This article is an extension of my talk to the Cambridge conference of the Society of Indexers in July, 1980. Encouraged by a responsive audience, I spoke rather more light-heartedly than I have been able to write, and I cannot pretend to have kept track of all I said. But what I meant to say was something like this.

Early indexes

The early history of alphabetical subject indexes in medieval manuscripts and in printed books of the 15th century has been examined in The Indexer and elsewhere since 1965. I learn this from the article by Hans H. Wellisch in The Indexer 11 (2) of October 1978. Professor Wellisch refers to studies of indexes compiled in the 14th century, before the European invention of typography, and concludes that the art of indexing was not very highly developed before 1550. This seems to show that a century of typographic printing gave rise to much of the development of the index. I have not studied the history of indexes, so I cannot be sure whether this is so.

But I have some 16th-century indexes in my possession, and I have been looking them over for the first time. These are in books I bought long ago, for next to nothing, from barrows in Farringdon Street in London, because I liked the types in which they were printed. For instance, there is an index of 20 folio pages in what might be described in English as an edition of Caesar's Gallic Wars, printed at Lyons by Bartholomew Vincent in 1574 (see figure 1). The Latin title of the index suggests that the presence of an index needed explanation—'Index of memorable things and words to be found in the commentaries'. All lemmata or headwords begin with small or lowercase letters even when they are proper names, perhaps to avoid a vertical line of over-emphatic capitals, as in some examples of 20th-century verse. Page numbers for the most part are ranged out to the right of the column, and sometimes when an entry ends with a short line another short entry occupies the rest of the line, probably to ease the compositor's task of making up the page in a seemly manner. These are typographic observations only; from a compiler's point of view I notice also that personal names are arranged in order by the abbreviated first name—so that one name we might expect to find under C is in fact part of a notably tall column of q's as 'q. Tullius Cicero'. Indexers more experienced than I would observe more characteristics of compilation and would draw more interesting conclusions from them.

Good practice in soldiering, in publishing and in printing—the three trades in which I have spent the last 40 years—depends to some extent on the practitioner's knowledge of the history of his trade and its practice. The best person to produce a new book, to my mind, is somebody who has spent a good deal of time studying the production of old books. There is always going to be room for new achievements, and they are most likely to come from people who have observed, identified, and assessed bad work as well as good in the productions of a long past. I am certain this is true of indexing as of book production. If we hope for improvements in the quality of indexes, and innovations in their form, we should look back to past development for signposts pointing towards the future.

Typography and indexing

Indexers and typographers benefit from sharing other characteristics. A good general knowledge of books, of writers, and of readers and reading is to my mind worth more than most technical knowledge to everybody who produces books. The task calls for common sense and a critical approach. I have seen book production effectively handled on a large scale by well-educated and well-read people who relied primarily on these characteristics and on the historical knowledge they had acquired from them. There are signs that the same may be true of index compilation and production. I refer again to a past issue of The Indexer, this time to 10 (4) of October 1977.

In his article on 'The typography of indexes' in that issue, Robin Kinross referred to an illustrated part of the index of my book Methods of book design, published in 1956 (see figure 2). That book was completed seven years after I entered civilian employment, so it was rather impudent of me to write it at all. As if that were not enough, I compiled the index myself. I did this because it seemed to be the best way to find out what sort of index I thought the book should have. I made no special study of indexes in order to do this; the only hint...
I gained was from the use of numbered cards in a box, demonstrated to me by my aunt who prepared the index to my first book, which had nothing to do with books. But the index, the first and last of my indexing experience, seems to have served its purpose and even to have broken new ground. Mr Kinross thought so, at least, and concluded that the result may have followed from the fact that author, indexer, and typographer were one man.

