

# The Design Dimension Project

*A Curriculum Development Project aimed at establishing Design as a Dimension of the Primary and Secondary School Curriculum.*

The Design Dimension Project is a national curriculum development project, being sponsored by the Department of Trade and Industry and the London Borough of Bromley with the aims of establishing design education as a central concern of primary and secondary education and of making clear the connection between the range of curriculum areas involved.

The essence of The Design Dimension project is the establishment of a small and experienced

*Below: Early manipulation of materials — forming moulding and modelling with sand — infants. Bottom: Development of graphic skills — early representation and communication.*



curriculum development team with a mobile workshop and resource unit as their base. The Department of Trade and Industry and the London Borough of Bromley are providing basic funding and the work has the approval of the Department of Education and Science. The aim will be to cooperate with selected local education authorities (who will also help to finance the Project) to explore and establish the role of design studies across the curriculum in primary and secondary schools. The team will use school-based in-service work as their main means of development in the cooperating authorities. Project working parties will be established in each area: their role will be to support new curriculum initiatives in local schools and to involve members of the design professions — engineers; architects; industrial, graphic and fashion designers. The Design Dimension Project is therefore a joint venture between Central Government, Local Government, the academic and professional world, industry and commerce.

The Design Dimension Project Team will use a British Leyland DAB articulated single deck bus as a mobile workshop and resource unit. This vehicle will be the flagship of the project and will be used in schools to resource the proposed in-service development programmes. The interior will be furnished with the relevant equipment needed to support design studies and also be used for seminars and discussions, audio visual presentations, as an exhibition area and house a comprehensive set of literature and curriculum support materials. Visually as well as functionally the vehicle will indicate the nature and purpose of the design activities being developed and should in itself be a model of good practice.

The Design Dimension Project will use five main enquiry themes as the basis of its research and curriculum and development work:

1. What role does design capability play in the general development of human intelligence, particularly in the early years?
2. What teaching and learning methods are most effective in encouraging the growth of design capability and understanding?
3. What role should design studies play in the curriculum at primary, secondary, further and higher education level?
4. What subjects are involved and what might be the interrelationships between them?
5. What can design contribute to general education?

It is from this basis which is seen against the national concern to improve design standards and to give priority to design education, that the Design Dimension Project aims have been formulated.

- (1) The first aim of the Project is to clarify the contribution of a range of school subjects to design education and to understand the possible connections between them. But there is a need for all aspects of design education to be recognised and promoted in terms of context,



*Below: Development of structural skills — beginning of technological understanding — working in a group.*  
*Bottom: Technical understanding and the use of tools and equipment to aid manufacture.*

learning and teaching methodology, working relationships and organisational patterns. The Design Dimension Project will provide an opportunity for this to happen and will seek to encourage the involvement of all subject teachers to promote a wider understanding of what constitutes design education.

- (2) The second aim of the Project will be to clarify and further develop the teaching and learning methods that are effective in encouraging the growth of design capacity and design awareness. The design process as it appears in schools has three rather different sources: the practice of professional designers; the use of

projects as the traditional basis for professional design education; the idea of problem solving as interpreted through the development of systematic design methods of the sixties. The Design Dimension Project, will promote and learn about other ways of handling design education in schools.

- (3) The third aim is to disseminate the rules of the Project's work nationally.

The project will provide an opportunity to consolidate what is already known about design education and enable it to be viewed in a broader way, acknowledging the contribution that a wide variety of subject disciplines can make, explaining how this might manifest itself in schools, recognising design as a dimension of the whole curriculum rather than the particular province of a few special subjects. This implies that a single model for design education is too limited and that there are a number of possible models which have not yet been fully explored or formulated.

In an industrial society an understanding of the significance of design is one of the things that education needs to provide for all children. To do this on the necessary scale means maximising the resources of many subject disciplines. The Project is intended to make a major contribution to this mobilisation.

In describing and explaining the Design Dimension of the curriculum, the Project aims to answer the following questions.

1. What constitutes design-based or design-oriented study?
2. What ideas, experiences, activities are inherent in design studies?
3. What type of thinking, what capacities for thought are developed through design education?
4. What knowledge, skills, attitudes and values does it develop?
5. What are the roles of individual subject disciplines?
6. What are the relationships between them?
7. What implications does this have for the future?
8. What working relationships are there between the school and outside agencies?
9. What value does design education have for individual/school/community/society?
10. What are the implications of design education seen as a dimension of the curriculum (e.g. Institutional structures, organisation resources, staffing, timetabling, examinations, assessments, constraints).

