded as those decisions which were related to making. It has been difficult to separate these aspects in certain cases. It is tempting to argue that the more inseparable these prove to be the closer to art a picture can be judged to be. Certainly, this seems to have emerged as the criterion by which this set of pictures has been analyzed by the author. If it were used to assess the work in terms of the nearness of each to art then Natalie's picture would come first, since her picture was about her aesthetic response. But this is not satisfactory for it amounts to claiming that for a picture to count as art its content has to be about the aesthetic qualities of its materials and processes alone. This is not what is meant. What is being said is that in cases where aesthetic response is meant to be the picture's content then the artistic and aesthetic aspects will need to be fully complementary. If the pictures can be seen as evidence of the decisions made by the children and of the actions which they carried out then it is possible to consider the merits
of the decisions which were made. This has been done in relation to the way aesthetic responses to the materials might have affected the form and content of five pictures. Judgements about how far the pictures could be evaluated as evidence of good work in art might be concerned with those relationships. They could involve the questions: "How interdependent are the aesthetic and artistic decisions?"; "How suited are the form and content?"; "How far do the elements of the picture relate to one another and to the picture as a whole?"; "Do the materials suit the content?"; "Do the materials pose a dilemma for the children?". Some aspects of these questions have been considered but they raise many other issues which will not be considered here. Instead, the issue which will be pursued is that of decision-making in a limited context, such as that presented above.

It was thought important for the development of understanding in art that children should be enabled to make conscious decisions about content, materials and their arrangements. Each child seems to have made the simple selection and arrangements of shapes a matter of personal interest and involvement. However, this was a personal choice which was made within a limited range. The limits were not chosen by the children, they were chosen as part of a planned programme for teaching and learning in art in which choices were to be widened gradually. The next objection which could be raised is whether such limitations were so severe as to invalidate the claim that
opportunities were being provided for individual choice and
decision-making. In defence, it can be argued that it was
because of the limited choices that the children were able
to distinguish subtle differences and choose between them.
Here, the restrictions are thought to have provided the
right kind of dilemma by which learning was promoted rather
than undermined.

Formal elements and representation

Sustained interest and involvement, despite the
limited context, was evident; this was an important
finding. But can it be assumed from this that these
children were able to make their own an interest in the
formal elements? Did the ideas which were talked about
make enough sense to enter into their activities and offer
more scope for their own ideas or did the whole procedure
limit them? Would it have been better to have developed
their ideas through the representational work that is
normal practice? After all if Ben wanted to make a robot's
face would not that intention have been more successfully
carried out if it had started off in a more appropriate
way?

The argument in response to these doubts is that all
representative work involves formal elements, use of
materials and a particular kind of process. The successful
combination of all that goes towards the production of a
good picture, provided that the combination is the right
one for the content. There is a complex mass of ideas and
conditions by which judgements are made about work in art; often such judgements are not a matter of explicit concern and they tend to remain at an intuitive level. In teaching, it is appropriate for judgements to be explicit. The objectives (p.202) of the activity with the yellow materials were meant to continue to make these judgements explicit.

* * *

ACTIVITY 3 BLUE CUT-OUTS

Alongside this activity the children were mixing blue powder paint with red or yellow or white.

Objectives

a) The children will be able to bring from home all kinds of blue objects and to talk about what is the same or different about the blues;

b) everyone will be able to look at and talk about the range in tone of the blue materials which have been collected;

c) each child will be able to choose from the materials the ones which they want for his or her picture, to arrange them in relation to one another and to talk about that arrangement; and

d) some children will be able to talk about their work with me so that their comments can be recorded and displayed next to their pictures.
Task: "The first job is to choose the blue papers you want for your picture. The second job is to think about what is the same and what is different about them. The third thing to think about is this: if you cut small bits from a large piece of paper, you can try to see whether you can use the bits left over in your picture - as well as the bits you have cut out."

Organisation and materials

The range of blues that was available was much greater than for yellow. In fact it was so great that to give the range some order I arranged the materials into pale, medium and dark blues and this introduced a new aspect of colour for the children to talk about. I cut the materials into straight-sided shapes, as before, but because there were so many interesting shapes left over from other jobs these were included also. This addition related to the third task which the children were given. There was dark blue paper-backed foil of a kind we had not yet talked about, or used before: it was reflective and this was a new property for the children to consider. Rectangles of card with white or grey sides were available in different sizes and proportions.

Space was made available for the children to display the blue objects which they brought. Two afternoons were set aside for colour-mixing experiments when each child worked in a small group with a parent helper. The main colour with which to experiment was blue to which the
children could add yellow, red, or white. As on previous occasions, the paint was set out in powder form with spoons; the water was in small plastic bottles; and there were plastic lids of different sizes in which to mix paint.

Time was set aside for introducing the activity and for recapping on previous ones and altogether there was about an hour and a half available for the activity. It was intended to talk with individuals about their work and record their comments later that week.

What did the children do?

Most of the children were actively involved in making a resource bank of blue objects and were able to share their finds with the rest of the class. The children were all able to make choices about the materials they used in their pictures. The fact that there was a great range of blues - and there were too many to count, unlike the yellows - made the children's decisions more difficult. There was some evidence that certain kinds of decisions had been made by the children: some had limited the different kinds of blue they chose, for example, the range of different blues in a single picture varied from two to twelve; some children based their choice on particular tones, for example, one child made two pictures, one was in medium shades of blue and the other was in dark blues. The idea of using all parts of a piece of material was made use of by a few individuals. All the children made pictures using blue and I was able to record what five children had
said about their work.

The children talked to me from time to time about their colour-mixing experiments and I recorded those of two children. One comment was an attempt to recall what had happened; the other was about the quality of the blue which had been made. Helen said "I mixed a little bit of yellow with blue and I got dark green and light green"; Lee said "I mixed a little bit of blue into the white and I got a shiny blue like in the sky when there is a rainbow."

What were they learning?

The children were learning to look around their own environment for different kinds of blue. They learned that there were many different kinds of blue, the names of which were not known to them, or for which there were no names but for which they could invent names.

They were learning to build on their previous experiences and had gained some confidence in using materials as a source of ideas for picture-making. They were learning to talk about tone and to decide which colour would count as dark and which would count as light. The children who had not understood this particular use of the words "light" and "dark" had begun to learn about their use in connection with colours. This way of describing colours was particularly meaningful in connection with blue because the lightest and darkest examples were very different and therefore easy to distinguish. When talking about yellow the concept of tone can be more difficult for the simple
reason that it is usual to speak of "pale yellow" but not of "light yellow"; and it does not seem to make sense to describe a yellow as "dark". It makes sense to speak of one yellow being darker or paler than another but comparisons of this kind take time for young children to understand, perhaps because these are not the kind of decisions which they are called on to make ordinarily.

They were beginning to learn to work with the internal structure of the picture space in mind while they were arranging and rearranging their shapes and colours. They were thinking about the shapes and the sizes of spaces between them before making their final decision about where these should be fixed.

How worthwhile was it?

The range of blues became the leading idea in the children's talking and making. It was valuable from the point of view of extending the range of words that could be used to talk about colour. For some children the arrangement of different tones of blue has structured their work; for others this seemed to be a new way of regarding colour. For example, shapes of one tone have been placed so that they overlap shapes of a lighter or darker tone; in some cases children have related three tones by overlapping pale, medium and dark blue.

It seemed that the children could be interested in the dilemmas which were created by the process of making pictures using a wide range of blues. Most children were
engaged in picture-making for more than an hour without adult intervention which showed that the right kind of interest had been generated by the tasks given.

The colour-mixing work was valuable in developing the idea that blue could have many forms. The children discovered that they could make a vast range of blues most of which seemed to have no name. Each child was able to make their own range of blues and watch them change as they added red, or white, or yellow. It was learned that different kinds of blue, red and yellow make different kinds of purple or green. Again, it was important to realise that what happens in the activity of mixing colours is difficult for young children to remember. More often than not it was not possible for them to recall how they had made the different colours. Perhaps Helen's remark about making light green and dark green by mixing a little bit of yellow with blue shows the kind of confusion that existed for the other children when they were asked to talk about the activity. Helen's remark shows that she is in the early stages of using the vocabulary of tone. This shows that the children needed many more experiences of mixing colours and talking about them in order to remember what actually happens when particular colours are mixed together; and to use the knowledge for their own purposes. It had been supposed, erroneously as it turned out, that since they had experienced the same activity with yellow paint and had then added red or yellow to blue they would be able to use terms like reddish-blue or bluish green.
Evidently, two activities were not enough to build up the appropriate knowledge.

The comment which Lee made about the quality of the blue which he had mixed was significant for several reasons. It showed how absorbed he had been in the process and its result. This absorption was undoubtedly an aesthetic experience of the blueness and of the wetness of the paint. In order for him to recall the particular quality of the blue he had made and then to communicate it to someone else means that there was a point during his mixing of the colour that he thought about its wetness and shininess. He seems to have been conscious of the properties of the paint through what he was doing. When he said, "I mixed a little bit of blue into the white and I got a shiny blue like in the sky when there is a rainbow", he was taking the experience a stage further. It seems that the experience was memorable enough for him to want to talk about it; and was vivid enough to enable him to describe imaginatively the colour to someone else. It was important, in informing my teaching expectations, that this sensitivity to colour and imaginative use of language was possible. It provided an insight into the way the process of mixing paint could be experienced and reflected upon. In addition there was an important lesson to be learned about the individuality of children's responses and the way that this uniqueness can be communicated in their own words. It showed that talking with individuals about their work in art can help them to enjoy what they have done;is
personally meaningful, and therefore worthwhile.

What did I do?

In introducing the activity to the whole class I used the sort of language to talk about the materials which it was thought would help the children to learn about their properties. I explained why I had sorted the materials into pale, medium and dark blue. I asked what was the same and what was different about the shapes, tones, hues and textures. During the discussion it seemed important for the children to be able to recognise different kinds of paper and to be able to name, for example, tissue and crêpe paper. The children found out that they could almost see their fingers through the tissue paper and that it tore easily. They needed help to say that this was because tissue paper is so thin; it may be that they had not made the connection between the thinness of the paper and the way it tore easily. They found that the crêpe paper could be stretched and was difficult to tear. The paper-backed foil introduced the property of shininess and was compared with the non-shiny surfaces of the other papers.

The main aim of talking with individual children was to help them to make clear statements about the blues they had chosen; as well as the shapes and their arrangement. I asked them to tell me about how they had made their pictures and about the colours and shapes they had chosen. When they needed help to express what they wanted to say I asked them questions such as "Is it a light or a dark
blue?"; "Is the shape touching at the corner or at the edge?". The judgement about whether they needed help depended on how well the child qualified shape, colour, position, or texture. It was necessary to be flexible about this and to fit the questions to the child as well as to the particular piece of work. For example, if I noticed that a child had cut one shape from a larger piece of blue card and had used the rest of it elsewhere in the picture then I might ask them about that. Sometimes, when a child had made a light blue shape touch a light blue shape I would ask about that decision. Some children knew exactly what they wanted to say and were able to say it; others, who were not practised in speaking in complete sentences, needed a lot of help (e.g. Martin p.246).

There were many variations in what the children said, in my responses and interventions. Sometimes a piece of work was so complex that it was helpful to have the limited focus of shape and colour on which to concentrate. This point had implications for talking about objects as well as other people's work when a decision has to be made about which aspect of the work would make a good starting point. The children often talked about their pictures by giving a chronological account of what they had done.

The decisions which I made about how to talk with the children and how far to push them in their qualifications were led by the idea that talking about shape, colour and materials would help them make more informed choices in their future picture-making. It was thought that by
continuing to make these concepts explicit through talking about them children would be helped to further develop their understanding of what it is to work in art.

I displayed all the children's work, together with the comments of those individuals with whom I had talked.

What do I intend to do now?

As the children were able to talk about their work in a simple way, and were enthusiastic about making the blue cut-outs, it seemed appropriate to proceed with the next activity. This was the introduction of red materials. It was disappointing not to have been able to talk with more children about their work. The main aim as to talk to each child about one of their pieces of work so that they could be helped to reflect on the ideas they had had about colour, shape and materials. It was also intended to help me to find out whether the children were actually learning what I was trying to teach them through each stage of the activities. In view of the importance of talking to each child the aims for the next activity were to include making time to talk with more than five children.

2.3 ACTIVITY 3: ANALYSIS

A Child's Concept of Art

In this section it is intended to consider that aspect of the main aim of the project which was to develop a way of talking with children about their work in art that would deepen their understanding of picture-making. In order to
find out about the children's understanding it can be asked: "Under what concept of picture-making were the children working?" This may be discovered by examining the kind of decisions and choices they were making. Therefore, the examination of each child's work will focus on the decisions which made the picture what it is. Then each examination will conclude with an assessment of the idea under which he or she had been working.

EMMA (p.237)

"I wanted to put the strip of paper like this, round. The shiny blue shapes are overlapping. This is a shiny blue triangle. I cut one round shape out of a square shape and I used that part as well. I chose this triangle because it was a different blue. This shape is like a king's hat."

Materials and formal elements

Emma has chosen three kinds of paper in three different blues which are all dark. She has found out that the long strip of display paper can be looped so that it stands out a good way from the rest. She specifically says that she wanted to do this. Her inclusion of it in the picture stands as a record of what she found she could do with the material. She chose a blue square and decided to cut out of it a circle which she put in the bottom part of the picture leaving the original square in the top half. In arranging the parts of a whole in this way she has set up a visual connection between the two parts of the picture. As she spoke about the relationship between the
square and the circle she pointed to each which set up a physical connection too. In a simple way, she made her intentions about those relations explicit through what she said and did. In fact, she seems to have had clear intentions about each of the things she wanted to put in the picture.

Talking and working

What she says shows that the properties of the materials, the awareness of shapes and differences in blue have been an explicit part of her decision making as she worked. It is true, however, that she may have had other quite different things to say about the way she worked, or what the picture was about. The context of the activity as well as the request to talk about how she had made the picture restricted the possibilities. Given that, she made a clear statement about her work which informed me that she understood the activities well enough to be able to report on them with confidence. An important aspect of the way she worked is revealed through her words: it is that she had her own ideas for what to do with a limited choice of materials.

