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1. CLASSIFICATION

(Group A(i) and part of (iii))

Syllabus

(a) *One theoretical paper of three hours, requiring a knowledge of:*

The basic principles of library classification;

The making of a classification for books;

The Dewey, Library of Congress, Bliss, Universal Decimal and Brown schemes of classification.

(b) *A joint practical classification and cataloguing paper of three hours*

"Five practical examples will be set, to be both classified and catalogued (in accordance with the Anglo-American Cataloguing Rules). Students will be examined in classification in one of the following schemes, according to choice, and will be expected to classify as specifically as the schedules and tables of the scheme used will permit:

Dewey's decimal classification, 13th or 14th edn;

Universal decimal classification;

Library of Congress classification;

Brown's subject classification;

Bliss's bibliographic classification.

"Each candidate will be required to provide for his own use a copy of the classification scheme in which he wishes to be examined. . . ."

The student must fully appreciate at the outset that failures are more frequent in Group A than in any other Group of the Registration Examination. The following figures show the low percentages of passes in recent years:

	<i>Theoretical Classification</i>	<i>Theoretical Cataloguing</i>	<i>Practical Classifi- cation and Cata- loguing</i>	<i>Total</i>
	%	%	%	%
Summer 1952	34	44	45	27
Winter 1952	37	42	36	25
Summer 1953	45	37·5	33	22·5
Winter 1953	39	33·5	47	29

These low percentages of passes have been attributed to a variety of causes. One of these is that the student who comes fresh from the Entrance Examination is prone to tackle Group A because it is Group A, whereas Group D might be more appropriate. Classification and Cataloguing require practical experience, background, an ability to think logically

and to marshal facts persuasively. (Much the same might, indeed, be said of Group C, Organization and Administration.)

Analysis of Syllabus

The basic principles of library classification

Two aspects suggest themselves: (a) logical division (as shown in fool-proof form in the dichotomic Tree of Porphyry), and the rules for logical division; (b) the bases of philosophical and knowledge classifications.

Logical division. It will be noticed that the wording of the syllabus has been altered, in order that students shall really concentrate on the fundamentals of *library* classification, and avoid pre-occupation with the Tree of Porphyry, which is an example of dichotomic division, not of classification in our sense of the word. The rules for logical division, the predicables and the Tree of Porphyry are largely of academic interest to us, although we shall need to know them. They are the point of departure for the student. What does emerge is the fact that characteristics of division, in particular, are important. The student must instinctively know how to detect and employ characteristics of division, given a subject; how to detect overlapping and gaps in division, and how to avoid these. These logical preliminaries, then, have to be *applied and adapted*; they are only a means to an end. What is basic for us is the printed scheme or the scheme as applied on the shelves of a library.

The terminology of logic sometimes perplexes the beginner. Logical division must be distinguished at once from classification, which is a much broader term often used in its practical sense and not as signifying an academic exercise. A clear grasp of such terms as cross-division; characteristic of division (as opposed to "difference"); correlation of properties; abstraction; hierarchy; order; and co-ordination and subordination is essential. Work out a series of definitions in simple English (*not* in text-book jargon) and provide examples in each case. Let the examples be original, if possible; they will stay longer in the memory for that reason; but be sure that they are *true* examples. The index to Jevons's *Elementary Lessons in Logic* contains definitions of a number of the terms indexed; cross-check with the definitions provided in Murray and Webster.

An attempt has been made by B. I. Palmer to show how the Colon Classification conforms to the six rules for logical division laid down by Berwick Sayers (*Introduction to Library Classification*, 9th edn, 1954), pp. 163-7) and the result is both useful and interesting. But when we think in terms of Sayers's canons, or the canons of classification, we should mean basic points in the making of a classification for books.

Philosophical and knowledge classifications

Having examined the principles which determine logical division, the student must turn to applications and departures. It is here that philosophical and knowledge classification form a helpful transition to the study of book classification. Philosophical classification—in which we deal with knowledge in cavalier fashion and rarely analyse in detail, because our

object is to show relationship of parts according to a philosophical theory—is well illustrated in the schemes outlined by Bacon and Comte. Knowledge classification, when considered in terms of the detailed schedules of zoology and botany, is both scientific and detailed, thus forming a basis for the schedules of a book classification. Natural and artificial classification may well be included in this section.

The making of a classification for books

Knowledge classification and book classification; Criteria of a good book classification; Advantages and disadvantages of book classification; Special features: generalia and form classes, form divisions, notation, index.

The student who is prone to accept facile formulae will have to unlearn as soon as possible the equation: book classification = knowledge classification plus . . . This is dangerous over-simplification. Richardson's statements in Lecture 1 of his *Classification* must be considered secondary to his conclusions on practical application and usefulness in Lecture 2. Cutter claimed evolutionary order for his scheme, but he really meant common-sense or developmental order in sub-division. Bliss, it is true, states that book classification should conform to the scientific and educational consensus of opinion in outline and detail, but he took care to allow for a considerable measure of flexibility. Jevons, the logician, condemns book classification for its failure to be logical. Putnam, Hulme, Miss Kelley, and Dr Savage, however, insist that book stock and the user shall dictate ways and means.

Criteria of a good book classification are covered by Sayers's canons. Consider also the framework of the scheme and its object; methods of sub-division; terminology; degree of detail; number-building devices; provision for amendments and further expansion. The shortcomings of book classification, as a shelf arrangement, are well covered in Miss Kelley's *The Classification of Books*. Remember that division of material by departments, by size and type of material is *superimposed* upon the normal subject and form divisions of a scheme. Book classification means, in essence, a convenient arrangement of books; the notation is, basically, a finding system, a means of keeping order. We should distinguish, then, between a book classification, as published in schedule form, and as applied to the shelves of a library. Unless the student insists on the criteria of *practical usefulness and the convenience of readers*, his approach to book classification will be unreal. (But although physical adjustments and adaptations must constantly be borne in mind, it does not follow that the examiners are necessarily interested in your own library's modifications of Dewey or Library of Congress, unless these are particularly asked for.)

These generalities bring the student to the mechanical structure of a book classification. Certain features will be found to be common to the major schemes: generalia and form classes; form divisions (or tables); notational and mnemonic devices; and an index (or series of indexes). It is essential—as well as refreshing—to take a comparative view of these special features, not regarding Dewey's methods as being by any means the

last word. (They are often first only in point of time.) One may, in fact, usefully return to this aspect of classification after having mastered the leading points of the major schemes. Once again, practical considerations must come to the fore. Does the average reader grasp anything beyond the first two or three figures (or letters) of a notation? Mnemonic devices may be ingenious, but of what value are they to the user of a library? Does the reader still rely on a sort of fixed location or some form of display in order to find his material? Put yourself in his place and try to visualize his reactions.

Preoccupation with the Dewey schedules and devices will also handicap candidates who are asked to consider methods of sub-dividing given subjects, noting the characteristics used at each step.¹ In this respect U.D.C.—not to mention the Colon scheme—will be found to be much more flexible than Dewey.

The leading schemes of classification

The five leading schemes for detailed study are stated; little time need be spent on earlier schemes, with the possible exception of Cutter's Expansive Classification. Those students who are Dewey-minded are well advised to give the other four schemes their fullest attention. Again, although the student is normally warned off the reading of Bliss on the theory of classification, a first-hand acquaintance with his *Organization of knowledge in libraries* (2nd edn, 1939) is vital, not only for a general approach but also for the critical analysis of Dewey and other schemes. Leading features of the schemes may be summarized:

DEWEY. Merits of notation and index; reasons for popularity (including ease with which adaptation can be made); weaknesses (basis allocation of notation; scattering of related material, etc.); use of form, geographical and other forms of sub-division; variations permitted; building (and "unbuilding") numbers. Note the development of the scheme, especially the 13th, 14th, 15th, and projected 16th edn; also application in the *British National Bibliography*.

U.D.C. (the English edition and especially the 1948 abridgement). Chief variations from Dewey in the schedules; auxiliary signs and symbols; use in special libraries and for documentation purposes (indexing periodical articles, etc.).

LIBRARY OF CONGRESS. Importance of "bibliographical warrant" and departmentalization; approach to form and geographical division (in (a) schedules, and (b) tables) appended. Examine in some detail specimen classes such as J and PR.

BROWN. The association, in detail, of theory and application; Categorical Tables; the one-place theory. Examine in detail such classes as A, B–D, M–N and O–W.

BLISS. Basic principles; Anterior Numeral Classes; Systematic Auxiliary Schedules; alternative location; alternative methods of division. Examine certain classes, such as C, M, and Y, in some detail.

¹ Palmer and Wells' *The Fundamentals of Library Classification* (1951) has much to offer on this matter. The basic chapters, on helpful order, division, phase analysis and notation (chapters 2–8), are illuminating. In deriding what he calls the "Jabberwocky School of Classifiers" (*Library Association Record*, 1951, pp. 237, 300–1, 338–9), Mr J. D. Stewart queries such terms as "facet", "focus", "phase analysis", and the like. Be that as it may, it is necessary for the student thoroughly to assimilate Ranganathan's principles, as expressed in his scheme, in his *Elements of Classification*, and in the Palmer and Wells' *Fundamentals*. See also J. Metcalfe, in *The Librarian*, October 1953, pp. 189–95.

The systematic approach to these schemes is well brought out in Phillips's *Primer*. Each scheme is examined under the following headings: Main outline; Sub-division of classes; Notation; Generalia Class; Form divisions; Geographical divisions; Language and Literature; Biography; Index; Mnemonics; Survey. The student will greatly benefit by undertaking a similar systematic examination at first hand, tabulating the results and comparing with the *Primer*. Equally rewarding is the practice of comparing in chart form the treatment of, say, Biography, or Technology, or Language and Literature, in these five classifications. It goes without saying that second-hand acquaintance with such intricate schemes as Library of Congress and Bliss is infinitely less useful than actual perusal of even one of the schedules. One might go further and attempt to classify half a dozen assorted books by all five of these schemes.

The essential features of Cutter's Expansive Classification and of the Colon Classification should be included here.

Shelf arrangement; Special classifications

The application of these schemes to the shelves of a library raises fundamental issues. It must be repeated that the practical convenience of the user has to be borne in mind throughout. Guiding and display work must be seen in actual practice at several libraries, and types of library, if possible. Shelf arrangement includes such topics as broken order and close versus broad classification and popular groupings.

Special classifications include (a) special types of material, such as office papers, fiction, plays, maps, the junior library, and the local collection; and (b) special subjects, such as medicine, forestry, and statistics.

Practical Classification

Two points call for discussion. The first is covered by a note which, although written in 1939,¹ still has something to offer:

"It cannot be too often pointed out in connection with this paper that the data furnished by the examiners are to be treated on their own merits, and that because this or that library is known to have placed a book at 327·43 is no real reason why the examiners should expect the same placing. In classifying actual books we are at times bewildered by a plethora of facts, from which the real subject of a book may only slowly emerge. Here the work of investigation is more or less cut and dried; the vital data are provided and, while the issues may be confused, they are at least clearly stated.

"It would seem, then, that this Practical Paper requires a special technique of approach. The student must weigh up the evidence given him, placing most emphasis on the annotation . . . referring back to the title, noting (if such information be provided) that the author is so-and-so, whose outlook is economic rather than religious, or psychological rather than anthropological. Even the occasional series note may suffice to turn the scale in the weighing up of evidence. Neglecting no part of

¹ *Library Assistant*, July 1939, pp. 183-4.

the information provided, the student should also be sensitive to the 'pull' of purpose and the fundamental viewpoint approach of Dewey."

The second point very much concerns those students who use the Dewey Classification (13th or 14th editions). They "will be expected to classify as specifically as the schedules and tables of the scheme used will permit", state the syllabus. What this means in terms of Dewey (as opposed to Dewey à la *B.N.B.*) needs to be stated. Mr W. B. Paton, Chairman of the L.A. Education Committee, has made the following observations:¹

"... The examiners expect candidates to produce the specific subject number of a book according to the instructions contained in the schedules (which may involve the process of number building). In cases where geographical limitation of a subject is important, it would be expected that a geographical number be added to the subject number, after the geographical symbol 09 if necessary; and when appropriate the common form division numbers should be used. But provided the candidate produces the specific subject number, any deduction of marks for omission of form numbers from the supplementary tables is negligible, and would hardly affect the chances of success."

Marks can easily be lost in an examination for incorrect application of geographical and form divisions. According to W. H. Phillips, to place the *Municipal Year Book* at 352·042 would probably gain more marks than 352·042058 or 352·0420058 or 352·042000058 (352·04200058 being the number obtained by correct application of geographical and form divisions, at the same time avoiding ambiguity).

Some 94 per cent of candidates at the Winter 1953 examination used Dewey for practical classification. Brown, U.D.C., and Library of Congress took second, third, and fourth places respectively. Whatever the scheme selected, the subject matter of the transcript must be determined first of all. It is here that classification and dictionary cataloguing (the choice, that is, of appropriate subject headings) should go hand in hand. Probably the Library of Congress schedules afford a better idea of the headings to be chosen than do the other schemes. In any case, the majority of the three hours allowed for this practical paper will probably be devoted to cataloguing, but the subject headings must obviously bear out the classification number, not attempt to make up for its deficiencies. Certainly the student would do well to accustom himself to practising both operations together, pondering the subject heading and its placing while he is writing out the main entry.

It will be noticed that the subject matter of a number of the five transcripts given in the practical paper often concern the social sciences, the ramifications of which are complex, particularly in the case of Dewey's class 300. The best approach to practical classifying is, obviously, constant practice, using actual books, book jackets, and annotated catalogue entries. Such periodicals as the *Times Literary Supplement* and the *Book Review Digest* should be first choices. Check placings against the *B.N.B.*

¹ *Library Association Record*, July 1954, p. 270.

(with certain reservations), *British Book News*, and *Glasgow Union Catalogue* placings.

Readings

The fullest bibliography is that appended to Sayers's *Manual of Classification* (2nd edn, 1944, pp. 318–38). There is also a reading list in Miss M. M. Herdman's *Classification: An Introductory Manual* (A.L.A., 2nd edn, 1947, pp. 45–50). For more up-to-date readings, consult sectional readings given at the end of each chapter of Sayers's *An Introduction to Classification* (9th edn, 1954); for periodical articles, refer to *Library Science Abstracts*, under the section "Classification, Cataloguing, Indexing, and Abstracting".

The basic principles of library classification

JEVONS, W. S. *Elementary Lessons in Logic*, chapters 3–5 (Terms, Intension, etc.) and 12 (Predicables, Definition).

STEBBING, L. S. *A Modern Elementary Logic* (1934 edn), pp. 99–116. Brings Jevons up to date and includes topical examples.

Encyclopaedia Britannica (11th edn). Articles on "Classification", "Division", "Dichotomy" and "Predicables".

PHILLIPS, W. H. *A Primer of Book Classification* (3rd edn, 1951), pp. 9–21. Basic; the student should endeavour to work out his own examples.

SAYERS, W. C. B. *An Introduction to Library Classification*, chapters 1–3. The beginner may well commence with this clear outline.

— *A Manual of Classification*, chapters 1–4. An indispensable and most readable introduction.

The making of a classification for books

HULME, E. W. "Principles of book classification", in *Library Association Record*, 1911, pp. 389–94, 414–9. Important: a useful résumé appears as an appendix to Sayers's *Introduction* (3rd edn, 1929, only). The article is now A.A.L. Reprints, No. 1 (A.A.L., 1950).

KELLEY, G. O. *The Classification of Books; An Inquiry into its Usefulness to the Reader* (1938), chapters 1–4. An invigorating break-away from the normal text-book approach.

MANN, M. *Introduction to Cataloguing and the Classification of Books* (2nd edn, 1944), pp. 86–94.

PALMER, B. I. and WELLS, A. J. *The Fundamentals of Library Classification* (1951), *passim*. Also useful on the basic principles.

PURNELL, H. H. "The development of notation", in *Library Assistant*, 1911, pp. 25–33, 44–50.

RANGANATHAN, S. R. *Elements of Library Classification* (1945), chapter 5. An illuminating account of "helpful order".

RICHARDSON, E. C. *Classification, Theoretical and Practical*. Consists of two lectures, the second of which is much the more important to the student.

DEWEY, M. *Decimal Classification* (14th edn, 1942): Introduction, pp. 6–19, 27–45. Pages 27–33 are basic reading.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 22–60. Excellent material and good examples; stresses the practical aspect.

SAYERS, W. C. B. *An Introduction to Library Classification*, chapters 4–5.

— *A Manual of Classification*, chapters 5–9, 32. The earlier chapters stress the theoretical aspect; chapter 32 briefly notes some interesting departures.

The leading schemes of classification

Dewey

DEWEY, M. *Decimal Classification* (14th edn, 1942). The Introduction (especially pp. 40–3) is the clearest exposition of any. Apart from studying the schedules and appendices, the student should refer to the quarterly *Notes and Decisions on the Application of the Dewey Classification* issued under the aegis of Library of Congress.

On the 13th edn, consult articles by E. B. Schofield in the *Library Association Record*, 1933, pp. 56, 245–60, 279–82; 1934, pp. 31–4, 329–30. On the 14th edn, F. G. B. Hutchings, "The new edition of the D.D.C.", *op. cit.*, 1945, pp. 4–5. On the 15th edn, K. C. Harrison, "Standard D.C.: a student's guide", *Librarian*, July 1951, pp. 149–51. On the 16th edn, projected for 1957, see Library of Congress. *Criteria and general procedures for D.C., Edition 16* (November 1953).

MANN, M. *Introduction to Cataloguing and the Classification of Books*, pp. 48–67.

PHILLIPS, W. H. *A Primer of Library Classification*, pp. 63–91. A full account.

SAYERS, W. C. B. *An Introduction to Library Classification*, chapter 12.

— *A Manual of Classification*, chapter 13. Includes a folding chart.

The best account of the B.N.B. adaptation of Dewey is found in B. C. Vickery's review in *Journal of Documentation*, December 1951, pp. 259–62.

U.D.C.

BRITISH STANDARDS INSTITUTION. *Universal Decimal Classification*. English edition (1936); parts available: volume 1, Auxiliary tables and Class 0; Class 5; 61, 621–3, 669, and 678–9.

— Abridged English edition (1948). Referred to as B.S. 1000A:1948. Use for practical classifying. A new edition is expected in 1955.

BRADFORD, S. C. *Documentation* (1948), chapters 3 and 11. The latter chapter makes proposals for an improved U.D.C.

PHILLIPS, W. H. *A Primer of Library Classification*, pp. 140–55, 219–24.

SAYERS, W. C. B. *A Introduction to Library Classification*, chapter 13. By Dr S. C. Bradford; the best short introduction.

— *A Manual of Classification*, chapter 14. In the original edition this chapter contained some errors which were reproduced in Miss Herdman's *Classification*. The chapter is here re-written. (Avoid Dr Savage's *Manual of Book Classification and Display* (1946) on U.D.C.; it is full of misprints.)

Library of Congress

Library of Congress Classification. Outline (1942 edn); Selected classes. Study a complex class such as D or J, and a comparatively simple class, such as G or S, as well as A, P, and Z, which can usefully be contrasted with Dewey.

