George Hicks: A personal appreciation

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On the 28th June this year I attended the funeral of a brilliant teacher and thinker who did probably more than any other single person to create Design & Technology as a school subject. This piece is not intended as a traditional obituary, rather it is a personal statement of appreciation of his impact on design & technology generally and on my work in particular.

It should be noted at the outset that George has left behind very little of the traditional legacy of university folk. He published very little in his own name and the things he did write - some of which were extraordinarily influential - were typically internal documents at Goldsmiths College or (later) for the schools Inspectorate. Such documents then appeared as Departmental or Faculty documents at Goldsmiths or (later) as the Government's Department for Education and Science (DES) official publications. I sit with George's London University Master of Philosophy thesis open in front of me: "*The Educational Validity of Design Studies within the Secondary School Curriculum*" (1975) and flicking through the bibliography there is not a single reference to Hicks, G. Rather, he cites practitioner bodies like the Schools' Council, and principally he draws from educational thinkers like Basil Bernstein, John White, Paul Hirst, Vic Kelly and Jacob Bronowski. George's principal motivation in the evolution that he pioneered was always educational. Over the next forty years all sorts of other priorities were argued by various factions, not least the case for vocational study, or for engineering, or for a high tech future. But George always saw Design & Technology as an *educational* force - encouraging all youngsters to develop their thinking and their problem solving, to better understand and participate in their society and culture.

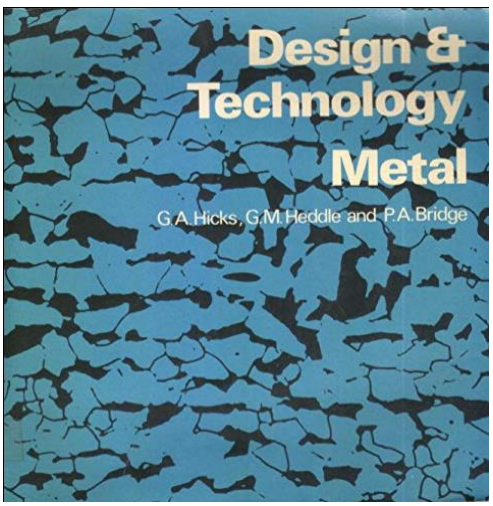
The roots of George's extraordinary contribution lay in his leadership of what - in the 1960s - was called the Handicraft department at Goldsmiths College. Handicraft Education had been strong in the 1950s and was flourishing in the 1960s, and there is no doubt that George's appointment to the Handicraft department was based on the fact of his being a skilled craftsman himself (silversmith). But George was aware of the weaknesses of an education based entirely in the acquisition of such skills and as he took over the leadership of the department he began a process of steering it from a Handicraft department to a Design & Technology department.

> *There is little doubt that earlier emphasis on the development of craftsmanship has resulted in a neglect of educational responsibilities in relation to*

i) *the development of an understanding of the cognitive structure underlying the designing of the product being made,*

ii) *an appreciation of the cognitive, affective, social and environmental elements involved in its designing*. (Hicks, G. 1975)

The 1960s was a fertile time with several official reports and research & development projects springing up within our field. The Crowther Report (1959) had exposed the weaknesses inherent in the separation of the mind (Grammar Schools/academic study) and the hand (Secondary Modern Schools/practical study). In a radical Chapter 35 they had recommended "An alternative road to learning" in which practical skills and intellectual challenge are integrated and the Schools Council sought to foster the notion. By the late 1960s, Project Technology, or School Technology was established and became influential particularly under the direction of Geoffrey Harrison. It was especially influential in particular regions (Local Education Authorities) of the UK, with Hertfordshire and Bedfordshire being the epicentre.



And at Goldsmiths, George continued to find ways to build a model of practice in the department that united designing with making and with learning. His goal was to transform the curriculum and help teachers (principally at that time craft teachers) to understand how to teach it. With his colleagues in the department he created a series of Design & Technology books for schools [metal; wood; plastics] (with Pergamon) in which they helped teachers launch real design tasks and become facilitators of their students' own thoughts and ideas.

An interesting illustration of his influence is seen in his 10 years working as an examiner for the London University Schools Examination Department (later absorbed into Edexcel, a national examination Awarding Body). Appointed originally as an examiner for 'Ordinary' level Handicraft (metalwork), in 1969 he became Chief Examiner and set about creating serious change. The existing O level had a formal examination structure with two written papers and a 3 hour practical test. In George's new plan, one of the written papers became a design paper in which students responded with sketches and notes to a number of small challenges. But the most significant change was to the practical. This was traditionally presented to students as a formal technical drawing (e.g. of a metal vice/clamp) and a set of component pieces of material to be cut and fitted accurately into the final object in 3 hours of workshop time. George did not want to dispose of the practical piece (he believed in high quality making) but he sought to adapt it to become also a design challenge. He created a 'pre-practical' paper which was

essentially a design paper set 4 weeks before the practical test. Students were expected to design and make a product that was subsequently to be part of the product that made up the practical examination.

