

Design at Radley College

Peter Wilkins
Radley College

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Radley is an independent school of some 130 years standing with about 540 boys and 5 daughters of masters who are resident for the duration of each term. As a starting place for a design department it would seem about as suitable as a pressure cooker because of its considerable emphasis on academic and sporting prowess. The subject unlike the remainder at Radley is a relative infant. At present the Oxford Boards 'O' and 'A' levels are taught to what has been a steadily increasing number of pupils so that this coming school year we can expect 48 boys on two years of the course to 'O' level and about twelve on the two years of the course to 'A' level.

Design as an examination subject is taught purely on an optional basis; the 'O' level being one of a group of six subjects comprising Geography, Geology, Greek, German, Spanish and Art, for which four periods a week are allocated on the timetable. At 'A' level design may be combined with virtually any other one, two or even

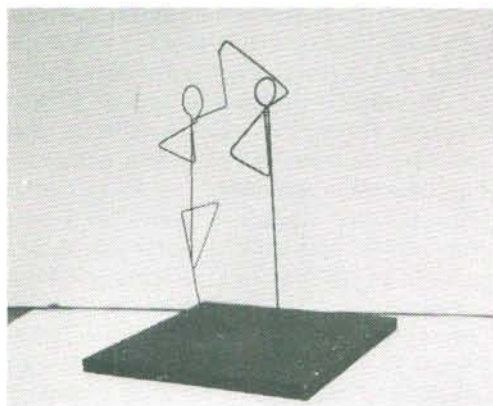
three 'A' levels depending on the candidate's particular interests and abilities, and at this level eight periods a week are allocated.

This timetabled examination commitment is really the tip of the iceberg as far as actual teaching is concerned. We also offer non-examination Additional Subject which covers three periods a week for anyone doing other specialist 'A' level studies who wishes to be involved. Perhaps the most important teaching as far as our future is concerned is carried out in what is known as the Shell year (first year — entry 13 years of age). These boys have two periods of 'workshops' a week and it is from these boys that the following 'O' level group develop.

The department is open seven days a week, 24 hours a day during term time so that boys have access to facilities for a considerable period of time outside of the timetable. Purely for interest sake we carried out a time sheet check on the hours which examination boys spent in the department in free time, and over a month this averaged



Shell group working on project based on their initials — use of colour form.



Shell project based on human form.

out to about eight hours per 'O' level boy and sixteen per 'A' level boy each week.

The existing situation has arisen, as have many other departments, from the efforts of a traditional woodwork master who having taught carpentry for fifteen years decided that through his experience he would do far more for pupils than simply teach 'carps' as it was known. John Birkhead started looking for another approach to his subject about five years ago. At that time he considered many alternative subjects including project technology courses. He eventually decided that a Mode III Design 'O' level was the answer and developed a course aimed largely at acquainting boys with industrial techniques and practices, comparing these with traditional techniques and then designing, largely furniture, to solve the problem of the individual.

He then started to look for an 'A' level which furthered what had already been covered in the 'O' level and was relevant to the needs of Radley sixth formers at that time. The Oxford Boards A.38 Design paper seemed to be broad enough in its base to suit his purpose and was introduced.

By this time the school was committed enough to design education to consider employing a further master to teach the subject and develop a wider emphasis than that which existed, and this proved a fortunate

decision because just as John Birkhead was beginning to get to grips with the problems of a developing department he tragically contacted cancer and died prematurely at the age of 44. Despite the setback the ball which he had set rolling was steadily gaining momentum within the school as a whole so that a replacement was automatically necessary — indeed, two would have been more suitable.

The facilities at Radley were described recently in an article by Mark Brutton (Editor of 'Design' magazine) as 'impoverished out-houses' and really this is no over-statement for they consist of a defunct fives court which has been converted into an Engineering block by the addition of one large window and a set of folding doors. An art school which was erected many years ago by someone with a passion for second or third hand corrugated iron and a converted pumping house which was the woodwork shop. In many respects this odd collection of architectural rejects has served Radley well for several years because there was not a moment's hesitation if a change of organisation was felt necessary. Partitions were erected and just as easily dismantled if the experiment failed or needed modification. Having praised this collection of buildings I feel almost sorry to have to admit that we should be seeing, in the not too distant future, the building of a purpose built creative art and design block which we have had considerable involvement in planning. This new centre to us is a firm demonstration of the faith which Radley puts in the benefits of our studies. One of the main problems facing us in the past has been the physical separation of the department and also the distinct impression which this has created of three distinct disciplines — woodwork, engineering and art — especially among boys and visitors. When the personalities previously involved in teaching in the separate buildings failed to achieve any sense of co-operation, a distinct barrier must have existed to true creative

