

Reviews

Windsor Chairmaking

Thos Moser
Sterling Publishing, New York, 1982, £5.95

It is very interesting to see English things transmuted by a different culture. Square dancing from folk dancing; country and western from old folk songs are examples and now we have the development of the windsor chair when taken to America and copied locally. Early examples are illustrated that bear the same relationship to the original as 'country' chippendale does to the ones made to Chippendale's own designs. There are also illustrations of modern developments using factory production: the contrast is fascinating.

This part of the book is of interest to the social historian and the student of woodworking alike, but this is only a small part of the book. A longer, fuller account pointing out some of the background to this development would have been very acceptable.

Instead the author uses a lot of space to explain how he set up his production and details of operation and planning — a gift to anyone wanting to compete in the market. This poses the question as to whom the author is addressing. Anyone with a minimum of machinery, or even none at all, could find useful tips in tackling what is a very different job from ordinary cabinet work. The advice is more applicable to machine manufacture and there cannot be many chair manufacturers who are in the market for such a book. If they followed all the advice in this country they would be in trouble with the Health & Safety Act.

Most of the illustrations in the book are good, clearly showing the process illustrated, and it is well printed and produced. The book has much going for it and most craftsmen would find something of interest in it. Whether on balance it would be value for a school library I doubt.

Bernard Aylward

Relief Woodcarving

E.J. Tangerman
Sterling Publishing, New York, 1982, £3.95

This is a very poor book that cannot be recommended. The technical advice is sketchy and not very helpful. While there are illustrations of good traditional work, most of those of the present day are banal in the extreme. The book is of American origin so many of the references are obscure to English readers. It is badly printed and produced and at £3.95 for a slim paperback is not cheap.

Bernard Aylward

Working Green Wood with PEG

Patrick Spielman
Sterling Publishing, 1982, £4.95

PEG is an abbreviation for Polyethylene Glycol 1000 a water soluble chemical polymer, a semi-solid hygroscopic material, much like Paraffin Wax in appearance. In the main, this book is a technical journal on the use of PEG as a wood seasoning and dimension stabilising material.

Since the mid 1950s researchers in America have been developing the PEG process of seasoning green wood with the possibility of producing shrink, swell and warp proof timbers. Early in their experiments they found that green timbers could be stabilised in such a way that it was possible to use them in dry or humid conditions without there being any change in their state. This was found to be of particular advantage in the production of such things as rifle stocks where consistently high standards of accuracy are demanded.

PEG 1000 is purchased as a solid to be dissolved in water. The process of dissolving could take several days if solid PEG is used in conjunction with cold water, but time can be saved by shredding the PEG and heating the water.

The solution of PEG and water must be worked out on a percentage by weight basis, according to the weight of the piece to be seasoned. To avoid the solution developing into a stain it should be mixed in non-ferrous containers. Plastic buckets or bins are suggested although, as an alternative to these, there is a chapter on how to construct a plywood box vat.

The seasoning process is completed by immersing the green wood in the PEG solution. As an example of immersion time, a low density wood 1" to 1½" thick can be treated in 24 hours or less.

Some of the resulting advantages are:

- Timbers are so stabilised or frozen that warping, shrinkage or swelling does not take place
- The bark stays firmly in place.
- Turning can be done in any position related to the annular rings.
- It has low toxicity and does not irritate the eyes or skin.
- It is nonflammable.

As well as the chapters related to the PEG process, other sections of the book deal with: Wood, its structure, and how normal seasoning affects its stability.

Seasoning methods and drying times.

Obtaining, cutting and storing timbers.

Care and precautions when using chain saws.

Smoothing and finishing treated timber.

A list of PEG stockists and equipment suppliers.

This method of seasoning is a little more involved than dipping a chunk of 'green' wood into a solution of PEG 1000 and I hope that by providing an outline of the publication I do not over simplify the process. On the contrary, the conditions to be met are very demanding in timber technology and

in expertise. In short, this is not really a book for beginners.

The suppliers listed are all either American or Canadian. In fact supplies in Britain are available from: Chemical Intermediate Co Ltd, Barnfields Industrial Estate, Leek ST13 5QG. Tel: Stoke-on-Trent 504503.

The retention of the tree bark does tend to produce clumsy, less subtle designs, but at the expense of the over-illustrated text, the inclusion of a number of well chosen colour plates to emphasise the natural beauty of the wood grain and the contrast between bark and other growth would have given the publication a much needed sparkle.

