

The Individual and Design Education

Designing should never be only the teacher's process for producing work but should include the opportunity for the individual child to invest his learning with personal meaning.

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Many of those working in Art, Crafts and Handicrafts will now be familiar with the kind of developments taking place in these subjects under some umbrella title which includes the word 'design'. These developments include some form of co-operation or integration between several teachers working in the same department or between a number of departments.

Once the arrangement for new forms of collaboration has been accepted by the headmaster, some re-arrangement of the timetable makes available 'blocked time' to those staff taking part in the scheme. This enables groups of pupils to be rotated through a number of specialist areas during a full year.

In these areas one specialist activity is taught in such a way that it is related to work being done in the others. For example, a theme may be chosen and introduced by one or more of the specialist teachers to a large group of children. Each specialist then interprets this theme in the light of its own materials, disciplines and ways of working. Several different themes may be tackled in the course of a year.

There have been a number of articles and descriptions about these aspects of Design Education in *Studies in Design Education* and elsewhere, with which readers will be familiar. In this article, I am anxious to look more closely at the potential such schemes have for creating new learning opportunities for individuals rather than considering the merits of different schemes and their value as design courses.

Materials and Designer

The practice of designing deals with materials, (in the widest possible sense) and one cannot imagine the activity being separate from the handling of materials at some stage.

From the earliest times, working with available materials has been of the greatest importance in the development of human capacities, whether physical, emotional, social or intellectual. As the different structural properties of materials became apparent to him, man found particular ways to put these to use. It was gradually realised, through personal observation and careful working, that their distinct qualities could be appreciated and harnessed to his particular needs, either personal or collective.

Technologies were evolved, through which the 'specialist' emerged, devising ways to work materials efficiently and predicting their performance in broadly defined areas. In this way they served the needs of man in a functional and purely practical way.

Apart from this pattern of use, man has other needs which materials help to satisfy. His life has always been filled with uncertainties and events over which he has no control. To appease some aspect of his hostile environment and reconcile his precarious existence, he has created lasting images, which not only give him a feeling of security and personal identity but also enshrine his beliefs.

Images and forms created from many and diverse materials, whether masks, paintings, icons or carved figures, monuments and buildings, have had great cohesive and directive power over him.

Man is now able to produce an enormous range of synthetic materials, which, apart from their industrial and practical application, have a strong emotional appeal, as seen in fashion or the home. All materials whether natural, man-made or synthetic, carry the potential for nourishing new ideas, supporting new techniques or creating new forms for his ever active imagination.

The Basic States of Materials

From what has already been written we can deduce a number of 'basic states' in which materials can be experienced. These states relate to specific areas of experience and may be summarised thus:—

1. The structure and properties of material as *substance*. For example, fibrous, crystalline, dense, having properties of elasticity, transparency and weight. These may be found in different forms of the same material (plastics) or typify particular natural materials (wood, stone, metal).
2. The nature and quality of particular materials as *appropriateness*. For example, texture and surface, colour, warmth. The nature of the material is revealed through handling it and quality is peculiar to a given piece of material. A machine can be set to work according to the properties and structure of a material, but it takes a craftsman/artist to work with its particular qualities.
3. The forms that material can take as *function* in a structural ergonomic or aesthetic way. This includes cost-effectiveness, strength-weight ratios, effectiveness in relation to environment, uniformity and uniqueness.
4. The relationship between material form and *meaning* whether this is to do with personal identity, phantasy, beliefs, grandeur, morality or fashion.
5. Material as *potential*
For nourishing discovery, invention, inspiration: promoting new ways of thinking, feeling and behaving.

From this scheme it is possible to see that the art teacher has been identified as one who seeks meaning through the way in which he uses materials. The craftsman, on the

other hand, has usually been associated with finding an appropriate material for a specified function.

I would feel that these definitions are misleading and narrow, and yet they describe the polarisation in the role of Art and Handicraft teachers, which I experienced taking place.

It was in the early days of design approaches to Art and Handicraft that a loosening up of these attitudes occurred. Many of those engaged in the field of Design believed that it was important for children to experience a material in all of the states I have described, in some measure. This was seen as the way forward, when the grip, which the teaching of techniques and skills had imposed on Craft education, could be loosened, and more creative approaches introduced. But this also made it respectable for Art teachers to instil more purpose and 'structure' into the vagueness of free-expression.

Many felt, for example, that something of the structural properties of a particular kind of material could be understood, whether it was being used to satisfy some imaginative idea or fulfil a direct, functional purpose. Or, again, when choosing an actual piece of material with which to work, functional considerations and aesthetic feeling could both determine the choice and give the resultant form its meaning. There appears to be a constant interplay between rational and intuitive processes in order to reach a solution; it is the combination of these two which lead to personal satisfaction.

