

In April of 1975 I was appointed to lead and co-ordinate the development of a Faculty of Design. During May of 1975 I made a study of the problems associated with the formation of the Faculty. In September of 1975 the Art Department, Technical Department and Home Economics Department were combined to form the Faculty. This study deals with the first year of operation. Further problems and observations associated with the formation and characteristics and consequences of change are discussed, but the main point of the Study is to identify the factors relevant to a Design Curriculum. It is essentially a preliminary report and represents only the first stage in the overall development of the Faculty.

Archway School is typical of many London Comprehensive Schools. Formed by the amalgamation of two single-sex secondary schools, it has, for approximately twelve years, been a co-educational comprehensive school, drawing children from the Borough of Islington. North Islington has a predominantly working class population of a multi-racial nature. The majority of our pupils are flat dwellers. It is an educational and social priority area — many of our children have a deprived background, their problems resulting from factors such as insecurity due to broken families and alien cultures, poor housing and the inevitable stifling and unsavoury influences of the less desirable aspects of inner city life.

For many of our pupils the school can be the only stable and on-going experience they have, so basically it is a happy place. The basic educational problems of low levels of literacy and numeracy are, of course, with us, and make progress in all fields difficult. Many of the children's problems are behavioural, making progress extremely hard work, and though it is rewarding, it is often difficult to see it as such.

Conventional teaching methods, which demand a high degree of attention and concentration are often unsuitable and unsuccessful. It seems that self-motivation is generally low and as it is so vital, it must be generated with irresistible stimuli. For a great number of our children, formal teaching situations are monumentally unsuccessful. Bare classrooms and repetitious routine are unlikely to present stimuli or accelerate experience.

We have had a successful Art Department. Its activities became quite diverse, involving the children in many different activities and exposing them to much stimulus. Personal expressive work, craft activities, interdisciplinary projects, design activities are all presented to generate ideas and promote progress through motivation. The children's response during the period that I taught Art led me to believe that with an expansion of facilities and personnel *we could offer a way of development that would be an essentially practical and outward going alternative to the academic method.*

The nature of this curriculum development is, of course, conditioned by the needs within this particular establishment. I believe that a different

The Foundation of a Faculty of Design: Towards an Integrated Curriculum

set of circumstances could mean a change in emphasis. It is for this reason that I presented a plan for the Faculty of Design to the executive. The plan was to combine the girls' technical area (Home Economics) with the boys' technical departments (Woodwork, Metalwork and Engineering) and the Art Department, to form a Faculty that would offer a viable curriculum, based on the development and exploitation of the children's creative energies.

Why a Faculty of Design, and not a Faculty that represented an amalgamation of the subjects that deal with the Arts?

There are many reasons for this decision and I would, under other circumstances, be delighted to operate the alternative; however on consideration of all factors it seemed overwhelmingly more suitable to establish a Design curriculum rather than an Arts and Humanities curriculum. The present demand for a more technological and critical attitude in order that one may deal with the complexities of contemporary life must be an important consideration. An understanding of the environment and how science and art may be applied to the solution of problems in a socially and aesthetically desirable way, constitutes radical technology, a very important alternative direction to the conventional technologies that may well have little relevance to the changes that society will experience in the last quarter of the twentieth century. I believe that a good design curriculum could help form these critical attitudes.

Teachers and Change

If one sets about establishing a curriculum with an already established staff, then the form of the curriculum is conditioned by their strengths and weaknesses. Their strengths have to be identified in order that they may be consolidated – real and vital strengths in a teacher are often easily recognised, though sometimes they may not be direct subject related qualities.

On forming the Faculty some teachers recognised a new role for themselves very quickly and established points of contact with other staff. Others did not. Specialised courses and longer periods of in-service training could have been most helpful in these circumstances – however with already meagre staffing resources and furthermore in a year of nil growth, little use could be made of such opportunities. Some teachers are deeply concerned with their area of specialisation and have, possibly, a strong craft tradition as a basis of their philosophy. As crafts tend to have responses built into them as part of their structure, it is not surprising that their practitioners tend to be solely concerned with the established order of things. I have observed that teachers who are craftsmen often show little interest in lateral development towards other disciplines.

In situations like this where the teacher has to be employed to his greatest advantage, one has to assess what kind of contribution a narrower disciplined approach may make to the whole. Curricular responsibility has to be delegated accordingly. In some instances I have decided to use the

teacher to teach his craft, with the provision that a creative programme or a design methodology is linked in by another member of staff.

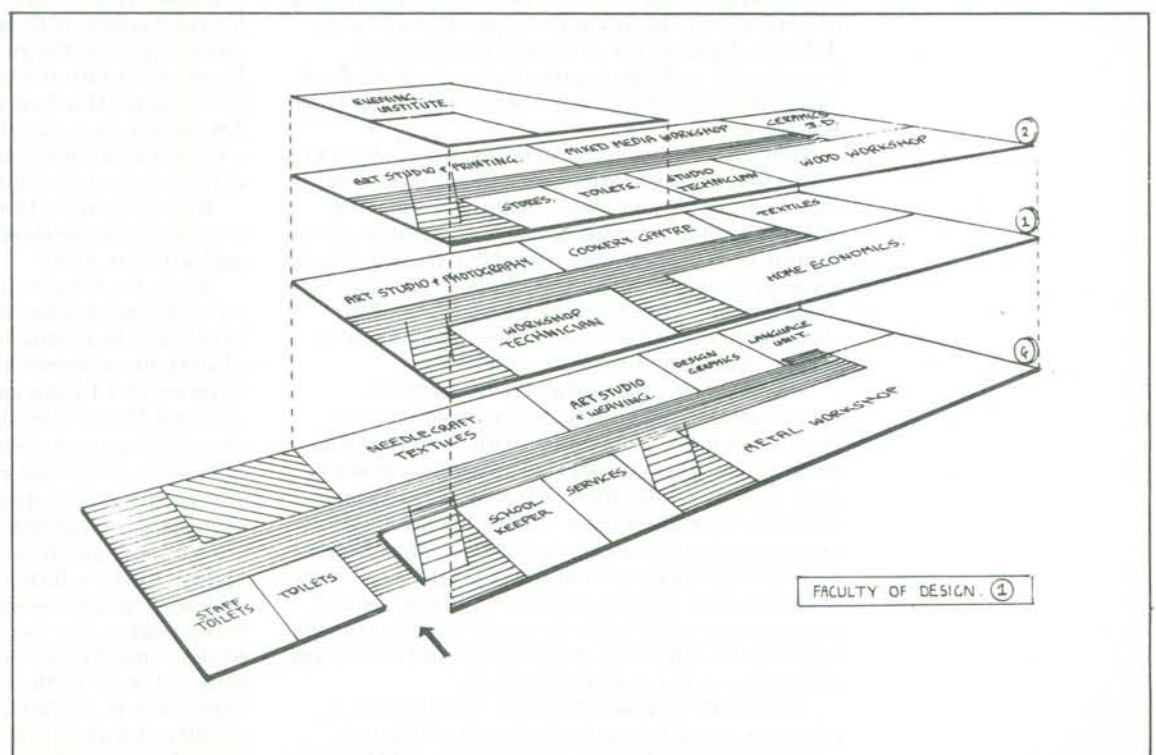
Every teacher has the potential to contribute to the Faculty curriculum; after all, the possibility of a well balanced Faculty was recognised within the specialisation and motivation of the existing departmental staff. Though one only recognises *possibilities*, I have discovered many errors in my original assessment of the teaching staff. Strength and support have come from the least expected quarters.