Finally, her comment that one shape is like a king's hat means that she can make a conscious shift in the way she perceives a blue paper shape as simply that, or as something else. Her way of looking reflectively at shapes in this picture shows that she has gone beyond the stage of saying "This is a king's hat".
Concept of picture-making

It seems that Emma considered this picture as a way of showing her collection of the materials and shapes. However, the picture is more than just a collection of randomly presented elements. She has considered where to place the chosen colours and shapes in the space available; the activity of arranging was a conscious part of the process of making. The way she experimented with the materials and chose to include the result of the experiment in her picture is important. It is important because it shows that she has learned how her own ideas and decisions can constitute the content of a picture. This, having been learned, opens up the possibility of understanding how picture-making can be about having ideas; and how looking at pictures can be about getting back to the ideas which are recorded there.

NICOLA (p.240)

"First I cut out triangles of blue paper. Then I folded a shiny blue piece of paper and cut out a shape and then stuck that on the top part. The bit I cut out from the middle of the shiny paper I cut tiny triangles out of it. Then I stuck it underneath the strip of paper that had the triangles in. I think I put the blue triangle in the big sort of circle last."

Materials and formal elements

Nicola has chosen three kinds of paper in pale and dark blue. The picture seems to have developed stage by stage, beginning with the cutting and positioning of the long strip of paper which runs across the middle of the picture
space. This has left two separate spaces in which other shapes could be arranged. She speaks next of folding and cutting one shape from another and of using both shapes. The positioning of those shapes was certainly suggested by the spaces she had previously created. She has placed the larger of the two shapes in the larger space. In the other space she has paired the small oval with a piece of crêpe paper which is about the same size but is twisted in the middle. It is interesting that the twist in the pale blue shape divides it visually in a way which echoes the cut division of its partner. These two small shapes balance each other, and together balance the larger one. Many logical connections have been created between the different parts of the picture.

**Talking and working**

Nicola's last comment, in which she says that she thought she put the triangle in the big circle last, suggests that she is visualising the picture before she had decided to put the triangle in its final position. This makes it possible to think about how she decided to put particular shapes in their places. For example, when she removed the oval shape she put a triangle in the space it had left. She must have decided that the triangle looked right there and then she stuck it down. The judgements she was making were about the balancing of shapes, sizes and tones. Once she had made the decision to put the jagged strip across the middle of the picture space then all the
other decisions had to take account of it. The problems she was solving as she worked were about the internal relations of the picture, that is, how the chosen shapes related within the available space.

The suggestions made at the beginning of the activity seem to have been well understood by Nicola. She has chosen different tones of blue though she does not use the terms dark or light blue in her description. She has arranged shapes in relation to each other and has used the idea of using all parts of a cut shape. She has taken this for the leading idea in her work, showing that she was able to use these suggestions for her own specific purposes. The picture shows that she had clear ideas, which developed as she worked, not only about the shapes she wanted, but also about where to position them.

Concept of picture-making

In making this picture Nicola seems to have seen the picture space in two sections. She was conscious of the space and arranged the shapes she had cut accordingly. It is as though she had come to understand the logic of this picture's space and was then able to put each shape in its right place. Her picture-making was, in a sense, the solving of a logical, spatial problem.

HELEN (p.243)

"I chose blue and pale blue. I put them close together because I thought it would look nice and I overlapped some of the shapes. I overlapped the pale blue crêpe paper over the dark blue and the light blue got a bit darker."
Helen chose four kinds of paper in three tones of blue. She chose a square piece of card on which to arrange various shapes in a succession of overlaps. She seems to have started with a shiny circle, or part of a circle which she has touched with a pale blue triangle. This three-sided shape, in its turn, is overlapped by a four-sided one which is also pale blue and through which the underlying colour can be seen. She has then taken a long, medium blue strip and overlapped the preceding shape. This piece is touched by a similar shape which is overlapped by the end of a long strip of pale blue which she has placed at right angles to it. Helen has matched this strip by a shorter one which she has made to point in the opposite direction. The arrangement of consciously related shapes is finished off with two dark blue four-sided forms which touch along one edge and just touch both pale blue strips at single points. Helen's main idea seems to have been the relating of shapes by overlapping. There does not seem to be a concern about the overall relationship of the shapes to the square on which they have been placed. She also makes it clear in her comment that she chose the colours for their tone.

Talking and working

Helen says that she chose blue and pale blue. This shows that she had understood the difference between them; had used the correct vocabulary; and, more important, had used the idea in her work. She says that she put the
pieces of blue close together, as though she had begun with them apart and then thought of bringing them together to see how they looked. When she found that they looked right, she decided to leave them in that particular position.

She talks about overlapping shapes which shows that she was able to use the vocabulary which was introduced in the first session and had kept it in mind. She has consciously used the idea of overlapping to structure her work. Helen has also taken notice of what happens when the pale blue crêpe paper was placed on top of the dark blue. This shows that she was interested in the properties of materials she was using and their possibilities for her own work. This piece of work preceded the picture of the man referred to above (pp.92-94) in which she used dried bits of glue for eyes. Her interest in materials helped her to make an imaginative use of dried glue which gave that picture a vivid tactile value.

The comments which she made are a reflection of the way Helen put the picture together. The words and ideas she uses are evidence that she has learned about the importance of materials and formal elements in the making of this picture.

**Concept of picture-making**

In the blue picture Helen is working with the idea that pictures can be about colours and shapes which can be arranged in some kind of relationship. She was
particularly interested in the idea that shapes can overlap continuously and this has become the main focus of her work. She also wanted to use the way materials behave as part of the picture. As for example when she used the thinness of one material to change the colour of another. She understands how materials can be a source of ideas in the making of a picture. This understanding seems to have come to fruition in her picture of a man.

MARTIN (p.247)

"I chose this blue shape because it was nice. I cut these triangles. I cut them three times to make a triangle. They have got big spaces round them. I chose this round shape because it was a different blue and the long shape was different. One was light and shiny and one wasn't. I am going to do more to it tomorrow."

These were the comments which were displayed next to Martin's picture. He needed help to talk about his work because he did not understand what I meant when I asked him how he had made his picture, or about the shapes and materials he had used. I helped him by asking him the questions which are listed below.

Why did you choose that shape?
What colour is it?
What are they called?
How did you make the triangles?
How many times did you cut them?
Have they got big spaces round them or little ones?
What made you choose this round shape?
What is different about it?
Is it light blue or is it dark blue?
Is it finished or are you going to do some more to it?

Materials and formal elements

Martin chose two kinds of paper which were different shades of blue. He chose an oblong of white card on which to arrange the shapes. He has spread the shapes more or less evenly all over the picture space. He seems to have become interested in cutting triangles and four-sided shapes and has related some by making them touch along their edges.

Talking and working

Martin had just started school and he was not used to talking about his actions and choices. He needed help to talk about the materials which he had used and the decisions he had made. When I asked him why he had chosen the round shape I thought that he might say that he was trying to make a tree. It seemed to me that he had begun by making a picture of a house and a tree but had then become more interested in the activity of cutting and sticking for its own sake. However, he did not confirm this assumption, neither did he deny it. It is possible that if I had asked him whether he had meant the shapes to look like a tree he could have made his intention clearer. On the other hand that kind of question would have limited an answer to a positive or negative response. He might have felt compelled to affirm my suggestion in order to
help me rather than to say what he meant. It is also possible that he did not have anything to say about the shapes because his intentions were not clear to begin with.

The questions which he was asked made it possible to talk simply about what could be seen at the time. They could not be answered with "yes" or "no" and so they demanded some finding and use of appropriate words, that is, words which had been rehearsed during previous sessions. Though my interventions were numerous and directed his thinking quite narrowly it was worthwhile because it helped him to express something of what he had done and the shapes he had used.

**Concept of picture-making**

Martin's concept of picture-making might well have been upset by this and the previous activities. His work shows that his solution to the dilemma in which he found himself was to cut shapes and stick them down all over the available space. If this is true then talking with him was necessary in helping him to some kind of resolution. If reflecting with an adult had helped him to think more clearly about this work then it is likely that subsequent picture making would involve more conscious choices and decisions on his part. With regard to this, it is significant that the following term Martin made a tower out of boxes with an adult about which he was very enthusiastic. His ability to talk about that piece of work was quite different from this occasion. Other teachers to
whom he talked remarked about how involved he was with that work and how that involvement had made him want to talk at length about how the tower worked, as well as how it had been made. He found great enjoyment in reflecting on something he felt was successful through talking about it. This contrast in response shows the extent to which he did not understand what he was doing when he made the blue picture. Perhaps this indicates that the quality of involvement in an activity depends to a great extent upon how well it is understood. It also indicates that motivation to complete an activity and to reflect on it is closely related to individual understanding.

VICTORIA (p.251)

"I found a blue bridge in the pile. This tissue paper is a dark blue signal. I put this light blue line here because it looked nice. I made a dark blue line and a light blue line and I put this on top. It is light blue crépe paper and the end of the signal overlaps it."

Materials and formal elements

Victoria has used four kinds of paper in six different blues. She chose an oblong piece of card on which to arrange the shapes. The work seems to have developed from the shape of one piece of paper which reminded her of a bridge. She has arranged the other shapes with the idea of
making a signal on the bridge, these shapes make a repeating pattern of light and dark blues. It looks as though she wrote her name on the card before she started to arrange the shapes because these are aligned to the left of it. The shapes all touch or overlap.

Talking and writing

Victoria's comments show that she can use appropriate words to describe tone but together with her picture they show more than this. It is significant that the idea of tone has become important enough for her to use it to structure the picture. She talks about thinking that the light blue looked nice in a particular place. This shows that she was making decisions about where to place colours by taking tone into account. By talking about this decision she was putting into words an action which originated from intuitive, aesthetic decisions. The point is that the words used in reflections are not meant to replicate the thoughts which guided the making of the picture; on the contrary, it is recognised that these processes are different. Reflecting on what has been done is not the same as doing it; each has a different purpose. Here Victoria's aim was to talk about her picture. The aim of the listener was to begin to understand how her picture came to be the way it is; and then to decide how far she had been able to use the ideas for picture-making which had been introduced. Victoria seemed to have been able to use the idea that blue comes in many different forms, she used
six different kinds; she was also able to use the idea that shapes can be related by touching and overlapping them; and she has been able to use materials as a source of ideas.

Concept of picture-making

Victoria has made a picture which represents a bridge under which she has drawn a car; but that is not all. She knows how pictures can represent objects and, at the same time, she is beginning to show an interest in the tonal arrangement of colour. This is an interest which does not seem to have much to do with the task of representing the bridge. While the maker of the picture has aimed to represent, she has also formed her work with the idea of alternating contrasting tones. She seems, therefore, to be developing her concept of making pictures at two levels: form and content.

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ACTIVITY 4: RED, BLUE AND YELLOW CUT-OUTS

Alongside this activity the children were looking at, and talking about, the interesting things which they continued to bring to school. They were encouraged to talk in detail about the colours, shapes, patterns and markings of those objects. The purpose of the painting session was to paint pieces of card and paper as evenly as possible in red, blue, yellow, orange or green; large flat brushes were provided. This stock of materials was for later communal use in picture-making. The children were able to find many
different kinds of blue materials from around school to make up the blue chain. Each child was asked to choose four different kinds of blue material to add to the chain.

Objectives

a) The children will be talking about the different kinds of red papers and card available for making pictures;
b) they will be looking to see whether one red looks the same or different when it is put next to, or on top of, yellow or blue;
c) they will be making pictures using red materials;
d) they will be talking about how paper is coloured and shown how it can be coloured by hand;
e) some children will be talking with me about their pictures with which their comments will be displayed and;
f) the children will be shown a small reproduction of "The Snail" by Henri Matisse and told that if they want to talk about it they can record their comments on cassette for me to type and display.

Organisation and materials

When I was collecting different kinds of red it was a problem to decide when paler reds could still be counted as red and not pink. It was a problem because pink seemed to be a colour which, in important ways, is different from red. Pink seems to have taken on a specific identity through its commercial use in selling girls' products.
Consequently it is a colour which was avoided when giving children choices. This was because it tended to be chosen by girls who felt compelled to follow the colour stereotyping created by society and manufacturers. For this reason it was important to offer children the opportunity of looking at reds which were not pink. The reds ranged from maroon to rose but the omission of pinks limited the range. Another problem was to find names for red other than crimson, scarlet and maroon. Descriptions of red in terms of paleness do not apply so readily as they do to blue or yellow - pale red does not sound right; and deep red sounds better than dark red. These problems were ones which were useful to have experienced before presenting the children with the materials. They were also valuable in that they showed the kind of dilemmas which the children might experience in making their choices. Instead of limiting the children's choice to reds alone it was decided to include blue and yellow too. The reason for this was partly because it provided a way of recalling the way blues could be called reddish or yellows blueish and consequently how reds could be called blueish or yellowish.

What did the children do?

Some children said that they noticed how one red looked darker on yellow than blue but the observation was not used in this particular way by any children in their picture-making. Some children used the idea of putting a smaller shape on top of a larger shape as had been done in
the previous activities. They also seemed to work with the idea of juxtaposing one colour against another. More children than before seemed to be getting ideas from the materials, colours and shapes. For example, one child investigated what happened when red tissue paper was put on top of blue (p.283) and the interest in what colour this arrangement would produce seems to have entered into the way she constructed the picture. In contrast to using the materials, shapes and colours as the subject of the picture as most of the children seem to have done, two made pictures which represented a house and a butterfly. Most children chose to use red, yellow and blue; a few chose red and yellow; one chose red and white; one chose red, blue, yellow and black. The white and black materials were in the picture trolley so these children must have decided to get these out for themselves.

Five children were given the opportunity to talk with me about their pictures. Some children independently recorded their comments on audio cassette for me to listen to later and to type for them. Thirteen children chose to record their comments about the Matisse reproduction. In a class discussion the children thought about how they knew when they had finished a picture. Rachel and Nicky talked about how they made that decision (pp.53 and 56). Finally all the children used large brushes to paint card and paper with red, blue, yellow, orange and green ready-mixed paint which were stored for later, communal use.
What were they learning?

Some children made several pictures and seemed to be working with a particular idea throughout. The development of an idea by two children is examined in the fifth activity. They seemed to be learning how to follow an idea through their involvement with colours, shapes and materials. It could also be said that each child was working with specific intentions which took account of the properties of the medium to a greater or lesser extent. Some were learning to take control of the medium and to recognise the possibilities it could afford them. The children were getting a sense of how the activities could be a continuous process of involvement with ideas and materials. By now they were getting used to the process as one that involves reflection as well as the exercise of judgements. They were making decisions about whether or not their work looked right and how to make the changes which they felt were needed. The pictures provided evidence that children were sensing how to relate shapes and colours to each other as well as to the picture space. In some cases this was achieved in a way which gave the work an obvious cohesion; this was a distinct development.

