

Reviews

The Art of Print Making

Erich Rhein
London: Evans Brothers £5.95

What a well-produced and most useful book this is. The market seems to be flooded with material on the subject of Print Making and one would have thought that saturation point had been reached long ago, but one can only confess to a profound admiration of this work and wish it the success it deserves.

Erich Rhein presents his readers with an informed account of hand printing that is delightfully simplistic, while at the same time being authoritative, and, as the sub-title explains, it gives us 'a comprehensive guide to graphic techniques'. His style is pleasant and quite inviting so that we are invited to try some basic and new techniques while at the same time sharing artistic experiences with him. I like this approach. It helps to build-up confidence, not only in the amateur, but in the more experienced student and artist, and prepares us for the graphic adventure ahead.

The book itself abounds with technical ideas and methods of graphic reproduction, and is profusely illustrated with examples demonstrating these. What delights me, in particular, is the variation in the size of these illustrations, quite small examples being juxtaposed with charming spontaneity, others sitting sedately on a whole page. All extremely well chosen and satisfying.

It is a step-by-step book, one that combines serious teaching with a tongue-in-cheek liveliness and almost carefree attitude that has tremendous appeal. Yes, this book is a winner. It has been prepared and presented with real professionalism, deserves to be acclaimed and should be highly successful.

John Lancaster

Developments in Art Teaching

Terence Wooff
London: Open Books £1.77

This book was published by Open Books, in their excellent series *The Changing Classroom*, prior to the 'Core Curriculum' debates that took place in the Spring of 1977, and yet I doubt that many of the people who took part had read it. If this were so, then it is a pity for Wooff stresses the importance of art in the secondary curriculum as a source of achievement and vehicle for personal discovery for all maturing adolescents, and some insight into the value of this subject would have enriched their curriculum discussions.

Many educationalists push art to one side and lay stress on academic scholarship. But what is more important than a knowledge and experience of using

ideas and materials in the production of good design? Our future citizens will be responsible for planning 'living' and 'work' environments. They need to develop an awareness of what constitutes good design — whether this be in the way they dress, choose furnishings or plan their gardens at home — so that they are competent to make choices and take rational decisions based on experience: the experience of being a *creative* person.

Wooff says that art education is a central component of the curriculum but I must take him to task for making such a sweeping claim. In my experience primary schools certainly endeavour to do a great deal of art, but at the secondary stage a large proportion of pupils seem to drop it in form two or three.

When he deals with primary education Wooff makes some rather irrational statements. Most 'modern' or 'progressive' primary schools inter-relate art experiences in their curricula, and it is rather out dated for him to say, therefore, that art is relegated to a single or double period of 'relaxing activity' at the tail end of the day. Did he visit schools in various parts of the country before making such sweeping generalisations?

In the chapter on 'The onset of change' Wooff puts forward unsubstantiated claims and criticisms that tend to take the edge off the book for me. What is more, it is surprising to suddenly come across a strangely-captioned and unnecessary illustration of, and I quote: 'Children in an infants school exploring colour'. It appears to me that they are painting a leaf. Other illustrations are of doubtful quality and tend to be included because it is a book on art.

Up to the time Wooff deals with themes he gives the impression that art teaching is vague, and personally I feel it is time for some down-to-earth pragmatism. Teachers need to know *why* we are teaching art and *what* children should be learning. In a way this promises a more structured art syllabus and not an ever-ending and somewhat amorphous investigation of materials and technologies, if headteachers are to give increased credence to art teaching.

Much of this book is sound and yet I am left with a taste of disappointment. The author stumbles into some aspects such as 'Integration' which he fails to define, and uses rather light examples to support his text. Indeed, he shows a lack of real understanding and almost no conviction of the meaning of integrated studies and corresponding methodologies either within or across subjects. His references to English Language, Social and Environmental Studies, Mathematics etc., are skipped over so briefly it is laughable.

Later on in the book Wooff makes some very good, substantial points and his examples and projects are very well chosen. He puts forward some excellent examples for likely new directions and I commend him highly for this.

I trust my criticisms will not deter others from reading this book. It comes at a time of need and should be read by teachers and students of art

education as a valuable addition to a somewhat neglected field.

John Lancaster

Resources

Jack Bainbridge
Landmark Series, Blackwell: Oxford £1.60.

Power

Jack Bainbridge
Landmark Series, Blackwell: Oxford £1.60

This new series is billed as being of interest to teachers of History, Geography and of Social and Environmental Studies. These first two specimens reflect beautifully the value of an integrated treatment of the topics, built round a common core of practical History of Technology with all its social implications. The A4 size presentation makes use of an attractive variety of printing styles and colours, and is illustrated by photographs, diagrams and old woodcuts in a most pleasing manner.