Some teachers had set up their own regime and withdrawn into it – this, of course, is very easy to do in a split-site school such as ours. I was worried as to how these teachers would react to change. Their first reactions were predictable – they did not want change, but having had it thrust upon them, some have become corner-stones of the Faculty, enthusiastically entering into the spirit of things. It is obviously difficult to embrace change with open arms; however, it can be refreshing to experience it.

In forming the Faculty I created many problems. Many of them can be recognised as crises of role identity and concern over power distribution.

If one has a school establishment that organises its programme, therefore necessarily its staff, on a compartmentalised basis, the power base tends to be spread widely and thinly. Each unit is captained by its supported leader. Within the body of leaders the share of responsibility may vary a great deal, though this is not necessarily reflected within the

Faculty of Design



power sharing structure, delegated to its leaders by the Head of Establishment. In most delegated decision making areas the Heads of subject departments have more or less equal power. Another level of responsibility within the power pyramid had now been created – the Head of Faculty. Each additional level of responsibility expands the hierarchy and has a tendency to reduce the amount of direct contact between bottom and top. The fairly recent introduction of additional Deputy Heads and their defined roles as implementers, has tended to reinforce the position of Heads as administrators and effectively reduced access from the lower levels to the top. Does the creation of my position as Head of Faculty complicate this process further? It seems that it does.

Progress towards curriculum development has often seemed to take second place. Personality problems prevail but after a year of operation, relationships have flourished.

Observations in retrospect are:—

- 1) All physical sources of irritation must be removed as soon as possible. Teachers *must* have the basic facilities that they require. This has been difficult in a year of financial cut-backs. Installation of seemingly small but essential things, like water supply and sinks, cost many hundreds of pounds. It is difficult to convince administrative staff that without them hardship results.
- 2) Decision making must be as collective as possible. The Faculty Head has to be prepared to spend much time listening. I have found this difficult, when I regard my vision of the scheme of things to be so clearly defined. I have had to learn to bite my tongue and give other people their say and *listen* to them and be prepared to subject my ideas to value analysis based on what they have said.
- 3) One has, at the same time, to remember one's purpose. It is not constructive to give in and modify one's aims unreasonably. It has, at times, been tempting to do just this – the pressures build up, personalities jar, timetables malfunction, discontents grow. Under-staffing, missing services, lack of resources, unannounced visitors, all seem to add up to impending curriculum breakdown and possibly mine as well! One suffers an almost overwhelming urge to drop everything, close the classroom door to the world and just teach. It is at this point that I have had to stop and remind myself of the purpose of all this effort. It is simply not good enough to slip back to what one knows is safe and easy and what comes naturally. We all know the educational placebo that keeps the kids happy and gets *you* out of the building bang on four o'clock with the minimum of preparation and commitment. Indeed we have all done this from time to time, thank God we can! However it is to admit defeat totally. If the evidence that supports one's belief is all around – the unmotivated children etc. – it snaps one out of that destructive mode. The anger that comes from such situations must be channelled into *action*. It is at this point worth remembering how

slow and unwieldy democracy can be and that power has sometimes to be used – 'it has to be done *this* way – end of argument'.

These problems are *normal* problems associated with change. I believe that the development as a whole is worthwhile, and already fruitful, but the process of change is painful. Though change in itself is not always desirable in terms of the end product, it is always constructive in terms of the conscious re-appraisal processes that it subjects us to.

As all these mentioned factors represent important considerations in the formation of an integrated scheme of work, curriculum development, *it is as well that they are recognised* as in the design process itself *information* must determine the quality of the decision.

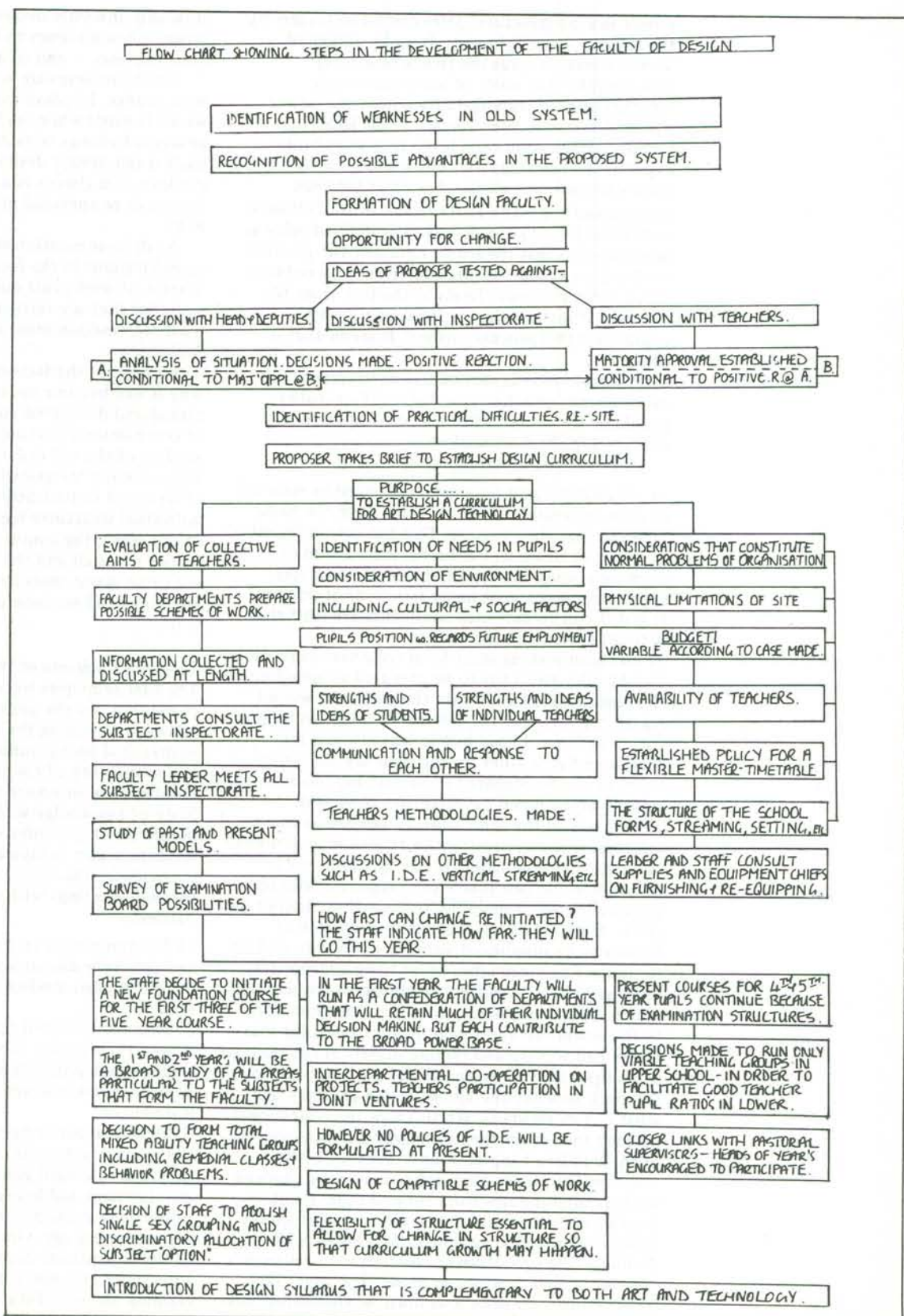
Because of the factors mentioned, it can be seen why it had become necessary, while working an agreed and developed curriculum, to work on a basis of complementary inputs rather than to abandon vestiges of the old order and initiate full change with a totally integrated scheme. The sovereignty of Heads of Departments and existence of their individual structures has been respected. The nature of our work, the common problems of teaching, is shared by us all and the extremely close contact of the three major units have nevertheless eroded these attributes and we have ended the year a sympathetic team.

