Designing and Making Jewellery

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Anyone with a soul who, through force of circumstances, has had to lead children blinkered through an examination syllabus up until recent times has experienced a frustration of initiative and inventiveness which effectively dampens any pioneering enthusiasm. How many have not asked themselves what exactly they have achieved when, to the exclusion of all other considerations, a boy emerges after five years with his GCE? True, in the case of my subject, he has a fair knowledge of metalworking techniques and skills but, due to the rigidity of the course, he has never had the chance to apply these. Has he learned to think for himself? Technology is changing so fast that all he has learned will, relatively speaking, soon be out of date. It's a classic example of making the syllabus fit the examination.

Fortunately, however, examinations are changing and their syllabuses, or the lack of them, are at last encouraging the flexible approach which is the delicate balance between the teacher's guidance and the student's freedom to explore. Should our job not be, to free the creative powers and artistic talents of the students, to inspire self confidence in the individual approach and thus pave the way for genuine original work, equipping the child with a design capability which will outlive present technology? Traditional handicraft stressed technique and skill while art stressed perceptive understanding of material and creative response. Are these not complimentary?

I mentioned a 'design capability' the very thought of which turns some teachers off... 'You know our boys cannot design for themselves'. What they really mean is that the word scares them. They, like myself, are a product of the 'old' system when design was left to people in ivory towers who drove Rolls Royces. No wonder they did, when they effectively choked any competition by surrounding themselves in a veil of mystery to such an extent that if you did not 'inherit the gift' or acquire it overnight by wearing outlandish clothing and growing a beard, then forget it – don't make a fool of yourself.

Although it is desirable that a boy should be able to read and work from prepared drawings it is hoped that he will find a design brief more interesting and challenging. Individual problem solving or the design solution is genuinely creative rather than a route to a predetermined destination.

Having stated the problem and solution in theoretical terms how did I get it across to the boys?

Before being competent at design a knowledge of as wide a range of materials as possible is desirable. The more limited this knowledge, the more limited will be the solution. If a child has only worked in metal then his solution will have a bias that way. The more materials he has experienced the more balanced will be his solution for a particular brief and the greater his chances of success.

Why jewellery?

To achieve these aims I choose jewellery making as my topic or, should I say, my vehicle for obtaining this 'design capability'. Why jewellery? To me, the vehicle the teacher uses is irrelevant as long as it has his enthusiasm. Enthusiasm is infectious and reciprocal and since jewellery has always held a fascination for me, it qualifies.

From earliest times, after self-preservation, personal adornment has always had a high priority. The accumulation of power and wealth has always been synonymous with the acquisition of jewels, from the pharaoh's tombs to the crown jewels in the Tower of London. Jewellery has also always reflected the art forms of each nationality, eg, in Ireland – Celtic brooches. Its fascination therefore is pretty widespread and I envisaged no difficulty in trying to stimulate the boys' interest in this line.

My CSE boys were just entering their last year, having completed their basic course, so I chose them, realising that my topic would have to fit in along with their normal course work. The intention was that their jewellery work could be submitted along with their other course work for moderation.

As already stated my aim was to attempt to give my boys a 'design capability' through having worked with as wide a range of materials and techniques as possible, so at this stage I purposely introduced each boy to a different technique or material encouraging all of them to keep a workshop diary of not only their own work but also that of their friends, to which reference could be made at a later stage.

To facilitate their attempts to produce original designs I encouraged 'abstraction' (such as seeing 'faces' and shapes in wallpaper and burning coals). Sheets of paper were filled with male (jagged and angular) lines and female (soft, rounded, wavy) lines or a mixture of both, and designs abstracted by outlining. Several similar techniques using:

a dark string dropped easily on light coloured paper
b soft wire bent or twisted into pleasing shapes
c inverted salt-cellar on string allowed to swing freely over black card

– helped break the ice when trying to arrive at shapes such as that required for a free form pendant.

I encouraged them to place themselves almost in the position of a jewellery manufacturer who would require considerable technical know-how, an awareness of current fashion, a knowledge of relevant materials, their availability, relative cost and economic use and the qualities of sound workmanship coupled with originality, flair and self confidence. To accomplish this, as well as to enable the boys to see what jewellery was currently available, they did a questionnaire type survey of all the jewellers in town to inquire into such things as suppliers, most popular lines, availability and popularity of hand-made articles as opposed to mass produced, best selling times of the year, etc.