J.W. Thompson

Work Experience in Secondary Schools

Edited by John Eggleston
Routledge and Kegan Paul, 1982, £10.00

Work experience schemes are becoming an ever more central part of the curriculum in secondary schools; indeed, 'work' has now become a new subject in many. Fundamental changes in the nature of work and in its distribution and availability for school leavers makes it particularly important that young people have experience of the kinds of work that may await them in the outside world. A wide range of schemes has been developed to meet this need, including work study, simulation, link courses and pairing. Yet schools and their teachers find it difficult to obtain information about these schemes and their results.

This book brings together accounts from Britain, Australia, Ireland and the USSR, with an extended editorial introduction which examines both the reasons for providing work experience in schools and the underlying social and economic issues. The collection of case studies is prefaced by an extended introduction by the editor who brings together the social and economic changes that underlie these new developments in the schools.

Craft Design and Technology teachers will find the case studies of particular interest as a number of them rely heavily on the CDT departments in the schools. In particular the simulation project described by Douglas was largely based on the CDT in a Northern Irish school and some aspects of the work have been reported in an earlier issue of *Studies in Design Education Craft and Technology*.

Work experience schemes are likely to expand considerably in the new work oriented curricula of the secondary schools and teachers are well placed to play a leading role in them. This book will help them to identify that place and offer them many ideas with which to occupy it.

Charles Peace

Scale Model Cannon

Richard Stewart and Donald Heyes
John Murray, 1982, £4.59

Not everybody wishes to design and make scale model cannons but for those who do this book is possibly their best news yet. It is a mine of information, not only about historical cannon, but also about the specific techniques whereby they may be modelled. For the right pupil this volume could lead to a lifetime of enthusiastic hobby activity.

John Eggleston

How to Make Your Own Picture Frames

Hal Rogers and Ed Reinhardt
Watson-Guption Publications, New York, 1982, £8.95

Framing pictures is probably one of the most enduring craft activities. Yet it is surprisingly unpractised in schools and otherwise competent students and even teachers have been known to find very great difficulty in producing a professional quality piece of work. This volume is a very competent 'how to do it' account. Detailed, exhaustive, accurate and well illustrated, it leaves no stone unturned and goes as far as any book can do to help a competent craftsman to frame pictures successfully. Schools will find a copy a very useful investment although the sheer volume of detail might be overwhelming to some users; in some sections the authors run close to over-kill.

The volume is seriously marred only by its dust-cover. Here the publishers have assembled a studio photograph displaying an ill-fitting mitred corner, a mitre box being used incorrectly and an engineer's hammer ready to be used to insert the sprigs. Do not be put off; the contents are better.

John Eggleston

The Story of Craft

Edward Lucie Smith
Phaedon, 1982, £12.50

This is one of the many volumes triggered off by the Crafts Revival in Western Europe and North America. It is a revival in which many thousands of people have rediscovered the physical, intellectual and expressive satisfactions of traditional crafts practised in contemporary settings. It is a revival that has close links with contemporary, political and social movements associated with ecology, conservation and alternative technology. The new movement is epitomised by the vast development of crafts material retailing, leisure courses in adult education institutions and, in London, the highly successful Crafts Centre.

The time is clearly ripe for an historical account that will enable modern craftsmen to read of the long tradition of which they have become a part. Edward Lucie Smith has undertaken this task with considerable success and presents an excellently illustrated and produced volume which offers a comprehensive account of craft in the ancient world through to modern times. He is particularly strong on the art and craft movement in both Britain and North America and brings out the subtle yet crucial interplay of roles between craftsmen and patrons which at best allows integrity, identity and inspiration to flourish. The account of the Art Nouveau and the contretemp between Art Deco and the Bahaus are succinctly presented. The two concluding chapters on The Survival of Craft and Craft Today bring the work valuably up-to-date.

The writing throughout is characterised by competent scholarship and a broad unblinkered view that is characterised in the final sentences 'Craft seems once again to be taking over a role which not the development of industry but the intellectual characterisations of the Renaissance forced it to abdicate. What industry itself has taken, handcraft will never get back, for industry too is craft, in that word's largest sense'.

In a work of such breadth and concentration there are bound to be some shortcomings. Certainly there is over compression in some chapters, some rather arbitrary selections especially of modern developments and some under valuation of the contribution of ethnic crafts to the European and North American tradition. But these are minor deficiencies and there is no doubt that the book should occupy a place of considerable importance on the shelves of every school and college which seeks to alert its students to the practice and understanding of crafts.