Towards a Scheme of Work

The first principles to consider when developing a curriculum are the aims and aspirations of the school, embodying the needs of pupils from a multi-racial background, the physical constraints and availability of resources and a consideration of the direction of future policies as recognised by the body of knowledge within the profession – all points which contribute factors that play an important part in laying the foundation for the curriculum. The following points were arrived at through meetings with all involved and interested parties:—

- 1) Discrimination on grounds of sex will be actively and passively discouraged. Children will be expected to follow basic studies in a truly co-educational fashion.
- 2) Racially balanced teaching units will be held as a basic philosophy, though it is hardly necessary to arrange such grouping among the majority bodies, as their representation on the school roll is well distributed.
- 3) Despite much concern from parents and children, the main structure of the work of the Faculty will be broad, outward going and concerned with the development and liberal education of the child, rather than a direct preparation for work after school leaving age. Obviously the capabilities of the constituent departments could be (and sometimes are) easily directed towards vocational training aimed at future employments in the Trade and Service industries.

Flow Chart
showing steps
in the development
of the Faculty of
Design.



This is certainly not the direction we plan to follow. In concept it is too narrow, too specialised and unrealistic. In theory it cannot be justified as a satisfactory alternative to a liberal education. While stating this I must make the distinction that a great deal of our work will be directed towards later life, but directed towards adulthood through subject areas such as Home Economics, Domestic Design, Mothercraft, etc. These things are, after all, concerned with the global development of the pupils.

With unemployment currently running at one and a half millions and with the knowledge that the majority of our pupils are going to leave school with few paper qualifications and are therefore going to seek employment in the lower end of the job market, such a decision cannot be taken lightly. Nevertheless, I stand by this decision for many reasons of personal belief; most of which are reflected in the mainstream of educational policies. However the situation is a desperate one, even if it proves to be temporary. Some additional course inputs must be offered at beyond fourth year (15+ level). These have taken the form of link courses with Colleges of Technology.

4) Broad band streaming is the declared policy of the school; in each of the first three years the boys and girls are directed into seven form groups. There are three upper forms for children of higher ability and three forms for lower ability children, with the remaining form being remedial. In addition there is a group that operates on a withdrawal basis from all three years, for children, mainly recent immigrants, who are encountering English as a foreign language, and as such cannot cope with the work in a normal form. Clearly there are children of greatly different abilities – this is seen most readily in comparing standards of literacy and basic numeracy. More often than not, the children with the highest score in literacy tests do seem to be the most intelligent. Indeed it is usually these same children who are most sensitive and highly motivated (though not necessarily most expressive) in their art lessons, which is not really surprising as the making of Art, contrary to the belief of many people, is essentially a deep intellectual process. Having made this last observation I must qualify it by stating that Art, for me, does not merely exist as a tool for the exercise of intellectual process. It is more than that – it is about expression, the exercise of feeling. No amount of streaming by standards of literacy has any value to me – it is irrelevant and often counter-productive as well as socially unacceptable. The fact that different levels of ability exist in children is in itself an insufficient reason for teaching them separately. Similarly, children who show behavioural problems and who are concentrated with others of similar disposition can merely constitute a greater problem.

We have declared a policy of total mixed ability group teaching. Each group will then be made up of pupils from all levels, including remedial. It is worth remembering that no matter the

diversity of levels of ability, the children *all* have a contribution to make to the group. Personality would seem to me to be a more fruitful direction in which to look when searching for maxims or standards with which to form working units.

5) The next resolution has much to do with the things discussed in the previous two.

As preparation for the operation of the Faculty evolved, the main structure of our curriculum became obvious. We would have a foundation course giving a broad base in the first two years and continuing into the third year with a degree of balanced specialisation (reduction of study areas). A fourth year of specialised project work would follow and then a fifth year of consolidation and orientation towards public examinations. Subject area syllabuses must be designed with regard to the appropriate public examination though the examinations are not to be held as a priority in themselves. When we have been in operation long enough to identify the true content of what we offer and integrated approaches within the curriculum have been established, then we will go for a mode 3 CSE of our own design. Until then, we will use the existing system as best we can.

6) Finally, all pupils in the school, with the exception of sixth form pupils (who will have the choice) must be given the opportunity of time-tabled time within the Faculty of Design. In the first five years this has been made a compulsory feature of every pupil's timetable. It has always been my primary objective to see Art and Design established as a core subject within the school, on an equal standing with Mathematics and English. Over a succession of years I have managed to establish the importance of visual literacy and expressive experience to the school executive and have increased the proportion of participators, possibly at the expense of pupil periods but unfortunately falling short of total coverage. The Faculty now makes this possible though it can be seen as a direct result of curriculum expansion, the concept of Art now having the added dimension of Design education. Over the past year this has become a reality and will continue to be a prime factor in the philosophy.

The resolution then, is that our policy was, and will continue to be, that of establishing Art and Design as a compulsory core subject throughout the school, with a commitment to true co-educational practice with groups that are of total mixed ability and balanced racial constitution, following courses that are based on broad understanding of Art, Design and Technology, though with *auxiliary* inputs of specific vocational value in addition to the main course. All courses are to be examinable within the present structure and all pupils actively encouraged to participate in them.

Timetabling

A theoretical feasibility study suggested that this policy would be practically possible providing that

some fundamental changes in the school timetable were made. The deciding factor would be block timetabling to the Faculty, of whole year groups. Only then would re-grouping of an unstreamed nature be possible. This feasibility study proved to be an initiation into timetabling logistics, an experience that was new to me, and at first extremely difficult to manage.

Each child in the first, second, third, fourth and fifth years would spend the equivalent of one full working day each week in the Faculty. They would attend as a whole year group, their time allowance being made up of two separate sessions, for example the first year would come to us for the entire afternoon on Monday and morning on Thursday. Sixth form pupils would attend lessons on an optional basis at any time during the week (subject to my approval) at times when appropriate teaching Staff and resources were available and when viable groups could be formed or for individual research and additionally at any time, providing they were self-motivated and prepared to present themselves occasionally to a member of Staff on a tutorial basis.

The most satisfying aspect of block timetabling of this nature is the tremendous amount of flexibility that one has because of it. The beginning and ending times of the sessions obviously have to be the same as the main school building because of lunch provision etc., but in all other respects I am free to structure the sessions in any way that I wish.

Block timetabling offers the real advantage of being able to choose from large numbers of internally timetabled permutations. It allows one to make the most of often inadequate facilities and meagre staffing, the possibility of radically changing a morning's structure without notice, sometimes to compensate for staff absences, sometimes to facilitate a visiting lecturer or to whisk everyone out to an exhibition. In addition to our internally timetabled structure we have shared some integrated teaching experiences — not many, but one could not expect much of this sophistication in a first year. However with most of our problems behind us, the coming year should offer much more. It is here that the most significant advantage lies — above all one must have a situation flexible enough to make teachers feel that if they wish to follow such a course, then the possibility exists. If any part of our internal structure stands as a barrier to their plans, then it can be removed.

