

# Tedium

Curriculum planning and development contain many tensions and conflicts about interpretations of the value and meaning of education. Generally, issues and decisions concerned with how knowledge is valued, organised and taught arise from overall curricula styles and ideologies. Traditionally 'subjects' have been used to categorise types of knowledge and there is still widespread interest and belief in subject autonomy, mostly due to the influence and importance attached to examinations. However, today there is considerable stress being laid on 'integration' of subject matter, due to attempts to 'humanise' and 'validate' knowledge, at least for individuals, if not for the wider needs of society. This is especially so today because of the need to cope with the rapidly changing cultural and social context of contemporary education, and to prepare children for future living.

I believe there is a most urgent need for education to be seen to be practical, realistic and of value to both individuals and, more importantly, the community. I feel this can be achieved by the reconstruction of curricula systems that enable students to purposefully and imaginatively use and seek knowledge in a social and cultural context, with special reference to the study and appraisal of cultural values in a free and critical manner.

How then, in the context of the changes that are occurring, and the pressures for revaluation of educational achievement and production can a subject like Technical Drawing justify its value educationally? The question has importance since our society is affected by, and dependent on, technological and scientific change and invention, and education is required to make a relevant and realistic contribution to these kinds of social needs and pressures.

Technical Drawing is a very popular subject today, and the reason for its popularity is its practical nature. Technical Drawing deals with draughting skills, precision and the communication of technical information; it has a function in industry and commerce generally, and is a subject at which an increasing number of secondary school students succeed.

Generally, students are required to remember certain traditional geometric facts, a few basic illusions of three dimensions, 'isometric' and 'oblique' forms, and to be able to apply the principles of orthography to general mechanical or building parts and structures. At most a basic two year course is sufficient for both CSE and 'O' level success, since any more time would just increase the tedium.

The knowledge, skills and general experiences in traditional Technical Drawing courses do not offer enough of a challenge to students. Nor do they evaluate or adapt to the ongoing usage of, and needs for, more diverse types of graphic communication. Essentially the subject is too entrenched in the study of out dated 'forms', and relies entirely on a fossilised hope that students can, and will, transfer

knowledge pursued in outmoded theory, to its use in practice.

Technical Drawing syllabi show a lack of realistic and contemporary substance, which is coupled to a general failure of courses to include student evaluation of the meaning and functions of 'graphic communication'. If access to worthwhile knowledge is an important and comprehensive educational principle today, and that students should be encouraged to 'seek', not just 'know', then Technical Drawing is in need of radical reform.

But, the essential notion of skills and enjoyment found in a practical subject like Technical Drawing needs to be retained, and I suggest channelled into a broader context, namely 'Technical Graphics', which would include the most relevant and useful aspects of Technical Drawing.

I view Technical Drawing as a particular 'style' of visual communication. It is schematic and its essential function is to represent clearly information about distances and relationship of parts in the manufacture or assembly of an object. But this is only one style of drawing and used only to communicate important, but a limited amount of information.

By pursuing and categorising different types of information that can be used or portrayed visually, either by symbolic representations or direct attempts to create the illusion of reality, 'graphic communication' can become an important and creative force in Design education and craft. The important characteristic that would make graphic communication 'technical' is that symbols or images used, will be mass produced, rather than functioning as 'unique' and individualistic works.

The aim of Technical Graphics is to use a variety of illustrative effects in the study and representation of many types of 'information'. The objective is for the student to illustrate existing objects and ideas, and, more powerfully, to interpret new concepts and bring about 'design'. This can be achieved through awareness of aesthetic and technical judgements and motives, as well as the consideration of the possibilities for graphic styles and skills, all of which forms a base for Technical Graphic activity.

Information concerning the context for the use of an idea or object, the recording of events, the description of character, the observation of possible combinations and contrasts of images, shapes and ideas, the analysis of structures and forms, the layout and composition of the parts of a graphic or object, contribute to a diverse and useful educational experience to be found in Technical Graphics. The value and skill in Technical Graphics lies in the making of images that clearly and efficiently transmit and translate their meaning.

Technical Graphics contains many topics, ranging from 'natural', 'historical' and 'futuristic' to 'symbolical' and 'cartographical', rather than exclusively 'mechanical' and 'architectural'. Choice of themes and styles play an important role in the total effect of a Technical Graphic. This necessitates the student's study of 'Two-dimensional', 'Three-



dimensional' or 'Layout' techniques, as well as familiar use of sketches, diagrams, patterns and cartoon forms.

For example, the information being communicated in a fashion design is not just size and method of assembly, but the texture, pattern, colour, movement, shape and style of the garment, as well as its overall effect when worn. The drawing of a butterfly can be as 'technical' as the drawing of a bolt; the social considerations of the visual effect of our towns has much wider significance than a functional elevation of a house. The value of the Technical Graphic depends on the information required to be illustrated or drawn, and the understanding of the motives for such a Technical Graphic.

Technical Graphics is designed to offer students experience through discovery and analysis of contemporary influences and needs in graphic communication, by finding and producing their own knowledge in a realistic and cultural context. The skills and knowledge they acquire are intended to help them cope with the complexity of our way of life, especially through critical awareness of the effects of mass media and the strong reliance of our culture on visual images. Realistic and relevant links with generally accepted industrial, commercial and further educational practices need research. But a measure of agreement between 'school' and 'work', without turning schools into occupational training centres, is offered as a practical suggestion in the development of Technical Graphics.

The problems of teaching and developing a new course lies in its justification for inclusion in the curriculum, especially if its general format requires a different curricula structure and ideology.

Today the only major justification for subjects, or even new courses, is the final examination. But what if a new course challenges existing social or cultural values placed on learning and knowledge? Can a course, based on discovery and critical awareness, be taught on traditional didactic lines? The answers to these questions will depend on our willingness to evaluate education.

It is hoped that Technical Graphics will take on a flexible and creative position in the overall curriculum. The diversity of its nature gives substance to its character, be it a football programme, an exploded view of Concorde or a dress design. This diversity takes into account and welcomes the eccentricities and idiosyncracies of different values, interpretations and uses for Technical Graphic images and activity. The aim is to make the work interesting and realistic for the students, especially today, and in full knowledge that 'school' is part of the social process. Do we calcify in tedium or develop more relevant, practical and creative curricula?

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