Because design covers such a wide spectrum, it cannot be handled exclusively by any single school subject. Areas as diverse as Geography, Science, Home Economics, Mathematics, History, Drama as well as Art and Design and Craft, Design and Technology all contribute directly to the development of design awareness and design capability. Language spoken and written is used by





designers as a means of description and communication as much as mathematical symbols, computer programmes, drawing, or three-dimensional mock-ups. In fact, design skills and knowledge run right through the curriculum.

The Design Dimension Project will seek to encourage the involvement of a wide range of subject teachers and promote a wider understanding of what constitutes design education in order to recognise and accommodate the full range of design curriculum.

Design education will be seen not as a subject area, nor even the prerogative of a particular group of subject teachers, but as a dimension of the curriculum to which many teachers can contribute.

*Below: Fashion — experimentation with new materials — design, invention and manufacture — considering new possibilities.*



The role of the educational advisory service will be crucial to the success of the Project. The team will pay regular visits to each authority, set up local working groups and encourage individual schools to mount a sustained programme of curriculum change and development. Primary and secondary schools will be involved: cooperation with further and higher education will be encouraged. Particular attention will be given to the opportunities provided by new educational initiatives: TVEI and the like. The team will keep in close touch with the local working groups and will take the responsibility for reporting results and making materials available nationally.

#### **Basic assumptions**

The basic assumptions about design as a dimension of the curriculum which will guide the work, are as follows:

1. Design awareness and design ability are fundamental capacities of all human beings. They can be developed by education.
2. The primary aim of design in general education is to develop everybody's design awareness so that they can:
  - Enjoy with understanding and insight the man-made world of places, products and images.
  - Take part in the personal and public design decisions that effect their lives and the life of the community.
  - Design and criticise design at their own level for their own material and spiritual needs.
  - Bring an understanding of design into their work.
3. The secondary aim of design in general education is to provide the seed bed from which will come the range of future professional designers — planners; architects; technologists; engineers; industrial, fashion and graphic designers.
4. Design awareness implies an understanding both of how the environment *was* shaped 'why things are the way they are' and how it *can be* shaped in the future 'how things might be'.
5. Design is about values and valuing. It is concerned with the question 'how do you want to live?' Education in design must, therefore, highlight the significance of values and respect their cultural and personal diversity.
6. Design is about compromise and reconciliation. The man-made environment *shows* the influence of many different pressures: economic, social, technical, aesthetic, moral, political. Finding the best balance between them is itself a valuing activity in which design has to propose the most inclusive and potentially enhancing of a range of possibilities. It is up to education to give a direct experience of this work of debate, compromise and reconciliation.
7. Design studies will seek to develop those human skills that are fundamental to design awareness and design ability. It is typical of design that it depends



*Below: Debate, discussion, argument and reconciliation — considering a range of possibilities and how to communicate ideas.*  
*Bottom: Exhibition and display in the classroom — a major visual and cultural resource to support and extend project work.*

on coherent and purposeful interaction between perceptual, analytical, propositional, communicatory, technical and manual skills. These will need to be developed in harmony.

8. In addition to language and number, the development and communication of design concepts depends on 'imaging'. This is the human ability to make and use sketches, drawings, diagrams, plans, scale models, mock-ups, prototypes and the like to represent, shape and evaluate what is and what might be. Design studies will foster people's skill in using these media for thought and action.



The Design Dimension Project, while being concerned to establish Design as a dimension of the whole curriculum, will also develop the dimension of single subject disciplines such as:

Design and CDT  
 Design and Home Economics  
 Design and Environmental Studies  
 Design and Art and Design  
 Design and Media Studies  
 Design and Technology  
 Studying Design  
 Studying through Design  
 Design and Information Technology  
 Design and Communication  
 Design and Critical Studies  
 Design and Problem Solving  
 Design and Modelling  
 Design and Craft Experience

#### **Local Authorities**

The Project is seen as a cooperative venture between government departments, higher education, local education authorities, industry and commerce and the design professions.

Initially two secondary schools together with one or two primary schools from participating authorities will be involved in the research and curriculum development work.

The Project Team will contribute to the authorities' in-service programmes by providing school-based in-service programmes for the project schools, courses for teachers from any school in the authority to create a groundswell of interest and involvement in the Project.

From these courses, local curriculum development working parties will be formed to build on the experience of the Project schools and any other appropriate initiatives.

At present Gloucestershire, Cleveland and London Borough of Bromley have started work on implementing the Project's aims while Bedfordshire and the London Borough of Sutton are planning a programme which will start at the beginning of the Summer Term.

#### **Project Schools**

The schools will be selected because they have undertaken to form a policy for design education across the curriculum. The Project Team will work with teachers in these schools to help formulate this, to plan revisions or new developments, to monitor the work in progress during the initial stages of its implementation, to help in the documentation and evaluation of the work and seek to derive material from this which can be of benefit to other schools and teachers not directly involved in the research phase.

