

# Not Altogether by Design

Bob Spooner

formerly Head Foxwood School, Leeds

When I was at school before the war there was a great emphasis on knowledge pure and complex which stretched right across the curriculum. In English we learned to recognise synecdoche — we knew that ‘Give us this day our daily bread’ involved three square meals and that study of a craft involved elements of design and technology — and we could take a sentence to pieces and name its parts more readily than we could construct a telling one of our own. In history we dwelt in facts rather than theories and learned nothing of historical method. In geography we learned the names of capes and bays without being introduced to the compass and in science we learned up our notes and watched experiments without conducting any of our own.

There were exceptions to this style. In mathematics, although we acquired techniques by rote without understanding them we also had a lot of problems to solve and were forever working out how many days it would take for a man and a half to plough a field and a half, and we had to apply euclidian rules to a range of problems.

The school workshops were then in the van of progress for we acquired skills and applied them to real problems. We made stools that didn't collapse and, modified designs extensively according to our individual whim and fancy — or aesthetic taste! And we understood the properties of the materials with which we worked, even though there was an emphasis on the ‘perfection’ of the finished article.

Between the middle fifties and middle seventies, which may well be seen historically as the heyday of the British state system, there was in most subjects a strong shift of emphasis towards the acquisition and application of skills in order to solve problems or develop critical judgment. It was accompanied by a preference for breadth rather than depth in our educational practice. In geography and history a lot of store came to be placed on ‘research’ and ‘field work’. Pupils were asked to draw deductions from given evidence. They learned to observe for themselves and distinguish between the significant and the petty. In science there was an emphasis on practical skills with a lot of individual experiments somewhat

marred by the awareness that what was to be discovered was already known. Part of the reason for this development was to help make the work set significant across the ability range instead of rebuffing those who did not have the literary abilities of the select few.

In English and Art there was a rewarding emphasis on the liberating value of self-expression. The art teacher was challenged to diversify into as many media as possible and the pupil tasted a lot without necessarily gaining confidence in any. In English the average pupil was encouraged to read at a level that could be understood and which gave pleasure, and to communicate imaginatively rather than with accuracy. In other words we looked for positive achievements from pupils and the production of work that increased their self-esteem. The academic subjects sought to emulate the success of the craft workshop.

This whole development was overtaken by the new technology which was useful as a tool for teaching the humanities but which encroached increasingly into the content of mathematics, science and workshop syllabuses. Only a fool would suppose that it should have been ignored. By now we have got sufficiently used to it to measure its impact, particularly on the school workshop.

Before we do this, however, there is another consideration to be borne in mind. Under the title ‘A Basic Life Skill’ Geoff Howard writes, (Vol.13 No.3 *Studies in Design Education Craft & Technology*)

‘CDT is losing the stigma of craft subjects being for the less academically minded’

One could write volumes on this dreadfully revealing comment. It is sufficient to remark that success with the less academically minded is at least as valuable, and one would hope, capable of generating as much pride, as success with the academic and that, although it is true that many ‘academic’ children were steered away from craft skills, this was from a debased form of intellectual snobbery and was quite contrary to their true interest.

Many wood and metalwork teachers were admittedly exposed to this

snobbery. The tradition of the grammar school Speech day, with the graduates on the platform in their hoods and gowns and the non-graduates acting as unobtrusive ushers, lingered on in most comprehensive schools, quite at variance to the ethos they were intended to project. One suspects that the wholehearted adoption of design and technology at the expense of teaching a craft has owed more to the resentment of this snobbery than to the actual needs of pupils in schools. For if the following propositions are true the translation of the workshop into a multi-purpose design/realisation base has been over zealously pursued.

I would argue that: —

- a) The satisfactory realisation of design requires a high level of craft skill.
- b) Pupils need to be given tasks they understand and can do with some confidence.
- c) A sound general education requires variety of experience and it would be dangerous to impose the same limited objectives on every subject area.
- d) Although breadth is valuable, it is an impoverished education that results in the individual acquiring no expertise in anything.
- e) Pupils can be taught to solve problems similar to those they have already seen solved. The capacity to produce original solutions is rare.
- f) At any significant level, technology is a form of applied science.
- g) Pure academic ability is grossly overrated. Our academically-minded children reduce this ability once they leave school to occasionally doing the ‘Guardian’ crossword puzzle, and apart from this foible are indistinguishable from the rest of mankind.