John Eggleston

The Lansdowne Book of Handcrafts

Rigby International, 1982, £9.95

This large and ambitious book runs to 511 pages. It originated in Australia and has gone through several editions there, before appearing now in the UK under the Rigby International imprint. It is really eight volumes in one. There is a section for each of the main 'textile crafts'. Many publishers would have issued them as separate volumes but here, Knitting, Crochet, Embroidery, Machine Embroidery, Batik, Tapestry Weaving, Macramé and a conglomerate section entitled Sewing, Spinning, Weaving, Patchwork, Leathercraft, Tapestry, and Soft Furnishings are all grouped together in the same compendium. Each section commences with very basic instructions in techniques such as learning to knit, commencing with 'casting on' and simple stitches in crochet, commencing with the chain stitch. In each section the basic instruction builds up to a range of things

to make for which precise instructions are given. The objective in all is to enable readers to follow increasingly complex instructions rather than to design their own work.

As a guide to 'how to make it', the book is efficient and likely to be effective. The illustrations are excellent; the style and presentation clear and carefully presented.

As a support for a design course in schools, the volume is of limited utility. But as a reference work for students who want a quick and precise introduction to a range of techniques in textiles, it has its uses.

Roger Benson

Understanding Design in the Home

Margaret Picton

Blackie and Son, 1982, £3.65

This new volume by a well-known and prolific author in the home economics field indicates how far the consideration of design has progressed in the teaching of home economics. The author considers the nature of good design and then applies it to housing, interior decoration, room planning, furniture and fittings, household appliances and other manufactured products. In reading the volume, one is reminded of the still distinctive roots of home economics teaching and its considerable differentiation, even after many years of integrated departments from the 'male dominated' curriculum that has developed through boys' crafts. The book will undoubtedly be useful in schools and many teachers will find it helpful, yet it is perhaps a pity that although the pupils who work through it will be unquestionably better informed and hopefully more perceptive, there will be little incentive for them to think out really new solutions and design for themselves. The problem is illustrated very clearly in a number of the suggestions of things to 'think and do' which appear at the end of each section. For instance the section on the design of manufactured products sets these tasks for young people:

The following are famous makes of tableware, name them. WGOEODEW, YNEDB, SERAHON, DEPOS, KANMIE, YLARO LUNDOTO, NWROC RYBED, DIRMWTEIN.

Find out the current prices of: a set of Pyrex mixing bowls, six steak knives, a stainless steel vegetable dish, a small cut-glass vase, a polythene washing up bowl, six 'everyday' cereal bowls, six EPNS teaspoons, a plastic colander.

One cannot avoid an expression of disappointment that at the end of a book entitled *Design in the Home*, such tasks are seen as the final level of achievement. Teachers must aim higher than this and deserve more help from authors in trying to do so.

John Eggleston

Woodturning Projects for Dining

John Sainsbury
Sterling Publishing Co. Inc., 1982, £7.95

John Sainsbury is no newcomer to the field of woodturning. A member of the British Guild of Master Craftsmen, a retired teacher, lecturer and technical adviser for a major tool company, his experience is reflected in the format of this book. It is well laid out in a neat, easily understood manner with all the necessary information contained in as few words as possible.

The book is designed as a book of projects and ideas and does not claim to be a complete text book on woodturning. However, because of the wide variety of projects contained in it, most of the techniques are covered. There are various useful appendices on using and sharpening tools as well as methods of holding the wood on the lathe. The book contains over forty projects which are well illustrated with photographs and drawings. All the projects are based on dining, and range from the table setting through eight courses to some useful kitchen implements. They include such things as napkin rings, a carafe and coffee grinder.

Each project gives a design specification, suitable wood, finish, method of attachment to the lathe, lathe speed and suitable tools. For many projects alternative methods of attachment are given as the author realises we are not all lucky enough to have the same range of accessories available to us that he has.

As with all books of this type I could easily find fault with some of the projects and techniques used, which I would not feel were suitable for school use. However, these are few in number and on the whole it is a book which I am sure will be referred to often both by the experienced and inexperienced woodturner alike.

M.P. Bourne

Crafts Conference for Teachers – April 1982

Report published by Crafts Council, £4.50

The conference, organised and sponsored by the Crafts Council in association with the Society for Education through Art was held at the Victoria & Albert Museum. The purpose of the conference, to quote the foreword, was to present the work and ideas of twentieth century crafts people by themselves, and to discuss professional practise of the crafts in relation to the delegates' own work as teachers.