MANN, M. *Introduction to Cataloguing and the Classification of Books*, chapter 5 (which includes notes on the Brown scheme).

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 106–22. Contains an excellent outline of Dr Putnam's aims.

SAYERS, W. C. B. *An Introduction to Library Classification*, chapter 10.

— *A Manual of Classification*, chapter 16. Remodelled by A. J. Hawkes; a good account.

Brown

BROWN, J. D. *Subject Classification* (1939 edn, revised by J. D. Stewart). The Introduction is the best and clearest exposition. The schedules and Categorical

Tables should be carefully scanned and, if at all possible, used. A short review of the 1939 edition appeared in the *Library Assistant*, 1939, pp. 209-11.

BLISS, H. E. *Organization of Knowledge in Libraries*, pp. 279-89.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 123-39.

SAYERS, W. C. B. *A Manual of Classification*, chapter 17. The folding chart is particularly useful.

— *Canons of Classification* (1915). Difficult to obtain, but well worth perusing.

Bliss

BLISS, H. E. *Bibliographic Classification*. 4 v. (1930-53). V.1 contains a lengthy introduction to the scheme and its tables. *A System of Bibliographic Classification* (1935) gives a convenient preliminary survey of the whole scheme.

HARRISON, K. C. "Bliss—a student's guide", *Librarian*, 1949, pp. 249-57.

— Review of v. III and IV of Bliss, *Librarian*, 1953, pp. 97-9.

MILLS, J. "Classifying by Bliss", *Library Association Record*, October 1950, pp. 370-2.

OSBORN, A. D. A critical American review of the Bliss scheme in *Library Journal*, 1 October 1953, pp. 1623-4.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 162-76.

SAYERS, W. C. B. *A Manual of Classification*, chapter 18. An excellent account, remodelled for this edition by L. A. Burgess; has a folding chart.

A list of libraries using the Bliss Classification appears in the *Library Association Record*, June 1953, p. 199, and January 1954, p. 26. On the British Committee, see the *Record*, June 1954, p. 218.

Other schemes

Cutter: PHILLIPS, W. H. *A Primer of Book Classification*, pp. 92-105. Adequate. Cutter is chiefly of value today for his influence on the Library of Congress and Bliss schemes.

Colon: PALMER, B. I. and WELLS, A. J. *The Fundamentals of Library Classification*. A clearly written account of the underlying principles.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 156-61.

SAYERS, W. C. B. *An Introduction to Library Classification*, chapter 16 (by B. I. Palmer) and Appendix I (by A. J. Wells).

Shelf arrangement and display work

SAVAGE, E. A. *Manual of Book Classification and Display*, chapters 5-12. A provocative statement of the case for regarding classification as only one form of book display; well illustrated.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 183-96.

SAYERS, W. C. B. *A Manual of Classification*, chapters 21, 24-6 and paragraphs 504-7. An excellent practical survey.

SHARP, H. A. *Cataloguing*, chapter 26 ("Classification and Cataloguing").

Special classifications (office papers; local collections, etc.)

STEWART, J. D. *A Tabulation of Librarianship* (1947). A review appeared in the *Library Association Record*, March 1948, p. 84.

HOBBS, J. L. *Libraries and the Materials of Local History* (1948), chapters 12-14.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 196-214.

SAYERS, W. C. B. *A Manual of Classification*, chapters 27 and 31.

A brief but important note on classification in special libraries, by O. W. Pendleton, appears on p. 205 of the *Library Association Record*, June 1954. See

also R. L. Collison's *The Cataloguing, Arrangement and Filing of Special Material in Special Libraries* (1950).

Practical Classification

(It is assumed that the student will have made a careful study of the schedules and tables of the scheme to be used in the examination room, including notes under headings and elsewhere, concentrating particularly on the Introduction in the case of Dewey, U.D.C., and Brown.)

MERRILL, W. S. *Code for Classifiers* (2nd edn, 1939). The introductory, basic rules (nos. 1-44) are important, and a fair proportion of the remainder have relevance here. Subject v. locality, period v. form, biography v. subject, poly-topical books—these are issues which are met with time and time again. The examples are noteworthy.

The more general factors to be considered are stated in the following:

SAYERS, W. C. B. *A Manual of Classification*, chapter 22.

— *An Introduction to Library Classification*, chapters 22-32.

These chapters contain a wealth of exercises; intended primarily for users of Dewey. Actual titles are often unannotated and rather dated. For a brief but valuable note on "book entity", see paragraphs 165-9.

HERDMAN, M. M. *Classification: An Introductory Manual*, pp. 36-9. Useful for its analysis of actual book titles.

PHILLIPS, W. H. *A Primer of Book Classification*, pp. 177-83. A concise statement; no examples.

Various examples of Dewey, as put into practice, are to be found in the *Glasgow Union Catalogue of Additions* (5 v., 1929-52), *British Book News* and the *British National Bibliography*; of Library of Congress—in the Library of Congress *Subject Catalog* (1950); of U.D.C.—in the Science Museum Library's weekly accession lists; of Brown—in the current *Islington Monthly Bulletin*.

Tutors' comments on the examination papers appear regularly in the February and September-October issues of the *Assistant Librarian*. Particularly important are the comments appearing in the September-October 1954 issue, devoted entirely to the Summer Examinations, 1954, in Registration Group A, Classification and Cataloguing.

2. CATALOGUING

(Group A(ii) and part of (iii))

By E. J. ADSETT, F.L.A.

Syllabus

- (a) *One theoretical paper of three hours*, requiring a knowledge of:
The Anglo-American, Cutter, and British Museum rules;
The physical forms of catalogues;
Dictionary and classified catalogues;
Subject headings and subject-indexing;
Annotation;
Analytical cataloguing; and
The cataloguing of maps and plans, illustrations, periodicals, music, gramophone records, and other special material.
- (b) *A joint Practical Classification and Cataloguing paper of three hours.*
Five examples will be set, to be catalogued in accordance with the Anglo-American Cataloguing Rules, a copy of which, together with either Sears' List of subject headings or Library of Congress, *Subject headings used in the dictionary catalogs*, each candidate is required to provide for his own use at the actual examination.

Although students may find the repetition wearisome, the general warning given by Dr Walford under this heading in the chapter on the Registration Examination in Classification (p. 5) should be regarded as applying with almost equal force to Cataloguing.

Analysis of Syllabus

The syllabus set out above is that given in the latest edition (1954) of the Library Association's *Students' Handbook* and notes are included hereunder on these subjects.

Students should not, however, overlook the following topics which, although not specifically mentioned in the syllabus appear to be regarded by the Examiners as being included by implication, and questions dealing with these subjects have appeared in the papers set during the last few years:

- Selective and simplified cataloguing;
- Planning and organization of a cataloguing department;
- Filing rules;
- Compilation of class lists, bulletins, proof reading;
- Guiding catalogues; and
- History of catalogues and cataloguing.

The Anglo-American, Cutter and British Museum rules. The importance of a detailed knowledge of the Anglo-American code cannot be too

strongly emphasized. Students must be able to answer questions in the theoretical paper calling for a statement of a rule, or group of rules, in the Code with illustrative examples and must realize that failure to provide examples will result in loss of marks. The required familiarity can be obtained only by very careful study and by considerable practice in cataloguing strictly according to the Anglo-American rules.

Students are reminded of the notice appearing in the *Library Association Record* for November 1949 to the effect that "Candidates for the Cataloguing Examination are informed that the *Cataloguing rules, author and title entries*, 1908 edn, is to be used in the examination room for Group A, Part (iii); but candidates for Part (ii) should have studied *A.L.A. Cataloging rules for author and title entries*, published in 1949."

A knowledge of the British Museum and Cutter's rules is also required and questions are frequently set calling for a comparison of these codes on specific points. In order to avoid any subsequent confusion it is advisable to defer a study of these other three codes until complete mastery of the Anglo-American code of 1908 has been acquired.

The physical forms of catalogues. Printed, sheaf and card catalogues; their purposes and relative advantages and disadvantages. The printed catalogue deserves more attention than it usually receives and recent developments in its use should be noted.

Dictionary and classified catalogues. A clear understanding of the two main types of catalogue is of the utmost importance. It is obvious from Examiners' comments that candidates reach the examination room with only the most confused ideas of the arrangement of entries in dictionary and classified catalogues and cannot, therefore, set out their answers satisfactorily in the practical paper.

A normal classified catalogue consists of a main classified sequence, an author index, and a subject index, and it is for this type of classified catalogue that entries are expected in the practical paper. Students should, however, also be familiar with the use of the name catalogue as part of a classified catalogue and its effect on the subject index entries.

In answering questions on the relative advantages and disadvantages of dictionary and classified catalogues it must be realized that neither type presents a perfect arrangement and the common error of comparing a bad example of one type with a good example of the other should be avoided. The classified catalogue should not be condemned on principle because the student is familiar with its use only in conjunction with an unsatisfactory classification scheme.

Subject headings and subject indexing. Subject headings and references for a dictionary catalogue. Principle of specific entry and the syndetic principle. "See" and "See also" references. Printed lists of subject headings and their use.

Indexing of classified catalogues, including the author index. The limited use of references in the subject index.

Annotation. General principles and modern practice. Descriptive and

evaluative annotation. Candidates' ability to write brief informative annotations is tested in the practical paper and a good deal of practice is necessary.

Analytical cataloguing. Its value and the factors, including cost, which determine the extent of its use. Co-operative schemes and printed analytical bibliographies.

Cataloguing of maps and plans, illustrations, periodicals, music, gramophone records, and other special material. The cataloguing of incunabula should not be overlooked under this section of the syllabus nor the special problems involved in cataloguing a local collection. Other special material includes manuscripts, films, pamphlets, and clippings.

Selective and simplified cataloguing. Distinction between the two forms. Practice in varying kinds of libraries and the advantages and disadvantages likely to arise from the adoption of either of these policies.

Planning and organization of a cataloguing department. It is not suggested that students for the Registration Examination require the advanced knowledge necessary for sitting the Final paper on cataloguing, but some attention to the following points is essential:

Allocation of duties within the department and between professional and clerical staff;

The processes through which a book passes in a cataloguing department;
Advantages and disadvantages of centralized cataloguing within a system and of co-operative cataloguing;

The uses which may be, and have been, made of the *British National Bibliography* in connection with book ordering and cataloguing;

Records normally kept by a cataloguing department (including the authority file);

Cataloguers' reference tools;

Methods of duplicating cards locally;

Special problems of public (including county), university, and special libraries.

Filing rules. A knowledge of Cutter's and the A.L.A. rules is essential.

Compilation of class lists and bulletins. Proof reading. Various types issued by libraries and their purposes and value. Special needs of county libraries.

Guiding catalogues. Including guides to the public on the use of the catalogue. Some practice in compiling guides is desirable since it helps students to clarify their own understanding of the use and arrangement of the various types of catalogue.

History of cataloguing. Some knowledge of the history of cataloguing is required for the Registration Examination.

Definitions. A sound knowledge of the terms used in cataloguing and of terms from other fields likely to be met in cataloguing is essential. A study of the questions on definitions in recent examination papers will indicate the standards expected.

Practical Cataloguing

General. In all the authorities cited in the reading list the need is stressed for meticulous accuracy, neatness, and clearness in writing and layout and strict adherence to the provisions of the Anglo-American Code.

Students do not, however, appreciate the extreme importance of these points and consequently the Examiners continually complain, for example, of authors' names incorrectly copied from the examples set (e.g. Nicholson instead of Nicolson; Whittaker instead of Whitaker; and numerous variants for Cumberlege). It is not easy for a candidate working without the supervision of a tutor to have his practical work properly corrected, but every effort must be made to enlist the help of someone qualified to check all written practical work.

If students would only submit enough practical work for criticism to a qualified cataloguer they would realize very quickly how easily errors occur in copying and that accuracy bordering on the inhuman is demanded from a cataloguer.

Extreme care, too, is needed in connection with capitalization and punctuation, and the Code rules dealing with these matters should have particular attention. Although the use of a copy of the Code is allowed in the examination room for the practical paper, candidates should make themselves thoroughly familiar with its provisions, since time will not permit reference to the Code for every point of detail. The belief that "it will be all right on the day because I shall have the Code with me" produces its crop of failures at every examination.

Another major source of trouble is the considerable variation from Code practice adopted in many libraries which candidates reproduce in their own work through sheer force of habit and this tendency must be realized and guarded against. A common error arising from this source is the use of an initial capital letter for the second word of every title which has an article as its first word. This should only be done if the second word is the name of a person, personification, place or corporate body, a substitute for a proper name or an adjective derived from these names. The confusion arises because in *title entries* the second word always has an initial capital if the first is an article. (Code rule 172.)

Specimen Entries

In the *Library Association Record* for March 1951 (p. 86) are set out specimen entries for a dictionary catalogue and a classified catalogue which are acceptable to the Examiners, and candidates are most strongly advised to adopt one of the styles shown and to use it consistently throughout their practical work. The Examiners' notes which accompanied these specimen entries also deserve the closest attention. Although the catalogue entries are reprinted in the Library Association's *Students' Handbook*, the Examiners' notes are not, and candidates should therefore make a special point of referring to the *Library Association Record* cited above.

Within the limits of space available it is not possible to comment fully

on all the points to be noted from these approved examples, but the more important ones are as follows:

- (a) Each separate entry should be described as main entry, added entry, reference, subject entry, etc., in the case of entries for a dictionary catalogue, or, for a classified catalogue as main entry, author index, subject index, etc.
- (b) Where an author's forenames are not known space should be left in the heading after the initial to indicate that, wherever possible, these would be verified and supplied. The comma after the name of the first author in the heading for a work by two authors should not be overlooked, nor should the underlining of the word *and*.
- (c) Note that first word of the title should be indented.
- (d) Words supplied in the title must be enclosed within square brackets. (Code rule 139.)
- (e) The Examiners recommend that authors' names be repeated in the title. Any candidate preferring to take advantage of the discretion allowed by rule 173 should be quite sure that the provision with regard to the enclosure within square brackets of names or parts of names supplied in the heading is properly understood.
- (f) The Examiners' notes on the Code practice of showing omissions from the title by three dots and the question of punctuation raised thereby should be studied carefully in the light of the examples shown. Note, however, that the Examiners will accept either practice.
- (g) The imprint should be added to the title, as an extension of it.
- (h) The collation should be separated from the title and commenced on a fresh line.
- (i) Bibliographies and other bibliographical details not given in the title, imprint, or collation are to be noted separately. (Code rule 168.)
- (j) The author index entry in the classified catalogue must include the date of publication. Joint author entries may or may not include the date.
- (k) Similarly, the subject entry in the dictionary catalogue must include the date.
- (l) It may be inferred that the date of latest reprint is to be given in the imprint, followed by the date of first publication of the particular edition, within square brackets.
- (m) The examples chosen do not provide the student with very much information regarding the Examiners' views on subject index entries in the classified catalogue or subject references in the dictionary catalogue.

It seems, however, that complicated chain indexing is not required in the student's practical cataloguing of an example for a classified catalogue and that an involved series of "see also" references, descending by easy stages from the broadest possible subject heading, is not wanted in the practical cataloguing of a single example for a dictionary catalogue.

Reading List

This reading list is indebted to the excellent suggestions for further reading in Mr Sharp's *Cataloguing* (4th edn, 1948) and to the references at the end of each chapter in Miss Margaret Mann's *Introduction to Cataloging and the Classification of Books* (2nd edn, 1943).

The Anglo-American, Cutter, and British Museum Rules

AMERICAN LIBRARY ASSOCIATION, *A.L.A. Cataloging Rules for Author and Title Entries* (2nd edn, 1949).

Cataloguing Rules: Author and Title Entries; compiled by committees of the Library Association and of the American Library Association (English edn, 1908).

The two prefaces are important and should not be overlooked.

CUTTER, C. A. *Rules for a Dictionary Catalog* (4th edn, rewritten, 1904).

BRITISH MUSEUM. *Rules for Compiling the Catalogues of Printed Books, Maps, and Music* (Rev. edn, 1936).

FELLOWS, D. *Cataloging Rules, with Explanations and Illustrations* (2nd edn, 1926).

HANSON, J. C. M. *A Comparative Study of Cataloging Rules, based on the Anglo-American Code of 1908* (1939).

SHARP, H. A. *Cataloguing*, chapters 4-7 and 23-4. Maps, music, periodicals, etc. are dealt with under special cataloguing in chapter 20.

The Physical Forms of Catalogues

MANN, M. *Introduction to Cataloging and the Classification of Books*, chapter 7.

SAYERS, W. C. B. and STEWART, J. D. *The Card Catalogue* (1913).

SHARP, H. A. *Cataloguing*, chapter 14.

STEWART, J. D. *The Sheaf Catalogue* (1909).

VOLLANS, R. F. "The Published Booklist and the Exploitation of Stock, I: Printed Catalogues", London and Home Counties Branch Week-end Conference Papers, 1954, pp. 25-33.

Describes Westminster's printed catalogues. A photographically produced printed catalogue has recently been introduced at Croydon and students should watch for an account of this in the professional press.

Dictionary and Classified Catalogues

CRANSHAW, J. "The Public and the Catalogue: Dictionary or Classified?" *Library Assistant*, March 1937, pp. 72-8. Strongly in favour of the dictionary catalogue.

FREEMAN, C. B. "The Classified Catalogue: a Plea for its Abolition in Public Libraries", *Library Association Record*, October 1942, pp. 147-50.

MANN, M. *Introduction to Cataloging and the Classification of Books*, chapters 7-12.

PALMER, B. I. "The Classified Catalogue: a reply to Mr C. B. Freeman", *Library Association Record*, April 1944, pp. 59-60.

RANGANATHAN, S. R. *Theory of Library Catalogue* (1938). Advocates adoption of classified catalogues.

SHARP, H. A. *Cataloguing*, chapter 3.

States the case for each form, with perhaps a slight preference for classified catalogues.

Subject Headings

BISHOP, W. W. *Practical Handbook of Modern Library Cataloging* (2nd edn, 1927), chapter 7.

CUTTER, C. A. *Rules for a Dictionary Catalog*, nos. 161–92. Still the best statement of the theory of subject headings. The explanatory notes under each rule must be carefully studied.

MANN, M. *Introduction to Cataloging and the Classification of Books*, chapters 9–10.

Includes hints on the use of printed lists of subject headings.

SEARS, M. E. *List of Subject Headings* (6th edn, by B. M. Frick, 1950).

An indispensable reference book for the cataloguing student. Considerable practice in its use for assigning subject headings is essential. The introduction “Practical suggestions for the beginner in subject heading work” should be studied carefully.

SHARP, H. A. *Cataloguing*, chapter 8.

UNITED STATES. LIBRARY OF CONGRESS. *Subject Headings used in the Dictionary Catalogs* (5th edn, 1948).

Every student should examine this list of headings even if Sears’ List will be used in the practical paper.

Subject Indexing

LOWE, E. G. “The Subject-Index to the Classified Catalogue”, *Library World*, July 1941, pp. 3–5.

