

# Craft Design and Technology: The Way Forward

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'Craft Design Technology has come of age . . .' at the launch of a pamphlet (CDT: Learning And Doing In A Technological World) indicating the importance of Craft Design Technology in the curriculum, Higher Education Minister George Walden said ' . . . The higher education sector now needs to look more closely at the new A level qualifications in CDT'. (Reported in the DES News, 93/87, 25th March 1987, Message to Higher Education and Employers.)

Whatever the case in the past, it is very clear that as we approach the turn of the century we find ourselves in a rapidly changing and unpredictable society. It seems almost impossible to foresee the particular ways in which our society will change in the near future or the particular problems which will be paramount in even five or ten years. We are no longer of a society that when faced with a particular problem are able to plan a straight forward strategy to meet that particular change; a strategy which education is able to take on whether willingly, under coercion or unwittingly. Problems are not particular but general and are able to confront us at an ever gathering pace; they require multi-dimensional and complex answering strategies. No longer can we provide our clientele in schools and colleges with an education which, through approaches to 'teaching', and I am bound to say accompanied with various dubious selection procedures, leaves them with those skills which will see them through longstanding facets of life, including employment of one particular type, and one consequential lifestyle. Rather, under these conditions, much emphasis must be placed in schools and colleges on 'strategies of learning' which promote the development of generalised ways of attacking problems; and on 'learning' which can be applied to a wide range of new situations necessary to meet change. In schools, and in the simplest of terms, students of all ages need to be presented with problems and given the chance to plan their action through the processes of making choices; they then need to 'do', followed by an evaluation of what they have achieved. This is the essential prerequisite for the task of preparing individuals for problems that cannot be

foreseen in advance; to help the student acquire generalised intellectual skills which will serve him or her well in many new situations as providing some form of stability to find or make some order in his or her world. The Design Council has been an important advocate of Design Education, in its broadest sense, across the curriculum: without realising it we do a lot of designing in our life in terms of seeking a compromise between our often opposing requirements.

We need to recognise that an individual's skill to independently attack his or her problems is a desirable sign of maturity, rather than an over reliance upon the results of an examination of those easier attributes to assess. As students progress they should be given the chance to identify their own problems be it with their studies or in a more personal sense; distinct to that of being given a particular problem with constrained choices. Given the support of a problem resolving curriculum and the study skills to work as individuals and in groups along with an effective pastoral, counselling and guidance organisation students should have the skills to grapple with their problems or at least a strategy to plan their attack upon them. As individuals we are expected, as we mature, to make decisions wisely on the basis of our own thinking and to resolve our problems on our own or as members of the various groups to which throughout life we subscribe. Problem resolving is regarded as indicative of an individual's adjustment and it must be recognised that unless individuals can 'do' their own problem resolving they cannot maintain their independence and integrity.

How do we then interpret this context in terms of our delivery of Craft Design Technology education, and by no means is this subject area alone in looking towards learning through problem resolving. Problem resolving does indeed underpin GCSE and the likely developments of 'A' and 'AS' levels along with BTEC.

The original workshop crafts have evolved since the last century from mere pastime to essential training for some, through association with industrial needs, namely to repair the ills of a declining manufacturing economy by a

disciplined training for work. It is almost too simplistic to be true; was it Woodwork and Metalwork or was it Wood and Work, Metal and Work? For this reason this aspect of the school curriculum has swung from direction to direction: from the passing on of relevant skills and technical knowledge to likely life long artisans through an apprenticeship system for bolstering the economy: through a long period of stagnation when any form of 'Craft Education' remained the province of the Secondary Modern School: the Technical Grammar School really only provided more of the same apart from the few Project Technology type initiatives: to when 'the practical approach' was realised as of real educational value. But the advocates and their reports, (Newsom, Hadow, Crowther), still wrongly assumed the need to identify and segregate those who could best learn in a practical way into particular schools or groups based really on the notion that able people will 'learn to know' whilst the less able are best only 'to do'. The Design Council and the Royal College along with HMI and others developed the 'practical approach' but through the medium of 'design education for all'. Still more recently has this concept been flavoured with technological considerations, encouraged by industry, the government (TVEI) and HMI. A further form of segregation which has prevailed of course, was that of 'men and work' and 'women and home' — there is still nationally a long way to go before the various involved institutions see any significant uptake of girls in design and technological activities in the educational setting once past option choices; yet alone progressing into related careers.

This association with industry and work both inside and outside the schools has influenced educational policy: the 'practical' aspect of the curriculum has been regarded successively as vocational, recreational, scientific, and aesthetic, or simply as a necessary ingredient in general education. Recent developments naturally draw attention to the vocational and technological possibilities of Craft Design Technology. I am not arguing against

the value of some form of vocational education which in today's world needs to be 'techno-vocational', but I am arguing that not only must it be for all but that we must not continue to fall into the trap of an education/training divide of those who 'know' and if you cannot know those who merely 'do'. A divisive argument that has bedevilled this country since the conception of formal education with its obvious connotations of politics and class. So I am saying that the Craft Design Technology curriculum, because of its sheer and obvious association with 'work', must take on the Technological and Pre-Vocational remit. At the same time there is the undeniable quality of Craft Design Technology as belonging to part of general education and rather than divisively differentiating these issues more would be gained by integrating them. Indeed we would be better to 'confuse' these issues: we should say that within the context of our present society I first mentioned, general education must include technological and pre-vocational experiences, but for all and devoid of any form of selection. It is important to distinguish between pre-vocational and vocational education: the latter being worthwhile activities for students, when they are ready, for their education to be geared more directly towards a specific career pathway. Pre-vocational education however is an essential ingredient of general education for all, to which all areas of the curriculum should contribute and is essentially about an awareness and understanding of the world of work and living in a technological society. Perhaps this was the real aim of TVEI, but it fell foul of the selection and segregation argument, probably inevitable for a pilot project. It is up to educationalists to now manage TVEI in such a way that the good practice emanating from it is disseminated to all by adopting cross curriculum approaches. It is paramount that such a curriculum flavoured with the technological and vocational ingredients must develop the aesthetic values in times especially when we need to address issues of the visual environment and the mass produced object. Indeed a study of the history of this area of the curriculum in schools

suggests that Craft Design Technology might and can serve several purposes simultaneously.