The project will make accessible the results of individual schools' experience. In addition, the Project will attempt to consolidate the knowledge and experience gained from previous curriculum development projects and provide a rich source of

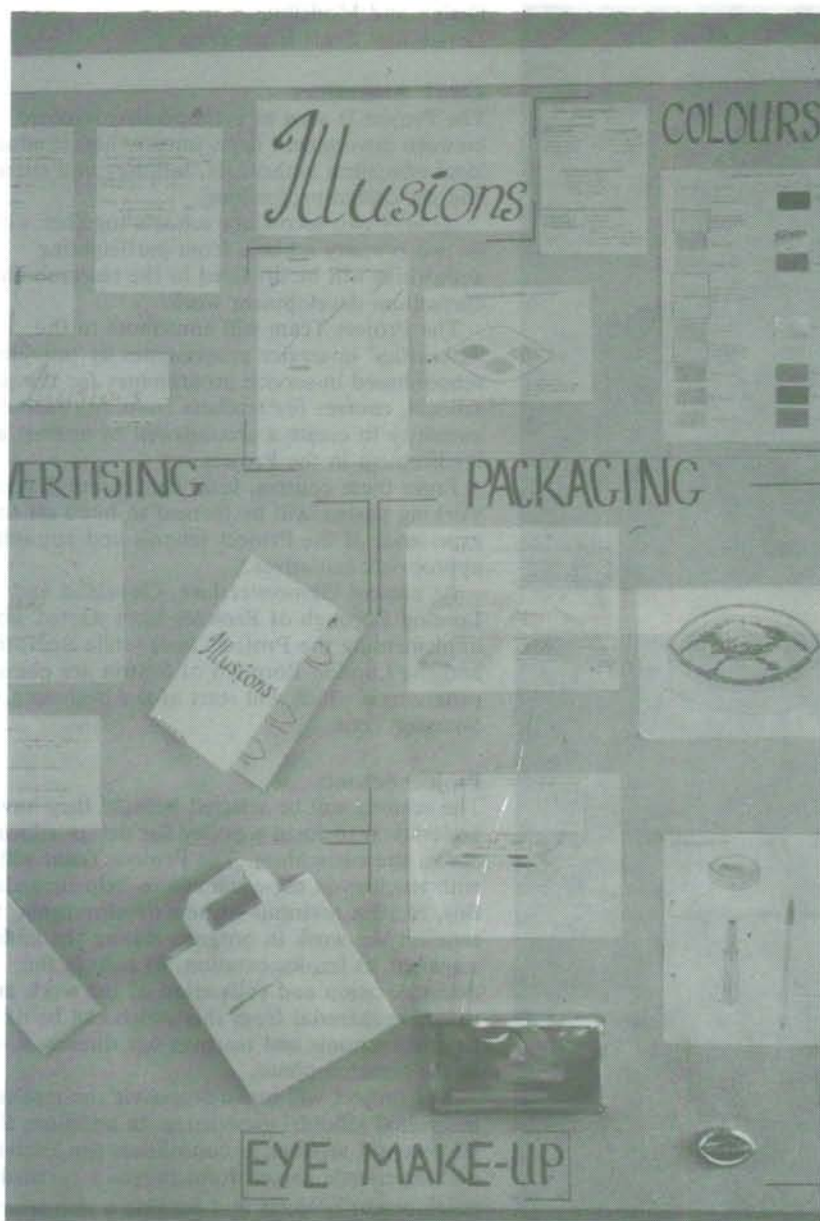


reference materials and experience to help teachers in their understanding and practice of design education.

The project will be supported by a team of mid-career students studying, on secondment, for MA degrees or Advanced Diplomas. Their work will be supported by the Project team and will focus on a variety of design concepts and approaches.

The programme will begin with a two year period focusing closely on the work in the Project schools. This will be phased to allow different types of experience e.g. diagnostic, evaluative; planning, experimental; new initiatives, experimentation; consolidation; evaluation. The following outline of

*Below: Graphic communication and presentation.*



the first two years is merely an indication of anticipated possibilities. Schools will have different needs and circumstances and these will have to be accommodated by the Project.

#### **Term 1**

Initial contacts made with schools to identify personnel who will be involved. Clarification of aims and objectives of Project. Agreement on ways of working in the schools. Discussions and meetings to identify and explain present practice and policy of schools in relation to design education.

#### **Term 2**

Research students introduced to work in schools. Their first task will be to produce a paper to clarify the schools' current position, their concerns and their proposals for the future. Students will be responsible for documenting schools' current practice in design education.