Resources deals with natural raw materials – their location, extraction and exploitation, over the last 200 years. Both books are designed as pupils' texts, with all quantities quoted in S.I units. *Resources* includes some unexpected subjects, like seaweed, ice and salt; and subtle exploitation of the work itself directs pupils to search for resources in local history and environmental observation.

Power continues the theme of exploiting natural energy sources for communal benefit; the historical use of people, horses, wind and gravity (amongst others) is examined, again with strong hint to search for local examples from all periods. Many imaginative suggestions for pupils' work are given in both books, including field investigation, use of old records, and model making; and although the presentation appears suitable for pupils aged 10-13, the author suggests that the series will also be valuable in CSE work in a variety of socially-oriented syllabuses.

Michael Sayer

The Potter's Complete Book of Clay and Glazes

James Chappell
London: Pitman; New York: Watson-Guptill, £17.50

'Complete' is an incautious word to use in the title of any book: the reviewer is tempted thereby to waste time pointing out omissions, however trivial, and could inevitably do so in this case. Be that as it

may, this large and expensive book of almost 450 pages does live up to its sub-title: 'A Comprehensive Guide to Formulating, Mixing, Applying and Firing Clay Bodies and Glazes'. The author is a studio potter and teacher in Arkansas whose major interest is experimentation with both clay bodies and glaze types with a particular emphasis on using native clays which he digs himself.

A cookery book can only be pronounced excellent with complete conviction when one has personally tested all its recipes and this is essentially a recipe book: there are approximately 500 for clay bodies, stains and engobes and over a thousand for glazes, reducing and oxidising, from raku up to porcelain temperatures. Very limited sampling of the formulae and the author's assurance that he has personally tested them all inspire confidence. One of the frustrations of cooking, though, is finding the larder bare of some essential ingredient and not a few of Mr. Chappell's are trans-Atlantic specialities, Albany slip, Barnard clay, Red Dalton and so on: this applies particularly to the sections on clay bodies and to commercial frits though, in the appendix of charts and tables, analyses are given and an attempt is made to suggest equivalents available in the UK.

The seductively glossy dust-jacket promises that 'Colour plates vividly illustrate test pieces and close-up glaze effects' but this is a con: the review copy and presumably the English edition is devoid of any illustrations in colour or black and white. There is no indication how many of the glazes are illustrated in the American edition – presumably a very small fraction – and it is frightening to think what it would cost to obtain it in this country.

On balance, this seems to be a valuable book for the reference section of larger or specialist libraries or for the shelves of prosperous professional studio potters if any exist. A much smaller and more select book of clay body and glaze formulae but laid out in the same helpfully clear way as this one would be a very desirable addition to the average craft room or amateur's resources.

Michael Paffard

Writing and Illuminating and Lettering

Edward Johnston
Pitman Publishing: London, £4.95

It was a real pleasure to be asked to review this book for it reminded me of my student days when Edward Johnston was my mentor and *Writing and Illuminating and Lettering* was the principal source of reference for my fellow students and me. Apart from its cover it remains exactly as it was some twenty or so years ago, and so when it arrived on my doorstep I felt an old friend had returned.

Who better than Johnston to produce such a book? After all, he was the 'authority' earlier this

century who had reintroduced the art and craftsmanship of fine handwriting and illumination, an art that had lain dormant since medieval times, and the modern world has him alone to thank for making a diligent study and creating interest in this splendid aspect of the visual arts. With its reintroduction, modern calligraphy and illumination blossomed and an interest in fine lettering was born. Young and old began to study the craft and professional calligraphers designed illuminated panels and books for cathedrals, churches, universities, colleges, public bodies and the forces, an aspect that continues to flourish today. Sadly, the interest which generated the study of this subject in art colleges gave way to the pressures of more *up-to-date* art studies in the 1960s, and degree courses in art and design now tend to exclude this rewarding and disciplined aspect. How I long for its return.

I never found that I could read Edward Johnston's book as I would a novel and I doubt whether the reader will do so. It is really meant to be a source of inspiration and reference and as such it is a unique and essential piece of ammunition in the art educator's armoury. The author deals with the development of pen forms, explaining with care the use of the equipment, materials and techniques which are essential if the calligrapher is to master this craft and acquire a beautiful writing hand. His illustrative models are selected with care and result from historical examples and his own carefully controlled work. He deals with the layout and design of pages of lettering and methods that might be used in producing manuscripts, and explains how colours and gold are to be employed to 'illuminate' and make a page sparkle. This is based on his painstaking studies of well-tried medieval recipes and techniques used by scribes and illuminators in religious communities throughout Europe in an age when men did things for the 'greater glory of God'.

Johnston also considers the art of arrangement and design in planning inscriptions, and relies on Classical forms of Roman days. The proportions of Roman letters are examined and once again the stone carver's tools and techniques are stated. This is the most disappointing section, however, for it is brief and lacks the conviction which is apparent elsewhere. Personally I do not find this surprising for I have not discovered any examples of inscriptions that have actually been carved by this genius, and my own explorations with chisels and hammers have led me to conclude that to understand carved lettering requires first-hand knowledge and experience.