As a living event, of presentation and discussion, with opportunities for teachers to talk to each other and to some of the star names in craft and design – John Makepeace, Jean Muir – the conference was a signal success.

Unfortunately the report, as seen by the outsider, has severe limitations. It had to be illustrated, for financial reasons, and the matter is largely edited from speakers' transcripts and not from prepared papers. It is thus a useful and stimulating reminder to the participants, but a frustrating document to those who weren't – you should have been there – we had a wonderful time.

Reading it tends to either raise envy or incomprehension. It is a tendency for those of us in the trade to talk to pictures in the form of a commentary or in extended captions. This is how much of the material we write or use is presented in print. As participatory material this approach has its strong points, but in the cold light of day as base words it has definite weaknesses, tending to the descriptive and anecdotal, and discursive to a degree. It hurts me as a reviewer to write all this, being one of the worst offenders myself.

Those reading the report for information are likely to be disappointed. However, as a documentation of attitudes to craft and design at a particular time it is invaluable research material. But you have to have the terms of reference and be able to assign objects to names from your own internal or external resources.

Bernard L. Myers

Craft Design Technology

A Design Kit made up of 'three books of pressure-fax spirit master' pupil workcards. *Craft Skills, Engineering Themes, Projects, plus a Teachers' Guide.*

John Bell, Alex Leggatt and Donald Stewart
Holmes McDougall Ltd., Edinburgh, 1983, £9.00

I found these books most puzzling in that I could not easily place them within the context of general curriculum development in CDT. 'Craft Skills' and 'Projects' are related to each other in that the book of worksheets in 'Projects' contained numbers which referred to related skills in 'Craft Skills'. It was stated that the objective of this was to encourage insights into the necessary manufacturing skills required to make some of the projects. The 'Teachers' Guide' was supposed to give expanded background information.

The depth of content in the book on skills is thin indeed. I accept the authors point that the objective of the instruction sheet was to supplement the normal techniques of teaching skills; but if there is little or no information on the worksheet what is the point of using it?

The sections on Brazing, Foundrywork and Tempering are almost non-educational. The part in 'Craft Skills' on Foundrywork should have been called Moulding and Casting, the both processes as indicated were so lacking in technological detail as to be misleading. In 1983 surely Tempering as a process would be conducted within a heat-treatment

area if it is to have a meaningful technological and educational implication (CDT?).

Turning to 'Engineering Themes' and the related section in the Teachers' Guide, I would be in ecstasy if, as the authors stated, design is a process 'degraded to mean purely the application of aesthetics in an engineering solution'. Not only do the authors not define what design is, —nor even attempt to do so; but give an incorrect negative example also. Aesthetics within an engineering design context is unfortunately almost non-existent in British Industry despite this country having the most excellent Schools of Design in Europe. The Teachers' Guide should have explored more fully the meaning of the words aesthetics and design in the context in which they were used.

The Teachers' Guide pays scant attention to the cognitive aspects of CDT. On page 31 we have an outline of an assessment scheme which purports to analyse pupils' work. I am very unhappy that it makes no reference to design (cognitive) skills and how these are assessed — nor does it make any reference to the overreaching aim of CDT which is to create educational opportunities through decision-making and problem solving.

With present developments in the subject calling for a more student/pupil based starting point to their design activities, I fail to see what contribution the 'Project' sheets can make to current endeavours. Starting points in design exercises are complex but if you distribute a worksheet entitled Key Tab (Name Tag?) on it, what is the objective of the exercise and what are the educational outcomes from such an exercise? I also found the project labelled 'Canine Memo' a most elaborate if puzzling means of remembering the name of the family pet.

Apart from a very general foreword in the Teachers' Guide not one of the documents contained any real identification of aims and objectives for the pupils in the 11-15 age group; yet the label Scottish Curriculum Development Service was used in the foreword.

M. John

Art and Imaginations: A Study in the Philosophy of Mind

Roger Scruton

Routledge and Kegan Paul, 1982, £7.95

I was nurtured by that school of Cambridge critics which consciously eschewed explicit consideration of aesthetics; and indeed, for quite a long time, the subject appeared moribund if not dead. The trouble was that, under the influence of idealist philosophy, there was a strong tendency to consider the aesthetic as a special realm without any very clearly apprehensible connection with other aspects of life and thought — what I.A. Richards referred to as 'the phantom aesthetic state', something that was 'not to

be confused with the pleasures of sense or of ordinary emotions'. Such notions did not please a positivistic age.