I believe that to have a timetable allocation in block form that allows one flexibility is very desirable. It is reassuring to know that the possibility for change is there, however it must be used with some discretion. I have already dealt in some depth with teachers attitude to change and those reservations can apply in this instance. Equally one could confuse the children with an excess of zeal in rewriting timetables. Changes must only be made when they are necessary and desirable. One must use the block timetable as a tool to build

Time-tabling.

	MON. A.M.	MON. P.M.	TUES. A.M.	TUES. P.M.	WEDS. A.M.	WEDS. P.M.	THUR. A.M.	THUR. P.M.	FRI. A.M.	FRI. P.M.
YEAR GROUPS	4 TH YEAR	1 ST YEAR	3 RD YEAR	5 TH YEAR	5 TH 6 TH YEAR	2 ND YEAR	1 ST YEAR	1 ST YEAR	2 ND YEAR	3 RD YEAR
HEAD OF FACULTY HEAD OF TECH TEACHING DESIGN + MIXED MEDIA	F. DESIGN + THEORY	F.	F. F.	5 TH YR. TECH. GRAPHICS.	DESIGN + THEORY.	MIXED MEDIA DESIGN + THEORY.	MIXED MEDIA DESIGN + THEORY.	MIXED MEDIA DESIGN + THEORY.	MIXED MEDIA DESIGN + THEORY.	MIXED MEDIA DESIGN + THEORY.
TECH. DEPT. TEACHING WOOD WORK + TECH. DRAW.	CRAFT WOOD F.	GROUP 1 DES/TECH.	GROUP 1 WOOD/W.	5 TH YR. DESIGN + TECH. WOOD	6 TH FORM 1 ST LEVEL TECH. GRAPHICS.	WOOD/W. GROUP 7	F	DES + TECH. WOOD/W.	WOOD-W. GROUP 2	DESIGN/TECH. WOOD SKILLS GROUP 2
TECH. DEPT. TEACHING METAL WORK + ENGINEERING.	THIS TEACHER IS ALSO HEAD OF 4 TH YEAR.	GROUP 2 DES/TECH.	GROUP 2 METAL/W.	5 TH YR. DESIGN + TECH. METAL	F. ENJ./INH. PRACT. THEORY	METAL/W. GROUP 9	← METAL/W. GROUP 5	DES + TECH. ENJ./INH.	F	METAL-W. GROUP 6
TECH. DEPT. + ART DEPT. TEACHING JEWELLERY.	ORBITAL + ORBITAL WITHDRAWN WITHDRAWN	GROUP 3 DES/TECH.	ORBITAL GROUP 6 WKS. ON WITHDRAWN BASIS				JEWELLERY + ORBITAL DESIGN GROUP 6	ORBITAL WITHDRAWN AL GROUP.		ORBITAL - GROUP ON WITHDRAWN BASIS
SCIENCE + TECHNOLOGY SCIENCE DEPT.									PREP.	PREP.
ART/TECH DEPT. FIRST FACULTY APP. TEACHING 3D DESIGN	CERAMICS AND 3D DESIGN	F	GROUP 3 3D DESIGN	5 TH YR. CERAMICS.	5 TH YR. 3D DESIGN.	3D DESIGN GROUP 4	ART GROUP 7	ART GROUP 1	MIXED - MEDIA DESIGN GROUP 3	MIXED - MEDIA DESIGN GROUP 3
HEAD OF ART DEPT. TEACHING GENERAL ART + PHOTOGRAPHY	F. F.	GROUP 4 ART	GROUP 4 ART	F.	6 TH YR. 1 ST LEVEL ART.	ART GROUP 5	F.	ART - GROUP 2	ART - GROUP 7	ART - GROUP 1
ART DEPT. TEACHER GRAPHICS + PRINTING.	4 TH 6 TH YEAR ART	GROUP 5 ART	F	5 TH YR. GRAPHICS PRINTING.	5 TH 6 TH YR. O'Y'A LEVEL GRAPHICS.	F.	ART GROUP 8	ART - PRINTING	ART - GROUP 8	ART - GROUP 2
ART DEPT. TEACHING GENERAL ART + WEAVING + TEXTILE	ART AND GENERAL TEXTILE DESIGN	GROUP 6 ART	GROUP 6 ART	5 TH YR. WEAVING + FABRIC D.	5 TH YR. GENERAL ART.	ART GROUP 6	ART GROUP 9	F.	ART - GROUP 9	F.
HEAD OF HOME ECONOMICS TEACHING THE SAME.	4 TH YEAR GIRLS HOUSECRAFT.	GROUP 7 H.E.	3 RD YR. GIRLS HOME ECONOMICS MOTHERCRAFT.	F.	6 TH YR. HOME/ECON. HOME ECONOMICS MOTHERCRAFT.	ORBITAL WITHDRAWN GROUP 8	COOKERY GROUP 1	F.	H.E. GROUP 4	H.E. GROUP 7
H.E. DEPT. TEACHING COOKERY.	P. F.	NON ENGLISH SPEAKING UNIT COOKERY	GROUP 8 H.E.	5 TH YR. H.ECONOMICS	5 TH YR. HOME ECONOMICS MOTHERCRAFT.	H.E. GROUP 1	COOKERY GROUP 3	H.ECONOMICS COOKERY.	H.E. GROUP 5	HOME/ECONOMICS 3 RD YR. GIRLS.
NEEDLE/TEXTILES + SOME HOME ECONOMICS.	F. 4 TH GIRLS TEXTILES	GROUP 9 H.E.	3 RD YR. N. GIRLS NEEDLECRAFT + TEXTILES.	5 TH YR. N/CRAFT.	6 TH YR. N/CRAFT + TEXTILES.	N/CRAFT GROUP 2	F.	N/CRAFT TEXTILES.	N/CRAFT TEXTILES.	F.
NEEDLE/TEXTILES MOTHERCRAFT.		GROUP 9 H.E.				N/CRAFT GROUP 3	N/CRAFT GROUP 6	F.	ORBITAL - WITHDRAWN H.E. GROUP 11	3 RD YR. N/CRAFT.

THE FACULTY TIMETABLE - JULY 1976.

confidence and stability because it seems that one cannot have innovation and curriculum growth without it.

The Curriculum

Curriculums can be theorised and set down on paper – perhaps if one was truly sensitive to all the stimuli that condition their success in practice then one could short-circuit the inevitably long process of evaluation that leads to its value judgement.

In my own particular case I was unable to do this. As I have mentioned elsewhere, curriculums grow, indeed they must if they are to be relevant. They must be designed by all the participants. It became obvious that the only practical route lay in setting aside all but the basic policy associated with working together following much the same syllabuses as before the merger and resolving to structure a curriculum as we go.

This has been in effect what has happened and it has been as well that circumstances dictated it.

We proceeded to teach within the framework of our original departments – a reasonable course of action, considering the high degree of specialisation among the staff.

This is a problem that must be overcome – overall teacher specialisation constitutes a great weakness in the formation of any faculty. It erects barriers that form real division in understanding and interest between (and even within) disciplines. Happily we are seeing greatly increased awareness of this in Teacher Training. I need teachers able to link or knit the disciplines together. They bring a true perspective to the meaning of things within the Faculty. Much contribution has been made by good students on teaching practice.

The Art Syllabus

Art teaching in the past two decades has been very much determined by the individual teachers, most Art departments being comprised of a number of individual studio/teacher units, hopefully communicating among each other in the department and sometimes working towards agreed, though often tenuous policies. More often than not this has seemed to work – certainly crises are avoided though as such tenuous policies are by their nature conservative, this is hardly surprising. Radically progressive programmes may exist within the individual studio/teacher unit but rarely show themselves as policy unless one has a more determined agreed structure.