I was teaching this course in my first teaching appointment in 1970 and at the end of the course, in 1972, the practical test was to make the adjustable joint/platform of a surveyor's theodolite. The pre-practical (that my students had to design for themselves from scratch) was to create a levelling device that would enable the surveyor to set-up the theodolite table properly horizontal (in all planes). We were told to enclose all drawings and models and package them all up with the student's own levelling device attached to their final practical piece when it was sent off to the examiners. We were also to include an additional form on which the students produced their own critical reflection on their own submitted work. In 1972 the new O level examination course was launched as the London O level in Design & Technology. This was the first examination of students' Design & Technology ability anywhere in the world. Two years later, in 1974, the Advanced level examination followed with further innovations. At the launch of the A level course, the University of London announced the formal recognition of Design & Technology A level as a university entrance qualification. This had never been the case with the precursor Handicraft qualifications.

All this was more than 50 years ago and was, significantly, the vision of one man. Inevitably the transitions from Handicraft involved an enormous demand for in-service support for teachers and from 1970 George undertook a national programme of illustrated talks with teachers, LEAs, universities, and with the British Council. His lectures and workshops of course involved many practical illustrations, but they were always set within his analysis of the educational philosophy that should underpin the new programme.

His MPhil was almost the last thing that George wrote at Goldsmiths since he left in 1975 to become an Her Majesty's Inspector of Schools (HMI) where he subsequently became Staff Inspector responsible for the D&T team of HMI. He was always aware of the importance of good teaching to ensure that the new subject thrived, so the development of teachers was very close to his heart. As he pointed out in 1983

> *Teaching facts is one thing: teaching pupils in such a way that they can apply facts is another: but providing learning opportunities which encourage pupils to use information naturally when handling uncertainty, in a manner which results in capability is a challenge of a different kind.* (Hicks, G., 1983)

Responding to his own call to action, George acquired a very considerable grant to initiate a week-long Summer School at Loughborough University. In addition to central presentations, teachers could opt to study a wide range of topics that were becoming central to the new vision of Design & Technology, particularly including design approaches to learning. And he secured the very best teachers/lecturers/advisers from across the country to lead the sessions. These DES summer schools became legendary. They became so successful that they were repeated year after year throughout the 1980s and at their height, the Summer Schools attracted 200 or more teachers each year.

And of course George and the HMI team kept up a regular output of publications to support teachers' understanding of what D&T is, why it is important, and how we can best teach it.

Curriculum 11-16: Working Papers by HMI (1977)
Craft Design and Technology in Schools: Some Successful Examples (1980)
Understanding Design & Technology (1981)
Another Step Forward for Design & Technology (1983)
Craft Design & Technology 5-16: Curriculum Matters 9 (1987)
D&T 5-16 Proposals for D&T in the National Curriculum (1989)

In this last case George was a key player in the working group that formulated Design & Technology in the National Curriculum. Whilst unhappy with some of the ultimate recommendations, he continued to argue for the essence of what Design & Technology amounted to for him. This vision was captured in 2000, when subject groups were invited to publish statements about why their subjects are important in the curriculum. The Design & technology working group prepared this statement and despite being the work of a wider group, it is pure George, and it serves as a fitting epitaph.

> *"Design and technology prepares pupils to participate in tomorrow's rapidly changing technologies. They learn to think and intervene creatively to improve the quality of life. The subject calls for pupils to become autonomous and creative problem solvers, as individuals and members of a team. They must look for needs, wants and opportunities and respond to them by developing a range of ideas and making products and systems. They combine practical skills with an understanding of aesthetics, social and environmental issues, function and industrial practices. As they do so, they reflect on and evaluate present and past design and technology, its uses and effects. Through design and technology, all pupils can become discriminating and informed users of products, and become innovators."* (QCA/DfEE, 2000)

Interestingly, George did not write this statement. He had retired earlier from the Inspectorate and the point of it here is to illustrate the astonishing effectiveness of George's professional life. He had been a pioneering presence as a university teacher and schools examiner in the 1960s and 1970s bringing out the educational importance of Design and Technology for all learners. And then in the 1980s and 1990s he was such a persuasive advocate for this educational vision that he didn't need to write that magnificent statement. In the end, George's final triumph was that his colleagues and contemporaries were united with him in this vision and they wrote it for him.

References

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