I refused to pull in other subjects just for the sake of it but encouraged the boys to enlist the know-how of other departments when it was relevant and necessary. Perhaps the best example of this was the enthusiasm of Mr Holland in the science department, who helped us with the manufacture of ammonium sulphide for finishes, and guided us safely and successfully through the processes of anodising, nickel plating and silver plating. When he became involved there was no question of having to ask for assistance, he was constantly trying to find ways of helping.

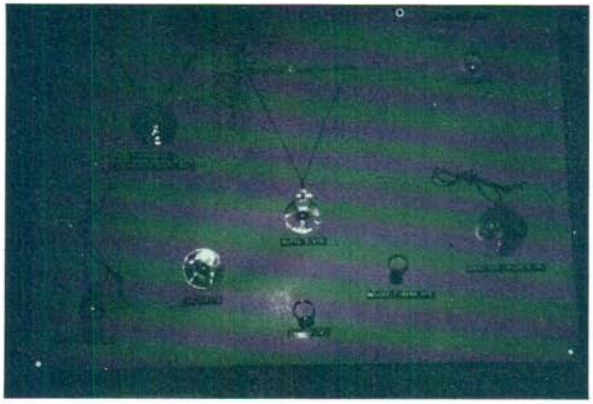
Another colleague, Mr Byrne, from the history department, no less, on hearing that we were looking for suitable stones for tumble polishing, joined in and directed us to a beach where, pen knives at the ready for hardness testing, we carefully selected what we thought were suitable stones. Each boy picked out his choicest finds and all were added together to make up the first two barrel loads. They followed with great interest the various polishing stages, which took four weeks in all, and were handsomely rewarded by a colourful selection of very well polished stones of commercial quality. They promptly set about mounting their finds to make rings, cuff links, ear clips, tie tacks and clasps, etc.

Appetites whetted we set about slabbing, trimming, grinding and polishing semi-precious stones (bought in the raw rock form) down to cabochon form. These were mounted in bezel settings on brooches, pendants and rings using copper, gilding metal and silver. This involved having our own school maker's punch made and registered for silversmithing so that their work could be hallmarked. They produced a remarkable range of work which incor-

1 Range of work including resin embedded flower pendant

2 Resin-foil pendants

3 Anodising stage in manufacture of embossed horses head



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porated silversmithing techniques such as chasing, repoussé, embossing, texturing, etching, piercing, decorative wirework, wire-drawing, doming, engraving, shot-making, unit construction, bezel and claw settings, scraping and burnishing.

Work was also undertaken in plastics, embedding flowers, butterflies and sea shells in clear resin and some novel pendants were mass produced using copper, aluminium and brass foil with resin. Ceramics were employed in making rings, and enamel found outlet, in conjunction with jewellers findings, in producing attractive pieces incorporating such techniques as cloisonné, champlevé, trailing, stencilling and graffito.

Without a doubt their silverwork was the highlight of the year's work and coupled with the semi-precious stones that they cut and polished for themselves (including malachite, golden tigers eye, red tigers eye, moss agate, citrine, bloodstone, crazy-lace agate and carnelian) they looked very professional indeed. They did in fact receive many offers from members of staff anxious to purchase their wares.

Looking back—and forward

Taking into consideration that there were only eight boys in the group and that they also had their normal CSE coursework to do it is obvious they could not cover all that work during class time. Their enthusiasm was such that they stayed over after class on many occasions, sometimes at great risk to themselves, as was evidenced on two occasions when the IRA and the army fought it out in the grounds. I'm not suggesting that they worked throughout these battles, we had in fact to content ourselves with lying on the floor while the bullets flew. Their work was rewarded at the end of the year when the CSE results came out — four getting grade 1, two getting grade 2 and the remaining two grade 3. This required doing well in theory, practical and workshop diary as well as their course work, so they were obviously not putting all their eggs in one basket.

Looking back on the year's work, I can confidently say that it did help the boys to achieve independence and self-confidence and I can distinctly remember a couple of occasions when I frowned at an idea only to be proved wrong by the boy's determination to try it out anway — and very successfully too — reminding me of a quotation from Hirst and Peter's book *The Logic of Education:*

> 'In the later stages of education, therefore, teachers should regard themselves as teaching badly if they do not find that some students begin to challenge them and pick holes in what they say.'

I'm not suggesting that I altogether conform with that quotation for secondary schools, but at least on the occasions I've mentioned above I was more pleased than annoyed to be proved wrong. My only regret is that I did not have my group to continue with their work this year.

However, my present CSE class have now taken up the challenge in a different direction and have very nearly completed their own power-driven centrifugal casting machine and, need I say it, I can hardly wait to see what that will produce.