This Art Department has been no exception. The overall policy has been to run a syllabus that married as far as possible the philosophies of Craft Education, Basic Design and Child-orientated approach. This is a reflexion of the diversity of philosophies of the teachers involved and possibly the systems of training that they experienced. There is no point at all in devising a highly structured syllabus unless you are all committed to a definite direction and if you are not, then it seems to me that, at the least, it should structure the elements that are held in common belief and possibly no more than that. In this vein, you are likely to have a syllabus that can act as a vehicle for safeguarding consistency in basic standards, though at the same time giving sufficient room for teachers to slot in their personal inputs and so prevent large-scale conformity. The secret (if there is one) to running a successful Art department seems to be not in the direction of syllabus writing, but in staff selection. The team is the key to it all.

At the point of amalgamation with the technical departments, the syllabus, or outline of agreed

DEPTS.	ART.	DESIGN + TECHNOLOGY	HOME ECONOMICS.
TERM ONE	BASIC DESIGN / DRWG + PAINTING.	SKILLS AND PROCESSES, WOODWORK.	COOKERY.
TERM TWO	BASIC DESIGN / DRWG + PAINTING. PRINTING.	BASIC DESIGN + MIXED MEDIA.	NEEDLECRAFT + TEXTILES.
TERM THREE	BASIC DESIGN / DRWG + PAINTING.	SKILLS AND PROCESSES, METALWORK.	HOME ECONOMICS.
ASSESSMENT AND REPORTS.			
TERM FOUR	BASIC DESIGN / CHRISTMAS PROJET.	SKILLS, PROCESSES + PROJECTS, WOOD/WK.	COOKERY.
TERM FIVE	BASIC DESIGN / 3.D. (POTTERY)	BASIC DESIGN + MIXED MEDIA + PLASTICS.	NEEDLECRAFT + TEXTILES.
TERM SIX	BASIC DESIGN / 3.D. (POTTERY)	SKILLS, PROCESSES + PROJECTS, METAL/WK.	HOME ECONOMICS.

* TABLE ONE SHOWS THE PROGRAMME OF STUDY OF ANY BOY OR GIRL – THROUGH THE FOUNDATION COURSE.

** TABLE TWO SHOWS THE DISTRIBUTION OF THE PUPILS THROUGH THE FACULTY. BOTH THE FIRST YEAR AND THE SECOND YEAR ARE DIVIDED INTO NINE EQUAL GROUPS.

FIRST YEAR (3 SESSIONS PER WEEK)			SECOND YEAR (3 SESSIONS PER WEEK)		
SESS. 1	SESS. 2	SESS. 3	SESS. 1	SESS. 2	SESS. 3
1 ART	TECH	H.E.	ART	TECH	H.E.
2 ART	TECH	H.E.	ART	TECH	H.E.
3 ART	TECH	H.E.	ART	TECH	H.E.
4 TECH	H.E.	ART	TECH	H.E.	ART
5 TECH	H.E.	ART	TECH	H.E.	ART
6 TECH	H.E.	ART	TECH	H.E.	ART
7 H.E.	ART	TECH	H.E.	ART	TECH
8 H.E.	ART	TECH	H.E.	ART	TECH
9 H.E.	ART	TECH	H.E.	ART	TECH

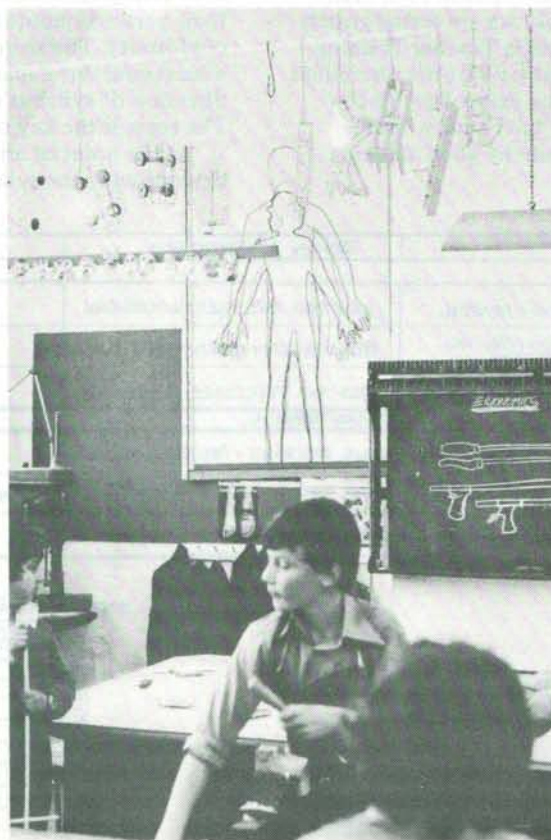
contents covered the basic design foundation of the first few years, then gave an indication of the areas of study to be covered in the pursuit of personal development. I shall present a heavily edited version of the syllabus within the following text.

It is essentially simplified to bring sections of detailed qualification relevant to its administration into general headings. It is a very commonplace syllabus and it is not presented for the purpose of analysis or evaluation but to show its conceptual significance as being the nucleus of the Design Curriculum that we have operated for the past year.

The syllabus is designed to give the children a basic understanding of the fundamental elements comprised in the development of a piece of work, in order to encourage a creative approach, based on a firm structure of visual language and a developed sense of awareness of their world.

The course for the first three years is a general course, where each pupil will experience working with the four art teachers using the materials and methods of working which are available in each room. In the fourth and fifth years pupils will be able to specialise in any of the specialist areas of painting, and drawing, printmaking, textiles, ceramics and photography. Drawing and painting will be basic to all these areas.

*3rd Year pupils
practical activity
in ergonomics
mixed media
workshop.*



First and Second Years

Tone

Colour Objective use of colour, subjective colour, expressive colour. Related exercises in the development of colour through observation and expression of ideas.

Line

Form Basic Elements of form.

Texture

Scale Developing a sense of awareness of the scale of things in relation to man.

Space In all aspects of the work outlined here a variety of media and methods will be used, through related exercises and pupils' personal response to the problems involved.

Third Year

The Human Figure Drawing the figure from observation, scale, proportion, structure.

The figure in relation to the environment.

Figures in motion, figures in relation to man-made and natural objects.

The Environment The home, the city, urban landscape, traffic, lifestyles, shopping, entertainment, occupations. Quality of life, pollution, overcrowding, housing. Advertising, influences, importance, need.

Fourth and Fifth Years

Examination courses begin. Pupils will be divided into four groups, according to choice wherever possible, in which they will be able to specialise in one of the following.

- Painting and drawing
- Print-making/graphics
- Ceramics/three dimensional work
- Textiles
- Photography

Drawing from observation and in preparation for the development of ideas is considered a priority, whichever the choice of specialisation.

There is no specific area of consideration stressed for the examination, except that pupils are to develop their ideas, through a combination of observation, creativity and their natural intuitive response to the stimuli provided in their visual surroundings and that they should be encouraged to understand the use of materials and explore every avenue of expression to make their work visually exciting and interesting.

The programme of work carried out in the first three years will be developed in depth, through the expertise of the staff, to devise lessons which are appropriate to their specialisation. Perhaps the most important consideration that has been borne in mind is the fact that this syllabus, though little more than a basic framework, represents the agreed policy of the teachers involved and that they all supplement it with their own individual contributions of craft expertise and personal expression.