MCDONALD, F. “The Subject-Index to the Classified Catalogue”, *Library World*, June 1939, pp. 254–7.

PALMER, B. I. and WELLS, A. J. *The Fundamentals of Library Classification* (1951), chapter 11.

RANGANATHAN, S. R. *Classified Catalogue Code* (2nd edn, 1945), pp. 172–225.

Mainly on practice required for use with Colon classification but contains very valuable material on construction of subject indexes of varying fullness.

SAYERS, W. C. B. *Manual of Classification* (2nd edn, 1947), chapter 26.

SHARP, H. A. *Cataloguing*, chapter 16.

Students should also examine the subject indexes of one or more of the excellent *Union Catalogue of Additions*, published by Glasgow Public Libraries in 1929, 1934, 1938, 1949, and 1952.

Annotation

SAVAGE, E. A. *Manual of Descriptive Annotation for Library Catalogues* (1906).

Still the standard work on the subject but now somewhat dated.

SAYERS, W. C. B. *First Steps in Annotation in Catalogues* (2nd edn, revised. Reprinted 1948).

SHARP, H. A. *Cataloguing*, chapter 10.

A useful chapter dealing with present-day practice with illustrative examples taken from libraries’ bulletins.

SNAITH, S. “The Return to Evaluation”, *Library Assistant*, March 1928, pp. 62–7.

Special Cataloguing

SHARP, H. A. *Cataloguing*, chapter 20.

An excellent chapter with adequate treatment of the various forms of special cataloguing. Valuable suggestions for further reading are given which students are advised to follow to the best of their ability.

THORNTON, J. L. *Cataloguing in Special Libraries—a Survey of Methods* (1938).

Analytical Cataloguing

CUTTER, C. A. *Rules for a Dictionary Catalog*, nos. 193–6.

Cutter's notes to the rules quoted contain some useful hints.

FELLOWS, D. *Cataloging Rules with Explanations and Illustrations*, pp. 108–14.

Explains in detail when and how analytical entries should be made.

SHARP, H. A. *Cataloguing*, pp. 105–7.

Selective and Simplified Cataloguing

CRANSHAW, J. "Economies in Cataloguing Methods", *Library Assistant*, February 1934, pp. 32–41.

SHARP, H. A. *Cataloguing*, chapter 12.

VAN HOESEN, H. B., ed. *Selective Cataloging* (1928).

Contributions of varying viewpoint by a number of American librarians.

Planning and Organization of a Cataloguing Department

BISHOP, W. W. *Practical Handbook of Modern Library Cataloging*, chapters 2, 4, and 6.

BUTCHER, S. J. "The Acquisition of Books", *Library Association Record*, August 1952, pp. 259–62.

The ensuing correspondence should not be overlooked.

CALLANDER, T. E. "Machine Reproduction of Catalogue Entries", *Library Association Record*, April 1950, pp. 115–18.

HASLAM, G. E. "The *British National Bibliography* in a Large Library System", *Library Association Record*, March 1951, pp. 72–6.

MANN, M. *Introduction to Cataloging and the Classification of Books*, chapters 13–18.

Essential reading. Although primarily on American practice and use of Library of Congress cards the organization and routines described should be followed in their essentials in any well-organized cataloguing department.

SHARP, H. A. *Cataloguing*, chapters 22 and 28.

STRICKLAND, J. T. "Catalogue Production and the Printed Card", *Library Association Record* 1950, pp. 227–9.

WRIGHT, W. E. "The Internal Organization of the Catalogue Department", in RANDALL W. M., ed. *The Acquisition and Cataloging of Books* (1940), pp. 117–32. The other papers in this collection are worthy of study by the student who is prepared to read a little outside the syllabus.

CALLANDER, T. E. "Local Co-operative Cataloguing".

HIGENBOTTAM, F. "Central Cataloguing".

Both papers read at the London and Home Counties Branch Week-End Conference, October 1948, and included in the printed pamphlet entitled *Problems in Library Administration*, published by the Branch in the same month.

GRAY, D. and HILL, R. H. Articles on "Central Cataloguing", *Library Association Record*, September 1946, pp. 217–19. The case for, by Mr Hill; against, by Mr Gray.

DOWNES, R. B. "Recurring Problems in Cataloging Administration for University Libraries", *Catalogers' and Classifiers' Yearbook*, 1945, pp. 59–67.

PIGGOTT, M. "Cataloguing Practice in University and Special Libraries", *Library Association Record*, May 1954, pp. 160–6.

SHARP, H. A. *Cataloguing*, chapter 21.

County library catalogues and cataloguing.

THORNTON, J. L. *Cataloguing in Special Libraries—a Survey of Methods* (1938).

Includes useful information on university library catalogues.

TROTIER, A. H. "Organization of the Catalog Department in a University Library", *Catalogers' and Classifiers' Yearbook*, 1936, pp. 9–18.

WALLACE, R. "Organization of the Catalog Department in a Public Library", *Catalogers' and Classifiers' Yearbook*, 1936, pp. 19–25.

Filing Rules

AMERICAN LIBRARY ASSOCIATION. *A.L.A. Rules for Filing Catalog Cards* (1942).

A complete code of filing practice with a number of alternative rulings in certain cases of difficulty. Students will find a very useful account in chapter 11 of Miss Mann's *Introduction to Cataloging and the Classification of Books*, but should make every effort to obtain a copy of the code itself.

CUTTER, C. A. *Rules for a Dictionary Catalog*, nos. 298–344. Still important. Most published codes have been based largely on Cutter's rules.

SHARP, H. A. *Cataloguing*, chapter 11.

Compilation of Class Lists, Bulletins, etc. Proof reading.

British Standard Specification 1219.

SHARP, H. A. *Cataloguing*, chapters 13, 17, and 21.

Students should also examine as many examples as possible of book lists, bulletins, etc. issued by libraries.

Guiding Catalogues

FELLOWS, D. *Cataloging Rules, with Explanations and Illustrations*, pp. 280–8.

SAYERS, W. C. B. and STEWART, J. D. *The Card Catalogue*, chapter 9.

SHARP, H. A. *Cataloguing*, chapter 15.

History

NORRIS, D. M. *A History of Cataloguing and Cataloguing Methods, 1100–1850* (1939).

SHARP, H. A. *Cataloguing*, chapter 25.

Gives, in sufficient detail for registration students, an outline of cataloguing history since 1850.

Practical Cataloguing

Examiners' notes and specimen entries in *Library Association Record*, March 1951, pp. 86–7.

JOHNSON, A. F. *Practical Cataloguing: a Guide to Descriptive Cataloguing and the Classified Catalogue* (new edn, 1951).

NORRIS, D. M. *A Primer of Cataloguing* (1952).

ORMEROD, J. *Style in Card Cataloguing* (3rd edn, 1939).

SHARP, H. A. *Cataloguing*, chapter 19.

WALFORD, A. J. "Cataloguing for Examination Purposes", *Library Assistant*, 1943, pp. 68–76.¹

The regular Tutors' comments which appear in the *Assistant Librarian* are well known to students, but the model answers to the practical paper set in June 1954 which appear in the September–October 1954 number are of particular value and should on no account be overlooked.

¹ Reprinted as an appendix in Sharp's *Cataloguing* (3rd edn, 1944; 4th edn, 1948).

3. BIBLIOGRAPHY AND DOCUMENTARY REPRODUCTION

(Group B(iv))

By S. J. GREEN, F.L.A.

Syllabus

One paper of three hours

Physical aspects of the book and other printed material;

History in outline, and contemporary methods of book production in detail—paper, type, composition, methods of illustration, and binding materials and methods;

The collation and description of books;

Processes of documentary reproduction.

Students should begin by learning the meanings of the main definitions of bibliography:

- (i) Historical Bibliography—study of book production and publishing;
- (ii) Textual (Analytical or Critical) Bibliography—study of the physical form of books;
- (iii) Subject (Systematic or Descriptive) Bibliography—the listing of books having a “common point of interest”, i.e. the same author, printer, place of publication, subject, etc.

The relationship between these three will be understood when Chapter 1 of either Esdaile or Cowley is digested.

Contemporary methods of book production are divided into the evolutionary order given in the syllabus, the historical outline being given after each part. “Physical aspects of the book and other printed material” can then be tackled and the student should now be capable of discerning what is to be expected in a well-produced book. The inexperienced often regard the various parts of the making of a book as a series of individual units, so all printed material handled should be critically examined, when it will be noted that the final result depends on the strong relationship and effect that one part has on another. The finish given to the paper can improve or mar the look of the type; wider spacing may make the page more attractive; poor binding may result in pages not opening easily. This relationship cannot be too strongly emphasized.

Students are advised to learn definitions of any of the technical terms used.

CONTEMPORARY METHODS OF PRODUCTION IN DETAIL

(a) Paper

Predecessors of paper are dealt with in Sir F. G. Kenyon's *Books and Readers in Ancient Greece and Rome* (1932), and F. Harrison's *Book about Books* (1943), Chapter 1. Paper can be made from a variety of materials

and its strength and durability depend on the material which gives the necessary fibres, the purity of the additions necessary for colouring, sizing and loading, and the care and treatment given to it during its manufacture. Paper is made either by hand or by machine.

The peculiarities of each of the main materials used—rag, chemical wood, esparto, mechanical wood, and straw—should be remembered, most book papers now having an esparto base. Robert Horne & Co. Ltd's book *Paper for Books* (37 Museum Street, W.C.1, 15s. 1953), contains some thirty-eight examples of such papers with price ratios and a sensible introductory chapter.

The main processes involved are:

- (i) The separation of the material into the fibrous and non-fibrous parts;
- (ii) The removal of the non-fibrous parts;
- (iii) Treatment of the individual fibres (half stuff) by beating them between sets of knives;
- (iv) The addition of colouring, sizing, loading;
- (v) Manufacture, by allowing the water to drain off and the fibres to interweave;
- (vi) Drying, rolling, and calendering, to obtain the required finish, affecting
(1) Surface, (2) Opacity, (3) Bulk, (4) Stretch of the paper.

If hand production, using a rag furnish, is first studied, it will be easier to understand the principles upon which the Fourdrinier machine works, using other furnishes to provide the fibres. The main varieties of paper are listed in Jennett, pp. 148–52; Tarr, J. C., *How to Plan Print*, pp. 157–60; Tarr, J. C., *Printing Today*, p. 154.

Students should obtain samples of various papers and become familiar with their feel, look through, surface, etc., and judge whether they conform to the qualities for printing papers mentioned in Whetton's *Practical Printing and Binding* (p. 334), and should visit a paper mill. A knowledge of *The Durability of Paper* Report (Library Association, 1930) is *essential*, and subsequent criticisms of it must be observed.

Paper: History. The outline required here will include early use in China, route to Europe, the establishment of the early English mills, the use of the wove mould and the development of the Fourdrinier machine. The dates when the various materials, both for furnish and treatment, became commercial possibilities are important, as are the names of the persons concerned.

(b) Type

First learn the parts of an individual "sort", the methods of measuring it, and the components of the alloys used for type metals. Manufacture by hand, using the punch, the matrix, and the mould then follows.

The main designs used here are Gothic, Italic, and Roman. This last can be broken down into Venetian, Old Face, Modern Face, Egyptian, San Serif, and Old Style. The characteristics of each must be known, together

with examples of individual designs falling within these groups which are used in book production. The diagrams used in Biggs's *Approach to Type* will be found particularly useful, and the care with which the author describes the peculiarities and uses of most of the individual designs is of great help. Every letter in a design must possess optical clarity (legibility) and aesthetic appeal (readability). Both Tarr (*How to Plan Print*, pp. 3-17) and Simon (*Introduction to Typography*, pp. 12-17), agree that the factors controlling legibility can also be used as a comparison between designs. Included are such things as x-height, width, counter, serif, shape, and the stress or thickness of the strokes.

Type: History. The alphabet developed from earlier use of pictograms and ideograms. Roman designs used today are said to have their foundation in letters found on the Trajan Column (Rome, A.D. 114). Styles of handwriting gradually affected their shapes. The Caroline minuscule used for a revision of the Scriptures by Alcuin of York set the style for a period and was later rediscovered by the Italian humanists. Further compression produced the *Gothic* hands copied by Gutenberg and Caxton. When printing moved across to Italy the purer Caroline script in turn established the Roman designs. Rusch (Strasburg, 1464), Sweynheim and Pannartz (Subiaco, 1465), Wendelin de Speyer (Venice, 1469), Jenson (Venice, 1470), Aldus (Venice, 1495), Pynson (England, 1509), Caslon (1722), Baskerville (1757) are all important names whose influence must be understood. The gradual transition of "modern face" and other later developments must be known.

(c) Composition

If hand methods are studied it will be easier to follow the mechanical methods of composing type. There are some admirable illustrations in Whetton, Chapter 2, and Chapter 3. Bernard Rogers, in *Elementary Typography*, gives a simple explanation of hand composition. The meanings of stick, galley, proof, imposition, chase, forme, and the sizes of the items used for furniture and spacing material, will be of use to the student.

In mechanical composition Linotype and Monotype machines are the most important. These should be seen working and their essentials, advantages, and differences, e.g. justification, shape of matrix, etc., should be compared.

Photographic type composition is still subject to research and development. Mallaber's *Primer of Bibliography*, pp. 34-7, Tarr's *Printing Today*, pp. 90-1, Whetton, pp. 45-6, and the *Penrose Annual* give useful information. Whetton (Chapter 13) has some good illustrations of stereotyping and electrotyping.

An outline knowledge of the three kinds of presses used (1) Platen, (2) Cylinder, both stop cylinder and two revolution, (3) Rotary, can be obtained from Tarr's *Printing Today* (Chapter 12) or Jennett (Chapter 7).

Composition: History. The development of the printing press is dealt with in Binns (pp. 166-73), and McKerrow (Chapter 5). Students should be able to draw a diagram of the Joiner's press and to explain its method of

working. The contribution made to printing by such people as Garamond, the Elzevirs, Plantin, Granjon, etc. is important.

(d) Illustration

All processes used to reproduce illustrations can be divided into: (1) those controlled by hand, i.e. autographic or non-process, or (2) those which require the help of photography, i.e. process. They can be subdivided by the kind of surface used, i.e. (a) raised or relief (typographic), (b) depressed or intaglio (photogravure), (c) planographic or flat (lithographic); these surfaces are shown in the diagram on p. 13 of Tarr's *Printing Today*.

Illustrative methods can be charted thus:

1. Autographic

- (a) Relief: Woodcut, wood engraving, lino cut, rubber cut, metal cut.
- (b) Intaglio: Line (copper) engraving, steel engraving, mezzotint, drypoint, stipple, etching, soft ground etching, crayon etching, aquatint.
- (c) Planographic: Lithography.

2. Photographic

- (a) Relief: Zincography (line block), half-tone.
- (b) Intaglio: Photogravure.
- (c) Planographic: Photo-lithography, photo-litho offset, collotype.

The principles and dates of the hand processes can be learned from any standard work of illustration methods. The essentials given in P. James's *English Book Illustration, 1800–1900*, pp. 66–70, can be supplemented by J. C. Tarr (*Printing Today*, Chapter 5) or Curwen's *Processes of Graphic Reproduction in Printing*; D. Bland's *The Illustration of Books* is particularly recommended.

Students must be able to describe the characteristics of the results of each of the processes *in their own words*. Examples of the hand processes will be found in J. Buckland-Wright's *Etching and Engraving: Techniques and the Modern Method* (Studio, 1953, 30s.), and *How to Distinguish Prints*, edited by H. Hubbard (Print Society, 1926).

The photographic processes are described in detail in both Whetton and Tarr. These generally provide the methods used in modern book production. A visit should be made to a process engravers. The use of photo-lithography for reprinting texts must be remembered. As authorities disagree on the explanation of the three-colour process, students are advised to study the diagram on p. 118 of J. C. Tarr's *Printing Today*.

(e) Binding Materials and Methods

The processes of bookbinding may be divided into:

1. Preliminaries: Folding, gathering, collating, sewing, pressing.

2. Forwarding: Trimming, glueing, rounding, backing, edge decoration, boards, lining backs, and covering.
3. Finishing: Lettering, decorating, etc.

Particular attention should be paid to (i) the qualities of covering materials, (ii) the sequence in the process of rebinding and the styles used for library work, (iii) new materials which have proved useful, e.g. Linson, nylon, plastics, (iv) the advantages claimed for some of the new machinery employed, and (v) the differences between binding and casing.

Read the binding instructions issued to bookbinders and be capable of writing simple specifications for various types of books such as valuable works, reference books, fiction, junior books, periodicals, etc.

R. F. Drewery's *Library Binderies* (L.A. Pamphlet No. 3), explains the economics of a library bindery and the "Perfect" method of binding. H. J. Plenderleith, in *The Preservation of Leather Bookbindings* (B.M., 1946), discusses the cleaning and dressing of leathers and the P.I.R.A. Test. In the *Penrose Annual*, 1953, P. B. G. Upton examines "The Breakdown of Publishers' Binding".

Binding: History. It is difficult to define the exact requirements for a historical outline, but the following is suggested.

Early development in the East, use of wooden boards, repoussé work, blind tooling in the West, deerskin, Bruges style, spread of fine binding across Europe, use of gold leaf, Berthelet, arabesques, Corvinus, Canevari bindings, Grolier, Mahieu, Tory, Lyonnaise style, fanfare, Nicholas and Clovis Eve, "Semis", Le Gascon, pointillé, Jansenist style, Padeloup, dentelles, Mearne, cottage style, Robert Harley, Payne, Cracherode, Edwards of Halifax, William Pickering, Leighton, Cobden Sanderson, Zaehnsdorf, simplicity of the twentieth century.

(f) Good Book Production

The parts of a book are listed and described in Esdaile, pp. 83-92, and Jennett, Chapter 17.

Students will now appreciate the standards set for book production and are advised to read the L.A. Report on Book Construction, 1931, and to revise Simon's *Introduction to Typography*.

The "Production Specifications", together with the articles in the three numbers of the *Bowater Papers* (published by The Bowater Paper Corporation Ltd, 1950, 1951, 1954), show how the use of differing typefaces, paper, and process can be combined to obtain varied effects. The article "Typography means more than Layout", on pp. 42-6 of number 3, shows photo micrographs of eight faces printed on different papers. Many other examples of well-produced pages can be seen in the volumes of the *Penrose Annual*.

Students should now be able to appraise salient features of popular publishers' series.

The private presses which produced so many notable books are mentioned in N. E. Binns's *Introduction to Historical Bibliography*, Chapter 11,

and McMurtrie, Chapter 33. Ruari McLean, *Modern Book Design* (Longmans Green, 1951, 3s. 6d.), gives information on the latter developments. The Annual Exhibition of Book Design, sponsored by the National Book League, and the catalogue produced for it are worth attention, and show which typefaces are in contemporary use.

Finally, the student must be able to explain how imperfections in the printing and binding of books can occur.

(g) Collation and Description

Revise the meanings of bibliography and note that Historical Bibliography greatly helps in the study of the physical form of books and their adequate description as individuals. These separate descriptions can then be correlated by their common point of interest.

An individual work has to be identified and its edition and date (if possible) defined. To collate it and judge its perfection, a knowledge of *format* or structure is required.