In this index, I introduced three practices which were innovations as far as I was concerned. Where there are several page references to one item, the commas between page numbers speckle the page to a point at which the reader may be discouraged; so I substituted word-spaces for commas. As lines in the narrow column common to most indexes are difficult to justify evenly, without conspicuously uneven spacing between words in adjacent lines, I sought to ease the difficulty by using the ampersand (&) everywhere in place of 'and'. And to simplify the reader’s reference to unfamiliar words, I assimilated glossary and index, with spaced short dashes each side of the glossarial definition after the lemma.

Procedure for printers

Before and after that index of 25 years ago, I have commissioned and had printed more indexes than I care to remember, and I have come to certain conclusions about indexing procedure. You may tell me that some or all of these need no emphasis here, but one is in fact a question, and another applies to the indexer’s employer, so I might as well rehearse them all.

Even in handwriting, you will do well to set out each entry in the style you would like the printer to follow, in terms of indents, punctuation, division between lines and so on. Publishers and printers are quite likely to prove neglectful of index presentation, and the arrangement of index copy is always likely to be influential for good or bad.

Index cards should be numbered serially before they leave the indexer. The moment an unnumbered typescript reaches my desk, I write serial numbers on it myself. If I do not, the office cleaners will certainly tumble the pile on to the floor and put it back in the wrong order. Or if I move it to my secretary’s desk, so that she can do it, I shall drop it on the way. The same applies to index cards.

The right sort of printer will always set an index from cards which have been written with reasonable clarity and arranged with some kind of method. Once a book has been submitted in page proof, each day of production time is significant, and we would rather have the cards now than wait for a typescript index next week. But I cannot tell you how many printers of the right sort there are these days, as type is now quite often
set by people and processes I for one would not associate with printers and printing.

The text should not be printed without the indexer’s corrections. I can tell you from my own experience that publishing books is difficult and exhausting, that printing them is very difficult and exhausting and that writing them is excessively difficult and exhausting. Authors would much rather not read proofs at all, and if they do they cannot be expected to find them interesting. Publishers might like to read proofs, but tend to lack the time. Printers do read proofs, but if in doubt we allow the author to make mistakes in his copy and follow him into error. The indexer may well be the most likely person to observe an otiose mistake. When he does—and here as elsewhere we may assume that the male embraces the female—that mistake should be reported to the publisher and rectified before printing. I speak with some feeling because the second edition of Methods of book design was indexed by Stella Rodway, who reported a number of inconsistencies just after the text printing was completed. This is a point publishers have to see to; printers are entitled to fill up their programme of presswork in this way if they are not prevented.

Index length and proportion

Earlier on, I boasted of having handled indexes for more than 30 years. Now I have to admit that in all those years I have never succeeded in finding a reliable method of calculating in advance of compilation the length of an index. In preparing an estimate, before the initial work of typographic composition is begun, I have to make some allowance for the index. If the allowance is wrong, the estimated costs will be wrong, and the wrong amount of paper will have been ordered. And the allowance nearly always has been wrong.

All I need is a percentage: the number of pages of index as a percentage of the number of pages of text, excluding preliminary pages, pages of illustrations and any other pages which do not give rise to an average number of index entries.

All I have been able to do is to note the extent of discrepancy between one book and another. You must not suppose that I keep on mentioning my own book by way of advertisement. The second edition is out of print, and the third will not be published this year. I refer to the book because I know it well, and I indexed the first edition myself. The index of Methods of book design is just over 4% of the number of text pages. The noble index of the 1962 edition of Moxon’s Mechanick Exercises on the Whole Art of Printing (1683-4) (see figure 3) is 11.25% of the text if we exclude the appendixes. British Standard 3700 of 1964, Recommendations for the preparation of indexes for books, periodicals and other publications (see figure 4), contains 16 pages of text and 10.25 pages of index, a