work. Presently there is a unity of purpose but not a unity of courses. We still retain fine art as a separate study and boys also work towards Art 'O' and 'A' levels. This situation although not perhaps the easiest to work within is necessary because of the present situation at Radley. There is, however, an increasing degree of co-operation between both departments and I personally hope that we may soon be able to follow a common course to 'O' level and then retain both Art 'A' level and Design 'A' level according to the specific needs of the individual boys concerned. Our role as educators must be involved with being of greatest possible net benefit to the pupils with whom we come into contact. We believe that the Design work which we undertake is of great benefit to the pupils concerned — often in a way which is invisible, unexaminable and unclassifiable. At the same time if we are being honest about our society at present it is still largely examination orientated and we are therefore highly conscious of the need to maintain good examination progress for the less important extrinsic gains which these results provide.

It is highly doubtful if Design at Radley would have got anywhere near as far in development had the department adopted a non-examination approach.

Having sketched the outline of our brief history and organisation, the time has come to go into greater detail about the courses which we offer and the freetime work which we do. As you will probably have gathered there are three full-time staff at present; Charles Mussett has taught Art at Radley for ten years, myself who joined John Birkhead three years ago as a design technology graduate from Goldsmith's and my colleague Ian Haslam who has been with us for nearly a year, a graduate of Alsager. Pottery is taught on a part-time basis by Sue Haslam.

On their arrival at Radley boys are placed into one of two streams according to their

performance on Common Entrance papers. The faster stream which does two years to 'O' level comprises Shells 1 & 2, the slower stream of three years to 'O' level of Shells 3, 4, 5 and 6. These Shells with approximately 24 boys have two periods of workshops per week and they are organised on the timetable so that two Shell groups of about 48 boys come to the workshops at the same time and are divided amongst the three full-time staff. They remain with the first person for a full half-term and then move on to the second so that in a full-year one sees each group twice and each individual boy gets a good chance to experience the activities which each individual offers. At the present time Ian Haslam is responsible for what is still recognisable as the old 'Engineering' building, and I work in the old woodwork shop. Our prime aim in teaching with the Shells is to start off on a course involved in introducing them to as many different materials, techniques and processes as possible. These include wood, metal, card, paper, plastics, photography, ceramics, graphics and concrete. This teaching is done through briefs which whilst allowing pupils the maximum of freedom to impose their own personality on the project ensure that a fruitful learning situation is maintained. These briefs range obviously according to the material used — some require considerable discussion, sketching and research, whilst others are almost totally intuitive.

An example of one such brief which is fairly tightly structured is as follows:—

'Design and construct a tower not less than 90 cm high using one sheet of Daler card 50 cm x 63.5 cm. Your solution should be made using "edge to edge" or "edge to face" glued joints and should not exceed 36 sq. ins. at the base. When finished it should be capable of supporting at least three common house bricks.



Boys involved in testing towers.

Guidance

- (i) Read 'Elements of Structure' pages 119, 132.
- (ii) How many solutions can you work out with the given materials?
- (iii) Carry out tests with the glues available and record your findings.
- (iv) Experiment with the methods available for cutting and bending.

The above project is often carried out on a competitive basis to see who can build the strongest and most aesthetically pleasing structure. All thoughts and decisions are recorded in a course notebook for future reference and also to enable the inquest which is held after the testing stage (see illustration) to be more meaningful. A project of this nature is often allocated three weeks out of a twelve week term, the first double period being used to set up the brief for research and discussion. Boys then often work on the research for this project during the week in free time before the next double period which is usually devoted to actual production of the towers. The final period is used for testing and discussion on the results observed and the relevance of such tests in everyday life.

What do we hope to achieve from this approach?

- (i) The idea of experimentation, research, observation and recording of detail.
- (ii) The ability to criticise and evaluate their own work.
- (iii) Development of certain principles which can be applied eventually to any problem and material.
- (iv) Need for accuracy and care in working. Need for consideration of properties of material used.
- (v) The possibility for the individuals concerned to work in a situation which is not dominated in any way by their own pre-conceived ideas of the eventual outcome.

When a boy is nearing completion of his first year in the school, he has a far better impression of what is involved in the courses open to him and it is at this stage that he will decide on his 'O' level option for the following year. Our 'O' level course is largely an extension of the Shell course where projects are set to increase the pupil's awareness, understanding and knowledge of materials. As well as a pure materials approach, however, the group is also introduced in a far more balanced way to design activities. "Which type" reports on consumer articles help to develop further a critical awareness of the articles produced for society and discussion about this aspect of the

designer's role is always of interest to anyone whether they be aspirant designers of the future or not. We would like to think that the subject as we teach it at present could be of good use to anyone and the courses are at no point regarded as vocational. In the younger boys we are trying to develop a questioning and reasoning ability beneficial in any autonomous individual.