There was an interest in communicating the meaning of a picture that went beyond the objective activity of arranging colours and shapes. Helen, for example, was interested enough in her picture of a man to record her comments on audio cassette independently (p.92). This shows, perhaps, that she had learned how talking about a
picture could communicate some further meaning to anyone interested enough to listen. She might even have realised that her comments made the work more meaningful for the listening onlooker.

In the time set aside for looking and talking about objects, Natalie brought an extraordinary twig of heather to show to the class. She showed us how the twig was coloured a bright orangey red on one side and how, when she turned it round, the colour changed to bright green. Others brought leaves in varying states of decay which they had found and wanted to talk about. They talked, for example, about the colours being reddish brown, about surfaces being shiny or dull, about edges being pointed or curved, about the points of a holly leaf pointing in opposite directions. This showed that they were using independently the language which had been rehearsed with them during the first part of each of the preceding activities and during the concluding reflections.

How worthwhile was it?

This activity was the fourth in the series. The children seemed to have gained enough confidence for their ideas to dominate the materials. They were still enjoying the activity and had developed independent ways of working throughout the whole process, i.e. from the introductory discussion to the final reflections. They seemed to be in control of an activity which made sense to them.

The sessions which had been set aside for looking and
talking about interesting objects were also worthwhile because they were a way of reinforcing the idea that many of them can be talked about in terms of their shapes, colours, patterns or textures. The children's independent use of the vocabulary to describe the things which they found interesting showed me that they had made the words part of their own talking and thinking; and that the exercise could provide opportunities for development at any level.

Talking to some of the children about their work was again worthwhile. In particular, Rachel's comment (p.53) about how she knew when she had finished a picture was important in the assessment of whether the underlying purpose of activities was still appropriate. She showed how one child could make a succinct generalisation about her own experiences of making pictures; and that she could look at her experiences in an objective way and describe them. Knowing this meant that other children could be expected to talk to someone else about their experiences in picture-making. While each child could be expected to bring individual ideas and feelings to their reflections it was likely that they would be able to share comments about colour, tone, shape and their arrangement in relation to each other and to the picture space. The fact that one child could talk about how to decide when to finish a picture opened up the possibility of others considering the same problem. It showed that the important decision when to stop working on a picture could be made an explicit part
of teaching in art; and that it may be enough simply to ask the question and let the children talk.

Talking with the children also made it possible to be aware of their growing sense of the qualities of colours and how they might be described. For example, reds are described as "good", "bright" and "very red". There is also evidence that the children were interested in the ways that colours could be changed by overlapping materials, or by mixing paint, or by juxtaposing one colour with others. The children who chose to talk about "The Snail" remarked about the artist's choice of colours and how the picture had been made. (These remarks are analyzed on pages 265-271).

It was valuable to learn the extent to which the children had become involved with materials: one child so cared for the wholeness of one particular piece of yellow paper that she could not bring herself to cut it and discard part of it. Her solution was to fold the part she did not need round the edge of the card where it could not be seen but still existed (p.272).

Finally, the children showed that they were confident in their choices and decisions. They had developed the ability to make judgements which accorded with a set of criteria which they had decided on; and consequently, about which they were able to talk.

What did I do?

It was not necessary to spend much time on the introductory activity because the children seemed to be
using the ideas previously discussed without any detectable problems. I introduced the idea of how the tone of a colour might be affected by others by showing the children the same piece of red on yellow and then on blue. It is difficult to know whether this was meaningful to the children: it was probably inappropriate. What they said and did shows that they reinterpreted it so that they could make sense of it. They simply took it to mean putting the same colour on different colours. So they took the familiar part of the idea but not all of it; and not the new part.

The reproduction of "The Snail" which was available was in a book entitled The Cuts-Outs of Henri Matisse (Elderfield J. (1978) p.89). The children were told that the picture was a print and that the original was the size of the classroom wall. This activity took place after the children had completed their picture-making. It was shown at this stage because it was important that the children should not have this work as a model for their own. Had the picture been shown at the beginning of the project the children may have thought that they were supposed to copy it. This would have meant that they would not have come to know how to use colour and shape and the properties of the materials in their own way. Now that they were confidently using the medium for their own purposes it seemed likely that they would be able to use their experiences to make informed comments about the work of a mature artist who had worked in a similar way. The technique used by Matisse was
not discussed with them. This was because it was important in assessing the value of the activities to see how far each child's own experience could help them to talk about how the pictures had been made; and whether that experience would help them to look closely enough to find out. The experience of painting card and paper with large brushes was important in preparing them for this.

What do I intend to do now?

The next activity should involve the use of the paper and card which the children have coloured. This will provide a contrast to the coloured papers which they have so far used.

2.4 ACTIVITY 4: ANALYSIS

2.4.1 Talking and thinking about pictures

The fourth activity differed from the others with the introduction of the work of a mature artist who had worked in a similar way to the children. For this reason it was thought likely that the children would be able to use their own experiences to help them look at, and comment about, the picture. It is the purpose of this examination to see how far talking about formal elements, the process of making and the materials they used helped the children to do this. This is part of the wider concern of the present thesis to find out how necessary talking is to the development of thinking about art. It seems important, in view of these purposes to consider: whether the children
could talk independently about the work of a mature artist; whether their talking would be about the materials used, as well as colour, tone and shape; and whether it was possible to identify aspects of the four activities which had helped them to talk about the picture. These questions are considered in the course of presenting the different opportunities for talking about pictures which the children had so far experienced.

a) Previous Experiences

The term before the project began the children had seen and talked about reproductions of the drawings and paintings of Van Gogh. This had been part of a whole class activity. In addition, as part of a group activity, they had chosen one portrait to study from a large collection of small reproductions. During the "Colour and Shape" project they looked at and talked about two of the reproductions of pictures in a National Gallery calendar. These pictures were all figurative and, in that respect, contrasted with the Matisse. Due to their figurative nature, the focus of previous discussions about pictures had been their subject matter. The children's comments had not been recorded or analyzed so it is not possible to compare how they talked about a picture then with the way they have been shown to have talked subsequently. However, during the previous term some children had recorded comments about their own pictures and stories on audio cassette. These comments were unaided and therefore provide some evidence of how they talked then; and also will help in identifying whether (See p. 179 and p. 310)
the "Colour and Shape" project had made any difference to the way they talked. Though the children were talking independently, what they said shows that they were used to giving reasons for their choices and actions.

Jonathan: "First I did the tree and I did two nests in it. I drew a balloon and I drew our dog in the garden. It's a spikey dog and it's green. I have never seen an orange sun before. I drew lots of colours of leaves because where wasn't a black felt. Why the dog is fun to look at is because it's spikey and it's pretty colours."

Tracey: "It's a pop-up. It goes like that. I did it in all these colours because it was pretty. I drew round these things because it was pretty."

James Fl: "I drew the house first, then I did the magic boy. I done the grass bendy because I thought it was funny to do. I did the smoke, it went fast and it went round the house. Then I did the sun, then I did the sky last."

Kirsty: "First I did that leaf. It's very, very tiny. Then I did that because it looked nice. I did orange all round."

Natalie: "This is a pop-up. She likes to wear it because every time it goes up like this and down. Nicola, show us then."

Nicola: "I can't because it's stuck down."

Lee: "This is a magic dog and it's raining on it. He is pulling a cheeky face. First I thought of a dog and then I put a bit of paper on the bottom and coloured it green for grass. I chose blue paper because when you put blue felt on top you get a dark green."

Simon: "I did a flower because it would look nice because it was pretty colours and because I chose round shape for the top because normal flowers look like that."

Rachel: "I did a magic hat and every time she wore it, it popped up. I did a pattern so that it would look nice."

Sarah: "I did the pop-ups. I started with this because I thought I would do a garden than I changed my mind. I did a pink circle because ... I don't
know why. It is about nice colours."

The comments of nine children are recorded here; seven of the pictures were figurative and the children talked about the subject matter first; two of the pictures seem to have been about colours and shapes or were experimental as with Sarah's and Tracey's. The subject matter was of their own choosing in every case. The materials used were cut paper, card and felt tip pens. The pictures were either drawings or collages. The children who said they had made what they called "pop-ups" were using a term which usually refers to books in which the pictures, or parts of pictures, stand up when the pages are opened. The children mention colours and one of them talked about tone. That child seems to have observed the way the colour of paper can be changed when another colour is applied to it but may have remembered incorrectly. The adjectives they used to describe colour or shape were: nice, pretty, spikey, fast. The reasons they gave for their choices and actions were to do with making the picture look nice or pretty; or for fun; or because the real thing was like that; or because of the lack of a preferred colour.

b) Independent comments about "The Snail"

The children's comments are presented here in the order in which they were recorded.

Laura G.: "It's got all different colours on and there's two turquoise and one very light green. There's one red and one yellow and an
orange straight one and a blue long one and a pink one and a purple one and a brown one".

Emma:
"That one's higher than that one and some of them are overlapping and that one's tall."

Helen:
"Well I think he used all different kinds of colours and I think they look nice by the way he's cut them."

Nicola:
"In this picture there's a mauve colour touching black and a pink is touching another colour. Black is touching green and green is touching some yellowy colour and another bit of green is touching a orange and the orange is touching the red and the red is touching . . . [inaudible] and the orange is touching yellow, yellow is touching blue and the blue is not touching anything except yellow and orange and there's red touching green."

Jonathan:
"It's bigger than the wall. It's got a blue in, a black in, a pinky purple in, a red in and an orange and a yellow in, and different colours of greens and a pink, two oranges and it's all orange round the edge."

Sarah:
"It's an oblong shape at the top and it's pink and it's a pale pink and there's another pink at the top and it's sort of squarey pointy shape at the top and there's a green shape at the top and it's sort of squarey pointy shape and there's another one that's dark blue at the bottom and it's an oblong shape and there's a pale green at the bottom and it's a squarey pointy one and there's orange and those are oblongs and there's yellow all around it."

James Fl.:  "I found this green and it's a bit of a good green and this is a different green and some blue. This is a bit of purply pink. This is a bit of purply pink, this is just purple and this is yellow. This looks like purply blue - well it does to me."

James Fl. to Oliver:
"You got to look at those colours and what colours they look like and how the artist done it."

Oliver:
"Well the pink looks a bit darky colour and the black looks a bit light and the yellow looks very light".
Natalie: "I think this picture looks pretty. I think this pattern looks like it is made out of thin paper. It's not very small, it's really big. I think it looks - there's all . . . three kinds of green. There's two what look the same but they're not exactly the same. There's one . . . there's two pinks, one looks light and one looks darker. There's a red what looks dark. There's an orange what looks middle-sized light and dark. There's a middle-size dark yellow. There's a dark black and a dark blue and round the outside it's sort of ginger."

Simon: "It has black on it and pink with yellow and it is paper . . . I think. And it's bigger than it should be. I haven't got anything else to say, and that was Simon."

James Fl.: "That's a bit of purply pink and this is a bit of lighty green. This is pinky purple. This is a black, and that's green and that's yellow, it's a different yellowy."

Rachel: "There are three oranges and they are all the same and there are two pinks and one is dark and one is light and there is one black and three greens and one is light and there is a very dark purple and a dark yellow."

c) Summary of the independent comments

1. They talked about colour, hue and tone using both the vocabulary which had been introduced as well as being inventive about finding words for colours they did not know. They talked about different kinds of colour, being able to distinguish between differences in tone and hue. One child seemed to be using the picture as a colour recognition exercise. This was the simplest level at which the picture could be talked about.

2. Some children talked about shapes and their positions in relation to one another and to the picture space.
There are some clues about how they were looking at the reproduction. Some children were seeing it as a whole and were able to take in and summarise how many shapes of the same colour there were. One child was looking at how each shape was related to the next. In her description she starts in the top quarter of the picture, comes down to the centre, then goes up to the right corner, down, round and up, following part of the spiral. Another child starts in the top left and goes across to the right corner and then to the middle, to the bottom, across to the right corner and finally right round the edge of the picture. The significance of the way these children looked and talked is how they spent time considering each part. They were giving themselves chance to get to know the picture. This interest in a picture which was unknown to them is important. They chose this activity when they could have chosen to play, for example, with the construction equipment or in the sand. It is worth considering whether they would have looked at the Matisse if they had not been able to talk about what they thought of it as well. Perhaps being able to record their comments on the tape recorder made them feel the activity was valued. It is not known whether some children looked without making comments.

No attempt was made to say what the picture was about. The snail shape at the top left of the picture was not easily seen on such a small scale. Some information was remembered by the children about the actual size of the picture.
5. Two children talked about what the picture might be made from; that an artist had made it; and that he had cut the colours. One child shows that he knew that he was meant to talk about how the artist had made the picture but then talks about the colours instead. He had remembered what had been requested but was not able to use that idea in the way he looked and talked about it.

6. Their talking was descriptive and in some cases evaluative. One child talks about how the colours were nice because of the way they had been cut. This remark is close to Matisse's own description of the technique (Flam J. D. p.112):

"Drawing with scissors

Cutting directly into colour reminds me of a sculptor's carving into stone."

7. None of the children talked about how the picture made them feel. This was due, perhaps, to an omission in the original planning. Recognition of this led to the introduction of this aspect of looking at pictures which is shown below. It also suggests that the children tended to talk about aspects of pictures which had been given time, and therefore value, in the preceding activities. On the other hand it is possible that the children would have talked about the colours and shapes without having taken part in the activities; but would they have spoken about how the picture made them feel without being encouraged to understand that that is an important way to experience pictures? This is not the same as encouraging children to
express personal likes and dislikes about a picture. It was deliberate policy not to introduce this way of talking about pictures. The reason for this is that personal likes and dislikes are not comments about a picture. They are comments about oneself. If the point of talking about a picture is to begin to understand it then talking about one's own preferences will not be tackling the task in hand (see p.343 for another researcher's comments on "arbitrary" comments about pictures). It will be seen from the comments below why talking about how a picture makes one feel leads to considerations of a different and more valuable kind than expressions of one's likes and dislikes allow.

c) Guided comments

Some children wanted to talk to me about the picture rather than, or as well as, into the cassette recorder. The comments were written as they were being spoken:

A.D.: "How do you think the artist made the picture and how does it make you feel?"

Kirsty: "The picture makes me feel cheerful. I like the dark blue, it is like my dress. I think it is made from pieces of paper. Some edges are different to others. This red is shiny like at school. There is some dark pink and some light pink. The black is shiny black. I think it makes me feel happy because it is nice colours. The dark pink is overlapping the yellow and the green is overlapping the yellow."