...
Letter, footing (bottom serifs) of, 113, 132.
— founts of, how delivered, 190. See Fount.
— hang, said to, 207, 208, 232.
— intervals between, regulated by justification of matrices, 158–9.
— kerned, 174. See Kerning.
— lifting, 209.
— illustrated, pl. 24 B (p. 206).
— long, 102–3, 131.
— low, how knocked-up, 345.
— naughty, should be thrown away, 345.
— neck of, 347.
— nick of, 135, 144.
— open, 205.
— overhanging, how made, 174.
— parts of, names of, 131–2.
— pen, influenced in design by the, 22.
— how to pick up from the case, 205.
— from flat surfaces, 199–200.
— out of the mould, 170.
— proportions of, 123, 131.
— rinsing of, after washing, 195–9.
— rub well, said to, 350.
— sand, cast in, 371.
— serifs (topping and footing) of, 107 n., 113 n.
— how set up by typefounders, 176–8.
— shanks of, 351.
— shape of, correct, 21–24.
— — no ancient authority for, 21–22.
— — mathematically regular, should be, 22, 87.
— — influenced by the pen, 22.
— short, 103, 123, 131.
— shoulders of, 158. See Beard.
— shoulder-height of, 142–3 n., 149, 157 n.
— small, should be beaten lean (lightly inked), 334.
— spring, if badly cast, 177.
— squabble, apt to, 196–7.
— stems of, 113, 132, 352.
— — thickness of, 123.
— strokes of, thickness of, 123, 131.
— swash, 133. See Swash.
— — illustrated, pl. 15 (p. 128).
— tails of, 132.

Figure 3. Part of one headword entry in a 20th-century index to a 17th-century book on printing, reproduced in original size.

Figure 4. First page of an index to a British Standard. Reduced to 65% of original size.

proportion of 64%. The compiler, G. Norman Knight, Founder of the Society of Indexers, noted that the index

had deliberately been made somewhat more comprehensive than might ordinarily be required, and the index was set in single column instead of the more common double. As far as my shelves can produce examples, the father of them all, both as a proportion and as a total, is the index of the 1953 edition of The Oxford dictionary of quotations, (see figure 5) which is 415 pages long, and makes 70.5% of the number of text pages—and in three columns of six point type, at that.

Payment of indexers

My final conclusion is the least likely to arouse dissent in this company. It is that indexers’ fees should be paid by return on receipt of invoice. So should the fees of any other freelance who works for a commercial organization. Such organizations, if they are in fact organized, play a cold-blooded game with payments, balancing creditors against debtors as totals of money owed and owing. Publishers, for example, are notoriously slow to pay printers because booksellers are chronically slow to pay publishers. The process is

Figure 4. First page of an index to a British Standard. Reduced to 65% of original size.
demands of the European book and of the development of European culture. In amongst the roman types on
which we were brought up, we can set Arabic, Cyrillic, Hebrew, Greek, or even hieroglyphic words, sentences,
or paragraphs, for example, though preferably not in all languages at once. We can set the structural
formulae of benzene rings in chemistry, and the enormously elaborate fractional expressions, decorated with
indices of the first and second order, required in some
forms of mathematics. We can even cope with the
phonetic oddities of the comparatively new science of
nightmare. But above all, we can correct our own
mistakes and those of the author, even after that
notionally last moment when the press begins to roll. If
we could not do this, we could not print books without
understanding them. If we understood everything we
print, we could set up in competition with our friendly
neighbourhood university in Oxford. Typographic
composition is certain to go wrong; we rely on our own
ability to detect discrepancies between copy and proof,
and to rectify the printing surface at any stage in
production, at least until presswork begins in earnest.

In the 1950s, the University Printer at Oxford tended
to start with what he called 'proof, by which he meant
from galleys, but after the author's corrections and
alterations had been carried out, and the type divided or
made up into page. The third stage, 'query', followed
any further correction, but also reading and proof-
marking by the graduate press readers who are em
ployed in numbers only at the two great university
printing houses. After this majestic progress towards an
accurate text, a high standard of accuracy was to be
expected. The standard was high even by comparison
with the work of other leading book printers; by
sometimes referred to as cash flow, but only by
humorists. If one organization plays this game with
another organization, that is part of the Queensberry
Rules of commerce. A company which plays that game
with its freelances deserves only the kind of index that
attracts the baleful interest of reviewers in The Times
Literary Supplement.