The Extension of the Art Department Syllabus

The day by day running of the Art department is now in the hands of my Head of Department, formerly one of the teaching staff of the department. He has extended the limits of his syllabus as far as his material resources will allow him. His brief is to maintain Art as a core subject and co-ordinate the efforts of his teachers accordingly. He does this most efficiently but his resources are so stretched to fulfil his brief that expansion towards a fuller design curriculum is not possible from his direction.

It is from the Technical Studies Department Syllabus that the necessary development towards a Design Curriculum have taken place, however not with the existing Technical Department Syllabus. First of all a reappraisal was made of existing and likely resources and then they were considered within the context of the all-over philosophy of the Faculty. Only then could a meaningful syllabus be produced. The Technology syllabus could be stretched towards the desired parameter and made complementary to the Art syllabus and then, hopefully, we would have a curriculum which, though it may not be totally integrated in the physical sense, in concept its complementary nature would determine that the work is an interdisciplinary enquiry, sharing the same methodology but at its extreme poles existing as an independent research.

An Analysis of Technical Studies and an Evaluation of its Component Parts

Technical studies in this school have followed the general model of activity common to that which could be found to be operating in most secondary establishments prior to the recent movement away from Craft Education and towards Design and Technology.

I can best illustrate this point by taking an initial look at my own Technical Department as it was before we changed it to a Design Education curriculum. For reasons of clarity and objectivity I list the features of the methodology.

- 1) Materials for construction were limited to those generally acceptable in Craft, Woodwork, Metalwork and Engineering.
- 2) Processes for their use were limited to the accepted *methods* of the crafts and these were taught sequentially.
- 3) The different craft methods and materials were kept strictly separate and the *specialised* technology of each one was *taught separately*. Some compensation for narrowness of direction was achieved by timetabling pupils into each area for block courses.
- 4) Theory was confined to book-based activities relating to the skills, tools and materials of the crafts.
- 5) The course was almost exclusively work-shop based, emphasis being first of all on skill acquisition and understanding of techniques.

6) Technical drawing was studied as a separate component of the course.

7) *All* practical projects were derived from provided patterns or models.

8) The relativity of projects was based upon the skill and technique required and was therefore often irrelevant to the rest of the child's education, environment or interest.

9) More advanced work followed the same pattern but simply required higher degrees of skill and further techniques.

The outstanding feature of such a course is that at no time is a pupil exposed to the intellectual activity of finding out the quality of materials for himself. He was always presented with the solution (invariably a poor solution) and then asked to carry it through. Even if the situation arose where he could solve a problem himself he would always be limited to a uni-media answer. How many artifacts are manufactured from only one material?

The pupils were not particularly unhappy with this system. It did, after all, mean that the course was almost exclusively practical activity in work-shops. The boys always show little desire to spend time in planning activities. This has constituted a great problem to me – many pupils see the design activities as a hindrance to practical activities. This is a very understandable reaction. Firstly, it has been the feature of the system and they know no better; secondly, the workshop is a great change from the classroom. For the majority of our pupils a practical class is something to look forward to. I am sure that to many children its fascination is that it is representative of the adult world. It has its own type of discipline which is easily understood in terms of efficiency, comfort and particularly, safety. Work allocation takes the same form as that in a factory, noise and smells prevail, specialist vocabulary is used and, most importantly, results of effort can be seen and touched and taken home and may, occasionally, even be useful!

I would not think of depriving the pupils of this practical experience – there are many highly desirable educational motives for its justification. However, if such strong motivation is generated, an excellent vehicle exists on which to base an alternative *developmental* course towards my aims in education.

Faced as we are with pupils who suffer the social deprivation of life in an inner city environment and in particular with a large number who show symptoms of acute behavioural problems or low ability levels, the practical methods that are the foundation of the Faculty could form a much more successful system than the conventional classroom approach. The evidence of a year of operation certainly endorses this belief. This does, of course, depend on the curriculum being reorganised to make it further reaching in terms of its technology and its intellectual content and committed to involvement in integrating the standards of the other subjects. Literacy and numeracy are as much

our problem as the English and Mathematics departments.

What, then, are the fundamental changes that can bring Technical Studies out of the Craft syndrome and make it a thinking man's subject?

They are the substitution of ideas and decision making as the central activity and the role of skills and technology as the means to adequate solutions of problems, and the realisation that the problems do not necessarily demand a conventional solution. Craft responses are extremely useful but are not always the only desirable means to the solution. Design and Technology is an adequate activity title to describe this activity but Design Education is the vital component in it.

One has first of all to understand that, contrary to the belief of many laymen, the object of Design Education is not to produce designers but to develop people's attitude towards their environment as a whole, through the experience of decision-making.

In order to be able to solve even a simple design problem, certain qualities are necessary and a successful design course must give opportunities for pupils to develop these qualities. Some of these qualities are intellectual, the ability to analyse a problem and synthesise a solution. Some are sensuous, the ability to be aware of the needs of others, to use materials in ways appropriate to their nature and to evolve solutions that are truly functional.

Function has to be seen in its widest interpretation. It is not enough that useful artifacts merely work — social and environmental factors, when relevant, must be recognised and considered. Aesthetic factors have equal importance with any other elements of the function complex. Unfortunately, children, like the majority of the adult population seem to think that visual qualities in decisions and objects are merely ornamentation and of secondary importance. Design courses must establish at their onset that form and function are inseparable, that appearance and in particular, quality of form in three-dimensional objects are part of the function and that pupils must be able to make value judgements on the qualities of form as well as the correct identification of 'need' and performance evaluation of the 'use' elements.

To achieve this teachers and pupils alike must realise that an understanding of the elements that make up the basic visual language (visual literacy) must be studied and must be regarded as having equal importance with the acquisition of skills and techniques with materials and processes.

The Design and Technology Syllabus, Design Section

Having discussed, in some detail the historical background, present situation and philosophy by which I evolved the components of a Design Syllabus, I shall now present my own particular syllabus. I do not have an ideal situation for curriculum growth — such situations must be rare

indeed. I suspect that they do not exist at all. Everyone faced with such a situation must have problems, most of the problems will be common or normal problems, some however are always particular to individual circumstances and locations.

The conditioning factors and problems have been discussed at length at various places throughout the paper and they influence its form, none more so than the Art Syllabus, which, as I have stated, is regarded as the core subject in the Faculty. A comparison of the Art Syllabus structure with the Design Syllabus will show obvious similarities, particularly in the complementary nature of the topics. They are meant to run concurrently, the intention being towards mutual reinforcement of study and therefore greater understanding. At their extreme poles, the activities preserve their own identity and individual objectives but in the central contact area cross-fertilisation of skills and ideas are encouraged.

This programme runs concurrently with regular skill acquisition and process technology sessions in the following Craft areas.

Woodwork
Metalwork
Jewellery
Ceramics

Formal craft skills are taught by the existing Technical Staff and we regard their acquisition as being of crucial importance to our Design Studies, as they are practically orientated much of the time and solutions must not be limited by a lack of practical skills, e.g. established jointing systems are not the only way of joining wood to wood, but they are often the most appropriate. Whenever possible the skill and theory should be designed into a meaningful project, if possible giving the child a tangible or useful end product. However ideas for personal projects must first be submitted to a process of Design, no child being allowed to enter the practical stage without submitting an Ideas Sheet and a Working Drawing, expressed according to his ability. The concluding part of all projects must be the child's own write-up of the details of his process and his assessment of the end product. Examples of the complete process — ideas, working drawings, solution and write-up are to be displayed in workshops as much as possible.