A.D.: "How do you think the picture was made?"

Tracey: "I think an artist did it. There are lines on the pink shape. I think it is paint. You get lines in paint when you use a brush. The dark pink one has not got any lines. The middle green one you can nearly see the
How far can the children he said to have used their experiences in the "Colour and Shape" project to talk about "The Snail"? Kirsty identifies the coloured shapes as paper; she relates one kind of red to those she has used in school; she identifies different tones; she describes the way one shape overlaps another; she also speaks of different kinds of edges. These are all aspects of picture-making which were talked about during the project. She is undoubtedly using those experiences to inform the way she spoke as she looked at the reproduction. This is equally true of Tracey who made a very detailed observation of the reproduction. Her experience of painting large areas of colour helped her to notice the lines left by the brush in the paint. It is not likely that the children could have talked about "The Snail" in the way that they did had they not experienced the kind of activities reported here. An important part of those experiences was learning to talk about specific aspects of them. The question as to whether the children could talk about the work of a mature artist had been answered but there was an obvious disadvantage in using a reproduction especially when the purpose was to help children focus on how the artist had made the picture. Miscues included size, surface quality and technique. Perhaps the children were able to read into the reproduction more clues about technique because of their experiences so far and were, therefore, able to get more out of the activity.
2.4.11 Developing picture-making

In these analyses of pictures and comments it is intended to consider three questions:

What could count as development in picture making?

How can a picture be sign of understanding?

Can talking develop picture-making?

The analyses all begin with the children's comments about their own red, yellow and blue pictures, copies of which accompany the texts. Comparisons are then made with their previous comments and/or pictures in order to consider whether there are signs of development and what these signs may be. The work of six children is examined. In the course of these examinations different indications of individual development are considered. These are brought together in the concluding remarks with the purpose of seeing whether they can be used as criteria for identifying development in the work of other children too.

LAURA G. (p.273)

"I started to arrange the shapes on a bigger piece of card so I had lots of shapes. Then I decided I did not want a big picture because it would take too long so I chose the smallest card. I cut out this orangey-red one like an egg-timer shape and I cut out two normal yellow shapes like little egg timers. I had a shiny red and I cut a tent shape out of it because that's the shape I wanted. Then I had another shiny red shape down over the big egg-timer because it was big. I had a shiny orangey-coloured shape. I didn't cut it. I started with this yellow one. I had to fold it over because it was too big and I didn't want to cut it. I chose the top yellow shape because it had torn edges. This tissue red is nice to look at because it is nice and bright. The tissue is different to look at because you can see the white through it."
Comparing previous comments

a) Black and White picture

When she first spoke with me about her work (p. 194) Laura talked about the feel of the materials, their shapes and surface qualities.

b) Red, yellow and blue picture

When she spoke with me for the second time she shows confidence both about her decisions and the reasons she made them. She uses adjectives which show that she had thought about the qualities of the colours: "orangey-red", "shiny", "orangey-coloured", "bright", "nice". In talking about shape she uses the words: "egg-timer shape", "normal", "tent-shape" and "torn edge". She talks also about her actions using the words: "fold", "cut", "arrange", "chose", "started", "decided". She seems to have understood that the judgements she has made need to relate to what is right for the picture.

Her talking is not related to the order in which she arranged the shapes but to its structural features. She starts with the largest shape which is at the centre left of the picture and then refers to two similar shapes at the bottom and top of its right side. These two small shapes balance the larger one. She then talks about two other shapes which balance one another at the bottom right corner and the top left quarter. She talks about the yellow shape with the torn edge and why she chose it. In addition she explains that it was too big but that she did not want to cut it and so folded it round instead.
How can a decision be made about whether Laura has developed the way she talks about her work? Simply being able to say more than before would not necessarily be enough. Though even that would show a greater willingness to spend time talking and reflecting. One way of deciding is to consider whether it would be reasonable to swap the comments around chronologically. Then the question would be whether Laura could have made the comment above before the one on page. It does not seem likely that she could have done so because the comments are so different in content. The comment about the "Black and White" picture is about materials whereas the comment about the "Red, Yellow and Blue" picture is about decisions, shapes, colours, actions, feelings, observations, and materials. The difference in the comments is related to the difference in the pictures. Both are a gauge of the confidence she has gained through experiences from which she has learned to use materials for her picture-making. Her last comments show that she knows a wide range of ways to talk about her picture which she did not know before. If the way she talks about picture-making is an indication of the way she thinks about that activity then is it possible to relate the way she talks and thinks to the teaching purposes of this series of activities? Has the purpose of the project been achieved? She can talk about formal elements and their relations. Her work shows that she is thinking about those aspects of picture-making. Can it be claimed then that talking can help to develop understanding in art?
This point will be considered in the concluding comments (pp.335-340).

c) "The Snail"

In talking about the Matisse she begins by referring to the whole picture. Then she considers three green shapes which are respectively at the centre, at the top and bottom corners of the right hand side of the picture. She describes two of the greens as turquoise and refers to the black shape as brown. She does not describe the shapes or their edges as she had done in talking about her own work. Had she talked about the picture with assistance she may well have referred to those features because more detailed questions than "How was it made?" and "What is it about?" would have structured what she was asked to think about.

Comparison with previous pictures

a) The black and white picture (p.195) was composed of balanced pairs of shapes. Five different kinds of paper were used. The same number of shapes were arranged in their own spaces; three of which were related because their edges were touching.

b) The yellow picture (p.277) can be seen to be divided roughly in two parts because of the relationships which Laura has set up between the groups of shapes. In the top part six shapes are related through overlapping in three layers. In the bottom part seven shapes are grouped together, five of the shapes are related through touching corners or overlapping. There are six different kinds of
paper and the distribution of these across the whole picture is balanced.

c) The red and yellow picture (p.273) has four layers of working. The small "egg timer" shapes have been added to the picture during the last phase of its making. Six different kinds of materials have been chosen. Again, these are distributed in pairs across the picture; except for the central piece of tissue paper and the matt red shape above it, neither of which are paired.

Throughout her work Laura seems to have been able to find an interest in the arrangement of shapes and colours without wanting them to represent anything. That she was involved with the activity is shown by the complex arrangement of her work and the many decisions that it involved. She spent longer on the last picture than on the first or second. But does that show that some development in picture-making and the decisions which go with that activity has taken place? The fact that she voluntarily spent more time than before may demonstrate that she was more interested. Why might she have been more interested than before? She may have been more interested because there was a greater choice of materials; or because she was getting to know how to use the materials in ways which were more personally fulfilling; or because she was more confident and therefore more able to enjoy the activity.
"I stuck the reddish pink tissue paper on first. I didn't know what I was going to do first. Then I did this yellowish color then the furry yellow because it is nice to touch. I chose the red crêpe paper because it is stretchy. I put it across the blue and it went blackish in the middle. It is a different red to the tissue paper because it is very red. Then I did furry blue as the sea because it sparkles a bit. I thought it looked like a boat when I had finished it."

Mark needed help to name the different materials he had used. I asked him what he had done first and whether he knew what the picture was going to be when he had started it. He says that he began by choosing the tissue paper and sticking it down. He seems to have done this before he had chosen other materials or arranged them; this means that his picture has grown piece by piece. It should be asked whether his original intention was to make just any kind of picture because that is what he had been asked to do; or whether his intention was less vague than that; or whether his intentions became clearer as he handled different materials. Certainly, the materials and their properties seem to have helped him to decide where to place them and, in the end, they seem to have given Mark an idea for the representative content of the picture. Alternatively, he may even have decided on its content as he was talking. He has chosen shapes which vary from small squares to long strips. The latter he has joined to make a vertical line down the centre of the picture which is crossed by a series of short horizontal strips. It is possible to trace the development of the picture and the
development of his ideas by looking at the picture alongside what he said about the way it was made. It may also be possible that the guided reflections were the final stage in the making of the picture; especially if its content was decided then.

Comparison with previous work

a) The black and white picture shows that Mark chose black and white shapes in gummed paper, furry paper and tissue paper. There are four layers of working in the bottom central section, a process which has related four shapes by overlapping. Two other groups of shapes are related because they touch at their corners.

b) In his yellow picture he has given the shapes their own spaces except for two groups in which the shapes are made to touch along their edges or at their corners. He has chosen a large piece of card on which to arrange the shapes which are small, about the same size, and are in four kinds of material. In this picture none of the shapes overlap.

c) In the blue picture the shapes are oblong strips of varying widths. He has related these by arranging them alternately vertically or horizontally. This is a way of working that he used again in a more elaborate form in the fourth piece of work.

d) Mark did not choose to talk about the Matisse reproduction though he may have looked at it. This is a
real possibility because he was good at bringing interesting objects to show to the rest of the class and so he was interested in and able to look at the details of all kinds of things. The problem was that he would only speak about them briefly, i.e. in a phrase rather than a complete sentence. Therefore, from a teaching point of view, it was important for him to tell the other children about why he had chosen to bring in a particular object to show to everyone else. If he had simply stood holding the object for others to see then the significance of his intention would have been lost and the activity made pointless. The purpose in helping Mark to talk about his choice was to take the activity beyond a simple social experience with which he would probably have been satisfied. Without encouragement to describe an object he would simply have held it up and turned it round for the others to see. When he was asked about the object then the reasons for his choice became clear to others and his ideas could guide everyone else's attention. At that point his purpose in wanting to show something in particular, not just anything, had been properly achieved. There can be seen to be a useful parallel with talking about picture-making. In both instances talking can make intentions clear. This clarity of purpose then helps the listener to focus with a better understanding on the image, object, or activity.

Comments on the Red, Blue and Yellow picture

In making this picture (p.280) Mark seeks to have thought about the ways shapes can be arranged and has been
selective about the materials he has used. The fourth picture seems to have developed from the previous experiences and so may be taken as a sign that Mark has learned more about how he could use, and get ideas from shape, colour and materials. His sensitivity to the qualities of materials was shown when he described the way one material sparkles; with that kind of description in mind he was able then to think about other things that sparkle and he thought of the sea. Using the property of a material because of its associations is an important way of understanding how pictures can be made. In communicating the idea that the sparkling material was like the sea he gave his choice of material pictorial significance. His choice of material, which seemed to be arbitrary at first, turned out to be related to the subject matter in a very appropriate way. Mark was beginning to learn how to get ideas from materials and this is, perhaps, a sign of development. But what kind of development had been made? It is possible that he was beginning to develop an appropriate attitude toward materials and their relationship to content.

RACHEL (p.285)

"First I put a red oblong down. I tried lots of different ways of putting the colours down first. Then I put blue next to the red. Then I put pinky red on the blue because I did not know what colour it would make. Then I put yellow tissue paper on the blue to see what colour that would make. Then I folded some red and cut it out. I put it on top of the pink and yellow so you could see both through the hole. Then I folded more bits and cut them out for the bottom part. I
decided when I finished 'cos it wouldn't look nice if I put any more on."

Rachel has interpreted, in her own way, the suggestion about looking to see what happens when the same red is placed on different colours. She seems to have understood the first part of the exercise in terms of what she has learned about arranging shapes as well as what she has learned about materials. She has extended the idea by using pink and yellow tissue paper on the same blue and has said that she did this in order to see what would happen to the colour.

As she looked at her picture she was able to work out the order in which the pieces were added. In addition she is able to give some reasons for the decisions she made. The reasons she gives are about what she wanted to find out and about the overall look of the picture. She talks about the way the picture was constructed and the decisions she made during the construction are indicated. In making her decisions she has been guided by her ideas about materials and the things she could do with them. She folded, cut and arranged shapes in different ways in four layers or stages. The final decision she made was about when the picture was complete: the implication being that it looked "nice" when she had fixed the third shape (now missing) on top of the red crepe paper. Presumably the picture did not look right to her up to that point in its making. It is fortuitous that the third shape was lost because there is a chance to see the picture as it was just before it was finished. The question can be asked as to whether Rachel made the right
decision when she added the third shape. Would it have looked right anywhere else? It is important that the shape could have been put anywhere but that it was not, it was put in a particular place. (See the comments on finishing a picture which were discussed in Part 1.1 pp.53).

Comparison with previous talking

a) 

"I did a magic hat and every time she wore it, it popped up. I did a pattern so that it would look nice."

This comment was made by Rachel a few months before the work discussed here began. It was recorded independently by her. She begins by saying what the picture is about and from her description it can be seen that its narrative content ties in with the form of the picture. The pattern which she mentions does not seem to relate to the subject matter but seems to have been added on the grounds that the picture would look better with it than without it. She did not talk about the materials she used or how she constructed the picture.

b) When she talked about "The Snail" she talked about groups of colours and their tones. She seems to have looked at the reproduction as a whole and then picked out what she thought was important about the colours. She does not talk about shapes; how the picture was made; or the materials used. It is probable that had she been guided she would have been able to talk about those aspects of it as well. What can be learned from what she did and did not
say when left to her own resources? It is important to
distinguish the difference between talking about a picture
one has made oneself and one made by someone else; and the
difference between talking about a picture one has looked
at before and a picture one has never seen before. Given
these factors Rachel's description of the kinds of colours
the picture contained was good.

c) In talking about her own picture, above, she speaks
about the order in which the work was constructed. She
talks about the relation of one shape to another; how the
shapes were made; and the ideas which made her decide to
act in certain ways. It is interesting to note that she
talks about the details of the picture but does not refer
to it as a whole as she did with the Matisse. Does this
indicate that being questioned about the picture controlled
the content of what she said to a limiting degree? Or does
detailed knowledge of one's own picture tend to influence
the way one talks about it? The picture has been
constructed, if not conceived, as a whole unit in which all
its parts are tightly related. It is possible that this
fact could have guided the way she talked about the picture
as much as any other.

Compared with her independent talking quote above,
Rachel's comments here are indicative of a working
understanding of picture-making which is detailed and
purposeful. It shows how she has learned from the
activities how to experiment with materials and to use them
for her own ideas.
"First I chose the red that is a bit darker, then I chose the red tissue because I wanted to change the colour of the first red by putting it on top. Then I chose the long blue shape. I chose lots to start with but I put a lot back because I wanted to do something different. I cut zigzag shapes from the blue paper and put them down the edges. I put the other red shape in the corner. I cut out the shape then I put yellow circles on it. I thought the red with the yellow on looked a bit darker than the red with blue on. I want to do more to it. I am going to cut the corners off."