These propositions lead me to argue that CDT, as it is increasingly practised in schools, is a cuckoo in the workshop nest. In saying this I risk misinterpretation, particularly as a lot of emotion has been expended in promoting CDT. Let me insist that, just as I enjoy the first cuckoo, so I have no doubt that design and technology are important. I also recognise that in some form they can be effectively taught

across the ability range. But they deserve their own niche in the timetable. If they are to usurp anyone's time one should look to the science and maths department rather than the craft area.

For the most savage criticism one can make of any school is that a lot of pupils leave with a sense of failure, that they have low self-esteem, and that they have become miserable and alienated there. As a teacher one must always be looking for an opportunity to give valid praise for achievements that are recognised by everyone as significant. A beautifully made artefact cannot be bettered for this purpose. I have a sneaking preference also for getting sums right (as well as understanding the method) for spelling words correctly (as well as having a wide vocabulary), for illustrating a historical argument with correct evidence and for conveying imaginative ideas in an effective form. In other words there is much to be said for a capacity to handle the tools of the trade before we accept over ambitious commissions.

The present drive towards problem-solving across the curriculum smacks of moulding our whole educational programme around the supposed needs of the academically gifted pupils. This has always been the prime failing of the British educational system. Historically the sine qua non of educational success has been the neatly turned essay and we have always preferred the ability to describe an activity to actually doing it. The capacity to offer imaginative theoretic solutions to dreamed up problems now threatens to take over where the English essay left off. This is ironic when there is a national drive to recognise, through records of achievement, the value of life skills, and when we have started to perceive that boys and girls need to be educated for a world of leisure in which actual work can be relegated to a compressed part of the week.

In criticising the way CDT has swamped our workshops I do not advocate putting the clock back. Such a crude remedy cannot seriously be offered to an increasingly pretentious educational world. Nor do I assume that within the constraints of a national curriculum, CDT will be able to make other than minor encroachments on the maths/science realm. There are other



remedies available, two of which are very practicable propositions.

First of all we can keep up with the fashion by adopting a modular approach, making sure that a goodly proportion of our modules are safely craft based. Let those who thrive on design, design their own programme and let those who are mystified by problems retreat fairly frequently to a more obviously creative world. Secondly let us increase our workshop productivity by an investment in those power tools that pupils will buy for themselves once they leave school. They need to be aware of their strengths, their limitations and the dangers that attend them. With the tools of course, we need to be able to supply a flow of materials which will prove costly, but I am unimpressed with the argument that materials are now too expensive, and that for this reason alone it is sensible to limit the teaching of craft skills. We do not scorn computers on account of their price nor do we fashion the programme of the physics laboratory around the cheapest available equipment.

The real risk at the moment is that we alienate pupils from the workshop by asking them to undertake work which they cannot manage, for they then find the experience worthless. The golden rule about any project is that it must be brought to fruition. No sensible teacher would set a task that lay outside a pupil's reach, so we should not connive with

#### **1988 Schools Design Prize**

*Stephen Boase from Penwith Sixth Form College, Penzance, has designed an improved fertiliser spreader which can be used in all weathers (current models can only be used when it is raining).*

pupils to set themselves unattainable objectives. There is much to be said for autonomous exploration, but in schools it must be, like a science practical, a confidence trick. In other words it must be teacher designed to be susceptible of practical solution, and pupils rely heavily in all subjects on being guided into navigable water.

We must also guard against importing into the workshop area the same intellectual snobbery that craft teachers have long resented. Problem-solving can be a nice game but pursued as an educational ideal it panders unduly to a certain type of confident adolescent. Schools should encourage those who are bad at it to try their hand and contrive to gain confidence, but for them it must be recognised as only a small part of the total learning experience and must not be allowed to seep into every area of activity. It would be the ultimate irony if, when the teachers of academic subjects are trying to survive by giving skills their true rating, highly-skilled craft teachers felt obliged to sell their birthright for a mess of Fisher Technic.