There are various standards for the descriptions necessary to record a book and note its literary or typographical value, this depending on the purpose the bibliographer has in mind and the date of the volume (see McKerrow, Part 2, Chapter 1). One of the forms, that suggested by Cowley, has the following parts: Heading, Transcription of Title, Imprint, Collation, Analysis of Contents, Notes. Several recent examination questions have asked for an explanation of a given collation and students are strongly advised to learn the details given in J. D. Cowley's *Bibliographical Description and Cataloguing*, pp. 96 *et seq.*

Other problems which arise when bibliographical description is being practised by beginners are clarified by reading McKerrow, Part 2, Chapter 3, "On the Meaning of 'Edition', 'Impression' and 'Issue', etc.", and later, on page 180, hints are given on how "to determine whether two copies of a book belong to the same edition". The dating of undated editions is dealt with in Esdaile, pp. 221-8. Chapters 5-7, and 9 of Part 2 of McKerrow cover false dates, variations, books set in duplicate, and cancels, and pp. 252-63, errors made by the compositor.

British Standard, 1413 (1947), on Book Sizes and Dating of Books also defines "Impression", "Edition", and "Re-Issue".

(h) Documentary Reproduction

As long as the necessary background reading is done, there is no reason why this section should present any difficulties. Every effort must be made to see as many as possible of the various processes in operation.

Mr Hoy's "Notes on Documentary Reproduction", in the *Assistant Librarian* (January, 1954), provides an excellent introduction.

Methods used beside duplicating can be divided into (1) the optical processes requiring the use of the camera, and (2) the non-optical or non-camera processes.

In (1), because of the camera lens, the reproduction can be enlarged, be the same size, or be reduced. Methods include (a) photostat, (b) microfilm

and microfiche, which require a "reader" to project an enlargement of the film to enable it to be read, (c) microcard and microprint, where a series of reduced photographic positives are printed down, requiring an enlarger for reading purposes, and (d) offset-litho (*see* Mallaber, p. 68).

The non-camera processes (2) use light to reproduce the original on to paper whose surface is sensitive to light. The size of the reproduction must be the same as that of the original. The position of the original and the sensitized surface in relation to the light source varies according to whether the method is (i) Direct (contact), or (ii) Reflex.

Direct (contact) methods will immediately produce a copy from an original which bears print on one side only, and include (a) blueprint, and (b) dye-line.

Reflex methods (ii) can copy from either a single-sided or double-sided original. The first copy obtained is in reverse and is re-copied to give a readable result. Three of the commercial machines using the reflex methods are the "Copycat", the "Rutherstat", and an American development, the "Contoura".

The Examination Paper is often divided into four sections:

- (i) Four questions devoted to the collation and description of books, the functions of bibliography.
- (ii) Four questions on modern book production and its history.
- (iii) Two questions on paper and binding.
- (iv) Two questions on documentary reproduction.

Half the questions in each section must be answered.

Readings

There are numerous text-books covering the various subjects which together make up the syllabus. Many others beside those mentioned contain excellent material. Details of some of them will be found in the current edition of *The Students' Handbook*, and tutors will always give guidance, *which should be sought*, on their relevance and importance. An obvious approach is from the simple to the more advanced. Begin by understanding Mallaber's *Primer* and then go more deeply. Certain books contain glossaries of terms, e.g. Tarr's *Printing Today*, Simon's *Introduction to Typography*, Cockerell's *Bookbinding and the Care of Books*, which are most useful. John Carter's *A.B.C. for Book Collectors* (Hart-Davis, 1952) can be used for revision with relaxation.

Introductory and General

LIBRARY ASSOCIATION. *Students' Handbook*, current edition.

MALLABER, K. A. *Primer of Bibliography* (A.A.L., 1954). Gives suggested readings at the end of each chapter.

ALDIS, H. G. *The Printed Book* (C.U.P., 3rd edn, 1951. 8s. 6d.).

ESDAILE, A. *Student's Manual of Bibliography* (Allen & Unwin, 2nd ed., 1932. 12s. 6d.).

McKERROW, R. B. *Introduction to Bibliography for Literary Students* (O.U.P., 1949. 21s.).

HARRISON, F. *Book about Books* (Murray, 1948. 5s.).

McMURTRIE, D. C. *The Book* (O.U.P., 1950. 52s. 6d.).

Paper Making

LIBRARY ASSOCIATION. *The Durability of Paper* (Library Association, 1930. 1s.).
JENNETT, S. *Making of Books* (Faber, 1951. 42s.), chapter 10, "Paper; its Manufacture and Varieties".

WHETTON, H. *Practical Printing and Binding* (Odhams, 1946. 12s. 6d.), chapter 28, "Printing Papers and their Manufacture", by R. H. Clapperton.

Encyclopaedia articles, e.g. *Chambers*.

MADDOX, H. A. *Paper* (Pitman, 6th edn. 7s. 6d.).

These should be followed by reading the supporting chapters in Technical Section of the British Paper and Board Makers' Association (Incorporated) *Paper Making*, J. Grant's *Wood Pulp and Allied Products* (L. Hill, 1947. 21s.), and Clapperton and Henderson's *Modern Paper Making* (Blackwell).

Paper Making: History

McKERROW, R. B. *An Introduction to Bibliography for Literary Students*, chapter 8.

Technical Section of British Paper and Board Makers' Association. *Paper Making*, chapter 1, "Introduction and Historical".

McMURTRIE, D. C. *The Book*, chapter 4, "Paper and Its Origins".

CLAPPERTON, R. H. and HENDERSON, W. *Modern Paper Making* (Blackwell, 1941), pp. 233–40 (for watermarks).

Type

BIGGS, J. R. *An Approach to Type* (Blandford Press, 1949. 16s.).

TARR, J. C. *How to Plan Print* (Crosby Lockwood, 2nd edn, 1949. 12s. 6d.), pp. 1–52.

EVETTS. *Roman Lettering* (Pitman, 1948. 10s. 6d.).

JENNETT, S. *Making of Books*, chapter 2.

WHETTON, H. *Practical Printing and Bookbinding*, chapter 1.

SIMON, O. *Introduction to Typography* (Faber, 1945). chapter 3.

SCARFE, L. *Alphabets* (Batsford, 1954. 30s.).

COWELL, W. S., Ltd. *Handbook of Printing Types* (Faber, 1948. 12s. 6d.).

Type: History

BINNS, N. E. *Introduction to Historical Bibliography* (A.L.A., 1953), chapter 3.

TARR, J. C. *Printing Today* (O.U.P., 1949. 7s. 6d.), chapters 2, 3, 4, and 7.

ALDIS, H. G. *Printed Book* (1951 edn), chapters 1 and 2.

JENNETT, S. *Making of Books*, chapter 1.

MORRISON, S. *Type Designs of the Past and Present* (The Fleuron, 1926. 6s.).

Composition

ROGERS, B. *Elementary Typography* (Pitman 1944. 6s.).

TARR, J. C. *Printing Today*, chapters 6 and 8 (pp. 87–95).

JENNETT, S. *Making of Books*, chapters 3, 4, and 5.

Illustration: Processes and History

BLAND, D. *The Illustration of Books* (Faber, 2nd edn, 1953. 12s. 6d.).

BIGGS, J. R. *Illustration and Reproduction* (Blandford, 1950).

BRITISH MUSEUM. *Guide to the Processes and Schools of Engraving* (1933).

CURWEN, C. W. *Processes of Graphic Reproduction in Printing* (Faber, 1947).

JAMES, P. *English Book Illustration, 1800–1900* (King Penguin. 2s. 6d.).

JENNETT, S. *Making of Books*, chapters 8 and 9.
TARR, J. C. *Printing Today*, chapters 5, 8, 9, and 10.
WHETTON, H. *Practical Printing and Binding*, chapters 14, 15, 16, 20, and 23.

Binding

BATES, J. S. HEWITT. *Bookbinding for Schools* (Dryad, 5th edn, 1948. 9s.).
LEWIS, A. W. *Basic Bookbinding* (Batsford, 1952. 12s. 6d.).
COCKERELL, D. *Bookbinding and the Care of Books* (Pitman, 4th edn. 15s.).
MASON, J. *Letterpress Bookbinding* (Pitman. 4s. 6d.).
RILEYS of Huddersfield. *A Modern Library Bindery*.
WHETTON, H. *Practical Printing and Binding*, chapter 31.

Binding: History

ALDIS, H. G. *The Printed Book*, pp. 103–13.
BINNS, N. E. *Introduction to Historical Bibliography*, chapter 20.
ESDAILE, A. *Student's Manual of Bibliography*, pp. 196–213.
MCMURTRIE, D. C. *The Book*, chapter 38.

Illustrations of many of the styles mentioned by these and other authors can be seen in Victoria and Albert Museum. *Bookbindings*, by J. P. Harthan (H.M.S.O., 1950. 3s. 6d.).

Collation and Description

COWLEY, J. D. *Bibliographical Description and Cataloguing* (Grafton, 1939).
ESDAILE, A. *Student's Manual of Bibliography*, chapters 7 and 8.
MCKERROW, R. B. *An Introduction to Bibliography for Literary Students*, pp. 145–63.
POLLARD, A. W. and GREGG, W. W. *Some Points in Bibliographical Description* (A.A.L. 1s.).

Documentary Reproduction: (a) Introductory

HOY, R. J. "Notes on Documentary Reproduction", *Assistant Librarian*, January 1954, pp. 2–7.
MALLABER, K. A. *Primer of Bibliography*, pp. 61–9.

(b) Further Readings

GREENWOOD, H. W. *Document Photography* (Focal Pr., 1947), pp. 45–75.
H.M. TREASURY (O. & M. Division). *Machines and Appliances in Government Offices* (1947).
ROYAL SOCIETY. *Scientific Information Conference Report, 1948*.

Articles in periodicals are also of value, such as Newbury, K. M. "The Duplicator in the Library" (*Library Assistant*, February 1950, pp. 19–24), Fry, W. G. "Photography and Libraries" (*Library Association Record*, February 1948, pp. 36–42), Jones, G. "Progress in Reflex Copying" (*Library Association Record*, January 1953, pp. 10–13). *Aslib Proceedings*, the *Journal of Documentation*, and the *O. & M. Bulletin* often have articles on the finer points of documentary reproduction.

4. ASSISTANCE TO READERS

(Group B(v))

Syllabus

One paper of three hours

This paper is designed "To test the candidate's ability (a) to use books and other printed material in solving readers' inquiries, and (b) to prepare bibliographies and reading lists both in response to individual inquiries and as a means of revealing the resources of a library or information centre. (a) requires a knowledge of outstanding reference material in important subjects, including catalogues, bibliographies, reading lists and abstracts, and (b) a knowledge of the way in which bibliographies, readings lists and other library publications are prepared and presented—including their preparation for the press; methods of display; the way to approach the reader, and the training of readers in the use of libraries and information centres."

Four of the six questions to be answered in the paper concern the above-mentioned division (a), which we may term "Assistance to Readers: the material at our disposal". The remaining two concern division (b). The latter we may term "Assistance to Readers: methods and techniques".

Analysis of the Syllabus

(a) Assistance to Readers: the material at our disposal

Students should appreciate at the outset the variety of what we may loosely call reference material. It includes not only text-books, monographs, encyclopaedias, dictionaries, directories, year-books, and telegraphic codes; it also covers periodicals, maps, atlases, plans, patents, abstracting journals, trade catalogues, newspaper cuttings, illustrations, and even films, slides, photocopies of materials (especially microfilms), gramophone records, apart from a whole range of bibliographical aids. Again, the student should be able to distinguish between the different grades of material available on a given subject, differentiating the introduction and the popular exposition (by no means synonymous) from the intermediate and advanced text-book, and "primary source material" (e.g. original documents) from "secondary material" (writings based on original documents or perhaps merely on other secondary material). On the subject of editions, impressions, etc., see P. Heyworth's *Primer*, pp. 21–5.

There is some point in breaking down reference material, for our purpose, into (i) general, and (ii) special. Material in the first category must become really familiar. Material in category (ii) is so vast that the student must select some particular subject (roughly at Dewey division level) in either the humanities, social sciences, or the pure and applied sciences. This will come particularly readily to those who have taken alternative (b) to the History of English Literature in Group D. It will, in any case, be an initial step towards specialization in the Final, Part 3, as well as in Part 1.

Questions will in future be set asking for knowledge of material in a field which is left to the candidate's choice.

Reference material

- (i) **GENERAL.** General encyclopaedias, general language dictionaries, general biographical dictionaries; general directories; and year-books; newspapers; Government publications and publications of international organizations (U.N.E.S.C.O., F.A.O., etc.); maps and atlases; bibliographies (general; national).
- (ii) **SUBJECT MATERIAL** (outstanding material in important fields of knowledge). Subject encyclopaedias and dictionaries; special directories and year-books; periodicals (informational; reviewing; abstracting); subject aspects of items listed in (i), particularly subject bibliographies, special library catalogues, and reading lists.

For those who have been so far deprived of experience in a reference department or information centre, nothing short of a first-hand acquaintance with the leading reference tools and bibliographies must be aimed at. Proficiency comes only with the daily round of readers' inquiries, for in handling these the assistant gradually learns not merely where to go for an answer, but also how to distinguish between the partial and the full answer; he economizes time and effort by knowing instinctively what is the book or the material for the occasion: it may not be an answer in itself (as presented in an encyclopaedia, dictionary, or monograph), but it may lead to the answer (as in the case of a bibliography, catalogue, index, reading list, abstract, or information-file clipping).

Failing actual day-to-day work in a reference library, the student should at least get behind the counter and see what type of query is constantly being dealt with, how it is handled, how a number of partial answers may add up to the complete solution, how one reference book will lead to another, how a query may be tackled in many more ways than one, and how to utilize the resources and experience of the other libraries and institutions. Having familiarized himself with the basic quick-reference tools—the encyclopaedias, dictionaries, directories, year-books—the student should then go out to two or three reference libraries, one with a basic stock of some 5,000 books, and at least one other with a fairly extensive stock of 25,000–50,000 books or more. Those tools which are found to be common to all these libraries will become underlined in his mind; others may catch the attention as being, perhaps, shorter cuts or more up-to-date answers to the queries which are normally handled. Distinguish, too, between, what Dr Ranganathan calls “ready reference service” and “long range reference service”. There will always be something to learn from a visit to another library, if it be only of a negative nature.

Those living in the vicinity of London are very fortunate in having a number of first-class reference departments which have few equals in any country. The Middlesex North and Middlesex South libraries of the University of London Library are of absorbing interest; they act as a cor-

rective to those too familiar with the smaller public library reference collection; at the same time, they are open to any student who cares to apply for a reader's ticket, and for a generous number of hours and days. Of the public libraries, the Westminster Central Reference Library, St Martin's Street, W.C.2 (which includes commercial and technical departments), the Kensington Central Reference Library, and the Guildhall Library are probably the largest but by no means the only collections which repay a visit, or several visits. Sometimes a carefully chosen stock of 5,000 books will reveal more to the student-visitor than a library twenty times that size. In the Midlands and Scotland, the Birmingham, Manchester, Leeds, Sheffield, the Picton and Mitchell Reference Libraries are obvious examples of great collections, not to mention that of Bristol, Cardiff, and elsewhere. However remote the student may be from his nearest large reference library, he must not on any account deny himself one or more visits to at least one of them—and the second visit will usually more than double the value of the first visit. There is no substitute for this practical approach to Assistance to Readers; to browse over the contents of the tools of his profession should be the aim, not the memorizing, parrot-fashion, of the names of hundreds of authors and titles of standard works.

Chief guides to reference books, roughly in order of importance:

- ROBERTS, A. D. *Introduction to Reference Books* (2nd edn, 1951). First class, so far as it goes; it covers reference material in general and not on specific subjects, unlike the other guides. It largely, but not entirely supersedes *The Use of Reference Material*, by J. D. Cowley (1937, reprinted 1947).
- WINCHELL, Miss C. M. *Guide to Reference Books* (7th edn, 1951); *Supplement, 1950-1952* (1954). The standard guide, from which the student needs to select the basic material, chiefly in the field of British and American publications.¹ Useful criteria are given for encyclopaedias, etc.
- COLLISON, R. L. W. *Bibliographies, Subject and National* (1951). Very handy, especially for the charts.
- BARTON, Miss M. N. *Reference Books* (Enoch Pratt Library, Boston, Mass., 3rd edn, 1954). A well annotated list of 497 works. American material is, naturally, prominent, but not many essentials are overlooked. A number of illustrations are included.
- MCCOLVIN, L. R. *Reference Library Stock* (1952). Annotations are scanty, but much of the basic material is there, including periodicals.
- MUNFORD, W. A. *Reference Works* (N.B.L. List. Second series, 1949). A very useful basic list of about 500 items, including year-books and annuals, with prices.
- SHORES, L. *Basic Reference Sources* (3rd edn, 1954). Heavily weighted in favour of American material, which covers over 80 per cent of the 351 titles mentioned. There are some useful points on evaluation of reference books under types and subjects.
- HIRSHBERG, H. S. *Subject Guide to Reference Books* (1942). This rings a welcome change on the usual arrangement of reference material, being A-Z by topics. Under topics will sometimes be found hints on methods of search. The recurrence of a title of a work should impress its value.

¹ It is assumed that one difference between the scope of Registration Assistance to Readers and Final Part I is that the former concentrates largely on English language material, while the latter is universal in scope.

HEPWORTH, P. *A Primer of Assistance to Readers* (1951). Chapters 3 and 5 are relevant here. The "Examples of Representative Books" tends to illustrate rather ephemeral works, although variety of appeal is stressed.

Of the older material, mention must be made of *Reference Books*, edited by J. Minto (1929 Supplement, 1931), obviously much dated, but having a welcome British bias; Dr Esdaile's *Student's Manual of Bibliography* (3rd edn, revised by Roy Stokes, 1954) covers primary and secondary bibliographical aids (Chapters 9–10), and H. B. Van Hoesen and F. K. Walter's *Bibliography: Practical, Enumerative, Historical* (1928), chapters 3–6 and 8–11 of which are still of value.

For the location of selected reference material in the London area there are three guides, two A.A.L., Greater London Division publications—*Union List of Bibliographies* (1950); *Union List of Reference Books* (1954); the London and Home Counties Branch publication, *London Union List of Periodicals*, edited by K. A. Mallaber and P. M. de Paris (1951); and *A Select List of Reference Books and Bibliographies* compiled by L. M. Payne and E. P. Dudley (North-Western Polytechnic: Department of Librarianship, 1951). Elsewhere we have the East Midlands Division's *Union List of Bibliographies* (March 1954), the South Wales Division's *Reference Books* (2nd edn, 1952), and *Basic Quick Reference Books for a Small Library: a List*, compiled by the Yorkshire Group of the Reference and Special Libraries Section of the Library Association (June 1953). The last-mentioned excludes subject bibliographies but includes year-books.