The book is well documented, with a comprehensive index. It is a good size to handle and I compliment the publishers for an unchanged paperback edition which should be welcomed by artists, craftsmen, teachers and students.

John Lancaster

Basic Mathematics for Technicians

C.W. Schofield

London: Edward Arnold £1.50 (paperback).
ISBN 07131 3379 1

This book is designed to cover the level 1 mathematics unit (U75/005) of the Technician Education Council; the author is a member of the specialist mathematical panel of TEC. The book is divided into 20 parts covering 7 topics — manipulating numbers, calculations, algebra, graphs, statistics, geometry and trigonometry. There are sets of exercises at intervals throughout and a set of revision examples at the end; answers are given to numerical questions. There is no index — this or a glossary of terms might have been a useful addition. It might have been useful to emphasise — or to collect together — important results; the diagrammatic summary of areas and volumes on page 99 is a step in that direction. The printing is clear and the layout generally attractive. Some welcome practical touches are introduced, such as the suggested (p.87) experimental determination of π , and the exercise on p.56 which, after a discussion of straight line laws asks the students to consider practical situations in which a linear relation fails to apply if sufficiently wide range is considered. But what, one wonders, is the point of

$$\text{'Simplify } \frac{2\frac{1}{4}}{4\frac{2}{5}} - \frac{2\frac{1}{2} + 1\frac{2}{5}}{3\frac{1}{4}} \text{'}$$

(Is this really part of the TEC syllabus?)

In the context of the current unease about 'falling standards' etc. one is tempted to assert that this book should have been entitled 'Basic Calculations for Technicians'. Students will require certain techniques in their jobs — how to use them is carefully explained, often with considerable skill. *Why* they work is hardly ever in question. What is done here is generally done well; though one may criticise minor matters (see below), broadly the material is clearly and accurately presented. But the approach is that of a collection of recipes — 'don't think, just *do* it!' — perhaps typified by page 8 'for division of fractions the standard procedure is to invert the divisor and multiply'. Does it matter? Some mathematics teachers, who have been advising 'don't just *do* it, *think*!', might feel that it does, and this difference about ends (not means) may partly explain the mismatch between mathematics in some schools and the requirements of industry; it is the difference between general and vocational education. That inference and proof *are* of concern is apparent in Section F on geometry, where angle properties of the circle (why not use single letters for angles here?) and congruent triangles are considered. Yet on page 82 the distinction between theorem and converse (of Pythagoras theorem) is completely blurred; in view of the widespread public confusion, exploitation by advertisers and politicians, relating

to the argument 'if A implies B, and B is true then ...' this is a surely a more important issue than the fact that the tangents to a circle from an external point are equal in length.

In the framework of a review one ought perhaps to accept the author's view of his brief; from this standpoint, though the overall impression is good, there are a few points of criticism. The discussion of the use of the slide rule (p.37) is incomplete. It is not really enough to specify the A and B scales for numbers over 10, together with the use of standard form. End-swopping is easy enough and without it, an example like 'Evaluate $3 \times 6 \times 9$ ' would cause confusion, I feel.

There is no mention of the use of 'multiplication by juxtaposition in algebra; pages 3 and 4 have ab, page 40 has $I \times R$ but neither this convention, a source of confusion for beginners, nor the different roles of '2' in '2n' and '27' are discussed. The transition from bar chart to histogram (p.70) is better handled than in many books; a sequence showing how an unequal interval distribution can arise from one with equal intervals by grouping classes might have been helpful.

There is a timely warning on p.66 about misleading diagrams – again an example might have helped here.

On p.87 several approximations for π are mentioned; I would have preferred to see emphasised the crudeness of $\frac{22}{7}$ (which is about 3.143 and really

$\frac{22}{7}$

only useful in 'whole number' problems about circles whose radii are always mysteriously, multiples of 7). In the exercise which follows, no reason is given for the varying choice of approximation used.

One general point is that correct explanations are sometimes given in rather sophisticated language – perhaps intended for the teacher rather than the pupil. Thus the discussion of angles on p.74-5 presupposes a very low level of mathematical competence, and if language skills are similarly ill-developed, some sections may prove difficult to understand. I noted three misprints (p.32 omission of two square root signs; p.40 omission of the index in x^2 and p.88, 1.2 instead of 1.26) – perhaps the result of undue haste in production?

Despite the above criticisms, this book has much to commend it and will probably prove useful to those following the TEC course. The price £1.50 for 120 pages seems a little high for a book which may well sell widely.