Sarah talked about the tone of the colour she had chosen; about how she changed the colours; the lengths of the shapes; making two zigzag shapes from one long piece; and about how she arranged them in relation to the first shape with which she started. She talks about the way she chose a lot of shapes to begin with but rejected most of them because she had changed her mind about what she wanted to do. She has thought about the idea of how one colour might affect another; she talks about this idea as the first thing that she did and it seems likely that the rest of the picture grew from that starting point. She has considered whether the picture is complete but decides that she will cut off each corner of the card. She then used the resulting shapes to form a column of white triangles which increase in size on top of the red tissue paper mentioned earlier; so she must have finished the picture in the place which she began.

The finished picture is divided into a top and a bottom part. The top part is subdivided into three and is balanced but not symmetrical. The bottom part is arranged
in two parts, or even four. It seems likely that this picture, and the others already referred to, was constructed by means of frequent decisions about what the picture appeared to the maker to need next, or about what the maker wanted to try out. The finished pictures do not seem to have been preconceived, though they have been planned. In Sarah's picture it is likely that the materials and shapes gave her ideas about what to do as she worked, though from what she said it is clear also that she had some definite ideas about what she wanted to do with the materials. The final image is complex because of the different things she decided to do with colours, shapes and patterns.

Comparisons with previous talking

a)

"I did the pop-ups, I started with this because I thought I would do a garden, then I changed my mind. I did a pink circle because . . . I don't know why. It is about nice colours."

Sarah recorded these comments some months before the work discussed above. She describes the kind of picture she has made; how she began it, but changed her mind; the colour of one shape; and finally, she states the content of the picture. It is interesting that she changed her mind about how the picture would be made and its content because she made the same kind of decision in an earlier piece of work. She reports in a confident way until she comes to give a reason for choosing a pink circle, and then realises that she has no reason for her choice that is related to
the picture itself. This contrasts with the way she is able to give reasons for choosing the red tissue paper above. That reason shows an understanding of her materials and their possibilities; and it is also a reason which is related to the making of this picture. The choice is not an arbitrary choice guided by nothing more than personal likes or dislikes; the earlier "pop-up" may have been.

b) When Sarah talked about the reproduction of "The Snail" she described colour and shape in detail. For example, she distinguishes one pink from another by describing it as pale; uses the adjective dark to describe the blue shape. She invents the phrase "squarey, pointy" to describe the torn, irregular shapes. She talks about the picture by relating colours and shapes to one another and to the picture space. Finally she refers to the shapes all around the edge of the picture and speaks confidently about the shapes, colours and their arrangement. She did not talk about how she thought the picture was made, or the materials used. The colours, shapes and their arrangement in the picture space, as well as their spatial relationship to each other, took precedence on this occasion.

Comparison with previous work

The purpose of this comparison is to test out the idea that in this piece of work Sarah had achieved something in picture-making which she had not achieved before.

a) For the black and white picture (p.293) Sarah chose three kinds of paper. She arranged white tissue paper
around three edges of the picture space, the fourth edge is marked with a white strip. In the centre of the picture are three black shapes; the middle shape is flanked by two black oblongs which balance one another. The picture may be finished; if it is then it may be regarded as a simple, tentative arrangement of shapes. The fact that she uses the idea of a squarish shape with two narrower shapes either side in this picture and then again in the red, blue and yellow one may show that she found this combination interesting. There is a more complex form of the idea to be found in the blue picture which is described below.

b) The yellow picture is incomplete. She was interested in making a picture of a room with decorations on it. She put short strips of different yellow papers along the bottom edge; two long strips of crêpe paper curving across the top section; touching one of these is a round shape at the centre.

c) The third picture (p.294) shows that she was interested in using as many different kinds of blue as possible. The arrangement of shapes may seem random at first but there is a discernible structure. Roughly down the centre of the picture space is a column of four sided shapes; on either side are paired strips of varying lengths in the same materials. Most of these pairs are arranged horizontally but some are vertical. The sandwiching of larger shapes by narrower strips is an idea which Sarah made clear in the fourth picture.
d) Why might the fourth picture be an advance on the others? It is perhaps because the maker seems to be in full control of the materials and shapes. These have been made and arranged under the influence of an idea which was strong enough to over-ride other considerations. The work has been reflected on as it was made so that the parts which did not look right were reworked until they accorded with the criteria necessitated by the idea. The picture seems to be evidence of what the idea was: or rather, the picture is the idea in final form. It is significant that the idea itself probably cannot be articulated in words: not simply because it existed at an intuitive level but because it was the kind of idea which could only be articulated in picture form. It could not exist in any other way because it was essentially a pictorial idea.

This picture shows a sudden grasp of how to use materials to carry out an idea which was developing during the picture's making. Previous pictures were simply a way of experiencing colours and shapes without clear intentions. There is little in the earlier pieces of work to indicate how the idea for this picture developed. However, her comments do. When she talks about changing her mind when she has a better idea, she shows that having ideas is a way of thinking about which she is conscious as she works. Perhaps this is the most significant characteristic of her way of working for it helped her to develop a successful piece of work.
2.4.iii Talking and making pictures

JONATHAN (p.297)

"The colours are good because they are nice, good reds. I have got two different kinds of red. I folded them and I cut the fold and the bits I cut I've stuck on. I cut a big yellow piece with a point at each end so you could put it any way up and I cut a blue piece with a point in one end. I cut all different shapes in the folds. I put the yellow shape so it pointed to this fold-up shape at the top and this one at the bottom. I cut a heart shape to make it look nice."

Jonathan has chosen four large, red rectangles, all of which he has folded in half and from which he has cut four kinds of shape. He has used some of these small shapes in the spaces at the four edges of the picture space. All four red rectangles are related either by touching along entire edges or by overlapping. Other relationships have been set up. The small shapes which were placed at the edges of the picture space not only relate these spaces to one another but also to the spaces which they left in the red shapes. Each of the small shapes is echoed by the space that it left. The onlooker is tempted to work out where each shape came from and consequently an active relationship is set up between the different parts of the picture. Some of the shapes suggest the idea of arrow heads and their directional property may have given Jonathan the idea of having the yellow pointer which can be put any way up. This double-pointed strip is like the pointer on a compass. A similar idea is repeated in the only blue shape on the picture which fits neatly into a gap left by the arrangement of the blocks of red. The question which cannot be answered but is important to raise is
whether Jonathan meant the pointer to be able to point in any direction. Did he mean "any way up" or "either way up"? Did he want the pointer to be mobile in the imagination like a compass pointer or was his intention more simple than that? The question is important because the introduction of an imaginary element would add another dimension to his work which would make the pictorial idea even more complex than it apparently is.

Comparison with unguided talking

a)

"First I did the tree and I did two nests in it. I drew a balloon and I drew our dog in the garden. It's a spikey dog and it's green. I have never seen an orange sun before. I drew lots of colours of leaves because there wasn't a black felt. Why the dog is fun to look at is because it's spikey and pretty colours."

Jonathan talks about the subject matter which the picture was intended to represent. He explains why certain features of the picture are not as they are in reality. One of the reasons is a lack of resources; another is to satisfy a sense of fun. The fact that these features are at odds with his experience is a source of humour and his purpose in talking about them seems to be to share with others what he has found funny. The choice of an orange sun and a green spikey dog seem to be the result of a conscious choice; unlike the many-coloured leaves which he had intended to draw in black. The decision to draw them in many colours may have been part of his idea that it was fun to give objects colours which they would not have in
reality. It is tempting to speculate what he would have thought about the leaves had he been able to draw them in black. Would he have thought that they looked funny too? If his intention was to play on the idea of giving objects strange colours then he should have been congratulated for using a limited medium, i.e. a packet of twelve felt tip pens which had one colour missing, in an imaginative way. It is possible to suppose that since he knew there was no chance of making the colours of real objects he decided to use the colours that were available for fun. Perhaps he was joking about the fact that the colours were of the pens not the objects. On the other hand he may have used them arbitrarily, taking whichever pen was nearest and using it to draw anything.

He speaks confidently about his picture in terms of its content and form. This is also true of the detailed talking above (p.296 ). He seems to be conscious of the pictures at two levels: both as images and as objects which he has made. His comment is also interesting as an expression of what he wanted to say. He was speaking without an adult present; he was not trying to please anyone but himself and, perhaps, the other children who may have been listening. This is a record, then, of what he thought was significant for other people to know about his picture. However, he does seem to want to let everyone know that he knows that his picture is not like the real world. There is even a hint that he is apologising for that fact rather than enjoying it; it is as though his
"joke" is a device for pre-empting criticism about using the "wrong" colours. This raises a question about what he had learned about picture-making before he made this picture. It seems that he had learned to be concerned, first and foremost, about matching the right colours to the right objects. At least the picture he chose to talk about shows that he had learned that some other possibilities existed when making a picture.

b) When talking on his own (see p.266) about the reproduction of "The Snail" Jonathan speaks about the size of the original painting before any of its other features. This shows that he has remembered some of the information relating to the difference between the print and the real picture. He found it important enough to mention. He then talks about the colours he can see in the reproduction. The order in which he speaks about them probably shows how he looked at it. It seems that his looking was determined by the way he related the colours in groups. The blue shape is mentioned first which is at the bottom of the picture, next to be mentioned is the black shape which is near the top. He seems to have noticed the largest and darkest shapes first. He uses the term "pinky purple" to describe the colour of the next shape which shows that he thought the words pink or purple alone would not be a good enough description. None of the colours were qualified in this way in the example above which suggests that this kind of description had been learned in the course of the work on colour and shape. After the pinky purple shape he
misses out the adjacent green and talks instead about the red, orange and yellow shapes. It is possible that he is grouping the colours according to their hue. The differences in the greens is then identified and finally the orange around the edge.

He has seen the task of talking about the reproduction as one of describing all the colours. This is one way of getting to know this picture; it is a good way of getting to know a picture which has been made by someone else. When he talked about his own work, on the two occasions reported here, he spoke not only about colour but about shape and how the work was carried out. When he spoke about the red, yellow and blue picture he relates each part to the whole; he seems to see it as a whole. This is in contrast to the reproduction in which he relates similar colours but does not relate them to the whole. He also makes no attempt to say how the picture was made. However, it is important to recognise that Jonathan seems to have a particular interest in colour and has used it on this occasion. An evaluation of how far he has learned to talk about pictures only in terms of how they were made would be inappropriate. After all, colour is undoubtedly an important consideration when looking at, and talking about, "The Snail" for the first time. Jonathan has developed the skills to help him attempt this.

Comments about guided and unguided talking

a) It is important to evaluate the value of giving Jonathan the chance to talk to an adult about his work.
This can be done by asking whether there is a recognisable difference between the way Jonathan talked about his first picture, the black and white, and the way he talked about the red, yellow and blue one four weeks later. Of the first he said:

"I arranged a big, long strip and I put furry black on the sides of the picture. I put lots of pieces of black on the long white strip. It was shiny. I put some tissue paper on, some black tissue paper, then some white tissue paper on top, the black showed through a bit. I put three white furry strips through the middle."

Though this comment was discussed more fully above it is quoted again here for ease of comparison. Both of Jonathan's accounts are about the decisions and observations which he made. The first describes materials and their relationship to one another and the picture space. In the second quote he describes the quality of the red he has chosen but it would be difficult to count that as a development when there is no record of how he might have described red before. As was pointed out above, when he talked about the Matisse he described a "pinky purple" showing that he knew that there were different kinds of one colour which could be talked about. It seems that when there were two kinds of the same colour he was able to use distinguishing adjectives. The four introductory activities in which that kind of problem was revisited seems to have been the right kind of guidance for Jonathan.

The differences in the content of the speaking also seem to be to do with the difference in the pictures. In both he has used the ideas and vocabulary from the
same blue Nicola was probably thinking of one of the original points of the introductory discussion (objective b). In common with other children who chose to use the idea she interpreted it using her own experience and understanding. She had a clear idea of what she wanted to find out and reports on what she observed about the resulting colour. The point of my question was to point out one of the differences between using paint and cut paper. Nicola showed from her reply that she had remembered how varying amounts of blue paint would affect the kind of green which could be made when it was mixed with yellow. Her reply also implies that she understood how differently paint and paper behave in changing colours. Nicola's experiment led to a class discussion which began with the question: "What is the difference between using paint and cut paper to make a picture?" Nicola's reply was both illuminating and unexpected:

"When you use paint and spread it around the page it leaves a line after it but when you move paper around it does not leave a line."

This comment shows the extent to which she had reflected on two ways of making pictures; and how far she had understood the physical workings of both media. The comparison which she made was unexpected because it was so illuminating, both about the media and about the way she thought as she worked. It shows that she moved pieces of coloured paper around before deciding finally where to stick them down. It is evident that her purpose in moving
the shapes around was to find the right place for them; the place where they looked right in relation to one another. She seems to have associated the action of moving a patch of colour around with her finger with that of moving a paint-laden brush across the paper. While she has noted the similarities she has also been able to express clearly an essential difference. Is it important to the development of her understanding of experiences such as these to express them verbally; or should they remain intuitively or subconsciously known? Is there a danger that talking could undermine the value of the artistic experience; or is talking simply one way of reflecting? Whatever the answers to these questions might be, one thing is certain, that Nicola could only have replied in the way she did if the words were ready to be said; and if the idea of the difference was already formed. The question simply gave her an opportunity to express it.

Analysis of unguided talking about "The Snail"

Nicola: "In this picture there's a mauvey colour touching black and a pink is touching another colour. Black is touching green and green is touching some yellowy colour and another bit of green is touching an orange and the orange is touching the red and the red is touching [inaudible] and the orange is touching yellow, yellow is touching blue and blue is not touching anything except yellow and orange and there's red touching green."

This comment is about single colours and how the shape of each one related to its neighbour, or neighbours. The way she has looked at the picture has been guided by her interest in which colours touch one another. Her comments
show that she had both the interest and skills to look at some of the formal elements of an unknown picture. This interest involves a willingness to give time and thought to how someone else had arranged colours and shapes. She has thought about how the picture was made in terms of how the colours and shapes were arranged, rather than in terms of how the materials were made. She would probably have been able to talk about that aspect of the work as well had she been questioned at the time.

Analysis of unguided talking about the Orange picture (p.308)

Nicola: "First I got an orange bit of paper and I cut sort of hills out of them and then I got another piece and I cut triangles out of them and then I did two for each . . ."

This comment was recorded independently by Nicola on audio cassette with a group of children nearby. She may have wanted to say more but was interrupted by another child.