This sifting of the basic material is obviously important. It will give the student a comparative outlook. Moreover, while book selection, as such, is not mentioned in the syllabus, it is implicit, in an informal sense, in the functions of the reference assistant and the readers' adviser.¹ The student should prepare a chart covering basic reference books, standard textbooks, bibliographical aids and periodicals, and using the Dewey main classes as a rough guide. A suggested outline of this chart is given on p. 37.

Four types of reference material seem to call for special mention—Government publications (including United Nations publications), publications of learned societies and institutions, maps and atlases, and periodicals (including abstracting and indexing services, union lists, and the like).

A readable introduction to Government publications is provided in *The State as Publisher*, by Sidney Horrocks (L.A. Pamphlet No. 10, 1952). This is now out of print. It will be republished as two pamphlets, one dealing with the development of Government publications (stressing parliamentary papers) and the other with Government publications stressing their current variety. R. Staveley's *Government Information and the Research Worker* (1952) makes formidable reading, but the lengthier chapters give an excellent idea of certain representative Departmental publications. See also A. D. Roberts's *Introduction*, Chapter 11, and

¹ *A Manual of Practical Book Selection for Public Libraries*, by V. F. Bonny (1939) can be recommended for cursory perusal here.

DEWEY CLASS or DIVISION	ENCYCLOPAEDIAS, DICTIONARIES	STANDARD WORKS	BIBLIOGRAPHICAL AIDS		YEAR BOOKS, INDEXES, etc.
			(a) Retrospective	(b) Current	
100	BALDWIN, Dict. of philos. and psych.	RUSSELL, B. A. History of western philosophy	GUNN, Psyche and Minerva	Mind; Jl of philosophy (U.S.A.)	Psychological Ab- stracts
200	HASTINGS, Ency. religion and ethics	FRAZER, The gold- en bough	DR WILLIAMS'S Library Catalogue	Hibbert Jl	CROCKFORD'S Clerical directory
300	SELIGMAN, Ency. of the social sciences	CLARKE, Outlines of local govern- ment	London bibl. of the social sciences	Economic Jl; International Affairs	P.A.I.S.; International index
400	HARRAP'S Stand- ard French and English dict.	FOWLER, Dictio- nary of modern English usage	JESPERSEN, Growth and structure of the Eng lang.	Modern language review	The year's work in modern language studies
500	VANNOSTRAND'S Scientific encyclo- paedia	SOWERBY, English botany	NORTON, Star atlas	ASLIB, Select list	Chemical abstracts; Science abstracts, "A", "B"
600	THORPE'S Dict of applied chemistry	Brush pharmacopoeia	R.H.S. dictionary of gardening	LEWIS'S Library Catalogue, HAW- KINS, Scientific medical, and tech- nical books	Engineering index; Industrial arts index BRITISH STAND- ARDS INST. Year-book Art index
700	BRYAN, Dict. of painters and en- gravers	FLETCHER, His- tory of archi- tecture	MACQUOID, A history of English furniture	Catalogue of the R.I.B.A. Library	
780	THOMPSON Inter- nat. ency. of music and musicians	Oxford history of music	Oxford companion to music	McCOLVIN & REEVES, Music libraries	"Apollo" year-book The year's work in music
820, etc.	SMITH, H. A. dict. of modern Europ. lit.	Variorum edition of Shakespeare	BAKER, History of the English novel	Musical Quarterly	FIRKINS' Index to plays; Shakespeare survey
HISTORY	LOW & PULLING, Dict. of English history	MUIR'S Historical atlas	GIBBON, Decline and fall of the Roman Empire	English Historical Review, History	KEESING'S Archives; Annual register
TRAVEL	BARTHOLO- MEW'S Survey Gaz. of Brit. Isles	BAEDEKER'S Switzerland	Concise Oxford dic- tionary of English place names	Geographical Jl	New geog. litera- ture and maps
BIOGRAPHY	KUNITZ & HAY- CRAFT, Twentieth century authors	World biography	BURKE'S Peerage	Current biography	Biography index

N.B.—None of the 23 standard reference books set for the Entrance Examination (1954 syllabus) has been included in the above selection.

"Government indexes and indexing", by Sidney Horrocks, *Aslib Proceedings*, February 1951, pp. 45-50.

Material on United Nations publications, for our purposes, is not very easy to come by. A. D. Roberts's *Introduction* (pp. 137-8) is brief on the subject. An article in *College and Research Libraries*, April 1951, pp. 166-70—"United Nations and its specialized agencies: documents and publications"—is adequate, though somewhat dated.

Publications of learned societies and institutions, such as the Royal Society, the British Museum, the Science Museum, D.S.I.R., the Royal Institute of International Affairs, Aslib, the National Book League, and others, must be noted by the student *en passant*. Distinguish carefully between the publications put out by the learned society itself and its library (usually accession lists or guides).

In the case of maps and atlases we are better provided with descriptive material. Chapter 13 of A. D. Roberts's *Introduction* adequately covers the ground as a whole. It should be supplemented by *Library Resources in the London Area. No. 1. Maps*, by P. M. de Paris (L.A.: Reference and Special Libraries Section. South-Eastern Group (1953)).

On the rather neglected subject of periodicals, see Chapter 9 of D. Grenfell's *Periodicals and Serials*, "Reference work with periodicals". This stresses indexing and abstracting services. A number of the better-known British periodicals are listed under subjects in L. R. McColvin's *Reference Library Stock*. As there are at the moment few annotated lists of periodicals, the student must compile his own selected-subject list, making a systematic analysis of each item.¹

(b) Assistance to Readers: methods and techniques

Handling of inquiries. Assistance to readers in (i) Public libraries: (a) Reference department; (b) Lending library; (ii) Special libraries, including service to clientele in industrial concerns; (iii) University and college libraries; (iv) Information centres.

The successful handling of inquiries calls for a technique which may vary not merely with the type of query but also with the type of inquirer. Clearly, however well the student may have assimilated the authors, titles, and general contents of his reference material, he will get a very inadequate idea of reference procedure simply by browsing on the wrong side of the counter. He should, as often as possible, approach his reference tools with a handful of assorted queries, some of them quick-reference, others of a long-term nature. Here are a few actual examples:

What is the meaning of "factor cost"?

Where is there an illustration of a Normandy fisherman's net?

Who is the leader of the Opposition in Liberia?

How do I set about making a Japanese miniature garden?

Where do I find up-to-date material on soil erosion?

—on the casting of crankshafts?

Can you provide a graded reading list on English economic history?

¹ A film strip, entitled "Exploiting Periodicals", has recently been made by W. J. Broome and L. M. Payne; it shows the use of abstracts and indexes in answering queries.

On the handling of queries in general, Mr H. Woodbine's contributions in the *Library Association Record*, under the title of "Reference Libraries", running from May 1936 to December 1944, will repay close reading. This feature now appears quarterly but is at present devoted largely to new reference books and bibliographies. It is hoped that a section at least of "Reference Libraries" will in future be devoted to the technique of dealing with queries. Note how important it is to be aware of the precise coverage, up-to-dateness, accuracy and arrangement of reference tools, why we instinctively turn to one and not to another.

Chapter 1 of A. D. Roberts's *Introduction to Reference Books* is essential reading on this topic. It should be followed up, somewhat later, by a reading of Chapter 14 ("Dealing with more difficult inquiries"). Also useful for their general approach are the brief introduction by L. R. McColvin, *How to find out* (2nd edn, 1947), and "Libraries and Information", by C. Whatmore, *Library Review*, Autumn 1953, pp. 138-42. Chapter 6 of P. Hepworth's *Primer* tabulates the main points in procedure; examples of inquiries are given in Shores's *Basic Reference Sources* and Miss J. M. Flexner's *Making Books Work* (1943). "Q's and A's", by Meyer Berger, is an article which admirably conveys the true reference library atmosphere; taken from the *New Yorker*, it appears in the *Library Assistant*, June 1940, pp. 111-16. Probably the best book we have on reference procedure is Miss M. Hutchins's *Introduction to Reference Work* (1944). Apart from the chapters on technique and methods of answering reference inquiries, there are others (Chapters 20-28) on the organization and administration of reference services, in which the approach to the reader is emphasized. Finally, there is *The Reference Function of the Library*, edited by Dr Pierce Butler; this consists of seventeen essays devoted to various types of library—the public library (large, small, medium), as well as college, university and research libraries, and special collections. The essay by A. F. Kuhlman, on "Supporting reference material" (pp. 299-322), is worth studying.

(i) **Public libraries.** See D. J. Foskett's "The reader's advisory service", *Library Association Record*, October 1949, pp. 312-14 (with references); E. A. Savage's *Special librarianship in general libraries* (1939), pp. 85-118, 230-42; "Information services in public libraries", by R. L. W. Collison, *Aslib Proceedings*, November 1952, pp. 213-24; "The provision of research material in public libraries", by L. L. Arden, *Librarian*, November 1953, pp. 209-14; and "Industrial, technical, and commercial information: the contribution of the public library", by E. A. Hinton, *Aslib Proceedings*, May 1950, pp. 57-66. The D.S.I.R. pamphlet, *Public libraries and industry*, by D. J. Urquhart, is also relevant.¹

(a) **Reference departments.** Many of the foregoing readings tend to take the handling of inquiries in reference libraries as their focal point. See also "Reference Work in Municipal Libraries", by Miss L. I. Edwards, and "Municipal Commercial and Technical Libraries", by R. Haxby, in *The Reference Librarian*, edited by J. D. Stewart (1951), pp. 55-155.

¹ More accessible to some students may be Dr Urquhart's article "Public Libraries and Industry", *Manchester Review*, Autumn 1953, pp. 468-72.

(b) **Lending libraries.** For a general treatment, see D. J. Foskett's *Assistance to Readers in Lending Libraries* (1952). We normally think here in terms of the readers' adviser, whose function is to inform borrowers which are the best books—or the available books—on a given subject, for a given purpose. This, as A. D. Roberts points out, is not wholly removed from the functions of the reference assistant, but it is only one of the latter's functions. Nevertheless, the correct handling of readers who give garbled versions of what they really want is a problem for all departments.

For the British angle on this subject, see "Art of recommending books", by K. C. Harrison, *Library Assistant*, March 1952, pp. 41-3; "Readers' adviser", by J. F. W. Bryon, *Librarian*, 1947, pp. 181-2; and E. A. Savage's "Personal service in the home reading library", *Library Association Record*, 1936, pp. 507-12.

(ii) **Special libraries.** An excellent introduction is Chapter 5 of *The Reference Librarian*—"Scientific and technical libraries", by Miss M. Exley. The chart given by B. C. Vickery on p. 228 of *Aslib Proceedings*, November 1951, well illustrates the type of material the special librarian needs to have at his elbow. R. L. W. Collison's *Information services: their organization and administration* (1950) provides the background, and such contributions as "Information services at work", by K. Boodson, *Aslib Proceedings*, May 1952, pp. 87-94, and "Assistance in the industrial special library", by D. J. Foskett, with "Assistance in Government libraries", by A. J. Walford, in P. Hepworth's *Primer* (Chapters 9-10), explain procedure.

(iii) **University and college libraries.** See "Assistance in University and College Libraries", by R. O. MacKenna, in P. Hepworth's *Primer* (Chapter 8). The chapter on "Reference work in university libraries", by G. H. Bushnell, in *The Reference Librarian*, pp. 19-52, is somewhat diffuse.

(iv) **Information centres.** A focal point is the Citizens' Advice Bureau. It is discussed in F. M. Gardner's "The future of the information bureau", *Library Association Record*, January 1946, pp. 12-14, and in "Information rooms: a symposium", *op. cit.*, February 1946, pp. 50-9. J. P. Wells's "A civic information service" appears in the L.A. *Papers and Summaries of Discussions of the Scarborough Conference*, 1948, pp. 89-93. A good example of *ad hoc* information work is found in "Information services of the Festival of Britain", by J. W. Triggs, *Aslib Proceedings*, November 1952, pp. 225-32. P. Hepworth's *Primer*, pp. 188-9 provides a brief note on information services.

(c) **Assistance to Readers: other topics**

One aspect of library service is co-operation, since it supplements immediately available resources. On subject and language specialization, see *Library Co-operation in Great Britain*, by R. F. Vollans (1952), pp. 72-8; also "Subject specialization" by G. E. Smith, *Library Assistant*, July/August 1949, pp. 53-7. R. L. W. Collison's "Information services in public libraries", *Aslib Proceedings*, November 1952, pp. 213-24, already

mentioned, stresses co-operation. See also "Periodicals in London", by P. S. B. Rossiter, *Library Association Record*, April 1952, pp. 131-4, for regional co-operation in the field of periodicals. On the scheme for the Co-operative Provision of Books, Periodicals, and Related Material in Libraries, see *Library Association Record*, December 1949, pp. 383-7, and January 1954, pp. 16-17. A careful note should be kept of all union listing of books and periodicals in Britain, as well as of the major union lists in the U.S.A.

Training of readers

Some of our best material on the training of readers, both adult and young, comes from Sheffield. Mr J. P. Lamb has contributed an admirable article to the *Library Association Record* (April 1949, pp. 102-8), entitled "Teaching the use of books and libraries: a Sheffield experiment". The Sheffield method of introducing young readers is described in the City of Sheffield's Education and Libraries, Art Galleries, and Museums' Joint Sub-Committee's publication, *Instruction Classes for School Leavers in the Use of Books and Libraries*, November 1947. See also Chapter 5 of this *Guide*, under the section "Work with young people".

In the case of special libraries, there is "Training the library user", by B. Agard Evans, *Aslib Proceedings*, November 1951, pp. 239-44. And since the arrangement of the library is part and parcel of this, see also, briefly, the article which follows (pp. 245-52, 285-6), "Planning the library for the user", by J. B. Reed. The university and college library angle is covered by the readings given on p. 55.

There is good primary source material on guidance to readers in library brochures. Three examples will suffice. From the Central Library, Manchester, comes *The Commercial Library and Information Department: A Brief Guide*, by Alan F. Jones, and its companion, *The Library of Science and Technology*, by G. E. Haslam. Two guides have recently been put out by Holborn Public Libraries—one on the library service in general, and the other entitled *How the Public Library can help the Business Man: A Guide to the Commercial Library and its Service*. Finally, from the academic field, come two publications from the British Library of Political and Economic Science—the famous *Guide to the Collections* (1948), and *Notes for Readers* (6th edn, 1954, which includes three plans of departments of the library).

Publicity methods

(i) PUBLICATIONS. This section covers, to quote the syllabus, ". . . the way in which bibliographies, reading lists, and other library publications are prepared and presented—including their preparation for the press". This would appear to include such practical matters as the drafting of a specification for the printer on matters of time-limits, costs, number of copies, layout of pages, quality of paper and other materials, stitching, covers, *format*, and type: at the library end—the assembling of catalogue slips and correction of proofs. Much of this seems to fall within the scope of Group B(iv) Bibliography. What is more legitimate for the student to

consider as proper to Assistance to Readers is the presentation of the material from the librarian's and reader's point of view. Given a subject for a reading list, the librarian must decide on its scope, the number of items to be included, annotations, gradings, a general introduction, and similar matters.

R. L. W. Collison's *Library Assistance to Readers* (1950), pp. 30-54, usefully surveys library publications as a whole. See also P. Hepworth's *Primer*, pp. 193-9 and H. A. Sharp's *Cataloguing*, Chapters 13 ("Compilation of class lists, guides to reading, bulletins") and 17 ("Preparation for the press, styles of printing and proof-reading"). *Preparation of manuscripts and correction of proofs* (Cambridge University Press, 1951) and British Standard No. 1219:1945 (*Printers' and authors' proof corrections*) are eminently practical. Further material may be found in K. A. Mallaber's *A Primer of Bibliography* (1954), Chapter 6, and S. Jennett's *The Making of Books* (1951), Chapter 6. From the librarian's angle there is J. D. Reynolds's "The Published Booklist and the Exploitation of Stock, II. General Lists", in *Bibliography and Book Stock* . . . papers read at the Week-end Conference of the London and Home Counties Branch of the L.A., 30 April-2 May 1954.

As in the case of guides to libraries, the student is advised to see as many examples of library bulletins, reading lists, and other such publications as he can. The Library Association library has a large collection of these. To avoid a surfeit, concentrate on lists devoted to special subjects or occasions. A jovial appraisal of current library publications appears in alternate issues of the *Library Association Record*, under the heading "Municipal Library Notes", written by J. D. Reynolds.

(ii) DISPLAY. If we accept the interpretation given by Dr E. A. Savage in his *Manual of Library Classification and Display* (1946) to "display", its ramifications become indeed far-reaching. Certainly book exhibitions, placards, displays in entrances, corridors, and windows come within the normal connotation of the word. Chapters 5-12 of Savage's *Manual* and the illustrations throughout are stimulating, partly because they are somewhat unconventional. L. R. McColvin's *Library Extension Work and Publicity* (1927), pp. 178-90, still has value. Once again, the student must both read and observe. However well illustrated his text-book may be, he must go the round of various libraries with a keen and critical eye, assessing this or that form of arrangement and appeal. New ideas, many of them deriving from the world of advertising, are continually being incorporated.

5. ORGANIZATION AND ADMINISTRATION

(Group C(vi))

By P. M. WHITEMAN, F.L.A., and others

Syllabus

One paper of three hours

"The organization, administration, and functions of libraries (public, university, special—including information bureaux); the various departments within each kind, including questions of centralization and decentralization; by whom (council, committee, etc.) and through whom (library and staff) they are controlled. The Public Libraries Acts so far as they define the statutory powers and duties of *present-day* British library authorities. Bye-laws and regulations. Financial methods, ordering and receiving of supplies including books and periodicals and their distribution within the system, planning of buildings and equipment, means of extending the scope of libraries through co-operation (regional, national, international), liaison problems peculiar to university and special libraries, book exchange within the library system, methods of issuing books, periodicals, prints, maps, etc. Every candidate will be expected to know the functions of all types of library, the general principles of organization and administration, the methods common to libraries of different types, and the methods peculiar to one of the following three types: public libraries, university libraries, special libraries and information bureaux.

"The primary purpose of this examination is to test the candidate's knowledge of contemporary British practice in librarianship; but candidates are expected to show a knowledge of library developments abroad which are of international significance."

Approach. In this subject, experience, judgement and interest in librarianship are as important as any course of study. For this reason students are advised to tackle it last of all. The surest foundation to build upon is a body of experience in a good library, but this must be supplemented by visits to a variety of municipal, county, university, and special libraries.

"Administration", strictly interpreted, covers the management of libraries. As used in the syllabus, the term includes everything from basic library routines to the complex procedure of running a major library system, i.e. true administration. "Organization" is even wider in scope, involving the definition of function of the library, a basic plan to fulfil that function, the machinery to carry out the plan. The syllabus broadens the term to cover the national co-ordination of library services and the organization of the profession of librarianship, including professional education. The syllabus suggests, in comparison with the Final examination in this subject, that greater emphasis will be placed on general principles and procedures than on the more intricate questions of policy, but the candidate would be well advised to consider carefully major

problems and controversies, to assess differing viewpoints critically, and to form a reasoned personal opinion.