#### **Term 3**

Research students continue working with schools — with the teachers, planning new courses or programmes of study; where appropriate — cooperating in experimenting with learning and teaching methods; establishing local outside contacts with people in the design professions and related fields.

They will also probably be involved in in-service courses.

#### **Term 4**

During this term it is anticipated that the schools put into operation the plans made during the previous year. The Project Director will keep a record of the new initiatives and initial experience of the teachers and pupils. It will be particularly important to observe the results of new working relationships or organisational patterns being developed in schools.

#### **Term 5**

A new group of research students will join the schools and will be expected to monitor, document and help evaluate the work in progress.

#### **Term 6**

This will be continued during the summer term. It is anticipated that working parties will be developed from opportunities provided by in-service the previous year. The research students will be expected to play a key role in developing these groups.

As well as coordinating and supporting the programmes outlined above the Project Director and the central support team will be mainly involved in in-service training, the production of teaching materials, organising exhibition work and preparing work for publication and dissemination.



# A Middle School Project for the Blind

All will be engaged in this work, which will focus on study methods, learning activities and teaching strategies appropriate for design education; the formulation of programmes of work. The organisation and management of design education through and across subject disciplines.

The bus will provide a resource base workshop and seminar area. It will also transport exhibition and audio-visual material which can be made easily available to teachers to extend and support their work.

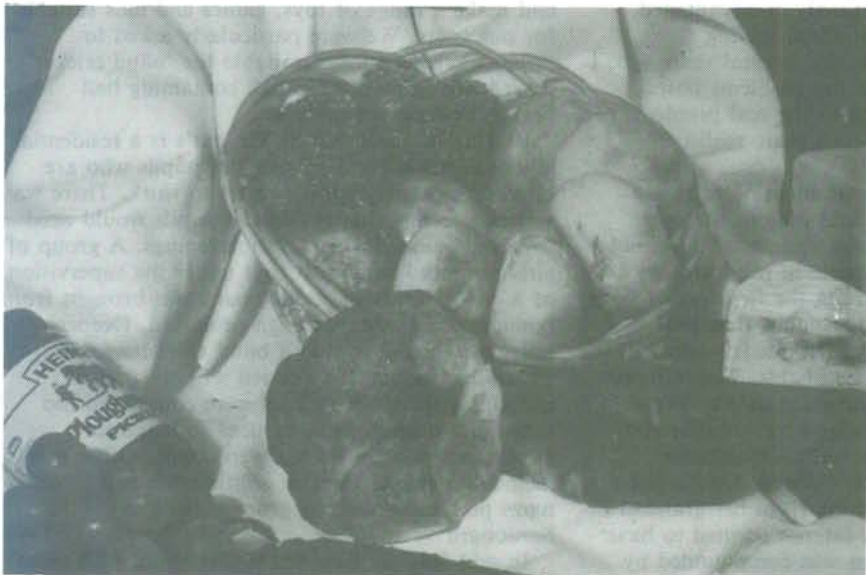
The in-service programme with teachers will provide them with opportunities to explore the Project's ideas, to experiment with study methods,

to work with others similarly engaged, to compare their work with that of other teachers and to develop both confidence and a critical stance in relation to their own work.

The programmes will also seek to reinforce good practice, give teachers experience of collaborative working in curriculum change, extend their personal and professional boundaries to enable them to see more clearly the particular contributions they can make to design education and the kinds of relationships possible with all subjects disciplines.

*Below: Photography used to understand the nature of food — photographs by 12 year old pupil.*

*Bottom: Environmental planning and design — future possibilities.*



## Curriculum Development Groups

The in-service courses will provide opportunities to follow-up the work through the formation of working parties or curriculum development groups. It is anticipated that these will be inter-disciplinary and involve both primary and secondary teachers. Colleagues from other areas such as the design professions and related fields will also be invited to contribute to the work, so that the groups will provide exposure to ideas and expertise not only of other and different teachers, but also those of designers.

The role of the Project Team will be to encourage and support the efforts of groups to clarify the place of design education in their schools and to find ways of organising and implementing design as a dimension of the curriculum. Their concern will be to build up confidence and expertise in handling this, to provide opportunities for people to collaborate in educational concerns. It means encouraging diversity and new initiatives and in particular in developing working partnership with the design industries and professions.

Although work has already started, there will be a national launch of the project in early April with a Civic Reception in Bromley followed by the first Conference which will be held at Ravensbourne College of Design and Communication on 10th, 11th April 1986. This conference is for all Primary teachers and will also be relevant to a wide range of secondary specialists.

The Project Director is Roger Standen, Ken Baynes is the Project's Design Consultant and Dr. Ray Page the Project's administrator.

The Design Dimension Project is based at the Curriculum Development Centre, Church Lane, Princess Plain, Bromley, Kent BR2 8LD.