Movable type

To return from these conclusions to the history of
printing, the single movable type was invented in
Europe in the 1450s. That is, it had been invented in
China some centuries before that, but there was no
connection between the two discoveries, and very little
similarity either. But for more than five centuries the
single movable type has adapted itself to all the
requirements of continuous text.

That, of course, was for the printing of a great
variety of academic works, some of them extreme in
complexity. For less complicated books, a single stage
of proof, in page, was enough, at least when a good
standard of proof-reading and correction was main-
tained by the printer.

Typographic composition is now very greatly
changed. The single movable type is still with us, but
not in force. For most of our work we rely on
photographic images of printing typefaces, and no
longer on the traditional metal-cast type itself. We
control these images by electronic means, instead of the
comparatively simple mechanical devices developed
since the 1890s to mechanize the initial type-setting of
continuous text.

Figure 5. Two columns (out of three on a page) of the
index to The Oxford dictionary of quotations, reduced to
65% of original size.

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There is nothing particularly new about photocomposition. The original idea emerged in the 19th century. During the 1920s, experiment had reached a stage at which it deserved comment in technical publications of the printing industry. Delayed by the distractions of war-time, the process first appeared in action in 1946. Photocomposition systems were slow to develop until computers began to enter into them as a matter of course in the 1970s. Now they are still developing. Composition is not exactly better or worse, but it is different. The differences are not merely technical, they affect the way we all go about our work.

For example, photocomposition does not lend itself so readily to correction as the single movable type. There are certain advantages in electronic correction, but on the whole it costs more than the manual process applied to metal. Printers now prefer to send the first proof in galley, read and marked but uncorrected, so that the printer's mistakes can be rectified during the same stage of correction as those of publisher and author. The number of books which go to the indexer at the first stage of proof is likely to diminish; those that are indexed from a second stage of proof, in page, are likely to increase, and the publisher's insistence on speed in index compilation is likely to increase proportionately.

Some photocomposition systems are capable of making the lines of type up into page as they are set. I for one have little confidence in the make-up of uncorrected type; I have seen too many omitted or repeated lines in uncorrected proofs, and too many faults of make-up such as short lines or 'widows' at the page head, all of which will cause the divisions between pages to be moved successively forward or back at the next stage of proof. When the first proof has been made up in this way, I hope indexers will observe and insist upon the necessity of checking the index proof against the revised proof in page. I also hope printers will not make a habit of this kind of thing. It is bound to lead to a deterioration in the general quality of page make-up. If you doubt this, examine the general quality of word-division at line-ends in photo-composed text. It would be quite easy to put such things right, but once they have been done wrong and nobody has insisted on their being done right, they will continue to be done wrong. After all, the majority says, it costs money to rectify these things, and who notices anyway?

On the other hand, there are advantages in this electronic, photographic, electrostatic age. Some printers are making photocopies of the marked proof and sending them out instead of the unmarked proofs which used to be something of a stumbling-block. The indexer who works from a set of proofs marked by the printer has a better chance of getting his index right. His best chance of all, of course, would be to work from a second, revised proof of the pages, embodying all the corrections and alterations of printer, author and publisher. I often notice in a book a running mistake in the index of two page numbers. That is, all the entries after a certain page are two pages wrong, at least up to a certain point. This is because some full-page item such as an illustration has been moved from one point in the book to another, and some other bit of juggling has kept the right-hand pages on the right by adding or subtracting another page to what otherwise would be a single-page alteration. I have done this myself, but I have always made sure that the index would be corrected accordingly. I am not sure that everybody bothers about such things these days. We have people producing books who simply do not read books which have indexes, and who are not interested enough in the traditional apparatus of preliminary pages, extracts, footnotes, references, tables, appendices and indexes to care whether that apparatus works properly or not.