Nicola's main concern is to communicate how she made the picture. It can be understood from what she said, that the work was in three stages. Each phase of the process seems to have determined what needed to be done next, showing that she was working with formal elements in mind. For example, she has decided that each gap in the two original shapes needed to be complemented by a shape similar to the ones she had cut out. One shape gives her the idea for what to do next. This is why the picture makes sense as a whole. Each successive decision has been related so that shapes are not isolated but are all connected.
On first glance it seems that she has simply shifted the shapes down to leave a narrow, white gap which forms a zigzag line. However, on closer examination it can be seen that the arrangement is not so simple. Though that may have been her original intention she has had to change that idea slightly. The top right triangle does not match the gap, but the top left triangle fits its gap. Similarly, the bottom right shape does not fit its gap; but the shape in the bottom left space does. It has been shifted to the left from the right. Had Nicola been asked questions about the arrangement of shapes this puzzle may have been unravelled; as it is it remains a visual mystery. This is, perhaps, the strength of the picture. Yet would Nicola have spoken about it independently had she not been interrupted? Had she explained how she arranged the shapes in more detail would that negatively affect the way the picture could be looked at now?

There is, of course, an important difference between what is said about a picture by its maker and the picture itself. Knowing a picture means looking at it for itself; but words can inform the way a picture is looked at. This point has been illustrated throughout. Nicola reported what she did, but does her comment add to the way the picture can be looked at? That is doubtful. Yet the question may not be the appropriate one to ask here. In an analysis of young children's work it may be more important to ask whether the comment can add to the way the picture of this five year old child can be looked at by her
teacher. Given that context it would be important to learn from her comment that she was working with a particular intention in mind. The process of making was determined by her intentions for the materials and by the two oblongs with which she started. Those ideas determined, and are conveyed by, the picture's final form. This is, perhaps, an illustration of Wollheim's view (see p.169) that the work of the artist will have in it the concepts which helped to fashion it.

* * *

**ACTIVITY 5: PAINTED CUT OUTS**

Alongside this activity the children continued to colour different kinds of paper for each other to use later. Colour-mixing activities continued with an adult helper. The purpose was to begin to mix colours which would match eye, hair and skin colours. Card and paper were then to be painted, as before, for communal use in making cut-out self-portraits. A new month meant that a different reproduction from The National Gallery Calendar was available to look at and talk about. It was "Umbrellas" by Pierre Auguste Renoir (1884).

**Objectives**

a) It is intended to talk with the children about the paper and card which they have painted in primary and ready-made secondary colours;

b) these will be compared with the kind of papers which
they have been using; and

c) the children will then be making their own pictures using the new materials;

d) some children will be talking to me about their work.

Organisation and materials

The children had sorted the new materials into colour groups after they had dried. They were kept in trays which were readily accessible for use by all the children. The new materials had a different feel to the industrially dyed papers and card which had been used previously. The paint gave their surface a rough texture and some card became stiff. The quality of the colours was different because the whiteness of the paper underneath the paint added brightness, vividness and translucence. The brushmarks could be seen clearly on the card which had a hard finish, whereas the sugar paper absorbed the paint evenly. The blue paint had collected in uneven, random spots, even as it was being applied. This was talked about at the time.

What did the children do?

The children showed interest in how the materials which they were used to using had been dyed in paper factories and then delivered to school. They went to look at the shelves where all the papers were kept. Some children knew that paper was made from trees and they were able to tell the others about what they knew. Returning to this theme, which had been touched on in the first
activity, seemed appropriate now that the children themselves had coloured the materials they were going to use.

A number of children made pictures which seemed to represent a breakthrough in their understanding of picture-making. Two examples are given below, together with their possible implications for teaching.

What were they learning?

The children learned that the materials in school were brought there from factories and stores which were located in different parts of the country. That information seemed to give the materials a new significance with associations beyond the school. This aspect of the materials was emphasized by the knowledge that paper is made from trees which were living but had been cut down specifically for the purpose of making paper or card. They may have been learning to value a resource which they had previously taken for granted. The idea of wasting paper concerned them for a while and some were more careful about what they threw away and what they put back in the communal materials trolley.

In their picture-making some children were learning to use colours and shapes to suggest an idea which was then pursued for its own sake. More children than before were learning to control the medium, which this time they had coloured, in a way which went beyond physical manipulation and which entered the realm of pictorial ideas.
How worthwhile was it?

Of all the activities this was perhaps the most significant from a teaching point of view. Individual children's pictures seemed to show that understanding was growing and that progress in picture-making was taking place. It seemed that five sessions of talking about colour, shape, materials and their arrangement, and, most importantly, of making pictures was enough to have given some children the confidence to begin to work independently in art. There were examples of real adventurousness which indicated the confidence of some children with this way of working. Such examples showed the author that a shared framework of concepts and attitudes had been put in place and that it was being used in teaching and learning. The main features of the framework which is being pieced together in Part 2 are summarised in the concluding part of the thesis. There it is suggested that the strength of the framework lies in its potential for use in contexts other than that developed here. Indeed, by the end of this teaching episode such possibilities were already becoming clear. It was rewarding to realise that other ways of working in art could be developed along similar lines. For example, the idea that the concepts of space and shape could structure the three-dimensional work of these children began to emerge and plans were made to focus on those concepts during the next term.

The children had reached a stage of working together in which the sharing of materials and ideas were resources
in a real sense. Some examples of what is meant by this are: the making of materials for communal use; the use of pieces of materials from which someone else had cut shapes; and the way children offered comments about materials and ways of working in the class discussions. Ideas were also shared, such as, looping strips of paper, or folding paper to make flaps which could be lifted. While the exchange of ideas had occurred before, there seemed now to be a cumulative effect. It seemed that everyone was involved in activities and discussions within which concepts, purposes and attitudes were shared and were meaningful. For example, it now made sense for one child to read another child's comments about a picture because everyone was interested in how these could help in looking at the picture.

It seemed that the possibilities of the activities were emerging through individual, independent efforts. The limited materials and the tight concentration on talking specifically about formal elements, materials and making was effective, sometimes in an entirely unexpected way. It was giving rise to imaginings and associations which were entirely personal but which could be shared with others through talking and looking. What is more, the cut-outs were proving to be an appropriate medium for the development of understanding of basic concepts in art. This was perhaps because the children could control the arrangement of colour and shape more easily in this medium than, for example, in painting. These points are
considered in the next section where the work of two children is discussed with a view to identifying signs of pictorial understanding.

2.5 ACTIVITY 5: ANALYSIS

Signs of individual understanding

The purpose here is to examine whether or not a child's pictures could be considered to give evidence of the growth of understanding in art. The question which will be asked is whether the child understands what he or she is doing in a particular picture-making episode. Therefore, the judgement about whether understanding has been achieved will be related specifically to that work. No attempt is being made to judge whether a child understands picture-making in general or all kinds of picture-making. What is being attempted is the identification of an aspect of the children's work which clearly shows that a concept of picture-making has been grasped. The significance of such a sign is that if a child can understand what he or she is doing in particular instances then it is likely that from many similar experiences could be built a fuller concept of picture-making and consequently a fuller concept of art. If this is accepted then it would also show that the way of working described above was effective, as far as it went; that it could provide a good basis for further learning; and that it might be used with other groups of children.

It is thought that the development of two kinds of
understanding can be shown through the pictures of two children in particular because in each case realisation appears to be sudden and obvious. The work of one child shows how she pursued an idea through several versions and how, in the final version, she has developed a strong concept of picture-making in which form and content are closely related. The work of the other child shows how one subject had been revisited in three different media over a longer period of time and how far the medium of the final version has influenced both its form and content.

Developing a pictorial idea

1 Secrets

Kirsty developed the idea of "Secrets" as the subject of her work through four stages. This was a process of which the author was totally unaware until she began to analyse the work. This is evidence of how independently Kirsty was working. She must have made these versions over a period of two weeks during the times made available for the making of pictures. The first picture (p.319) is a loose arrangement of different kinds of red paper. One piece of paper has been folded in two and when it is opened up a small rectangle of red tissue paper is revealed. Near it Kirsty has crayoned first some yellow then some blue marks. The second picture (p.320) is an arrangement of red and blue shapes, some of which are drawn with crayon. Inside the red shape which is made from folded tissue paper can be seen a paler square. When it is opened up a yellow
shape can be seen on which is written the name "Kirsty". With the action of opening the red shape to show the yellow "secret" the whole arrangement seems to take on a different appearance because the yellow colour stands out from the rest. The third version of this idea (p.321) is made from two pieces of white sugar paper which have been pained in different kinds of orange. The smallest piece of paper is placed in the centre of the picture space and it has been folded so that its coloured side is concealed. It has then been scribbled on with pencil and stuck down with glue so that it cannot be opened fully. The largest piece has been scribbled on with pencil and then folded into four. When it is opened it extends beyond the picture space. In each of these versions Kirsty has changed the material from which the "secret" is made and she has also changed its nature by writing or scribbling or leaving the paper blank. It seems that she was more interested in the idea of secrets than a specific secret which could be passed on verbally. She has been interested in the way the folded paper could conceal or reveal something unexpected. It is as though "the secret" were really about the materials themselves: what they could be made to do, and to suggest, beyond their simple physical properties.

A red secret (p.322)

"It's got all different colours on it. It's got green, red, blue and orange and yellow. It's got a red secret on the green piece of paper. I cut out this red piece from this one. They are the same colour. There is more red on the blue."
Even though Kirsty had taken one idea and thought it over in the making of three pieces of work the final picture is quite different from its predecessors. The reasons why it is different all relate to her understanding of the picture's construction, a development which is evident only in this version. There the shapes are tightly related to one another; to her name; and to the picture space. She has chosen four ready-made shapes which she found would fit the space available. She may have stuck the green shape down first and then written her name, or it may be that she wrote her name first and that the shapes were chosen to fit around it. In any case, the blue and orange shapes fit neatly into the space below her name. The way the yellow shape fits uncomfortably into the bottom left quarter of the picture suggests that she may have stuck on the blue and green shapes before fixing it onto the picture which would have made it too difficult to cut down to a better size. What is certain is the way each shape is related to another, either by the shapes which are used or by colour. For example, the red of "red secret" is repeated on the blue. The shape which has been cut from it means that the same red is repeated on orange. Here the relationships are in horizontal and vertical directions. Blue is related in a diagonal direction. Inside the "red secret" there is a yellow shape folded into four and stuck onto the green ground. This arrangement is reversed below where a green shape is stuck onto yellow. In the end each part of the picture is related to each of the other parts.
introductory sessions but the difference lies in the way he has used them. The way he talks about his red, yellow and blue picture is selective. He picks out the aspects of the work which were important to him. He did not need help. This, in itself, is a development. The important question for teaching is whether the initial guidance had been useful to Jonathan; had he been able to make the ideas, vocabulary and attitudes part of his own way of thinking and working? This suggestion arises from the way Jonathan is able to express an idea both through his picture and the way he can talk about it. Furthermore, it is possible that the way he thought about the introductory investigations, his process of making, the final picture and the reflection on it (public or private) were so closely related that they had become interdependent.

NICOLA (p.304)

"I started with the dark blue line. I made it go diagonally. Then I stuck a pink square bit over the blue line and it made the pink go darker. Then I got a yellow piece of tissue paper and stuck that on and it made it go sort of brown."

A.D. "What happens when you mix yellow and blue paint?"

"If I put a lot of blue powder paint and yellow paint it would make it go green and if you put a little bit of blue you'd get a light green."

Analysis of the comments and picture

The picture is a simple arrangement of four shapes. The main idea seems to have been to overlap the colours to see what would happen. In putting red and yellow on the
in varying ways.

It is the establishment of a complex range of relationships between shapes which seems to mark this picture as a breakthrough in Kirsty's understanding of what making pictures can be about. This is not to suppose that she started to make the picture with its final form in mind. On the contrary, the process of coming to realise how the parts could be arranged most pleasingly in this particular way would have come as she worked with the materials.

Is there any relationship with the other pictures other than in the fact that they all contained a "secret"? It is perhaps more informative to consider whether she could have made this picture without the previous investigations. This does not seem likely. It was the fourth picture in a series and it would be illogical to suppose that it could have been arrived at in another way. It is unlikely that she could have developed her thinking about the structure of this picture without having pursued the subject of "Secrets" through its preliminary stages. It may be that her interest was so keen that it kept her working independently in the activity for long enough to develop the concept of picture-making which is evident here.

2 "You'll never believe the back one"!

Lee's work with faces spans a period of two terms. Two were carried out before the work with cut-outs and both are
figurative. One was a drawing in felt tipped pen and the other was an enlargement of a drawing which he made of the "Sheriff of Nottingham" to show how greedy and cruel he was. It was subsequently painted and decorated by Lee (p.324). The purpose here is not to present many pieces of work over a long period of time, rather, the intention is to show how Lee made full use of the physical properties of cut-outs. During this last activity, he seemed to realise, all of a sudden, the potential of the medium, for his work up to that point had been very tentative. It might have been more appropriate to present his other cut-outs to demonstrate this sudden realisation but it is more important here to show how he has changed a familiar image under the influence of the medium. Perhaps his earlier observation about mixing pale blue paint (p.228) was an indication of his sensitivity to the qualities, as well as the properties, of a particular medium.

In his description of the picture about a magic dog (p.263) Lee states that the dog is pulling a cheeky face and that the picture began with the idea of a dog. The picture of the "Sheriff" came about because a school visit had been planned to see a pantomime called Robin Hood and it had been decided by the staff that the central display should show characters from the story. The children were asked to draw a cruel and greedy face for the "Sheriff". Then the children decided which of their drawings showed these characteristics. Lee's drawing was chosen.
When he had completed the cut-out, which was about his father's face (pp.327 & 328), he came to the author to talk about it. He was very animated and excited about the work. These were his comments:

"First I did two pairs of butterfly wings and then I thought I would do my daddy looking good. You'll never believe the back one! This is my daddy when he is cross. I like the cross one best because he looks a bit funny. The back one is what is left over from the front one."

The idea of using both sides of the card to show two kinds of expression is undoubtedly an adventurous and inventive use of the medium. Lee may have developed the idea through his own activities as he cut, assembled and handled the green pieces of paper. The action of picking up shapes and colours may have led him to the idea of picking up the first picture, of turning it around; of handling it as an object. The action of turning the picture round may have led him to think of making a reversal of the original image of his daddy's face by using the pieces left over. It is an extraordinary invention because two or three pictorial devices are used simultaneously: the reversal of the card to show another image; the use of the paper left over from the first image to make the second; and the use of a negative/positive image in relation to the opposite good/bad moods of the same face. Lee's imaginative control of the materials in making this complex image is evidence of a good understanding of picture-making. An important part of the evidence of his understanding lies in what he said both about the picture and the way he made it. It would seem
here, as with the other examples given throughout Part 2, that talking which is based on a shared framework of concepts and attitudes can be an important part of developing an understanding of pictures - not least the teacher's.