The 'O' level group also undergo a fairly difficult course of written work which is done as preps (minimum of two half-hour sessions per week). The questions which they are faced with range through three areas central to design work: Art, design theory, technology.

The art section covers such principles as use of colour, form, pattern and texture and techniques involved in sketching, drawing, etc. The design questions are aimed at teaching an analytical approach to problem solving where suitable, and the identification of factors involved in considering specific problems. In this section we frequently look at man in society and his use or mis-use of the environment to put the practical use of materials into perspective. The boys are required to look comparatively at certain objects from a historical viewpoint and trace their development, mentioning key influences. One question which has been popular in past years involves research into the materials, organisation and implements found in a kitchen of thirty years ago as compared with the present day. Such a topic with boys of 14 does require careful introduction, but generally they find the research interesting and the resulting information of use in understanding how many articles, processes and materials have affected the lives of people today. The technology section speaks for itself in that it provides a background to practical experience.

An integral part of the course involves visits to various factories and exhibitions which may help to stimulate or illustrate various sections of the work covered. When

this is taken together with visits and talks by guest speakers, the role of a designer starts to become more easy for a pre 'O' level boy to comprehend.

The 'O' level examination is the Oxford 079 craft design and technology paper which really is very wide in its scope, permitting work within almost any field of the creative spectrum being designed especially for schools where 'an integrated approach to art and handicraft courses is followed'. The organisation of this 'O' level with its emphasis on an exhibition by students of their work and an interview with a visiting examiner seems closely related to the methods of assessment in many institutes of higher education, a factor which the candidates are aware of and appreciate.⁵

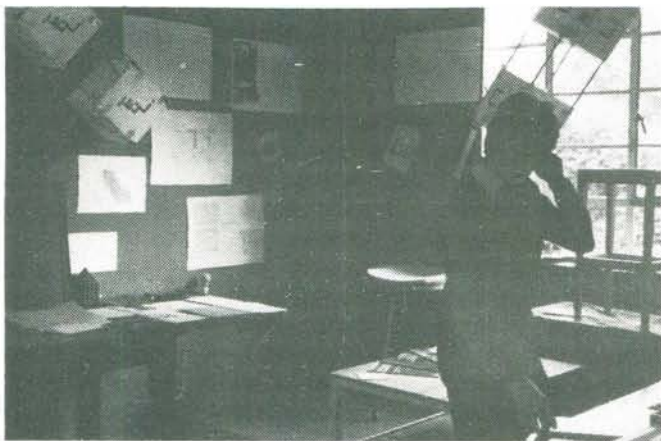
By far the most exciting area of work at Radley is that involved with the Sixth form for here we are working with groups not normally greater than about 6 boys. This obviously allows for a scheme of work organised on a highly personal basis where each boy has work tailored to suit his individual needs and interests. As much advantage is taken as possible of

- (i) the pupil's other 'A' level studies.
- (ii) his specific interests.
- (iii) contacts available through friends and family.
- (iv) his previous creative experience.

to ensure that greatest benefit is achieved from the two year course.

In essence it is really the similar sort of problems faced at 'O' level but taken to a far greater depth with the student being almost totally responsible for his own area of study and course.

The 'A' level syllabus is one which it would be an almost impossible task to cover in its entirety for essentially it is involved with experience of the elements of the syllabus to sufficient depth in essays which are set at the rate of one a week and written



An 'O' level assessment — work primarily by one boy.

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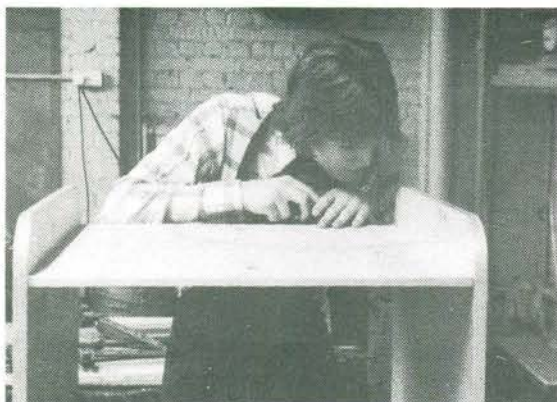
in prep. Of the boys' eight periods, one is used for discussion of this essay in a group seminar to promote the ability to discuss and argue with others about the concepts involved in that week's work. The remainder of the periods are devoted to a further course in the studying of problems and materials through projects mainly of the candidate's own choice. We do act as advisors on the spread of materials or activities which an individual should think of covering, but it is largely up to the person concerned whether he tackles a problem which is likely to have a practical solution in the form of an object,⁶ report, series of experiments, film and tape commentary or whatever. Some of the 'A' level design projects attempted so far extend from the more traditional through to activities possibly more in line with our current thinking or design.