Design

Years one and two are introductory and explanatory for both the first year Design and Technology course and the various other option courses. No distinction is made between activities in workshops and drawing and theory. The children must be persuaded to realise the activities are inter-related and dependent upon each other, and consequently are equally important and, hopefully enjoyable.

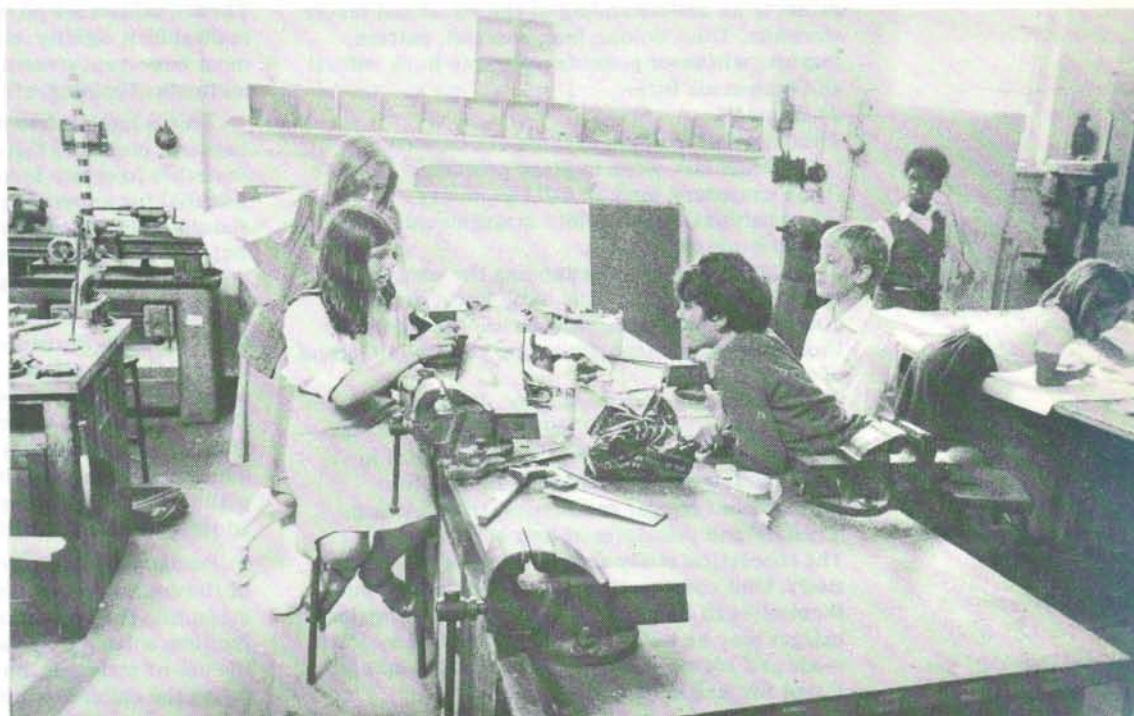
An Introduction to Technical Studies

1) What we do in the Technical Department and an explanation of the areas of study and how they link up with each other and with other subjects in the school.

2) An introduction to the workshops, workshop procedure, location of materials and tools, use of

machines, Safety, identification of hand tools and naming of their uses. Demonstration of simple hand tools, use and reasons for building skill in their use. Opportunity for experimentation. The importance of drawing as a means of communicating and testing ideas. An opportunity for the children to express their ideas in drawing, e.g. pictorial alphabets, dog

*First year pupils
at construction
exercises in mixed
media workshop.*



*First year at work
with enamel in
mixed media
room.*



exercising machines, apple picking tools, tower, etc. (leaning heavily on the work of Edward de Bono).

Basic Visual Grammar and Design Foundation

1) The most important link with the Art Syllabus towards development of personal language of visual communication including exercises designed to promote an understanding of the visual and tactile elements. Tone, colour, line, contrast, pattern, texture, whenever possible related to both natural and man-made form.

2) Shapes

Thinking and working in three dimensions.

(a) Elementary work in plane geometry.

(b) Elementary work in solid geometry.

(c) Analysis of objects into arrangements of regular geometric forms.

3) *Measurement* Understanding the concepts of measurement when dealing with linear and three-dimensional problems. How to use the standard tools of measurement. Inventing your own method of measurement.

4) *Construction and Mechanics* Drawing and experiment related from nature into man-mades – spirals in shells and plants, the helix thread in mechanics, levers and pulleys. Construction properties of regular geometrics (triangulation, 'crystals' and principles of unit construction). The theoretical study should not be a 'classroom' study. Unit construction, triangulation, etc. lend themselves to first hand experiment – towers and bridges may be built, constructional toys may be made and played with, geometric shapes may be tested for weight support, et.

5) *Materials* Taking each material in turn – paper, plastic films, card, board, wood section, laminates, wire, sheet metal, rods and tubes, plastic, clay, plaster, cement, concrete (and including found or discarded materials). The pupils must engage themselves in experiments designed to familiarise themselves with the qualities of each material. These qualities are *physical properties* such as malleability, rigidity, etc., *qualities of surface* and most important *structural qualities*, strength, methods of joining, etc.

This is intended to establish the relationship between ideas and materials, the suitability of materials to create form and the suitability of a material for a specific purpose. Common usage should be included as a theoretical component, but perhaps on-site inspection could be possible, e.g. tubes as scaffolding, concrete in house building.

6) *The Design Process explained* Where to go for information. Problems, research, ideas, development, selection, planning, production, evaluation, solution. Drawing as an aid to developing ideas – the rough ideas sheet and the working drawing. Basically a means of communicating the necessity for planning before making and the instance of the adoption of the principle for all further work.

7) *Problem Solving* This must form a great part of the course, and is the testing ground for measuring the success of the main basic study area. Problem solving exercises may not always involve the use of materials, but it is inevitable that most do, as the children must not form a concept that

From
'Understanding
Materials'
programme in
mixed media.



problem solving and practical work are divorced from each other. Problem solving situations should have some relation to the pupils environment or interest and experience.

This programme should be flexible in timing but nevertheless should be completed by the end of the school year. Sections 1-6 should be dealt with in order but Section 7 (problem solving) represents a certain type of activity that is introduced frequently throughout the course.

To this point the course of study has been a compulsory feature of every boy and girls timetable. Hopefully next year, resources and staffing allowing, I will extend the period to the end of the third year. This will be the limit, however – continuation into the fourth year and above will have to feature as an option. I cannot find any additional resources.

Having established Art as a core subject, this commitment has to be honoured first in terms of resources and staffing.

Third and Fourth Year Design Course

Supporting and complimentary studies in skill acquisition and process technology continue, however their nature changes quite radically in some areas. Specialist activities in crafts such as jewellery and ceramics cease to exist in their own right and are absorbed into the Mixed Media area, which along with wood and metal contributes the three workshop activities. It is at this point that greater emphasis is placed on machine processes. Craft based studies continue but engineering is introduced and by the end of the fourth year pupils will be almost wholly engaged in engineering skill acquisition. The wood area continues with the craft approach but more emphasis is placed on individual projects than class instruction in order that pupils may practice the process of developing ideas through to fruition. The Mixed Media workshops encourage the combination of materials and the non-craft use of materials. The Mixed Media area is very important indeed – it is in some respect the resources centre for the department. It is also the experimental centre, the Art Studio and the practical area for the Design Syllabus which continues at the beginning of the third year with –

8) *Function* A study through problem solving briefs and design analysis of products. A study of appearance related to function and culture. The practice of economy of material – *achieving results from the least.*

9) *Measurement related to human beings* An introduction to Ergonomics, how to show information, how to collect information, practice projects with test rigs (variable hand controls! Chairs!). The problems of the disabled and the elderly, how personally engineered products can overcome manual difficulties. Communicating information, symbols, etc. Symbolic representation of commands – push, pull, twist, lift, etc.