Reading. The student should not restrict himself in any way, but should read as widely as possible. There are few satisfactory text-books in the field, and for information on most important developments he must turn to British and American periodicals. Experience has shown that Examiners expect a knowledge of new developments, and in setting questions pay particular attention to recent issues of periodicals. Earlier periodicals and professional conference proceedings should be checked for outstanding items. The more important are:

Library Association Record. Monthly
L.A. Conference Proceedings. Annual
L.A. Annual Report
Assistant Librarian. Monthly
Library Review. Quarterly
Library Trends. Quarterly
Library Quarterly
Aslib Proceedings. Quarterly
Librarian. Monthly
Journal of Documentation. Quarterly
Library World. Monthly.

To locate articles the student should make full use of *Library Science Abstracts*, published quarterly by the Library Association. This contains summaries of articles in over 250 current periodicals. In some cases abstracts will themselves provide sufficient information, in others the student will be led to consult the original articles.

The major reports on national library services, e.g. Kenyon, McColvin, Vollans, should be thoroughly digested. Many facts must be learnt, e.g. in library legislation, but it is far more important to develop *understanding*, the aim being intelligent consideration of each problem in the examination. The student's outlook will be broadened by attendance at professional meetings.

Analysis of Syllabus

The student should study the syllabus carefully and work out a sequence of subjects for study. The programme should ensure that no field is studied until essential background material has been covered. For example, it would be inappropriate to consider the recommendations of the Advisory Council on Education in Scotland without previously noting the development of Scottish legislation.

N.B.—Some of the readings recommended are relevant both to the subjects under which they are listed and to other topics. The student should make appropriate references in his notes. It cannot be too strongly emphasized that the reading lists given are highly selective.

1. Introduction

Compare the functions of public libraries, university and college libraries, special libraries and information bureaux, using the following outline:

(a) Municipal and County Libraries.

General reading—recreational, educational, cultural.

Technical material according to needs of locality.

Aid to full- and part-time students.

Reference and information service.

Preservation—local and other special collections.

(b) University and College Libraries.

Undergraduate study.

Research by members of University.

Use by non-members.

Preservation.

(c) National Libraries.

Research.

Preservation.

(d) Special Libraries of learned societies, research associations, industrial firms, government departments, etc.

Specific subject field.

Service to parent body—a clear-cut objective.

Circulation and storage of periodicals. (Books often a minor aspect of provision.)

Specialized staff.

Indexing and abstracting services.

In relation to these varied types of library, consider such points as the number and type of users, the range of their needs, the scope and material of stock, its storage and display, the consequent divergence of regulations and methods, how each is governed, and the possibilities of co-operation between them.

Readings

CARNELL, E. J. *Library Administration* (1947), chapters 1–2.

MCCOLVIN, L. R. and REVIE, J. *British Libraries* (2nd edn, 1948).

LIBRARY ASSOCIATION. *University and Research Libraries of Great Britain: their Post-war Development*, paras. 1–16.

Examine:

LIBRARY ASSOCIATION. *A Survey of Libraries . . . 1936–7* (1938).

RYE, R. A. *The Students' Guide to the Libraries of London* (3rd edn, 1928).

IRWIN, R., ed. *The Libraries of London* (1949).

HARROD, L. M., comp. *The Libraries of Greater London* (1951).

2. Public libraries: history, legislation, and control

(a) History

Although the examiners require a knowledge of current law only of Great Britain and Northern Ireland, a study of the history of public

libraries is essential background to any consideration of present conditions. Note the place of the C.U.K.T. in British library development.

Readings

- MINTO, J. *A History of the Public Library Movement in Great Britain and Ireland* (1932).
MUNFORD, W. A. *Penny Rate: Aspects of British Public Library History, 1850-1950* (1951).
NOWELL, C. "The Last Hundred Years", L.A. Conference Papers, 1950, pp. 33-43.
SCOTTISH EDUCATION DEPARTMENT. *Advisory Council on Education in Scotland. Libraries, Museums, and Art Galleries: a Report* (1951), chapter 3.
CARNEGIE UNITED KINGDOM TRUST. *36th Annual Report*, 1949. Contains an excellent account of the library work of the Trust.

(b) Current legislation

The candidate should have a firm grasp of the main provisions of the Public Libraries Acts, and other legislation as it affects public libraries, e.g. Local Government Act, 1933. It is important to know the legal basis of such matters as adoption, appointment of committees, audit, bye-laws, etc. Differences in the legislation for England and Wales, Scotland, and Northern Ireland should be noted.

Readings

- HEWITT, A. R. *A Summary of Public Library Law* (3rd edn, 1953).
Recommended as the main source for legislation. To be re-read in relation to headings below.
HEWITT, A. R. *The Law Relating to Public Libraries, Museums, and Art Galleries* (2nd edn, 1947).
Valuable for further elucidation of points in the legislation for England and Wales.
"Scottish Public Library Law", *Library Association Record*, vol. 48, 1946, pp. 175-8.
A summary of present position and anomalies.

(c) Future legislation: major recommendations for library development

Factors affecting the ideal public library authority—geographical, financial, social. Possible lines of consolidation and amendment of library law, noting the tendencies shown by United States, Commonwealth, and Scandinavian legislation and the Eire Act of 1947. Government grants and inspection.

Readings

- EDUCATION, BOARD OF. *Public Libraries Committee. Report on Public Libraries in England and Wales* (1927).
Known as *The Kenyon Report*, this may be read fully, special attention being paid to the recommendations (chapter 9), against which subsequent progress may be measured.
IRWIN, R. *The National Library Service* (1947).

MCCOLVIN, L. R. *The Public Library System of Great Britain* (1942).

Known as *The McColvin Report*. Note particularly, recommendations which have become effective.

LIBRARY ASSOCIATION. *The Public Library Service: its Post-war Re-organization and Development* (1943).

A policy statement based on *The McColvin Report*.

LIBRARY ASSOCIATION. *University and Research Libraries of Great Britain: their Post-war Development* (1943).

SCOTTISH EDUCATION DEPARTMENT. *Advisory Council on Education in Scotland. Libraries, Museums, and Art Galleries: a Report* (1951).

Contains far-reaching proposals likely to influence future legislation. Summary of report, pp. 115–21. Sections on museums and art galleries may be ignored.

“The Scottish Report on Libraries: a Symposium”, *Library Review*, no. 99, 1951, pp. 166–77.

GREEN, F. S. “An English County Librarian looks at Cmd. 8229”, *Library World*, vol. 53, 1951, pp. 344–6.

EIRE. *Public Libraries Act*, 1947.

COOK, F. E. “A National Library Service: Voluntary or Compulsory?” *Library Association Record*, vol. 52, 1950, pp. 260–8.

(d) *Authorities and committees*

As a preliminary, study in outline the local government system by reading one of the following:

JACKSON, W. E. *Local Government in England and Wales* (Pelican, 2nd edn, 1949).

WARREN, J. H. *The English Local Government System* (1946).

SIMON, R. *Local Councils and the Citizen* (1948).

The powers of authorities by type (county, borough, etc.). The relative functions of authority, committee, chairman, and librarian. Powers of a committee (recommending, reporting, executive); study of the standing orders of your local council will clarify these.

Size of a committee. Co-option. Joint committees. Sub-committees. Subordination of libraries to the Education committee (mainly in counties). Function and the methods of local committees in counties. Relation of Libraries committee to other committees, such as Finance, Establishment, etc. Agenda and notice of committee meeting. Procedure of meeting and duties of librarian and other officers. Minutes. Report to council or other controlling body. Methods of writing reports for committee. Librarian's monthly, annual, and special reports (*see also* 3. (A) (iv) *Correspondence, statistics, etc.*, below).

Readings

SAVAGE, E. A. *The Librarian and his Committee* (1942), chapters 1–6.

CORBETT, E. V. *The Public Libraries Committee* (1953).

OSBORNE, E. and SHARR, F. A. *County Library Practice* (1950), pp. 113–23.

BALLARD, A. “The Library Committee: the Status of the Library Committee and Service in the New Order”, L.A. Conference Papers, 1947, pp. 40–5.

JOHN, D. M. "The Library Committee: Constitution, Status, and Relations with Other Committees", L.A. Conference Papers, 1947, pp. 45-51.

(e) *Finance*

Functions of Finance committee and Ministries of Housing and Local Government, and Education in relation to expenditure, sale, or acquisition of land or buildings, raising loans, etc. (general principles only). Methods of audit. Liability of libraries for rates and income tax.

Sources of income. Levying of rates. Rate limitation. Preparation of estimate, and form of presentation. Cost of library service and effect of rateable value on library finance. Compare library rate and cost per head of population as standards. Relative costs of items of budget, with special attention to books and salaries. Payment for lectures. Private Acts.

Readings

BARLOW, F. *Public Library Finance* (1938), chapters 1-3.

BROWN, J. D. *Manual of Library Economy* (6th edn, 1949), paras. 76-94.2, Appendix I.

GRAY, D. *Public Library Finance* (1938), chapters 1-4.

HEADICAR, B. M. *A Manual of Library Organization* (2nd edn, 1941), chapters 2-3.

Financial standards quoted in the above are out of date. Students should work out their own standards, using current costs. Note the financial and other standards suggested in:

LIBRARY ASSOCIATION. *A Century of Public Library Service* (1950).

Two important summaries published annually in the *Library Association Record* are:

LIBRARY ASSOCIATION. "Public Library Statistics".

LIBRARY ASSOCIATION. "County Libraries Estimates".

The latest examples should be studied carefully, and compared with earlier summaries. More detailed statistics will be found in:

LIBRARY ASSOCIATION. *Statistics of Public Libraries in Great Britain and Northern Ireland, 1952-3* (1954).

The financial side of county administration is covered by:

OSBORNE, E. and SHARR, F. A. *County Library Practice*, pp. 95-113.

Note the distinction between *differential rating*, the expedient used in county library development in England and Wales, and *double rating*, the anomaly of Scottish legislation.

(f) *Bye-laws and regulations*

Consider provisions of P.L. Acts, the Libraries Offences Act, and possible offences against common and statute law. Distinguish between bye-laws and regulations. Take a general view of rules and regulations, considered piecemeal under 3. *Public library: departments and operation*, below (such as membership, hours of opening, etc.). Consider framing of rules in encouraging rather than forbidding terms. Modifications for children's libraries.

Readings

BROWN, J. D. *Manual of Library Economy*, paras. 359-75.

HEADICAR, B. M. *A Manual of Library Organization*, chapter 17.

EDUCATION, MINISTRY OF. Model bye-laws, in Hewitt, A. R. *The Law Relating to Public Libraries, Museums, and Art Galleries* (2nd edn, 1947), pp. 147–8.

LIBRARY ASSOCIATION. "Draft Public Library Regulations", *Library Association Record*, vol. 55, 1953, pp. 256–8.

Compare these with the regulations of your own and other libraries.

3. Public Library: departments and operation

(A) Administration departments and routine

(i) Accounts

The order and invoice. Checking of supplies, prices, etc. Allocation of expenditure. Control and analysis of expenditure. Petty cash. Postage. Receipts. Internal audit. Inventories. Insurance. Abstract of accounts.

Readings

BARLOW, F. *Public Library Finance*, chapters 4–11.

CARNELL, E. J. *Library Administration*, chapter 8.

GRAY, D. *Public Library Finance* (1938), chapter 5.

SAVAGE, E. A. *The Librarian and his Committee*, chapter 5.

OSBORNE, E. and SHARR, F. A. *County Library Practice*, pp. 6, 41–2. Re-read pp. 95–113.

(ii) Book acquisition and records

Book-selection procedure; current and retrospective bibliographies, readers' inquiries and suggestions; survey and revision of stock. Book supply sources. Net Book Agreement and the Library Licence (distinguish). The second-hand book market. Records of books awaiting order, books ordered and supplied. Receipt and preparation for use. Administration of catalogue department. Duplication of catalogue entries. Stock records. Withdrawal and replacement procedure. Transfer of stock between branches and departments, and maintenance of circulating "unit" collections. Revision of stock. Stocktaking. Gifts. Readers' inquiries and suggestions: procedure. Binding records. Periodicals.

Readings

BROWN, J. D. *Manual of Library Economy*, paras. 240–63.

CARNELL, E. J. *Library Administration*, chapters 5–6.

HEADICAR, B. M. *A Manual of Library Organization*, chapter 16.

SAVAGE, E. A. *The Librarian and his Committee*, chapters 8–9.

SAYERS, W. C. B. *The Revision of the Stock of a Public Library* (1929).

CARNOVSKY, L. "Measurement of Public Library Book Collections", *Library Trends*, vol. 1, April 1953, pp. 462–70.

UNWIN, Sir S. *The Truth about Publishing* (6th edn, 1946).

BENGE, R. C., ed. *Stock Records in Public Libraries* (N.W. Polytechnic School of Librarianship. Occasional papers, no. 2, 1953).

OSBORNE, E. and SHARR, F. A. *County Library Practice*, pp. 3–17, 32–41.

SAVAGE, E. A. *Manual of Book Classification and Display* (1946), chapters 10–11.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice* (1940), chapters 2-3.

HINTON, E. A. "A Deployment of Bookstock", *Librarian*, vol. 41, 1952, pp. 69-73.

Several articles on the duplication of catalogue entries may be traced through *Library Science Abstracts*.

For application of machine accounting to stock and other records see 3.

(A) (iv) *Correspondence, statistics, and other records*, below.

(iii) *Committee routine and procedure* see 2. (d) *Authorities and committees*, above.

(iv) *Correspondence, statistics, and other records*.

Receipt, registration, and distribution of correspondence. Filing, indexing. Inter-departmental minutes and memoranda. Despatch.

Issues, stock, readers, and other statistics. The L.A. recommended form for presentation (relevant to annual reports in 2. (d) *Authorities and committees*, above). Utility and ethics of statistics. Machine accounting applied to library statistics and records, and to automatic charging and discharging. Records of staff, buildings, stationery, and stores.

Readings

CARNELL, E. J. *Library Administration*, chapters 7, 9.

HARROD, L. M. *Lending Library Methods* (1933), chapters 6-9.

LIBRARY ASSOCIATION. "Recommended Form for Presentation of Library Statistics", *Library Association Record*, vol. 50, 1948, pp. 22-4. Compare this form with that used in the annual reports of your own and other libraries.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, chapter 3.

CALLANDER, T. E. "Punched Card Systems: their Application to Library Technique", *Library Association Record*, vol. 48, 1946, pp. 171-4.

CALLANDER, T. E. "Punched Card Systems in the Public Library", L.A. Conference Papers, 1947, pp. 23-8.

LEYLAND, E. "Mechanized Book Issuing", *Library Association Record*, vol. 52, 1950, pp. 112-15.

PIKE, J. R. "A Future for Mechanization?" *Library Association Record*, vol. 56, 1954, pp. 47-9.

JONES, E. G. "Mechanization of Accessions Records", *Library Association Record*, vol. 56, 1954, pp. 214-15.

BUTCHER, S. J. "The acquisition of Books", *Library Association Record*, vol. 54, 1952, pp. 259-62.

(B) *Public Departments*

(i) *Home-reading Libraries* (general)

Size and stock of department in relation to population. Operation includes Browne, Newark, Dickman, automatic and other methods of charging (see also Machine accounting, etc., under 3. (A) (iv) *Correspondence statistics, etc.*, above); methods of dividing the issue; counter routine;

guiding the reader; readers' inquiries and book reservation. Consider also registration of readers; conditions of membership and loan of books; fines and procedure with "overdues"; damaged and lost books.

Readings

- CARNELL, E. J. *Library Administration*, chapters 3-4.
BROWN, J. D. *Manual of Library Economy*, paras. 376-90, 400-8, 421.
HARROD, L. M. *Lending Library Methods* (1933).
HEADICAR, B. M. *A Manual of Library Organization*, chapter 10.
FOSKETT, D. J. *Assistance to Readers in Lending Libraries* (1952).
DOVE, J. "The Common Round", *Librarian*, vol. 42, 1953, pp. 7-10.
BLOSS, M. "Transaction Charging", *Library Journal*, vol. 78, 1953, pp. 1285-8.
MCCOLVIN, L. R. "Westminster Token Charging Scheme", *Library Association Record*, vol. 56, 1954, pp. 259-61.
BOUSFIELD, H. G. "Circulation systems", *Library Trends*, vol. 3, 1954, pp. 164-76.
SIMPSON, E. "The Reservation of Books", *Library Association Record*, vol. 54, 1952, pp. 395-8, and subsequent correspondence.
HINTON, E. A. "Supplying Readers' Requests", *Librarian*, vol. 40, 1951, pp. 77-80.
BICKERTON, L. M. "To Fine or Not to Fine?", *Library Association Record*, vol. 54, 1952, pp. 198-200, and subsequent correspondence.

(ii) Branches

Population to be served by branches, and minimum economic size. Siting (*see also* 7. *Planning*, below). Location with community and other centres (for and against). Interloan of books within system. Centralization and decentralization of administration. Temporary and shop branches. Part-time branches. Deposit collections. Urban mobile libraries as stop-gap provision.

Refer also to 4. *County Libraries*, below, and consider branch libraries in relation to county urban problems.

Readings

- SAVAGE, E. A. *The Librarian and his Committee*, chapter 7.
SHARP, H. A. *Branch Libraries* (1938).
HARRISON, J. C. "Emergency Library Provision in Urban Areas. I—Temporary Buildings", L.A. Conference Papers, 1949, pp. 92-7.
LOCKWOOD, W. H. C. "Emergency Library Provision in Urban Areas. II—Mobile Libraries: a Factual Report", L.A. Conference Papers, 1949, pp. 98-105.
HINTON, E. A. "Supplying Readers' Requests", *Librarian*, vol. 40, 1951, pp. 77-80.

(iii) Work with young people

Scope and methods of children's libraries, where differing from 3. (B) (i) above—such as age limits, fines, etc. Activities and children's book weeks. Relations with schools and education authority. School visits and library lessons. Homework room. Intermediate library. Consequences of Education Act, 1944, and provision of school libraries.

Readings

- SAYERS, W. C. B. *A Manual of Children's Libraries* (1932), chapters 7–8, 11–12, 18–19.
- LEYLAND, E. *The Public Library and the Adolescent* (1935), chapters 1–5.
- LAMB, J. P. "Teaching the Use of Books and Libraries: a Sheffield experiment", *Library Association Record*, vol. 51, 1949, pp. 102–8.
- EDUCATION, MINISTRY OF. *A Guide to the Educational System of England and Wales* (1945).
- LIBRARY ASSOCIATION. "Work with Young People and School Libraries", *Library Association Record*, vol. 53, 1951, pp. 111–14.
- SHARR, F. A. "The School Library and the Public Library", *Manchester Review*, vol. 5, 1949, pp. 312–17.
- LAWSON, H. B. "The School Library, the Public Library, and the School Leaver", L.A. Conference Papers, 1953, pp. 62–70.

(iv) Newspaper and magazine rooms

For and against such provision. Display of newspapers and magazines. Their incorporation in other departments. Records of order and receipt. Supervision of reading rooms.

Readings

- HEADICAR, B. M. *A Manual of Library Organization*, chapter 9.
- BROWN, J. D. *Manual of Library Economy*, paras. 493–519.