Yet, of course, this purely negative approach is not really tenable; works of art (which must include works of literature, painting and music at least) exist, and questions relating to their specific status relative to other emanations of mind are perfectly legitimate. The importance of Dr Scruton's book (originally published in 1974) lies in its attempt to eschew idealist metaphysics and to 'sketch a theory of aesthetic judgment and appreciation in terms of an empiricist philosophy of mind'. His empiricism is that of modern analytical philosophers; and he proceeds through an extended analysis of such key concepts as 'imagining', 'thinking' and 'seeing as', charting their interrelationships. He considers at some length, for instance, what it means to call a piece of music 'sad'; and this analysis enables him to develop notions of 'appropriateness' to an object and to discuss what is being said when an aesthetic judgment is offered. An aesthetic attitude has a permanent tendency to become normative; and as a result of this normativity, 'the concept of the "appropriate" will lie at the heart of all aesthetic judgment'.

This, of course, constitutes only a small part of what is a complex and sophisticated argument; but clearly, if sustainable, it has important implications for the practising teacher. Aesthetics is no longer a matter remote from everyday concerns. It takes place as a 'representation', an 'expression' (two other related concepts of which Dr Scruton offers an extended analysis) which has relevance to the practical real world where, for instance, the meaning of terms like 'sadness' is not in doubt.

In making these points Dr Scruton asks an important question which stimulates him to suggest further links between aesthetics and other aspects of experience. Why, he wonders, do we seem to attach importance to agreement on aesthetic matters? In seeking an answer he is led to stress the objectivity of aesthetic judgments. One can give reasons for one's decisions; and those reasons can be supported by the precise nature of the aesthetic object before one. Thus reasoned discrimination rather than subjective impression is the mark of the aesthetic judgment. Similarly, he points out, with moral judgments; and one of the important aspects of Dr Scruton's approach lies in the linkages he tentatively forges between art and morality: 'We admire works of art, as we admire men, for their intelligence, wisdom, sincerity, depth of feeling, compassion and realism. It would be odd to acknowledge this and yet to deny that there is a relation between moral and aesthetic judgment'. Thus 'taste', a word specifically associated with aesthetic response, nevertheless brings 'normative attitudes in its train'; and taste links with notions of appropriateness in manners and behaviour and hence with moral sentiment. 'Clearly, then, the exercise of taste cannot be described if we confine ourselves to the study of art alone: only in the context of an entire

culture can the importance of taste be fully demonstrated'. In this Dr Scruton would be in full accord with the profounder implications of a 'man of taste' as understood in the eighteenth century rather than with the more superficial notions that inform popular usage of the concept today.

The intending reader should be warned that Dr Scuton's argument is complex and philosophically sophisticated; this is not a book that can be recommended to the tyro. Nevertheless it raises issues of fundamental importance for those who are concerned about the status of the arts in our society. Too often they are regarded as distractions, pandering to purely personal and subjective satisfactions. Dr Scuton's book constitutes a closely reasoned defence of a very different attitude, the outcome of which is to afford a much greater social centrality to the aesthetic attitude and judgment.

G.H. Bantock

'Forget all the rules you ever learned about Graphic Design including the ones in this book

Bob Gill
Pitman, 1982, £12.95

This is an absolute must for every graphic design student, professional designers and teachers (especially the latter!). It is simple in concept, it is a collection of Bob Gill's graphic work over the last 20-25 years with cryptic comments by the author on each design – both as thoughts about it, when he did it and also with the hindsight of sometimes 20 years or so and how he might have tackled the problem now.

He shows how each design has turned the original problem from a logical and obvious approach which could only lead to a predictable answer, to his own upside-down-look-at-it-backwards-angle attitude which has produced beautifully succinct visual statements which are delightfully creative answers to a terrific range of graphic problems.

Bob Gill started out as an illustrator and gratefully acknowledges his inspiration to American gods like Ben Shann (this reviewer has to admit his own debt of inspiration to Bob Gill as the graphic design god who converted him from a 'Swiss typographer' to hopefully a graphic designer). He studied in New York and first practised there before coming to England in the early sixties along with a few other notable Americans who found London a sympathetic and relaxed place to work in. His work therefore is truly transatlantic and his influence quite formative for many designers in the western world.