F.R. Watson

Design and Technology – Plastics

R. Millett

Wheaton: Exeter, £1.80. ISBN 08 020553 4

This book, according to the author's introduction, is intended to support the view that the study and practice of design are inseparable from the technology of materials. It all depends, as somebody once said, on what you mean by design. Many of us would argue that Technology *is* Design, organised into a disciplined process and the evidence for this now seems so powerful as not to need casual support.

Millett's chapter on Design Vocabulary, however, takes a largely subjective standpoint based on statements that horizontal lines appear restful and slanting ones aggressive. This apart, the book opens well with a non-technical account of the origins and development of scientific plastic materials – an important chapter in view of the increasing importance of History of Technology in the field of General Studies Teaching. Chapter 2 is a beautifully simple introduction to the organic chemistry of plastics – a model that other authors might usefully follow.

For some reason the Design Vocabulary chapter then intervenes before the narrative can continue with well-illustrated, readable, accounts of moulding and shaping techniques, with emphasis on the use and adaption of hand-tools to plastics handling in a school workshop. Then comes the real substance – a well-designed chapter on Design Methodology, where analysis, synthesis and development, leading logically to a practicable solution, are presented in a quantitative and disciplined manner, leaving adequate scope for informed judgement outside the boundary of objective measurements. This is the real essence of rational design that places Technology as a discipline interacting with both Sciences and Arts; with objectivity where measurement and calculation are possible, and with subjectivity founded on refined experience where too many variables make the equation mathematically insoluble.

Finally, the dénouement includes an important section on safety hazards and glossaries of materials and their properties; the latter demonstrating how the plastics industry, in common with most technologies, has gone through a cycle of pre-science discovery and invention to the stage of post-science planned creation of new materials with specific properties.

Michael Sayer

Objective and Completion Tests in CSE Woodwork Theory

General Editor – Ernest Clarke
London: John Murray, 1977. 95p.

Objective and Completion Tests in CSE Metalwork Theory

General Editor – Ernest Clarke
London: John Murray, 1977. 95p.

In recent years the use of objective and completion tests has increased enormously. In their simpler forms these tests offer a splendid method of testing recall over a wide range of knowledge whilst avoiding much of the time consuming task of writing, a feature no doubt much appreciated by many pupils. In their more complex forms they can also test higher level cognitive skills. Additionally they lend themselves well to marking by mechanical methods.

The drawback – there always seems to be one – is that they are extremely difficult to write and, to be effective, need to be thoroughly pretested before being used in an examination. Unfortunately few teachers are skilled in item writing and virtually none submits his questions to a pretesting process simply because the facilities required are not available. This is a particular weakness of mode 3 examination papers in which the teacher adopts the role of examiner and has to prepare a question paper for what is, after all, a public examination. Consequently, the availability to teachers of a bank of questions that are well written and pretested must be of great value.

The two books under review contribute splendidly to this general purpose. The questions are set out clearly so that a candidate is in no doubt of what is expected of him. In the main they can be taken as good models in this respect. Each book offers reasonable coverage of its own subject area and is divided conveniently into sections on tools, techniques and materials. The level of knowledge required is appropriate to CSE examinations. There are, however, some points on which critical comment might be made.

It is generally better to present a question in a positive form rather than in a negative form, e.g.

positive form:

‘For which ONE of the following purposes are screw-cutting taps used?’;

negative form:

‘Which ONE of the following statements about the screw-cutting thread is NOT true?’

A second point concerns the type of question in which a candidate is required to select two alternatives from four, e.g.

‘In each of the following questions two of the correct alternatives numbered 1 to 4 are correct. Write the numbers of the correct alternatives.

16. Which of the following statements about a coping saw are true?

1. a small pin is fastened into the blade at each end
2. the blade has a small hole in it at each end
3. the frame of the saw is made from metal
4. the frame of the saw is made from wood’

Statistically there are six possible responses to this question. Only one is wholly correct. Only one is wholly wrong.

Four pairs of responses contain one right answer and one wrong answer.

Under examination conditions a mark should be given only if BOTH responses are correct. It would become a non-question if a mark were given for each correct response because in five of the six possible pairs at least one response must be correct. This is an important point that these books fail to make clear although containing many examples of this type of question.

My main area of concern springs from the Forewords, both of which state ‘The material has been thoroughly tested and scrutinised by outside advisers other than the writing team’. There is no mention of pretesting on an adequate sample of CSE candidates. If this means that the questions have not been pretested in the proper sense doubts must remain of their reliability. If proper pretesting has been undertaken a clearer reference to it in the Forewords would inspire greater confidence.

Notwithstanding these points our examinations in the craft field, mode 3 in particular, would be open to far less criticism if the objective tests used in them were of the standard demonstrated here. Provided these books are used judiciously and are not left lying around most teachers are likely to find them of great help.

But a word of caution. Before you run off enough copies to see you through the year make sure you read the small print.

Denis Taberne