(v) Reference Libraries

Consider how their scope is determined by the size and needs of the urban or county area served. The special problems of reference provision by small authorities. Civic information service: should this be part of the library service or a separate department? The breaking down of service into subject divisions or departments for both reference and lending.

If students have had no contact with a large reference library, they are advised to visit one. Points for special attention are: the stack; disposition of other stock; fugitive material; maps; indexes; quick-reference and information service; information rooms; special provision for students; methods of issue; telephone inquiry work; photographic reproduction; microfilms, microcards, and "readers".

Readings

- HEADICAR, B. M. *A Manual of Library Organization*, chapters 11, 14 (pp. 166–73).
- HOBBS, J. L. *Libraries and the Materials of Local History* (1948), chapter 9.
- WARNER, J. *Reference Library Methods* (1928), chapters 1–3.
- MCCLELLAN, A. W. "Service in Depth", *Library World*, vol. 52, 1950, pp. 183–5.
- STEWART, J. D., ed. *The Reference Librarian in University College and Specialized Libraries* (1951).
- SAVAGE, E. A. "Subject Branches", *Library Review*, no. 94, 1950, pp. 349–57.
- SAVAGE, E. A. *Special Librarianship in General Libraries* (1939), pp. 35–50.
- MAIZELL, R. E. The Subject-departmentalized Public Library, *College and Research Libraries*, vol. 12, 1951, pp. 255–60.

(vi) *Special collections and services*

Local collections. Commercial and technical libraries (separate or combined). Illustrations collections. Lantern slides. Film strips. Gramophone records. Hospital and prison libraries.

(See also Subject divisions under 3. (B) (v) *Reference libraries*, above, and Student section, under 4. *County libraries*, below.)

Readings

HOBBS, J. L. *Libraries and the Materials of Local History*, chapters 6, 7.

SAYERS, W. C. B. *Library Local Collections* (1939), chapters 2, 3, 9.

SPECIAL LIBRARIES ASSOCIATION. *Technical Libraries: their Organization and Management* (1951).

CORBETT, E. V. *The Illustrations Collections* (1941).

OVERTON, C. D. *The Gramophone Record Library* (1951).

The *Library Association Record*, vol. 51, no. 7, July 1949 was devoted primarily to gramophone record collections.

LOVELL, L. G. "Gramophone Record Provision in Public Libraries", *Library Association Record*, vol. 56, 1954, pp. 251-9.

BEDWELL, C. E. A. *Manual for Hospital Librarians* (1947).

JONES, E. K. *Hospital Libraries* (1939).

WATSON, R. F. *Prison Libraries* (1951).

(vii) *Public relations, extension work, etc.*

Relations with public, the Press, local societies, special sections of the community. (For relations with industry see under 9. *Co-operation*, below.)

Publicity. Display methods. (Consider also national library publicity through the Library Association or other agency.) Policy and utility of extension work: readers' clubs; play reading groups; discussion groups; lectures; film shows; exhibitions; book weeks; gramophone recitals. Position of libraries in relation to entertainment sponsored by local council under Local Government Act, 1948, etc.

Readings

CARNELL, E. J. *Library Administration*, chapter 11.

HOLLIDAY, S. C. *The Reader and the Bookish Manner* (1953).

SAVAGE, E. A. *The Librarian and his Committee*, chapter 13.

SAVAGE, E. A. *Manual of Book Classification and Display* (1946), chapter 12; remainder *passim*.

4. County Libraries

History and legal basis. Subordination of library to education committee. Headquarters: planning, departments, administration. Student section and service. Book location records. Coverage and location of branch libraries. Function and methods of local committees. Village centres—voluntary librarians. Routine methods of exchanging centres' stock; made up collections, exhibition vans, etc. Mobile and travelling

libraries. Furniture and fittings special to centres and vans. Advantages and disadvantages of regionalization. Special services: technical books and information; work with young people, etc.

Readings

CARNELL, E. J. *County Libraries* (1938).

IRWIN, R. *The National Library Service* (1947), chapter 2.

MC COLVIN, L. R. *The Public Library System of Great Britain* (1942), chapter 3.

OSBORNE, E. and SHARR, F. A. *County library practice*.

SHARR, F. A., ed. *County library transport* (1952).

This includes a list of articles on county vehicles, but to be up to date students should check more recent issues of the *L.A.R.* for other important material.

SHARR, F. A. "Decentralization in county library administration", *Library Association Record*, vol. 52, 1950, pp. 275-80.

THOMPSON, H. "Technical libraries", *Library Association Record*, vol. 52, 1950, pp. 281-4.

5. University Libraries

This section¹ covers the libraries of universities, university colleges, and other institutions, such as technical colleges.

Most of the material on university and college library practice deals with American practice. The only British text-book is *A Manual of University and College Library Practice*, by G. Woledge and B. S. Page (1940). The date of a new book designed to replace this, by R. O. MacKenna and K. Garside, has not yet been announced. For the American viewpoint, *The University Library: its organization, administration and functions*, by L. R. Wilson and M. F. Tauber (1945) and *Scholar's Workshop*, by K. J. Brough (1953) should be referred to. The historical background is covered by G. Woledge's introduction to *A Manual of University and College Library practice*, and by E. G. Baxter's "A Preliminary Historical Survey of Developments in University Libraries in Great Britain, 1919-50", in the *Library Association Record*, September 1954, pp. 330-5, and October 1954, pp. 389-93.

Organization

(a) Authorities and committees. Functions of universities and colleges; their powers as autonomous bodies and how they are exercised through the governing, executive, and academic authorities—Court, Council, and Senate (note that nomenclature of these varies from place to place). Constitution of Library Committee, its relation to higher authorities, and its functions. Relation of these bodies to the Librarian; his status. Study the constitution and working of your own institution in relation to general practice.

(b) Regulations. Study the published regulations of representative libraries with reference to the privileges of different classes of readers, and to fines and other means of enforcement. Consider the framing of rules in encouraging rather than forbidding terms.

¹ Based on the original contribution by G. Woledge.

(c) Finance. Sources of university and college income; the University Grants Committee. Distinguish between library expenses met from general funds (salaries, maintenance) and those met from allocations to the library (book purchase and binding, sundries). Allocation of book funds for special purposes. Methods of accounting within the Library; relation with the university finance department.

Readings

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, chapter 1.

Library staff. Duties; salaries; qualifications, and training.

LIBRARY ASSOCIATION. "Salaries and grading of university and college library staffs", *Library Association Record*, 1946, p. 196.

LIBRARY ASSOCIATION. *University and Research Libraries of Great Britain: their Post-war Development*, paras. 50-62.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, chapter 4.

GRANEK, J. J. "Use of Staff in the Large Library", *Aslib Proceedings*, November 1951, pp. 234-8.

Buildings. Siting; internal layout; access to book stacks; shelving; flooring materials; heating, lighting, and ventilation; furniture and fittings.

BURCHARD, J. E. and others. *Planning the University Library Building* (1949).

BONSER, W. "Essentials in the Planning and Equipment of a University Library", *Journal of Documentation*, 1946, no. 7, pp. 76-9.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, chapter 5.

Functions and working

(a) Book selection; co-operation between library and teaching staff. Methods. Provision for undergraduates. Provision for research students and teaching staff.

(b) Departmental libraries. Special collections. Aids to readers.

Readings

IRWIN, R., ed. *The Libraries of London* (1949), chapters 10-11.

SCOTT, J. W. "Book Stock, Building and Maintenance, II. University Libraries", L.A. London and Home Counties Branch, Week-end Conference, 1954, pp. 13-16.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice* (chapter by J. A. Wilks).

HEADICAR, B. M. *Manual of Library Organization*, chapter 15.

BUSHNELL, G. H. "Reference Work in University Libraries", in *The Reference Librarian*, edited by J. D. Stewart, chapter 2.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, pp. 58-63.

PAGE, B. S. "The Facilities of the Leeds University Libraries for the Study of Technology", *Aslib Proceedings*, May 1951, pp. 131-5.

BAXTER, E. G. "Some Problems of Technical College Libraries", *Library Association Record*, January 1954, pp. 2-6.

Co-operation. The future.

LIBRARY ASSOCIATION. *University and Research Libraries of Great Britain*, paras. 17-49.

VOLLANS, R. F. *Library Co-operation in Great Britain*, pp. 10-11.

See also *Recommendations on Library Co-operation* (N.C.L. June 1954), which does not necessarily endorse some of Vollans's suggestions regarding university libraries.

WOLEDGE, G. and PAGE, B. S. *A Manual of University and College Library Practice*, chapter 6.

KENT, F. L. "The Next Fifty Years in University Librarianship", *Librarian*, 1950, pp. 149-50.

It is important to supplement the above readings by consulting appropriate annual reports and especially histories and descriptions (preferably with illustrations and plans) of individual libraries. The wide selection given by Mr Hoy in his A.A.L. Guide pamphlet on Final Part 2, Second Paper (c) may be drawn upon for this purpose.

6. Special Libraries and Information Bureaux

There is at the moment no first-class text-book on special libraries in this country. J. E. Wright's *Special Library Technique* (Aslib, 1946) is somewhat elementary, while Miss Barbara Johnston's *Special Library Practice* (Melbourne, 1949), with its valuable impressions and data, is hard to come by. The long-awaited Aslib *Handbook of Special Librarianship and Information Work*, edited by W. Ashworth, may be published in 1955. Looking further ahead still, there is the L.A. publication, *Five Years' Work in Librarianship, 1951-5*, which will contain several chapters on special libraries. Representing the American angle is the S.L.A. text-book, *Technical Libraries: their organization and arrangement*, edited by Lucille Jackson (1951). The October 1952 number of *Library Trends* was entirely devoted to special library problems. Also recommended is *Recent Trends in Special Libraries*, by B. C. Vickery (North-Western Polytechnic. School of Librarianship Occasional Papers, no. 1, June 1953).

The main types of special libraries and information bureaux are as follows:

- (a) Learned societies (e.g. Royal Society; R.G.S.; Chatham House).
- (b) Professional institutions (e.g. R.I.B.A.; I.M.E.; Textile Institute).
- (c) Government departments (excluding D.S.I.R.; e.g. Science Museum; Patent Office; War Office; Ministry of Housing and Local Government).
- (d) D.S.I.R.: H.Q. and seventeen Research Stations or Laboratories. Research Associations (only partly Government-supported).
- (e) Information bureaux (commercial and industrial) attached to firms; Trade Development Associations.
- (f) Technical and commercial libraries attached to public libraries (e.g. Birmingham, Manchester, Edinburgh).

With such a diversity of libraries, it is not easy to single out a description of one library as being representative. The account of The Royal Aircraft Establishment Library at Farnborough, by R. C. Wright and Miss Mary Dyke (R.A.E. Library Memorandum No. 12, April 1954) is very useful and is well illustrated. This account will, it is hoped, be reprinted in the *Journal of Documentation* early in 1955.

Readings

IRWIN, R., ed. *The Libraries of London* (1949), chapters 2-9.
D.S.I.R. *Brief Guide to the Research Activities of D.S.I.R. and the Research Associations* (April 1951).

Administration and Finance. Staffing

There is again great divergence here, much depending, obviously, on the nature of the parent body. *Aslib Proceedings* is a first-rate source. Particularly important is the role of the librarian *vis-à-vis* the information officer.

Readings

Administrative problems of a special library (three papers), *Aslib Proceedings*, November 1953, pp. 307-12.
WALFORD, A. J. "Government Libraries", *Library Association Record*, November 1950, pp. 410-15.
Optimum use of staff (three papers), *Aslib Proceedings*, November 1951, pp. 225-38.
MACKIEWICZ, E. "Education for special librarianship in Great Britain", *Aslib Proceedings*, November 1953, pp. 286-92.
Training of the information officer (three papers), *Aslib Proceedings*, August 1949, pp. 83-97.
SHERA J. H. and EGAN, M. E. "Review of the present state of librarianship and documentation", forming the introduction to S. C. Bradford's *Documentation* (2nd edn, 1953). See also correspondence in *Library Association Record*, February 1954, pp. 60-1, and, subsequently, on information work and librarianship.

Planning, Equipment, Fittings

Certain general principles can be enunciated, but the student is also advised to study closely the planning and layout of representative special libraries.

Readings

FULLMAN, B. "The planning and equipment of libraries in research organizations and industrial concerns", *Journal of Documentation*, September 1946, pp. 68-75.
REED, J. B. "Planning a library plant", *Aslib Proceedings*, May 1951, pp. 63-8; "Planning the library for the user", *Aslib Proceedings*, November 1951, pp. 245-52.

A useful example to take is the R.I.B.A. Library. See "The Royal Institute of British Architects Library", by E. J. Carter, *Library Association Record*, January 1933, pp. 4-15, and the R.I.B.A. *Journal*, September 1946, pp. 496-7, on re-organization.

Functions and Services

This heading covers types of material and their utilization, as well as indexing, abstracting, and aspects of documentary reproduction.

Readings

COLLISON, R. L. W. *Information services, their organization and administration* (1950).

STEWART, J. D., ed. *The Reference Librarian*, chapters 4-6.

Symposium on public, government, and industrial libraries (three papers), *Aslib Proceedings*, August 1952, pp. 121-52.

On the functioning of particular types of special library, consult the following:

TOMALIN, C. H. *The Development and Administration of a Special Library*. (L.A. Pamphlet No. 4, 1951). The library of the National Institute for Research in Dairying.

ARNOLD, D. V. "Practice in a Library Devoted to the literature of Paint Technology" (I.C.I., Paints Division), *Library Association Record*, October 1947, pp. 244-7.

EVANS, B. A. "The Regional Libraries of the Ministry of Works", *Library Association Record*, December 1948, pp. 331-3.

GOSSETT, Miss M. "The Library of the Atomic Energy Research Establishment", *Aslib Proceedings*, November 1949, pp. 218-24.

WATTS, W. G. "Aspects of Special Librarianship. (2) Professional Institutions and Libraries", L.A. Conference (1952) Papers, pp. 75-9.

Co-operation and Liaison. Aslib

See the annual report of the Aslib Council, as printed in *Aslib Proceedings* (e.g. August 1953, pp. 235-46), for current activities. On co-operation in general, see R. Staveley's "An inquiry into co-operation", *Journal of Documentation*, September 1949, pp. 69-97 (as appropriate); W. Pearson's "Library Co-operation: a symposium", L.A. Conference (1951) Papers, pp. 49-54; R. F. Vollans's *Library Co-operation in Great Britain* (1952), pp. 11-12; and *Recommendations on Library Co-operation* (June 1954). An example of a regional effort is described by B. C. Vickery and Miss M. F. Austin in "An Experiment in Co-operation between Special Libraries", *Library Association Record*, July 1951, pp. 215-16.

7. Planning

Principles of siting libraries; relation to area or organization served (see also 3. (B) (ii) *Branches*, above). Surroundings and approach. (Study carefully plans of large libraries on several floors, as well as those of smaller buildings. Be prepared to read and draw plans, noting how doors, windows, shelving, etc. are depicted.) Use of adapted premises, Modernization of old library buildings. Temporary and prefabricated buildings. Unit construction. Modular planning. Layout of departments and special features of each. Factors of population or space per reader determining ideal size of departments, and number of books and shelves in departments and stacks. Access to book stacks. Design of fittings, furniture, and equip-

ment of each department. Shelving—its materials and measurements. Flooring materials. Heating, lighting, and ventilation—the advantages of different methods. Decoration and use of colour. Lecture halls and (outline) planning of stage and lighting. Special requirements of school, hospital, and special services.

Readings

- ASHBURNER, E. H. *Modern Public Libraries: their Planning and Design* (1946).
BROWN, J. D. *Manual of Library Economy*, paras. 150–207.
CARNELL, E. J. *Library Administration*, chapter 10.
HEADICAR, B. M. *A Manual of Library Organization*, chapters 6–8, 14 (pp. 154–166).
SAVAGE, E. A. *The Librarian and his Committee* (1942), chapter 7.
WHEELER, J. L. and GITHENS, A. M. *The American Public Library Building* (1941).
Valuable for photographs, plans, etc.
FUSSLER, H. H., ed. *Library Buildings for Library Service* (1947).
BURCHARD, J. E. and others, eds. *Planning the University Library building* (1949).
PETERSON, H. N. "Planning a Building", *Library Journal*, vol. 78, 1953, pp. 551–7.
LAMB, J. P. "Public Library Buildings of the Future", L.A. Conference Papers, 1947, pp. 93–9.
STILLMAN, C. G. "Public Library Buildings of the Future", L.A. Conference Papers, 1947, pp. 99–104.
MACDONALD, A. S. "New Possibilities in Library Planning", *Library Journal*, vol. 70, 1945, pp. 1169–74, and offprinted.
"Suggested Standards in Shelving", *Library Association Record*, vol. 49, 1947, pp. 278–9.
REECE, E. J. "Building Planning and Equipment", *Library Trends*, vol. 1, 1952, pp. 136–55.
RIDER, F. *Compact Book Storage* (1950).
SMITH, R. D. H. *Public Library Lighting* (2 vols. 1937–8).
VERNON, K. D. C. "Lighting and Colour in Libraries", *Library Association Record*, vol. 53, 1951, pp. 119–25.

8. Staff

(For staffing of special libraries and duties of information officer as opposed to librarian, see under 6. *Special libraries and information bureaux*, above.)

Duties of Chief Librarian, Deputy, Chief Assistant, Superintendent of Branches, heads of departments, branch librarians, etc. Devise a suitable staff hierarchy and compare this with the structure in your own and other libraries. Note the effect of subject departments on the administrative machine. Number of staff in relation to population, or number of readers served, and other factors. Staff morale. Staff committees (administrative). Staff guilds (social). Time-tables: split duties, shift system, five-day week, Sunday duty. Control of staff work, including diaries, work books, instructions, and manuals. Caretakers and cleaners. Division into clerical and professional, and proportion of professional positions. Salaries, conditions of service, NALGO. Recruitment: problems of junior recruitment; employment of graduates. Position of women. Promotion and competitive

appointment. Method of appointment. In-service training. Interchange of staff between departments and libraries. The L.A. examination syllabus. Facilities for professional education: full-time, part-time, correspondence courses. The Library Association, Aslib, and other professional bodies. Relations between the L.A. and Aslib, B.B.C., National Book League, School Library Association, and other bodies.