The medium and the image

Three ideas which guided the work with children can now be related: the importance of materials; the importance of making to understanding; and the physical aspect of pictures. The work of Claire Golomb is of importance to the argument that young children can use the materials with which they work as a source of ideas and that therefore it is reasonable to expect them to be able to talk about the form as well as the content of their work. In an extensive series of studies of children's image-making she found that "The human figure varied systematically as a function of the medium, the task and the instructions." She argues (1976, p.22) that the implications of the studies are clear:

"... the young child is an active experimenter who invents forms not given to him in the object and creates representational models suitable to the particular medium in which he works. The youngster is sensitive to the demand characteristics of the task at hand. At all times the child is aware of the fact that the portrayed figure merely stands for the real object and is not to be confused with it. The child has a spontaneous awareness of the symbolic nature of the task."

Golomb's research adds strength to the view that young children can use their sensitivity to materials in their
picture-making decisions. Appendix 2 is a transcript of a child talking at length with the author about two pieces of blue material. It is included, not because it was part of this episode of teaching for it occurred some time later, but because it shows the depth of interest which one child showed in the simple activity of comparing pieces of fabric and paper, and his struggle to find the right words to do so. His attention to the details which he can see is like that of Laura R (p.149) when she talked about a small piece of wood. As has been evident throughout the project, a strong emphasis has been given to the way that materials can be a source of pictorial ideas during a picture’s making. Some of these ideas have been adventurous, at least in the sense that they broke away from the work previously carried out by an individual. Leslie Perry (1973 p.121) has described the adventurous nature of artistic making and endeavour in a way which illuminates its likeness to exploration and experiment:

"Somewhere in artistic achievement there is the reaction of an adventurous person to this particular instance of time, place and circumstance, that is the art production - a reaction of that person at that stage of his powers."

Using children's sensitivity to materials as an important part of the picture-making process and recognising this by talking about them emphasized the physicality of the finished object. It is here in the children's work, that the three central ideas which underpinned this work come together as interdependent parts of the whole teaching episode: the importance of materials; of art-making; and of
pictures as physical objects. These, together with the way each could be talked about with individuals at their own level, constituted the practical response to the three problems addressed in Part 1 which were:

- the generalised view of what children under seven can and cannot do;
- a concept of art which could be appropriate for teaching;
- the kind of teaching which could be art-based and child-centred.
SUMMARY: Findings and Criticisms

What has been shown so far?

There is strong evidence to show that the children could:

- talk about colours, shapes and materials;
- talk about how they made their pictures;
- talk about what their pictures were about;
- talk about a picture by Matisse;
- choose a limited range of materials from a large variety;
- arrange shapes in relation to others and to the picture space;
- use the properties of the materials and the tones of colours to structure their work;
- use the materials as a source of ideas;
- care about the materials they had chosen;
- make pictures which were the result of many decisions which they knew could be changed as they worked;
- develop a concept of picture-making which was firmly rooted in the idea that the work was their own.

How far were the original objectives achieved?

- The skills and understanding indicated above show that the children had been put in touch with the structure of the subject.
- It is difficult to say which aspect of talking had helped certain children come to the kinds of
understanding discussed.

- Perhaps three kinds of language development were necessary for they provided a continuous contact with what could be said about pictures and picture-making (i.e. the introductory session in which vocabulary and ways of talking about materials was introduced; the dialogue with individuals; and the display of vocabulary, ideas and children's comments).

Which aspects of the work went beyond the original expectations?

- The extent to which some children's work developed in only five weeks was completely unexpected.
- The way in which the children were able, so readily, to relate their own picture-making to talking about "The Snail" was not expected; neither was the number of children who wanted to spend their time doing so.
- It was not expected that children would find each other's comments interesting enough to read.
- The insightful quality of the comments of individual children was also unexpected.

What can be learned?

- The individuality of the pictures and the intentions which gave them form meant that each had to be judged on its own merits as part of one person's development in picture-making.
- The individual nature of the intentions and ideas in
picture-making were made sharable because of the way the children could talk about them in ways which were easily understood by everyone.

- The author found that Wollheim's concept of twentieth century art was particularly helpful in clarifying a framework for teaching but it may be that several concepts of art are needed in order to give breadth to an art curriculum.

- Children's understanding of their own art-making could be the key to helping children look at the work of others as they are required to do in Attainment Target 2 of Art in the National Curriculum.

- The children had been put in touch with the structure of the subject through its formal elements; and through a particular way of working which they were able to use when they talked about the work of an adult artist.

- Talking with individual children led the author to realise how far they were able to understand their own picture-making and to focus on an aspect of the work which seemed appropriate at the time. It helped in the development of a greater awareness of individual needs.

- A major factor in the way the children became confident enough to have their own ideas for the materials was the fact that their activities on one medium were sustained over a sufficiently long period of time for them. For others, that time actually
extended beyond the five sessions described here, for this was a medium with which the children could make pictures independently whenever time allowed, since the materials were always available.

Similarly, the way in which the same basic concepts were talked about during each session meant that these were very familiar to the children. This revisiting of the same ideas in slightly different contexts each week is thought to have been responsible for the understanding of picture-making which the children showed in some of their work.

Criticisms

It is possible to criticise the way the work carried out in the project has been used to advance certain ideas about the value of talking to learning about art. Criticism is possible because it may be considered that sufficient account has not been taken of certain important points, such as: the possibility that some children did not need to talk at the beginning of an activity but simply needed to listen in order to pick up ideas and attitudes; or that the author did not talk with all the children about their work during the five weeks of the project; or that talking with some individuals occurred after, rather than before, they had achieved success in picture-making.

It would have been useful to analyse those pieces of work which were made over the period of five weeks without a dialogue with the author, though space does not allow for
that here. A comparison to see if development took place without the help of talking would clear up the matter of whether talking was the cause of development in picture-making. But that is not being claimed. However, it would still be reasonable to question whether this omission is a serious flaw in the analysis of the work especially as the original purpose of the project in school was to find a way of talking which could develop children's understanding of their own work in art.

In reply to such criticism it would be argued that:

1) it is true that the children who seemed to be good at talking about all kinds of things tended to be good at talking about colours and materials, but they were also the children who seemed to make progress in picture-making;

2) the fact that some children can talk about ideas or objects clearly may mean that their conceptual development in those particular areas is more advanced than someone who cannot. If this is so then does that mean that the children who seemed to make a breakthrough in their understanding at some point during the five weeks' work were already more advanced in their awareness of detail, or more sensitive to materials than the others, who at some future time could develop similarly? It has been shown how the children seemed to come to an understanding of their own picture-making at different times during the course of the five weeks which is, of course, to be
expected. In work which followed this project other children showed such signs of realisation in their work too. The project showed the way in which some children talked about their work and this was taken to be an indication that they had understood what they were doing when they made their pictures. It could also be taken as a sign that they understood how to talk about pictorial form and content. It is significant, perhaps, that not all the children who enjoyed talking about what they had done or brought to school made the kind of progress in picture-making which has been shown above. Natalie, for instance, who was very good at talking about objects and things she had made did not seem to make that kind of progress after she had made the yellow picture (p.213). Of course, this may have been because her interest in this medium was exhausted early on. The point is that her experience shows that a talkative child is not necessarily going to learn to understand picture-making simply by virtue of being articulate;

3) towards the end of five weeks it was the children who were making pictures which seemed to show a full grasp of their picture-making with whom the author chose to talk. Those were the children who seemed to have learned that which had been taught. At the time it seemed more important to talk to the children who showed that the teaching had been effective than to those who were needing more time to get to know the
materials and their pictorial possibilities. It was an unconscious decision that these children would benefit more from the experience of making than from that of talking with me. Nevertheless, it would be a valid criticism of the teaching were it pointed out that the time should have been spent with the children who did not seem to be making progress, especially since talking was thought to be a good way of helping children develop their understanding. This was a time for learning for the author who wanted to find out from the children themselves how they had made successful pictures. It was important to talk to them while the experience of making was fresh in their minds. In any case, at that stage plans were being made for the application to three-dimensional work of this way of working. The author knew that the few children who had been missed out would soon have their turn. In retrospect it seems that the purpose of talking changed during the course of five weeks. At first the purpose of asking children about their work was so that their comments could be displayed next to the pictures and the idea that pictures could be talked about was made clear. Though this intention was not abandoned, time ran out. However, as children began to produce pictures which seemed to show a development it seemed important for the author to listen to what they had to say; to have their comments displayed for others to read and to find out more
Despite these criticisms it can be claimed that talking played a part in learning and teaching in at least five ways:

1) in making materials and the process of making important since those were the aspects which were talked about and displayed in verbal form:

2) in making the significance of the image obvious to others and of giving it meanings which others could understand;

3) some children used the ideas in their pictures which had been a focus of the introductory discussions. It is not certain whether talking with children about their finished pictures helped them with their subsequent work. It did not seem to have helped Natalie. Sarah, whose work in Activity 4 has been described, had not talked with the author before she made the picture (p.289) which, it is claimed, shows a breakthrough in her understanding of picture-making. The same was true of Nicholas, Helen and Laura R. whose work was included in Part 1. This perhaps indicates that children need differing amounts of contact with their teacher on a one to one basis. Nevertheless, it would be difficult to imagine that the pictures which have been discussed above could have been made without at least some element of teaching through talking and listening;
4) listening to children's comments was an important way of informing teaching. Most importantly it gave significance and meaning to the pictures children had made - such as the ones given in point 3) above. In doing so the author's expectations of the children's capabilities were changed. It was found to be necessary to listen to what children had to say about their activities for it was one way of seeing whether they were appropriate;

5) it was evident that talking with all the children in the introductory activities about formal elements, materials and making had given the children ways of talking about other pictures. Without this kind of activity it would be difficult to provide the right kind of context for children to begin, as they are now required, "to make connections between their own work and that of other artists." (Art in the National Curriculum, Attainment Target 2). However, other ways of developing critical skills have been researched and these are considered briefly in the next section. The special relevance of the author's research to the forming of connections between children's own work and that of others is considered in the concluding part of the thesis.

How far does this research relate to other research into talking about pictures?

It may be wondered why little reference has been made to other studies into children talking about art. The
reason for this is that research tends to have been related
to junior or secondary school children; but, more
importantly, the research has been about children talking
about the work of mature artists rather than their own,
which seems to have been of secondary interest to other
researchers. However, some investigations do present
evidence that talking about different aspects of work in
art can advance learning and therefore it is appropriate to
refer to them here.

Richard Kelsall (1983 pp.49-60) investigated the role
of language in art teaching with pupils aged seven to
eleven years. He points out that little is known about the
effectiveness of teaching strategies relating to critical
study especially with children of primary school age. He
also emphasises the fact that art activities involving
talking are not common in schools. He presents evidence
which he claims shows that junior school age children could
benefit from the study of art works to "enhance their
perception of their own work and the works of adult
artists." His project therefore, was attempting to inform
children about their own work through the study of the
works of others which is informative since it suggests an
alternative approach to the one this thesis presents.

Brian Allison (1986 pp.113-128) considers assessment
in the arts to be an extremely contentious issue. An area
which has not been widely explored in schools and colleges,
he points out, is assessment of critical and appreciative
abilities which are dependent to a large degree on the use
of language. However, there has been a considerable amount of curriculum development work carried out which indicates possible methods of assessment. He lists a number of teacher-researchers (e.g. Kelsall) who, he states, have clarified the nature of critical activity and its assessment in schools. It is interesting that he puts children's talk or writing about art into categories which he describes as naive or sophisticated. The sophisticated responses or educated responses, he claims, could be assessed according to whether reference was made to "... colours, tones, textures, organisation, composition" among other things. While the comments of the children aged five and six reported above perhaps could not be called sophisticated they could reasonably be called educated, at least according to Allison's criteria. It is also of relevance to the present thesis that Allison emphasises (op.cit., p.123) the importance of developing a vocabulary for thinking and talking about art and design "... if only to ascertain if teachers and pupils are meaning the same things when they are using the same words." It has been argued that a shared way of talking is of vital, rather than incidental, importance especially when talking is planned to help children to understand what they are doing in art.

John Bowden (1989 pp.82-87) analyzed the way in which groups of adults and secondary school pupils talked about some original works of art. He found that six categories of response could be distinguished. These were a)
arbitrary; b) relating to skill/technique; c) referring to materials; d) expressive; e) using visual language; and f) contextual. His teaching was designed to lead the groups from an arbitrary response through to a structured critical process. This work is helpful in identifying the arbitrary responses of people when they first look at a picture and in pointing out that opinions based on personal preferences "are closed and unhelpful as catalysts for discussion". The avoidance of arbitrary comments about likes and dislikes was achieved in the project described in Part 2 by means of giving the children particular aspects of pictures and making about which to talk.

Rosamund J. Osbourn (1991 pp.31-54) suggests that the "Speaking and Listening" requirements for English in the National Curriculum could be used to develop an art vocabulary and deeper understanding of "artistic appraisal" especially in the primary school. She describes the common thread of the sequence of work presented as being: "an emphasis upon the use of the observer's own natural language and communication of their individual perception and understanding". The work which she describes starts with the study of reproductions of work by mature artists by small groups of pupils who look at and then describe or draw the image. This way of working was used with children aged five to sixteen years and with adults. Her work with younger children shows how they can talk at length about different aspects of the picture as well as attempting to assign meaning and explanation.
Her findings could be said to contradict the claim being made here that children need to understand their own work in order to appreciate the work of others. However, it would be difficult to argue that children should not be helped to understand their own work by talking about it, or that understanding it would not help them to appreciate the work of others. In any case two different aims are involved. Osbourn was trying to show how ordinary language could be used to talk about reproductions of pictures, an activity which, in turn, is claimed to develop pictorial language and understanding. The project described above in Part 2 was attempting to develop pictorial language and understanding through talking about making, materials and formal elements. Nevertheless, Osbourn's research is welcome because it points out the importance of listening as an important way of learning. A point which, perhaps, has not been given sufficient emphasis in the way children were thought to have learned in the "Colour and Shape" project.