He has often campaigned in education for an irreverent attitude to what students are taught, for the students to question their mentors constantly and he has been a provocative lecturer and teacher in many colleges. His primary concern was to get students to think and this book owes its irreverent

title and 'anti-design' layout to this general approach. However, it is the consistent quality of the visual ideas which do most to stimulate the student and practising designer. Bob Gill has that ability to make the visual analogy so appropriate for each message that it seems so obvious when it is done and it is always executed with simplicity and taste. The wry humour that pervades his work emanates from a very sharp mind that can also penetrate the most serious of social and moral questions.

As stated in the introduction, not the least amazing quality about his work is that it would be impossible to put it into 'chronological order' if taken at random – his earliest work could have been his latest and vice-versa, there is no 'style' which followed the graphic fashions of the quarter-century span. He has never been interested in 'information graphics' and his strength is an ideas mass – a producer of memorable images. He returned to New York a few years ago and now works mostly on his own film productions which is the printed page's loss. Here is a marvellous collection of his best work, a record of a unique graphic designer, one of the post-war masters of visual creativity.

Cal Swann

Professional Smithing

Donald Streeter
John Murray, 1982, £4.95

Donald Streeter is an American blacksmith of long standing and has produced a book which gives an insight into the finer aspects of a smith's work.

The text is clear and concise, encouraging the reader to investigate it further. Good photographs clearly illustrate the layout of workshop, working processes and manipulation of material using both hand and machine tools. The explanation and development of jigs, to aid in the various manufacturing of specialised pieces of smithing, is simple and straightforward.

A wide variety of well illustrated work keeps the reader interested. Each plate gives a very accurate impression of the quality of work and craftsmanship, which becomes more apparent as you progress through the book.

An indication of the author's zest and feel for his craft is well communicated throughout, with good examples and designs based on decorative ironwork, whitesmithing, toolmaking, locksmithing and associated hardware.

The reproduction of traditional, historically accurate hand forged items are shown and described in a way which gives the reader the best method of producing work of good quality, making this a useful volume for practising craftsmen and students alike.

J.N. Atkins

Graphic Communication

John Twyford
Batsford, 1982, £6.95

Very few books are available in the area which has become to be called 'graphicacy', a term intended to parallel in visual terms what literacy and numeracy convey. For those abilities which enable one to write and communicate ideas through the written and mathematical forms respectively. 'Graphicacy' is concerned with making and interpreting images. As John Twyford says in his book *Graphic Communication* that it 'may be seen as the use of pictures which clearly and unambiguously transmit and translate information in certain contexts'.

There is no doubt a need for books on this subject and John Twyford has attempted to produce one which will be of use in schools and which relates the use of drawing (in particular) in design education and in the wider studies of 'drawing across the curriculum'.

He poses some interesting questions:

How does 'anything' represent 'something'?

What sort of information may be represented, and how is it portrayed?

How do we perceive pictures?

What are the social and cultural needs and implications of picture making?

What sort of drawing is being taught and why?

Etc.

In the following three sections of the book — 'Looking at Pictures', 'Using and Understanding Pictures' and 'Forming Pictures', he brings together many examples of a great variety of ranges which are intended to convey messages from Leonardo da Vinci drawings to the highly technical world of satellite infra red photographs and space-probe pictures of Saturn. He tries to draw the varied strands of this material together to give an objective overview of graphic communication. The material has also been chosen to interest the young students in the classroom and motor bikes, identi-kit pictures in criminal detection, the design drawings for monsters in the Dr Who BBC series etc. and should hold the attention of a wide range of pupils.

As such, the book is a useful aid to the teacher involved in design education and would well help to bridge the gap that too often exists between design and art areas (let alone between art, the humanities and science disciplines).

The most important message perhaps is to those art teachers who think of drawing as mark making in tutoring subjective and self expressive ways and not as Twyford points out as an aid to thinking and to communicating complex thoughts in clear ways.

In this, I am totally with John Twyford and recommend his book, but at the same time I regret that there are few answers in this modest paper-

back to the questions he has identified. I found it difficult at times to follow his train of visual arguments and had to hop around from one section to another without a logical progression being made. The ragbag of visual material, which is a strength on one hand, has not been related in a very cohesive way and this somewhat patchy content has not been helped by the poor presentation of the layout. It has been economically produced as a cheap schoolbook, but that is no excuse for the ill-considered layout of text and illustrations. In a book that includes graphic design examples and promotes the virtues of graphic communication, it is a poor example of what can be achieved in book production, despite the financial restrictions. It is not in any way helped by the flat reproduction of the photographic illustrations.

This is a pity, as a better presentation would have been a more attractive persuader for the important issues raised by Twyford to be discussed.

Cal Swann