- (i) A woodwork orientated analysis of furniture suitable for a study-bedroom.
- (ii) A centre designed and modelled to professional standards suitable for housing drama, art and design at Radley.⁷
- (iii) The problems of clearing, re-stocking, re-designing a local village pond for use as a nature area for the village school children.

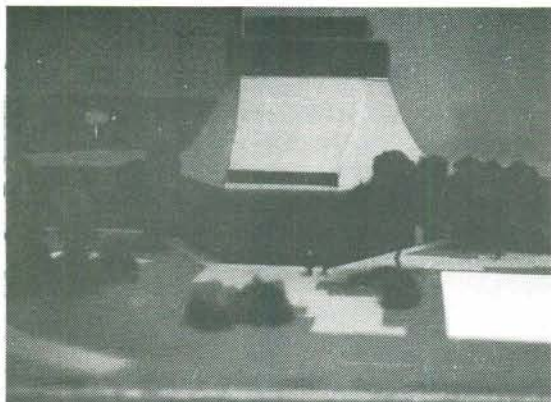
- (iv) The study of four colour separation in photographic screen printing and its effect on poster production.

It is difficult to talk in terms of specifics when looking at the benefits of a course such as design within a whole school but there has certainly been an upsurge recently in interest in all fields related to the subject especially within other subjects. Several other Heads of Departments have commented on the improvement in work on the part of a particular boy who may be using techniques for presentation which he uses in Design. Our Warden, Dennis Silk, was recently quoted as saying that for one boy in particular Design 'made his time at Radley bearable'. Tutors (housemasters) have noticed the increased interest which those studying design take in their surroundings in Social Hall. One boy in particular having set about designing library furniture totally in free time then organised others in his social to produce it. These examples are concrete and visible but as I have intimated earlier the most valuable aspect of the subject must lie in what it does to the individual in terms of preparing him for life in a technological society and even for leisure in a technological society.

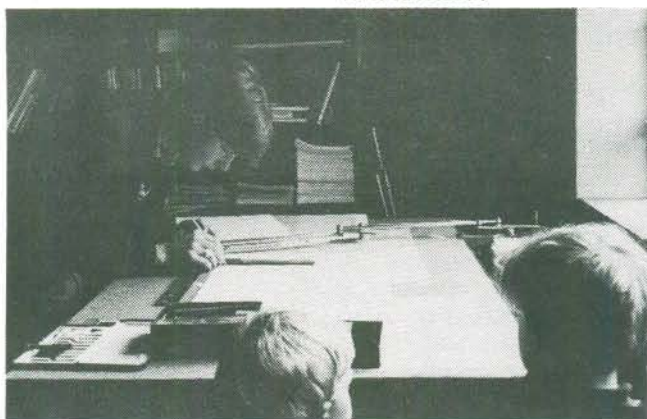
Design at Radley still has a considerable distance to go in its development and no-one is more aware of that than ourselves. We are,



'A' level boy working on a minor project in free time.



Model designed and constructed as a major project by 'A' level candidate.



LEFT: Two of the youngest spectators!



Part of Design (woodwork shop).



Design Library in woodwork centre.

however, excited by the interest shown in the subject by boys and parents, and feel that we have certain advantages at present which ought to allow us to develop further.

The major advantage has been the size of groups with whom we had to deal in the first instance. As the subject grows it will be interesting to see how our teaching methods change in order to accommodate more pupils. One spin off which we have now is what might be termed a 'pool of experience'. We have found that our sixth formers make excellent teachers especially to the younger boys in their social. With free time to occupy, the young tend to gather⁸ and watch the older boys working, and this automatically makes them more aware of what we are doing.

The provision for a new building, although still a good distance in the future, makes us more sure that the development of a true Art/Design department will be that much easier.

Independence in many respects is also a major advantage. We are aware through contact with many colleagues in the state system of the cold draught which many departments are feeling at this time with the lack of money for materials. Our own position although it may appear awkward to administrate at first is a far healthier one. Boys pay at the end of each term for materials which they obtain through a non-profit making shop run by four boys within the department. This means that we can order virtually anything we want to, providing it can be re-sold. The system has operated without hitch now for four years and will be continued into the new building where a purpose built shop will exist. The other factor related to independence is the fact that within the department we have almost a totally free hand; providing that we meet teaching commitments and free time commitments we are able to organise visits, visitors and trips at will.

We do have disadvantages as were

mentioned earlier, but personally I feel that these are considerably outweighed and the strongest evidence for this is the relative success which we are experiencing at present.