These particular examples of research into talking about art are valuable in informing practice because they are accounts of effective teaching episodes which can offer other teachers several ways of working.

Concluding remarks

In designing a teaching episode which was intended to develop children's understanding of their work in art through talking, the author may have implied that there
would be some direct cause and effect between what was said and the pictures which were made by the children. Some pictures have been claimed to show that the way in which the children were encouraged to think and talk about materials and the arrangement of colours and shapes has entered into the process of making. However, it has also been pointed out that talking about formal elements and materials is not the same as using them to make pictures. It has also been argued that reading the maker's comments about their pictures is not the same as looking at the picture itself. It is rather that looking at, and making, pictures requires something else which might be called pictorial understanding. That could be more or less complex depending on the concept, or concepts, of art under which one is looking, or making. It has been shown why the concept of art which guided the teaching was chosen. It enabled a framework of ideas to be established so that young children could be put in touch with the structure of the subject. That framework made it possible for the children to continuously revisit the basic concepts, processes and attitudes which have been argued to be necessary to the understanding of art. It is thought that though these elements are not sufficient on their own, they are necessary for the development of a basic artistic understanding. As such, it is possible that this way of thinking about art could be built on as the children gain wider experiences.
The relationship between that which it is intended to teach to children - the plan - and that which actually happens in the process of teaching are also different. Edmund B. Feldman (1959 p.24) makes this distinction when he writes that, in a sense the plan is not real, it is the teaching encounter and its qualities which are, in fact, real. Trying to achieve objectives which have been worked out in theory is the teacher's constant dilemma. It is that context and its particular problems which the thesis has attempted to address. It remains to relate the work with children to the policies for art given in The Arts in Schools (1982); in Art in the National Curriculum (1992); and to the hypothesis which has been under examination throughout.
CONCLUSIONS

Implications for the provision of art at National Curriculum Key Stage 1

In considering the problem of how improvements in the teaching and learning in art might be effected two different kinds of provision were examined. One suggests that the bringing together of different areas of knowledge (integration) can provide the most effective basis for young children's learning, paving the way to their eventual grasp of these as distinct, though related, subjects. The other proposes that any subject can be taught effectively in an intellectually honest form which is simple enough for young children to understand. The thesis began from the author's assumption that the purpose of including art in education was to develop children's understanding of the subject and that this constituted the main aim for teaching. From that starting point the thesis set out to investigate the practical usefulness of the hypothesis which proposes that in order for young children to begin to understand and develop their work in art it is necessary for their teacher to be able to put them in touch with the basic structure of the subject. That structure was supposed to include the formal elements, materials and processes of art. Finding ways of achieving that in practice was thought to depend on: the ways in which young children are thought to learn; and the meanings which are attached to the terms "art" and "understanding". It was argued that the concept of art with which teachers teach
would be a determining factor in what was made available for children to learn. Therefore the concept, or concepts, of art which guide teaching should be wide enough to include what children can do but not so wide as to include anything which children do with the materials and tools associated with the subject.

The author set out to find a framework for teaching which would make sense of the many activities which the children in her class ordinarily do in school which are supposed to be giving them experiences in art. The framework which was evolved depended on the idea that young children could be helped to reflect on their immediate experiences through focused talking and listening which enables them to turn around and view their own activities in art. Though one concept of art formed the framework for planning a particular project with children it would be argued that many kinds of art can be approached through it. It emphasises the physicality and material nature of art, but it was found that other concepts may need to be known by teachers depending on the needs which they have identified for themselves and their pupils. The kind of understanding towards which it was thought appropriate to aim with the children was argued to be most effectively thought of as being related to making. This meant that a way for children to begin to know and understand the work of other artists would be through knowing and understanding their own art-making. The children were found to be able to relate their own experiences in picture-making to
talking about "The Snail" by H. Matisse (1953) through their study of colour, shape and materials. The connection between appreciating and making which the children are claimed to have made implied that a basis had been found for providing what seemed to the author to be a missing link between Attainment Target 1 and Attainment Target 2 of the National Curriculum requirements for art. In particular, the findings of the thesis have special relevance to the end of Key Stage 1 statement c) which states that children should be able to "begin to make connections between their own work and that of other artists".

The framework for teaching and learning which evolved was simple enough. It comprised: a time for talking about pictorial elements and materials; time for children to make their own pictures; time to reflect on how the pictures were made and what they were about; a display of the children's pictures and comments as well as the materials they had used. This framework depended to some extent on the chosen medium which was simple and highly controllable. It was an enabling medium for the youngest children. In certain respects aspects of the framework were used to identify whether children had developed picture-making and the associated skills. This is because the framework was designed to promote such developments. In subsequent work the author found that the framework needed modifications which depended on the medium in which the children were working as well as the needs of the children themselves.
Therefore, the developments sought were also modified. Nevertheless in any framework for teaching and learning art teachers would be looking, broadly speaking, for developments in the children's understanding of how to use materials, formal elements and processes for their own purposes. It is not thought possible, on the basis of the limited nature of the research project, to suggest more detailed signs of development which may be looked for in children's work. The teaching episode using the framework was in the nature of a first try by the author and is certainly not being presented as a formula for teaching. It was constructed in response to the author's perceived needs at a particular stage in her teaching development. In the context of the present thesis it has been used to place the practical application of the hypothesis under scrutiny. On the basis of the work reported in Part 2, it is being suggested that young children can indeed be put in touch with the structure of art in ways which develop their understanding of picture-making. Certain lessons have been learned which could be of relevance to other teachers. It is suggested that it is possible to set out to improve teaching by redefining purposes and provision for work in art; by recognising children's sensitivity to the materials and the task; by looking at children's pictures for the ways in which they can develop their own pictorial ideas; by not underestimating their adventurousness in use of materials to express personal ideas; by listening to what children say about their pictures and then gaining insights
into the processes they have used; and finally, in doing all this there is a real chance that teachers will have their assumptions challenged.

The statement that art has to be defined very generally led the author to question the whole basis from which she provided art in the curriculum for the young children in her class. The dilemma it created spurred on the search for a framework for understanding which could put young children in touch with the basic concepts and processes of art. It is hoped that the proposal that young children should be put in touch with the structure of art will similarly stimulate other teachers to question the basis from which they teach. There are many ways of putting children in touch with the structure of art. It is perhaps for teachers to work these out for themselves by constantly rethinking their assumptions about what the young children whom they teach can do and developing their activities in art from there. Teachers need the confidence and critical skills to make their own judgements based on 1) a knowledge of the subject, i.e. what artists of different times and places do and have done; and 2) a sympathetic understanding of the individual children whom they teach. The provision for young children to work in art can then benefit from a more open exchange of views among practitioners especially in the light of one year's experience of teaching from the requirements of Art in the National Curriculum. One final thought which may help to improve teaching if it is held in mind; perhaps the ability
of young children to understand the basic structure of art is being underestimated by teachers and policy-makers.
BIBLIOGRAPHY


APPENDIX 1

Talking about mark-making

This dialogue is included in order to illustrate how one child's difficulties in talking about her work were overcome by focusing on similarities and differences between the marks she had made. This activity was one of a series in which paint was mixed by the children and applied in different ways. It was informed by and developed from the project in Part 2 and the mark-making activity described in Part 1 (p.). In the long-term such activities with paint were meant to help the children to look at the paintings of mature artists which were displayed at the local museum (Nottingham Castle Museum). The conversations (APPENDICES 1 and 2) were originally recorded on tape so that they could be used in the in-service training of teachers at courses organised by the author in conjunction with the museum staff and the County art adviser. The courses were entitled "Looking at Pictures" and ran from 1988 to 1991.

TALKING ABOUT PICTURES: BLACK AND WHITE MIXING

Laura S.: I don't know what to do.

A.D.: When we talk about pictures we talk about how we made them and if they are about something then you can tell us what they are about as well. Sometimes it's just interesting to talk about how you did it. How you got all these different greys and those different marks. 'Cos that line is different from that dot isn't it? So it's nice to talk about how you did it. Or can't you talk about anything like that?

Laura S.: I can't really think of how to talk about it really.
A.D.: Can't you?
Laura S.: It's like a proper painting really.
A.D.: O.K., well do you want to talk about a proper painting then?
Laura S.: Yes.
A.D.: Go on then.
(Laura shakes her head. Laughter)
A.D.: Mmm, well shall I ask you questions. Will that help you? O.K. Well, what's the difference between that mark and that mark? Can you remember how you got those two different marks?
Laura S.: Well when the paint dries it sort of made it like . . . the paint dripped onto this mark and it made that sort of mark.
A.D.: So that mark . . . how did you make that mark?
Laura S.: By spreading it along like that.
A.D.: And what kind of brush was it? Was it a thin one or a thick one or a middle-sized one?
Laura S.: It was a thin one.
A.D.: A thin one. And how did you make that? What kind of mark is that?
Laura S.: It's a kind of pattern.
A.D.: Is it a dot sort of a thing like that?
Laura S.: Mmm . . . (Shakes head).
A.D.: What is it?
Laura S.: It's a line.
A.D.: It's a long line isn't it? Is it a straight line?
Laura S.: No.
A.D.: What kind of line is it?
Laura S.: It's . . . er . . . bendy.
A.D.: A bendy line. And can you tell me how much water you think you had in that compared to that? Was there the same amount of water in both those . . .
lots of paint or did you have more water in one?

Laura S.: Well I had a little bit of water and a little bit of paint.

A.D.: I see. And can you sort of see the paper through this or not?

Laura S.: Hmm . . . a bit.

A.D.: It gets very thin doesn't it? It's a very faint line and that's hardly like a mark at all it's so faint. (Pause) Are the marks all the same kind of colour?

Laura S.: No.

A.D.: What's the difference in the mark then?

Laura S.: Well some are more black . . .

A.D.: Yes . . .

Laura S.: . . . and some are more sort of whitey in the black.

A.D.: Can you remember what you were thinking about when you were making that picture? (Shakes head) No? Was it just nice to make marks and see what happened?

Laura S.: Yeah.

A.D.: That's an interesting one there isn't it? Can you talk about that one? How do you think you made that?

Laura S.: I don't know, it's just when it dried it drops sort of.

(A.D.: I think it's really interesting because there are so many different kinds of marks on there and greys.)
Talking about Materials

The conversation recorded below is thought to be a significant example of how interested a young child could be in finding out about two pieces of blue material. His struggle to express what he can see perhaps also shows how talking is helping him to sort out his thoughts.

A.D.: Come on then Richard
Richard: It's all blue and it's quite smooth.
A.D.: Yes.
Richard: It's long and it's blue on each side one on that side and on the other.
A.D.: Yes.
Richard: It's got four edges, are the pointy bits edges or these?
A.D.: The long sides are the edges and the pointy bits are the corners aren't they.
Richard: Yes and it's like when you are swimming because it's the same length when you're swimming across, and . . . itsmmm it's like a straight, mmm mmm like a straight road when it goes along and . . . the . . . the . . . the long side is the same as the other side.
A.D.: The same length.
Richard: Yes.
A.D.: Is it the same, are the edges the same?
Richard: No.
A.D.: What is different between them?
Richard: Because one's got bits hanging out.
A.D.: How do you think it's got like that?
Richard: Because it's got torn.
A.D.: Yes that side's got torn and what about the other side?

Richard: It's cut.

A.D.: That one's cut, so what kind of edge is that?

A.D.: This side is very straight isn't it?

Richard: Yes.

A.D.: That side's . . .

Richard: Very bumpy, cause it's got [inaudible] at the end down there.

A.D.: Yes, has anything else happened to that paper? It's been torn and cut . . .

Richard: And . . . someone's been putting the edges down, it could have folded and . . . and the people could have gone like this.

A.D.: Yes.

Richard: That could be just like mmm along there and down there because it's been folded.

A.D.: Yes, what about the other little bit you've got?

Richard: This bit?

A.D.: The other thing that was in the envelope.

Richard: Hmm . . . it's small . . . and it's mmm purple and it's only got two edges on one side . . . two sides, it's got one there and one there.

A.D.: It's got two sides . . .

Richard: Yes . . .

A.D.: . . . and these are the edges then aren't they around the edge of the shape? So has it got two edges or . . . ?

Richard: It's only got . . . an edge there and an edge there and an edge there that must be . . . five, four, four edges because there must be one down there and there.

A.D.: Yes.

Richard: And they go to there.

A.D.: That's right, what's the difference between those
two things?

Richard: That one's larger and that one's shorter.

A.D.: Yes, and what about what it's made from?

Richard: That's made of paper and that's made of wool.

A.D.: Wool, it feels soft like wool doesn't it?

Richard: Yes but it's got a bit of the same size because when you turn it over it's the same size.

A.D.: It's the same colour both sides isn't it?

Richard: That's why wool's coloured all over.

A.D.: Coloured all the way through, well this paper is too.

Richard: That's coloured like this and on there and down there and down there because it's been painted to colour it.

A.D.: Do you think it's been coloured while it was being made at the factory, or don't you know?

Richard: I think it's coloured while it was being made at the factory.

A.D.: Yes because it goes right the way through doesn't it, with Matthew's one it was just on one side wasn't it.

Richard: Yes, but this was is a bit longer and it's folded, it's a bit shorter that could be, mmm, when you fold it over it would be longer, but the tape recorder is longer than the piece of paper. 'Cause if you just put a crayon on the paper it won't do anything but if you move your fingers it will do something and colour it in like that . . . it could have been, mmm, cutting like straighter here and then that bit could just have been ripping off the whole thing 'cause when you're ripping it gets higher and then . . . but . . . and then on another bit it's about the same because it gets smaller and it goes down and down and down so . . . it . . . it would be the same because . . . when . . . they cut it they wanted to cut it how it was being torn. They just went like this so that side could have come off too so it was smaller because the bit of paper was smaller than that piece of paper but when it was made at the factory it was just a big piece.
A.D.: Yes, do you know where we keep that paper in school?

Richard: No.

A.D.: It's all on shelves near the dining room and the teachers get it off the shelves then bring it to the classroom.

Richard: Yes but . . .

A.D.: . . . We get them.

Richard: Yes but when that bit's folded it's only a bit small, it's much smaller than that one when it's folded so it's only up to here but that's gone right onto there but the tape recorder's longer than that piece of paper and that piece of paper 'cause if I put that piece of paper there I know it's the same, it's not the same as the tape recorder. When I do this . . . it's just going down and up . . . but when I do this it's just going down like that. It's like a seven, it's a funny seven when I do that. Only seven when I do that.

Interruption