10) *Related Science* A programme of science in technology, workshop based but with considerable

theoretical back-up. Dealing initially with the elements: water, wind sun, their relationships to technology, effect on the use of materials. The mechanics employed in the concepts of alternative technology including water turbines, wave formation and erosion. Water transport, simple hydraulics, windmills, kites. Sailing and transport in general. Wind resistance and streamlining. Wind problems in the urban environment. Effects of extreme exposure to heat and cold on materials and structures (expansion, contraction, change in physical properties). Sun and the organic cycle, use of the sun in alternative technology (solar energy). The motivation behind this input comes from an awareness that the pupils do not relate science to technology, which is really not surprising. They are always taught as separate subjects and the methods of presentation are very different. We are hoping that this scheme will do something towards correcting this problem.

The project will go on to consider distribution of world resources and trace origins of the common constructional materials and how transport refinement and distribution are achieved.

11) *Model making* This activity is closely linked with the previous project and they will run concurrently so that science-related studies may be tested in scaled down 'real' situations. Also such an intensive project needs to have direct practical links.

12) *The Environment* Project work in the community, contacts through Primary Schools, charities, welfare services planning the urban environment, the work of the architect, civil engineering, local government services. The visual qualities of the environment including basic projects, street surveys, advertising, how many people manage to express their personalities through their homes. Relaxation, design for play (adventure playgrounds, primary schools).

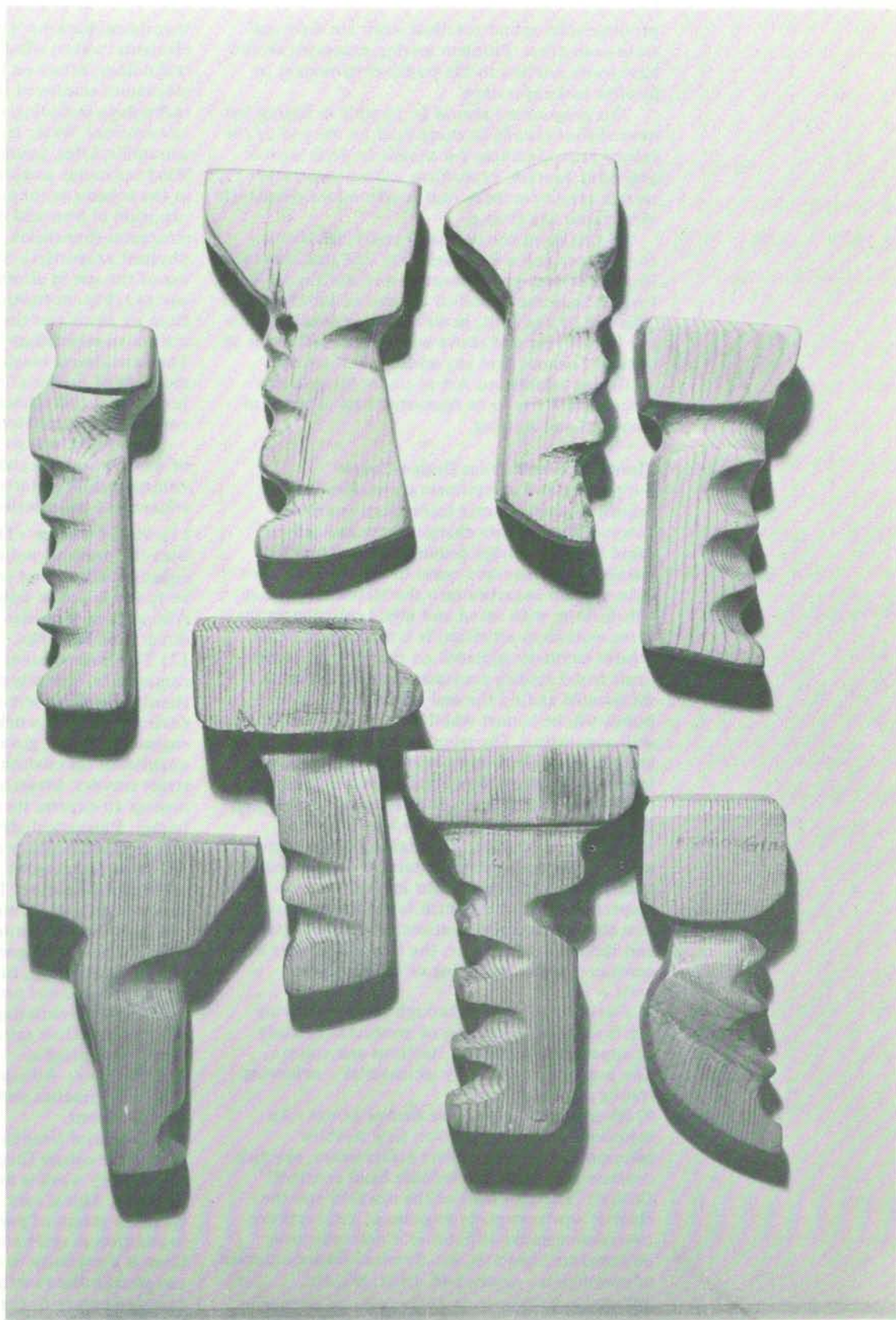
13) *How things work* Further mechanics of a more sophisticated nature. This is mainly a theoretical component, with demonstrations.

14) *Further Science and Technology* With help from the science department, an introduction to plastics technology, further workshop practice, survey of consumer products in plastics, designs for plastics (differentiating the individual characteristics of types and their suitability for specific purposes) safety with plastics.

15) *Concrete* All aspects of its use, potential, workshop practice and technology of additives and reinforcement.

16) *Technical Graphics* Throughout the second half of the course (beginning at third year) much preparatory work is done in the area of Technical Graphics. This is very necessary – *drawing* is the common means of presenting and testing ideas, in addition as skills and technology are built up, there is a necessity to communicate in an exacting and standardised method. The scheme of work is complementary to the Design Studies as projects often demand use of such graphic factors. Great

3rd Year
Ergonomics
programme in
mixed media –
handles designed
for specific
purposes.



differences exist in the level of understanding and accomplishment as indeed they do in all methods of communication. The programme covers:—

- a) Basic principles
- b) Layout
- c) Quality of presentation
- d) An insistence on principles of ideas sheets and working drawings.
- e) The formal methods of technical drawing.

Advanced work in technical graphics follows as an examination option course in the fifth year.

At present the Design Syllabus goes no further than the end of the third year. The examination structure that we have at the moment dictates that specialised option work must be intensively studied in this last year. The second half of the course is still very much untried as only certain components have been used with the present pupils in third and fourth year (necessary because they did not have a two year Design foundation, only a craft course). The suitability of the complete syllabus and its relationship to the Faculty curriculum as a whole will not be known until the present second year have completed their remaining half course.

However as a compromise programme I am happy with it and am well aware that nothing is irreversible. Experience of such great change has made me less conservative. Whenever I put together a chain of decisions I try to build in a facility for change in case it should be needed. Curriculums grow — they cannot be entirely manufactured.

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