Editorial: Developing the CDT Curriculum

For twenty years, contributors to Studies in Design Education, Craft and Technology have shed light on the evolution of CDT education. In the journal's early days, inidividual innovators, working energetically but often in isolation, developed embryonic courses and teaching strategies which were milestones in the development of the CDT curriculum. Many of these strands were drawn together in the two major initiatives — Project Technology and the Design & Craft Project — referred to in the editorial of the last issue. These projects coincided with a major shift in emphasis in teacher training, and in the practical education given to children in some schools. To reflect these changes, the subject title of CDT was adopted in 1977.

Although the new title embodied a coherent educational philosophy, readers will be familiar with the varied responses of schools to the curricular opportunilties which it implied. This is not surprising given the tremendous political complexity of curriculum development. *Becher and Maclure highlighted this complexity in 1978, when they wrote:

> 'A serious policy of curriculum development aimed at, say, shifting the balance of secondary education away from the arts and pure sciences towards technology, would be futile if based entirely on the decisions of teachers at the shool or subject level. It would need developmental decisions of a different order — for example, the designation of a few top university institutions as British M.I.T.s; a crash programme of teacher training in the applied sciences; examination reform; new salary scales for teachers of certain subjects; perhaps even a change in the student grant regulations to introduce differentials in favour of certain areas. It might involve the revival of the idea of specialist technical high schools, and the elaboration of new forms of co-operation between schools and industry . . . a government which was serious about curriculum development would have to take decisions about the system, however reluctant it might be to interfere directly in the process'.

As we approach the 1990's some of these major structural proposals seem to be taking shape. The Department of Trade and Industry, for example, is mounting a campaign to accelerate the development of an enterprise culture. The Education for Capability movement reflects a growing national acceptance of a need to enhance doing, making and managing in general education. The proposed national curriculum will enshrine certain compulsory subjects, including Technology. In tandem with this unfolding definition of subject structure and content, TVEI is now poised to extend into all areas of 14-18 education. In doing so, it offers resources, and a series of educational processes, such as active learning, to complement the content focus of a subject-based national curriculum. City Technology Colleges are being established, schools-industry links are to be boosted by the latest DTI initiative, and the new funding system for in-service training — GRIST — is intended to enable teachers to accurately *identify* their training needs and seek means of meeting them.

These initiatives, and others, combine to make life for the CDT teacher very complex. Because of this, a major conference for teachers in the North West was held in November 1987 to illuminate major current trends, and I am very grateful to the Editor of *Studies in Design Education, Craft & Technology* for devoting this edition to the publication of the conference papers.

Three main assumptions underpinned the design and organisation of this conference:

1. that much good practice is happening in the system but because of poor *communication,* this is not always evident to busy teachers;
2. that good practice is frequently the preserve of individual teachers or departments working in isolation from others; whereas, when such people or groups *collaborate* effectively, the results are significantly greater than the sum of the individual contributors;
3. being exposed to ideas, and particularly seeing their tangible results, helps to develop *confidence,* without which innovation can be stymied.

The themes of communication, collaboration and confidence are vital in the future development by teachers of CDT programmes in their specific schools.

In opening the main part of the conference, attended by over 500 teachers. Parker highlighted the crucial need for educators to go beyond the simple transmission of knowledge to make use of that knowledge and develop creative activities. He stressed the importance of collaboration in this endeavour. Eggleston cautioned delegates to avoid unjustified euphoria, given the current school technology scene. He drew attention to the lack of communication and collaboration evident in the duplicated efforts of Science and CDT groups in developing school technology. He conculded by arguing that a crucial management objective for schools is to ensure that CDT and Science work in concert.

Patterson emphasised the new respect for CDT, and argued that DesTech, as a growing national association for those involved in CDT education, can significantly celebrate development, but only if people join and participate — collaboration again!

Mattick demonstrated the essential coherence of CDT as a unified activity and urged delegates to address progression across the age range and to be aware of the role language plays in CDT.

Education is for and about people, a precept which can be easily forgotten when we are locked into the excitement of subject development. Hainsworth stressed the potential of CDT to enable pupils to be successful, and reinforced other exhortations for teachers to gather and share ideas in curriculum development.

A series of seminars tackled issues which we need to grapple with in developing CDT in schools. Montgomery and Stevens focussed on motivating and assessing pupils with learning difficulties. Strategies to stretch very able pupils are badly needed in CDT, and Willey outlined those which he found to be successful. Gowers examined graphics as a fundamental tool for communication in CDT. The

* Becher, T. and Maclure, S.: 'The Politics of Curriculum Change'. 1978.

national curriculum will increase the need for teachers to grapple with Technology at primary level — Nuckley and Wolman offered a perspective for ways to tackle this major future growth area without imposing a subject-centred distortion on the primary curriculum. Millray offered an engineer's perspective in the use of systematic problem solving processes in CDT, and Barnes discussed the relationship between Technology and CDT, a topic of fundamental importance, not least to those involved in developing the national curriculum.

Motivating pupils to engage in design thinking can be difficult and is seriously in need of high quality research and development. Three seminars were devoted to aspects of this theme. Astin's focussed on social issues as contexts for CDT practice; Brown examined one way of using an unfolding process of design to help teachers develop CDT activity from first principles; and Sellwood outlined some of the thoughts on stimulating pupils' design thinking which will inform the major national project 'Practical Problem Solving 5-13', which he directs.

A major exhibition of CDT work from North West primary, secondary and higher education was mounted to highlight the conference themes. Goulden describes how curriculum development has taken place in CDT in the North West as a result of the CDT Support Through Change Project, which featured centrally in the conference exhibition.

The conference size was a testament to the co-operation and energy of the many individuals from the North West who contributed to its success. I would like to express gratitude in particular to the CDT Support Through Change team, the ten LEA DesTech representatives from Greater Manchester and CDT advisers in the region.

In a separate paper, Antonouris outlines strategies for developing multi-cultural/anti-racist approaches to CDT Education which are currently being developed at Trent Polytechnic.

As always, the issue concludes with a selection of reviews and news which are likely to be of particular concern to readers of Studies in Design Education, Craft and Technology.

Finally, it is clear that, sadly, we lack a sound body of knowledge about the nature, teaching and development of CDT. Moves are in progress, however, to begin to fill this gap, and a small but growing amount of high quality research and development is now taking place in CDT. Much more is needed. The next issue of Studies in Design Education, Craft and Technology will be guest edited by Howard Denton, and will cover the highly significant first national conference on Design and Technology Education Research and Curriculum Development to be held at Loughborough University of Technology in April 1988.

Peter Toft
Guest Editor

Below: Edmund Parker opening the Salford Conference