Photocomposition does not lend itself to correction in the same way as the single movable type. I remember a telephone call from the press-room to my house one fine Saturday afternoon some years ago. A sentence in an important book on an overtime shift seemed to make no sense; make-ready was complete, and printing had just begun. I dictated an improved version over the telephone. A compositor brought a fistful of type to the press, corrected the page, stood by while the next sheet was approved by a reader and all others concerned, and the book was printed. Total delay, about 20 minutes. Today, the question would not be raised by most printers. To obtain a few corrected lines, the overtime shift would have to open up the photocomposition system which would probably have been closed down for the week-end; set up keyboard and typesetter; produce a proof; correct it if necessary on the visual display screen; get it photographed; strip the negative into the faulty page; make a new plate; and replace the faulty plate of 32 pages with the new one. For these mechanical reasons, anything that is still wrong when the plate goes on to the press is likely to be conveniently overlooked. How much less may we hope that the indexer's corrections, received after the main body of corrections has been carried out, will be attended to? The tide of development is flowing against accuracy and excellence for the time being. If all indexers, and some publishers and printers at least, will continue to assume that books are entitled to accuracy and that anything else is wrong, we may hope the tide will flow back one day. Until then, some of us are going to be battling against the main stream.

The role of computers

I do not yet know whether computers, introduced into book production to help with typographic composition, have begun to intervene in the compilation of
indexes. I may have an opportunity to find out next year, when a third edition of my book on book design should be going into production. I boasted of, or admitted to, having compiled the index of the first edition myself. The second edition was only lightly amended, and the index was compiled by Stella Rodway according to the model of the first edition. The third edition has been completely rewritten, and I would like to write the index myself again. If on its way to typographic form the text is to pass through a computer, I hope to mark the headwords of the index in the typescript so that the keyboard operator can identify each with some kind of tracing command. If the page make-up also passes through the computer, I expect the computer can be programmed to extract the headwords, add to each its page number, and rearrange the whole in alphabetical order. I do not see why this should not be done.

The result, of course, will not be index copy. I shall have a good deal of work to do, to produce index copy similar to that of the first two editions. But the computer will have swept through much of the drudgery which would otherwise have been mine or that of a freelance indexer. The interesting tasks of indexing—the application of human and literary judgement to a purely logical extract of information—will long remain beyond the grasp of the machine.

This kind of intention is quite easy to form at my point of daily work, close to and associated with a computerized system of typographic composition. It is less easy for indexers and for everybody else whose work may be within the field of computer operations; typographic designers have the same problem at present. Printers are not particularly good at explaining the technicalities of their trade; this I suppose is why a craft is sometimes referred to as a ‘mystery’. Most of us are not particularly good at abstract study either. I wonder how many people who now work with computers have found out for themselves how binary notation works. Perhaps the Society of Indexers should organize a corporate study of indexing possibilities in typographic computers, if it has not already done so. And if it has not already done so, I would expect the first obstacle to be the inability of printers to answer the necessary questions off the cuff. The answers are more likely to emerge from experiment with actual programmes and sample text copy, as I hope they may begin to do for me next year.

As long as authors and publishers generally continue to require useful indexes, there will be work for the human judgement and skill which will always be better (though not faster) than electronic memory and logic. If, for example, there turns out to be a program according to which a typographic computer could compile an index such as I want for my own book, I doubt whether any book printer could afford it.

The use of computers in indexing

If indexing is allowed to become a mechanical operation, more widely than it is now, there is a real possibility that the operation will be mechanized. There is nothing inherently wrong with a mechanically-compiled index when that is what is best for the book. An example is the index of the Oxford dictionary of quotations in which various key-words in each quotation are linked with the quotation number and arranged in alphabetical order. For all I know, this was done by computer for a more recent edition, and none the worse for that.