The Place of the Individual

It seems more natural for feeling and thought to operate together to inform our actions, than separately. We see this in the direct and unsophisticated way in which young children explore their surroundings. An insatiable curiosity leads them to explore, and through immediate sensory experience, they begin to develop patterns of understanding into which new experience is assimilated. As Isaacs in *The Developmental Psychology of Piaget* puts it, "The process of absorbing and organising experiences around the activities that produce them, Piaget calls assimilation".

But such experiences not only change what the child can do but affect the way he does it. Isaacs suggests "Many situations or objects resist the activity patterns the child tries on them, and in so doing impose some changes on these patterns themselves. Still others yield new results which go on to enrich the range and scope of the patterns. This process Piaget calls accommodation".

Arising from such activity, two forms of control emerge; firstly, external control over materials and objects through the development of co-ordination and skill; secondly, internal control over responses through the way in which the senses are affected and through the individual's capacity to organise experience and cope with change.

As age and experience increase, the ability to see relationships develops. Information becomes more organised, possibly courses of action are planned and haphazard ways of working tend to give way to more ordered processes. If we watch children over a period of years playing with constructional toys, such as Lego or Meccano, it is possible to see this happening. There are similar marked developments in their drawing. How do these developments relate to designing?

After the age of 9/10 children are able to follow patterns and plans, whether for dolls clothes or aeroplane kits. A significant aspect of their enjoyment of these is that they lead to generally approved and predictable results. These kind of results can become the measure of a child's creative work.

Yet it has emerged from the work of the Schools Council Project on Art and Craft education that for a piece of work to have meaning and become personally satisfying it must be invested with the child's own imaginative ideas. Such ideas seem to arise from a child's pattern of understanding and exist as a strong, motivating force in the work he does. They may be stimulated, enriched, extended and supported but they cannot be turned on at will, or can we direct how and when they arise. Yet to recognise their significance is to become aware of a vital force in a child's education.

A child's own imaginative ideas are an important, perhaps the most important, ingredient in any problem he solves or designing he undertakes.

In the context of Art and Handicraft, these ideas seem to arise at the intersection between the outer, tangible reality of objects and materials and the inner, unseen reality of the imagination. This is why designing should never be only the teacher's process for producing work but should include the opportunity for the individual child to invest his learning with personal meaning.

Designing should include intuitive and imaginative ways of working as much as rational and sequential processes.

The Persistent Dilemma

The new philosophies of problem solving brought about a marked change in the way that Art and Craft specialists approached their teaching. The attitudes with which we, as teachers, viewed each other's work became more open. There was a willingness to look at and try to understand what others were attempting to do. The idea of presenting problems, allowing discussion and room for the making of personal decisions on the part of the child, became a bridge between Art and Handicraft.

All this was very important for the way in which children were introduced to a whole range of new experiences and given the opportunity and time to explore them. It seemed possible that many of the old barriers between one specialist area and another would be taken down.

Unfortunately, it seems that many of us have lost sight of the earlier vision in the struggle to support and carry through different approaches. We have had to consider new aims and criteria for the work we are doing, and often the results fall far short of our expectations. The pressures for change and innovation vie with those for standards of work and good results, and are now in danger of polarising our attitudes to a greater extent than before.

Too often a process has itself become the ideal, the *raison d'être*. For many, a series of sequential steps leading to a solution has become as rigid as previous formal teaching of a Craft subject. In some Art studios basic exercises in aesthetics for 11, 12 and 13 year olds are carried out with almost military precision. There is a danger that in Design areas real

feeling and insight into the way in which different disciplines approach their work has not developed.

As Art and Handicraft teachers, we appear to want to put on the same strait jacket and to ride the roundabout on the same horse.

Our values and beliefs determine the way we set work before children and assess what they do. If our attitudes are rigid, we limit experimental and creative potential.

I believe that the real values and purposes behind the Design approach must grow from an understanding of the way in which the individual develops through the particular experience of using materials. For children to find their own meaning in the work they do is as educationally valid as expecting them to understand our intentions and learn from them.

How to equate these two is a persistent dilemma where any form of creative or inventive work is undertaken. Surely, it is precisely from each one resolving this dilemma in his own way that the individual teacher and his pupil stand to gain most. The co-operative ventures between Art and Handicraft have brought this to life in a healthy and creative way, don't let us bury it again in a plethora of basic exercises, design processes and meaningless problems.

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