We now have for the first time with the National Curriculum a chance to gain major support for the idea that some form of 'Design and Technological' education must become a part of the general preparation for life which school provides for all age and ability groups and for both sexes: that it is not something to be reserved for the artisan, the manager or the designer, but an essential ingredient of education for all. It is essential that we manage the National Curriculum for the benefit of those who pursue Design and Technology courses; it does signal to us, perhaps more by its absence, that it is time to significantly reduce the craft ingredient. What place does technology have in schools? Technology in schools falls under three headings: firstly as Educational Technology, that is, the use of technological equipment to enhance the learning process. Without massive financial support it is not difficult to imagine the scenario of some students who can call on more advanced technological 'learning aids' at home than at school! What chance then for those whose parents can ill afford such home support? Secondly, Technological Education (the teaching about technology) must be part of a wide range of subject areas more obviously Design Technology, Home Economics (Food/Textile Technology), Information Technology, Science, etc; but less obviously the Arts, Humanities, and Languages, etc. Thirdly, technology does exist in its own right as an examinable subject particularly at 'A' and 'AS' levels. Remembering that the National Curriculum indicates content rather than methodology or mode of delivery, then it is also time to realise that the delivery of Technology can no longer remain the province of one subject area but by its very nature must surely be taught through cross curriculum approaches involving several subject areas, diverse resources and peoples expertise which most schools have but need coordinating. In practical terms cross curriculum initiatives fail due to staff attitudes and lack of planning. Such initiatives have to be school policy and well managed from a

senior level. It is best to proceed in easy steps, firstly by a department simply dividing up and teaching their usual syllabus in small manageable units. The next year two departments and their respective staff should then offer the units or modules which they are best prepared for in terms of resources and expertise. Following on, a mixture of departments can then offer a range of modules which students can choose from and progress through, bearing in mind the now available modular schemes. Modern technology is about the art or science or design of interfaces and applications! We need further to ensure that not only does Design Technology in particular become more accepted at higher levels but that students actually do it at higher levels, and not just by those who expect to teach it. Not borne of a pure discipline Design Technology has never really gained a respectable base in a university which it needs, a base which gives credence to the intellectual activity of designing, controlling and making in a multi-dimensional way; a base which employers need to recognise and also I have to say those in schools and colleges with the managing power of option choice guidance.

The school curriculum needs to be changed and Design Technology education needs to be given full credence to meet the changes upon us. Our social conditions of life are changing along with technological and structural changes of employment. We still have a shortage of able multi-skilled adaptable people with the ability 'to think and act multi-dimensionally' when manipulating practical problems for the technological design occupations, due to an over reliance upon the prestige of pure subject disciplines in educational establishments. Flexible manufacturing systems make the originality and skill of the designer-technologist-craftsperson available and appreciated by all. Through the medium and experience of designing, controlling and making, Design Technology is a satisfying intellectual, aesthetic and technological activity. The diminished remains of pursuing 'craft' as a fundamental achievement, should be seen in the perspective of enabling. The curriculum should be delivered to the student in a

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task based individualised problem resolving and project centred approach thereby inculcating a sense of responsibility for learning and reinforced through self assessment. It is not good enough in an educational setting to rely upon some elitist notion of creativity as belonging to the few: we should be offering a range of opportunities to stimulate the imagination in order to encourage innovation.

'Craft' originated as a response to the necessities of survival; when no longer a necessity it was then revered as belonging to a 'category of objects and their makers'. In a similar way the products and makers of the industrial revolution responded to the needs of a society; though some would argue in fact the corollary existed, only to maintain the economic fabric of life.

Certainly those artefacts 'hallmarked' by the industrial revolution, and their makers are now the revered in the sense of belonging to cultural history. If then, now is the time to respond to a society that will herald the next epoch, the technological epoch, we need to 'shift' the curriculum to address the issue of the quality of life and its mass produced products. If we think of Design Technology in terms of the notion of 'workmanship' meaning 'all that which goes into the production of an object' then only by inculcating an 'artefactual appreciation' of 'what it is that goes into this production' will we improve the quality of technological society; a society that depends upon 'technicity'.

In this context then we must deliver to our educational clientele a Design Technology curriculum which encompasses an 'aesthetics of

workmanship'; an appreciation in an all pervading sense, of all that which is concerned with the humanity of mass produced artefacts: their design, their manufacturing processes, their exploration of technological concepts, their use and their 'artism' of expression. This sort of appreciation through a critical awareness approach can help to make the creative element meaningful to all. Such a curriculum can only be based clearly upon practical experiential learning by the 'know-how of doing' which will lead to the later and consequential theoretical understanding of concepts and skills. The classical curriculum based upon the notion that theoretical learning divorced from practicality leads from the 'know-that about something' through skill to 'knowing how to do' is a false notion for all but a few, or magic.

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