Another index which looks as though it was put together in this way, but probably was not, appeared in a biographical study of the great typographer Stanley Morison which was published in 1971. I would have supposed that by then the conventions of analysis and elision in indexes were well established, but they have not been observed here. Under the headwords ‘Monotype Corporation’, for example, there are fifty-two page numbers, some adjacent without elision. I fear a computer would have little difficulty in assembling an index of this kind.

I have done what I could to tell you something about a printer’s view of indexes, but I have strayed among...
the opinions of author and publisher as well. I regard myself as a bookman, content to take any part in the compilation and production of books, and hoping for continued opportunities to do so. The indexer I regard as a partner in the task of producing seemly and useful books. The indexer’s place is not going to be usurped by the most elaborate of electronic hardware or software, so long as authors and publishers recognize the value of human judgement in partnership at work on the text and its apparatus. If there is any tendency for this partnership to become redundant, I hope I shall not be there to see.

Figures 2, 3, and 5 are reproduced by permission of Oxford University Press, figure 4 by permission of the British Standards Institution, and figure 6 by permission of Lund Humphries Publishers Ltd.

Indexers recognized

We are delighted to note that two members of The Society of Indexers have this year been awarded the Wheatley Medal, as reported on pages 79-80. Congratulations to Annette Surrey and Ken Bakewell!

Mrs Surrey holds the distinction of being the first graduate of the Rapid Results College’s correspondence course on indexing to receive this award. She is a Registered Indexer, and Clerk to the Society’s Board of Assessors.

Mr Bakewell, a Principal Lecturer in the Department of Library and Information Studies, Liverpool Polytechnic, is also a Registered Indexer, former Chairman of The Society, and now Vice Chairman. He has compiled many indexes and written several books and articles on indexing. He has probably achieved another ‘first’ in being included, as indexer to the volume, in the ‘Notes on Contributors’ to College administration: a handbook (National Association of Teachers in Further and Higher Education, 1980).

Congratulations also to the winner of the H. W. Wilson Award, Linda I. Solow, for her index to Beyond Orpheus: studies in musical structure by David Epstein (Cambridge, Mass: MIT, 1979).

We are especially pleased too that Professor Pearson was presented with a festschrift in May this year, to celebrate his contribution to Middle Eastern studies and bibliographical scholarship, in particular for his editorship of Index Islamicus. (Middle East studies and libraries: a felicitation volume for Professor J. D. Pearson; ed. by B. C. Bloomfield; London: Mansell, 1980.)

Obituary

Miss R. D. Coole, MBE

Sally Coole had already completed a distinguished career with the British Council when she became one of the foundation members of our Society. A very well-informed woman of wit and discernment, she brought much commonsense and innovation to our councils. She was to be counted upon to be present at the remotest meetings and the dullest of Agenda. Sally Coole loved everything about books, and was profoundly interested in printing and publishing. She saw the necessity for improving the very low standard of indexing which the public seemed 'to be willing to accept after the war, and she fought too for higher fees for indexers. The Society was fortunate in its pioneer members, for they all brought some special gift to its deliberations, and Sally Coole’s flair for judging the right time and the right occasion for the Society’s efforts to achieve international recognition was especially appreciated. On a lighter note, Sally Coole had a weakness for hats; she was one of the few who could carry off a milliner’s inspired creation, and to see Sally Coole walk down Portland Place in her latest confection delighted us all. She was a very worthy Vice-President.

Robert Collison

All who know Elizabeth Wallis, the Registrar of The Society of Indexers, will join in extending to her our deepest sympathy at the premature loss of her husband, who died recently after a sudden, relatively brief, but wholly incurable illness.

Articles of interest


An article of interest to our readers on ‘Citation slips and computer chips’ by Adam J. Aitken, editor of the Dictionary of the Older Scottish Tongue and of The Computer and Literary Studies, appears in Logophile: The Cambridge Journal of Words and Language 3 (2) 1980. It describes how the introduction of modern technology into the gentle art of dictionary compiling is threatening to culminate in a major battle between hardware and software.

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