Readings

- BROWN, J. D. *Manual of Library Economy*, paras. 120–49, Appendix II.
HEADICAR, B. M. *A Manual of Library Organization*, chapters 4–5, 20.
SAVAGE, E. A. *The Librarian and his Committee* (1942), chapters 10–12.
Library Trends, vol. 2, no. 3, January 1954, is devoted to scientific management in libraries.
HERBERT, C. W. *Personnel Administration in Public Libraries* (1939).
Library Trends, vol. 3, no. 1, July 1954, is devoted to current trends in library personnel administration.
SHARR, F. A. "Working Together: some Psychological Factors in Efficiency", L.A. Conference Papers, 1951, pp. 29–36.
LIBRARY ASSOCIATION. "Recommendations on Welfare and Working Conditions of Public Library Staffs" [based on "Tighe report"] *Library Association Record*, vol. 55, 1953, pp. 223–4.
AMERICAN LIBRARY ASSOCIATION. *Descriptive List of Professional and Non-professional Duties in Libraries* (1948).
LIBRARY ASSOCIATION. *A Century of Public Library Service* (1950), pp. 27–8.
NATIONAL JOINT COUNCIL FOR LOCAL AUTHORITIES ADMINISTRATIVE, PROFESSIONAL, AND TECHNICAL SERVICES. *Scheme of Conditions of Service* (and amendments).
LIBRARY ASSOCIATION. "Grading in Public Libraries", *Library Association Record*, vol. 55, 1953, pp. 258–61, and subsequent correspondence.
"Grading of Public Library Staffs", *Library Association Record*, vol. 53, 1951, p. 37.
MCCOLVIN, L. R. "Some Thoughts on Grading Schemes", *Librarian*, vol. 43, 1954, pp. 81–4.
LIBRARY ASSOCIATION. "Recommendations on Salaries of Chief Librarians of Public Libraries", *Library Association Record*, vol. 55, 1953, pp. 222–3.
Files of the *L.A.R.* and *Assistant Librarian* for 1950 to date should be checked for a number of articles and letters bearing on junior and graduate recruitment.
HEPWORTH, P. "Short List", *Library Association Record*, vol. 54, 1952, pp. 12–16.
MCCLELLAN, A. W. "A Scheme for the Recruitment and Training of Staff", *Library Association Record*, vol. 51, 1949, pp. 275–7.
MCCLELLAN, A. W. "Interchange of Library Staffs", *Library Association Record*, vol. 53, 1951, pp. 226–7.
SHARR, F. A. [Professional Education] *Library Assistant*, vol. 45, 1952, pp. 82–91.
STOKES, R. "The Future of British Library Schools", *Library Association Record*, vol. 56, 1954, pp. 7–10, and subsequent correspondence.
For a picture of the Library Association, read all relevant papers in L.A. Conference Papers, 1952.
SHARR, F. A. "Should the A.A.L. be Disbanded?" *Library Assistant*, vol. 44, 1951, pp. 113–17.
ASLIB. *Aslib: what it is and what it does* (frequently revised).
LIBRARY ASSOCIATION. Annual Reports.
These include details of L.A. co-operation with other bodies.

9. Co-operation

Co-operation between neighbouring authorities and between county and county district authorities. Non-resident facilities. Inter-availability of tickets.

Consider in detail the interlending system in Great Britain. The National Central Library as library and bibliographical centre. British National Book Centre. The Regional Library systems, noting Yorkshire method and special characteristics of other regions. The place of public, university, and special libraries (in regions, or as outliers of N.C.L.). Union catalogues. The Science Library scheme. Photostat and microfilm services.

Publication of co-operative catalogues. Co-operative book purchase. Subject specialization schemes. Co-operative storage.

Co-operative or central cataloguing. British National Bibliography.

N.C.L. service to adult classes.

Libraries in industry, and public library service to industry. The Sheffield interchange scheme, and similar schemes.

International interlending. International Federation of Library Associations (I.F.L.A.). Fédération Internationale de Documentation. (F.I.D.). U.N.E.S.C.O.

Readings

EDUCATION, BOARD OF. *Public Libraries Committee. Report on Public Libraries in England and Wales* (1927), chapter 5.

IRWIN, R. *The National Library Service* (1947), chapter 4.

MCCOLVIN, L. R. *The Public Library System of Great Britain* (1942), chapters 12-16.

NEWCOMBE, L. *Library Co-operation in the British Isles* (1937).

SEWELL, P. H. *The Regional Library Systems* (1950).

SOUTH EASTERN REGIONAL LIBRARY SYSTEM. *Handbook* (1948), or other regional handbook.

NATIONAL CENTRAL LIBRARY. *Annual reports*.

BRYON, J. F. W. "R 15", *Librarian*, vol. 42, 1953, pp. 77-80.

ALLARDYCE, A. "The British National Book Centre", *Library Association Record*, vol. 55, 1953, pp. 344-9.

HILL, R. H. "The Restored Building of the National Central Library", *Library Association Record*, vol. 54, 1952, pp. 221-6.

VOLLANS, R. F. *Library Co-operation in Great Britain: Report of a Survey . . .* (1952).

Students should read this report carefully and make notes on major findings and recommendations.

BRYON, J. F. W. "The Vollans Report", *Librarian*, vol. 42, 1953, pp. 21-4.

HILL, R. H. "The Vollans Report of 1952: its Origin and Implications", *Library Association Record*, vol. 56, 1954, pp. 241-8.

Read also the recommendations which appear on pp. 248-51.

HUNT, K. G. "London Public Libraries and Subject Specialization", *L.A. Conference Papers*, 1948, pp. 80-5.

LEGGATT, D. "The Metropolitan Joint Fiction Reserve", *Library Association Record*, vol. 52, 1950, pp. 234-5.

Check more recent issues of the *Library Association Record* for further material on subject specialization schemes and fiction reserves.

- POTTINGER, M. C. "The Farmington Plan", *Library Association Record*, vol. 51, 1949, pp. 306-10.
- LIBRARY ASSOCIATION. "The Co-operative Provision of Books, Periodicals, and Related Material", *Library Association Record*, vol. 51, 1949, pp. 383-7.
A second statement on this project appears in the *L.A.R.*, vol. 56, 1954, pp. 16-17.
- ESTERQUEST, R. T. "The Midwest Inter-Library Center in Chicago", *Library Association Record*, vol. 56, 1954, pp. 336-42.
- LIBRARY ASSOCIATION. *University and Research Libraries of Great Britain: their Post-war Development* (1943), paras. 17-49.
- ARDERN, L. L. "Information, Industry, and Integration", *Library Association Record*, vol. 55, 1953, pp. 158-160.
- RIDER, K. J. "Library Service for Industry", in *The Engineer*, vol. 195, 1953, pp. 252-4.
- URQUHART, D. J. *Public Libraries and Industry* (1953).
- INDUSTRIAL PRODUCTIVITY, COMMITTEE ON. *Panel on Technical Information Services*. "Report on Technical Information Services", *Journal of Documentation*, vol. 7, 1951, pp. 92-112, and offprinted.
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INTERCHAPTER

LITERATURE OF A SPECIAL SUBJECT

(Group D(vii))

By S. C. GODDARD, B.Sc., A.L.A.

The student will be examined in one paper of three hours on one of the following:

(a) HISTORY OF ENGLISH LITERATURE

OR (b) LITERATURE OF SCIENCE AND TECHNOLOGY

OR (c) LITERATURE OF SOCIAL AND POLITICAL IDEAS.

This is the only part of the examination in which the student has to choose between alternative syllabuses, and a few words on the choice will not be out of place.

The first consideration, and one that cannot be over-emphasized, is that the student should take a long-term rather than a short-term view: by this we mean that he should think more of fitting himself for his future career than of the immediate aim of putting three letters after his name. It should seem fairly obvious that an assistant making a career in a special library should take the examination in the most relevant subject, but in fact there are still too many people working in technical and business libraries who are sitting for the English paper. Generally they argue that they did English Literature at school, they still remember, and may still read, authors like Chaucer, Shakespeare, Dickens, and Scott, and therefore they expect to find the examination comparatively easy. They are generally disillusioned as they struggle with Lydgate, Occleve and *Ayenbite of Inwit*, and try to sort out Harvey, Nashe, Greene, Peele, and so on.

A more cogent argument was the difficulty of getting tuition and the lack of suitable text-books, but both these difficulties are being overcome. The more intensive the use of existing facilities, the earlier will new ones come into being.

No special librarian has really any excuse for not taking advantage of the alternative papers which the L.A. has instituted for his special benefit, but assistants in public libraries should also consider the possibility of taking papers (b) or (c) instead of (a). On the whole our public libraries have not yet woken up to the fact that modern civilization is based on science and technology, and to the dangers which an uneducated population can present in such circumstances, while the lack of understanding of the social sciences can bring about grave harm. Yet there are very few public libraries which can boast even a single member of the staff who can give anything more than the most elementary assistance to readers in these fields. It is up to the new generation of librarians to remedy this deficiency.

Of course, a certain intellectual effort is necessary: no one can do much

in the literature of a given subject without knowing something of the subject matter, but anyone with the education expected of a library assistant and with sufficient interest, should be able to master enough of the elements of science or sociology as he works through the course. With the right approach, Group D can be the most rewarding and intellectually satisfying of the whole syllabus.

6. HISTORY OF ENGLISH LITERATURE

(Group D(vii)(a))

Syllabus

One paper of three hours

“Candidates are expected to have a general view of the history of English literature from Chaucer to the present day, a knowledge of the chief writers and their works, and an acquaintance with literary movements and their chronological development. Detailed knowledge of actual texts is not generally required at this stage, though candidates will be expected to know something of the better-known works of well-known authors. The syllabus does not include American literature, but it does require a knowledge of well-known Scottish, Welsh, and Irish authors writing in the English language or its dialects.”

A revised syllabus, if approved, will come into operation on 1 January, 1956, i.e. the papers set in Summer 1956 will be in this syllabus. The draft revision reads as follows:

“Candidates are expected to have a general view of the history of English literature within one of the following two periods:

(i) Chaucer up to but excluding the Romantic Revival,

or (ii) the Romantic Revival up to the present day.

They will be expected to show a knowledge of the chief writers and their works, and an acquaintance with literary movements and their chronological development. Detailed knowledge of actual texts is not generally required at this stage, though candidates will be expected to know something of the better-known works of well-known authors. The Syllabus does not include American literature, but it does require a knowledge of well-known Scottish, Welsh, and Irish authors writing in the English language or its dialects.”

The analysis which follows is based on a division of the history of English literature into six periods, three of which fall into the proposed section (i) and three into the proposed section (ii).

Analysis of the Syllabus

The History of English Literature is one of the few Groups of the Registration Examination to which the student can normally come with some confidence, thanks to background knowledge and reading which he has inherited from schooldays and later. Passes are usually a little higher in this subject than in other Groups. The high percentage of passes in the alternatives to the History of English Literature suggests that English Literature may sometimes be chosen simply because it seems to be the least of three evils.

On the principle of conquest by division, it will certainly repay the student to draw up for himself a chronology of the whole field of English

literature to be covered, separated vertically into the main periods (e.g. Elizabethan and Early Stuart, 1558–1660; Victorian, 1837–1901) and divided horizontally into such forms as Poetry, Drama, Prose, and the Novel. An outline of this charting is given on the pages which follow. In the case of individual writers, it seems more practical to give dates of flourishing (i.e. literary activity) than to provide dates of birth and death and as a result think in terms of incorrect literary periods. To supplement this, the student should make out a list of twenty or thirty definitions, with examples, of such recurrent terms as: allegory; satire; epic; dramatic blank verse; heroic couplet; alliteration; assonance; sprung rhythm; comedy of manners; unities; morality play; masque; picaresque; euphuism; irony. Without such basic frameworks, the student may well lose himself in a maze of authors, titles, and literary movements.

The essay form, except where tabulation or some other form is called for, will be the normal type of answer to the examination question in this subject. There is a proneness among beginners—since literature is a subject with which they have a little familiarity—to write far too copiously on near-relevant (if not quite irrelevant) topics, to introduce a wealth of unnecessary biographical details and, what is worse, to indulge in vague enthusiasms, with much repetition of certain favourite adjectives. It will be noticed that most questions set have very definite limitations placed on their scope; the limitation may be chronological; it may be applied to one aspect only of a versatile author's work. The student should therefore be most careful to keep to the narrow lines of the requirements of the question, not attempt to display a doubtful erudition which will carry away the examiner. The concise answer is at a premium, here as elsewhere. If you are asked, in broad terms, to discuss the writings of Swift and their influence, 300 words will not allow you to indulge in the luxury of biographical data; it will permit you to illustrate from three or four works, which must be representative in order to bring out the major qualities of Swift the writer. Use those works to provide the pattern for the whole answer. As to Swift's influence, do not neglect the twentieth-century writers for those of the Augustan Age, or *vice versa*. An unconnected recital of Swift's works, with correct dates but little else added, is the type of answer which must be avoided at all costs.

In general, appropriate quotations are highly commendable: they do show that the student is doing his best to provide relevant colour. But the ability to quote both accurately and aptly is rare. It is better for the average student to determine the importance of this or that writer or groups of works, remembering to note (a) predominant subject-matter or theme(s); (b) style(s); (c) place and influence in literature, contemporary and as a whole. If a writer expressed himself in several media, as did Dryden, then the appraisal must be adapted accordingly.

Poetry	Drama	Prose and the Novel
Later Middle Ages and Early Tudors (1350-1558)		
CHAUCER (fl. 1359-1400) Alliterative Revival: <i>Piers Plowman</i> (1360-90) <i>Pearl</i> , <i>Gawayne</i> (c. 1350) English Chaucerians GOWER, SKELTON, LYD- GATE Scottish Chaucerians. DUNBAR (fl. 1500), etc. Ballads (1100-1500) <i>Hunting of the Cheviot</i> <i>Nut Brown Maid</i> <i>Douglas Tragedy</i> <i>Sir Patrick Spens</i> ; etc. WYATT (sonnet) & SURREY (blank verse) in TOTTTEL'S <i>Miscellany</i> (1557)	Miracle Play circles: York (14th century) Towneley (c. 1350) Chester (1390-1420) Coventry (1416) Morality Plays (1430-1533) <i>Everyman</i> Interludes HEYWOOD (fl. 1530) Chronicle Plays BALE'S <i>King John</i> (c. 1547) Early Comedy <i>Ralph Roister Doister</i> <i>Gammer Gurton's Needle</i> (c. 1550)	CHAUCER. Translations WYCLIF'S Bible (1382-8) Paston Letters (1440-86) MALORY (fl. 1470) CAXTON Press and Transla- tions (1477-91) MORE (fl. 1516) Translations: FROISSART (c. 1523) Bible. TYNDALE (fl. 1525) COVERDALE (1935) <i>Great Bible</i> (1539) <i>Book of Common Prayer</i> (1549, etc.) ASCHAM (fl. 1550)
Elizabethan and Early Stuart Periods (1558-1660)		
SPENSER (fl. 1579-96) MARLOWE SHAKESPEARE' sonnets (1590- 1600) DANIEL; DRAYTON JONSON, HERRICK Metaphysical Poets (1610- 50): Religious. DONNE, HER- BERT, VAUGHAN, CRA- SHAW Lytical. DONNE; CAREW, SUCKLING, LOVELLACE Heroic couplet (1642-) MILTON (fl. 1629-71)	Early Tragedy: <i>Gorboduc</i> (1561) University Wits (1580-92) NASH, GREENE; LYLY, LODGE MARLOWE (fl. 1587-93) SHAKESPEARE (fl. 1590-1612) JONSON (fl. 1598-1625) Masques (1600-34) BEAUMONT & FLETCHER (1606-16) DEKKER (fl. 1600-4) WEBSTER (fl. 1614) MASSINGER (fl. 1616) Theatre closed, 1642	Translations NORTH'S Plutarch (1579) FLORIO'S Montaigne (1603) Novel. LYLY, SIDNEY, NASH, DELONEY HOLINSHED, HOOKER, HAK- LUYT BACON Bible 1611 A.V. DONNE. <i>Sermons</i> (1615-30) BURTON. <i>Anatomy</i> (1621) MILTON (fl. 1641-49) BROWNE (fl. 1643-8) WALTON (fl. 1640-78) TAYLOR. <i>Holy Living</i> (1651) FULLER. <i>Worthies</i> (1662)
Restoration and Eighteenth Century (1660-1798)		
DRYDEN (fl. 1660-97) BUTLER. <i>Hudibras</i> (1663-78) POPE (fl. 1709-43) THOMSON (fl. 1726-48) GRAY; COLLINS (1742-61) MACPHERSON (fl. 1762-3) PERCY'S <i>Reliques</i> (1765) CHATTERTON (fl. 1768) GOLDSMITH (fl. 1764-70) COWPER (fl. 1779-91) BURNS (fl. 1784-96) BLAKE (fl. 1789-1804) CRABBE (1781-1819)	DRYDEN (fl. 1670-94) WYCHERLEY (fl. 1671-4) CONGREVE (fl. 1693-1700) FARQUHAR (fl. 1705) GOLDSMITH (fl. 1770) SHERIDAN (fl. 1775-9)	DRYDEN BUNYAN (fl. 1666-92) PEPYS; EVELYN SWIFT (fl. 1697-1726) DEFOE (fl. 1702-27) Periodical Essay ADDISON & STEELE (1711- 14) JOHNSON; GOLDSMITH Letters: WALPOLE, COWPER Novel (1740-1800): RICHARDSON; FIELDING; SMOLLETT; STERNE Gothic Novel (1764-1818) BURNBY (fl. 1778-96) JOHNSON (fl. 1744-81); BOS- WELL; BURKE; GIBBON
Romantic Revival (1798-1837)		
WORDSWORTH (fl. 1798- 1822) COLERIDGE (fl. 1798-1802) SCOTT (fl. 1805-15) BYRON (fl. 1809-23) KEATS (fl. 1816-20) SHELLEY (fl. 1814-22)	Poetic dramas by BYRON and SHELLEY	Novel: SCOTT (fl. 1814-32) AUSTEN (fl. 1811-15) "Edinburgh Review" (1802- 1929) "Quarterly Review" (1809) Criticism and Essay: COLERIDGE; LAMB; HAZ- LITT; DE QUINCEY Prose: COBBETT; LANDOR

Poetry	Drama	Prose and the Novel
Victorian Age (1837-1901)		
TENNYSON (fl. 1830-89) R. BROWNING (fl. 1833-80) Pre-Raphaelites (1850-81) D. G. ROSSETTI C. ROSSETTI MORRIS SWINBURNE G. M. HOPKINS	T. ROBERTSON and the new comedy (1867-) H. A. JONES A. W. PINERO WILDE (fl. 1892-5)	Novel: DICKENS (fl. 1836-70) THACKERAY (fl. 1847-59) BRONTËS; G. ELIOT TROLLOPE; KINGSLEY MEREDITH (fl. 1859-95) HARDY (fl. 1871-96) Prose: CARLYLE; RUSKIN, ARN- OLD; SIT-VENSON History: MACAULAY, FROUDE
Twentieth Century (1901-)		
T. HARDY (fl. 1898-1917) R. BRIDGES (fl. 1873-1920) R. KIPLING (fl. 1886-1930) A. E. HOUSMAN W. DE LA MARE J. MASEFIELD R. BROOKE, S. SASSOON The Georgians, Imagists W. B. YEATS (fl. 1895-1933) T. S. ELIOT (fl. 1922-) C. D. LEWIS W. H. AUDEN S. SPENDER DYLAN THOMAS VERNON WATKINS SIDNEY KEYES ANNE RIDLER	G. B. SHAW (fl. 1892-1930) Royal Court Theatre, Man- chester School Dublin Theatre J. M. SYNGE (fl. 1904-7) W. B. YEATS J. M. BARRIE (fl. 1901-10) J. GALSWORTHY (fl. 1909-22) S. O'CASEY (1923-) T. S. ELIOT (fl. 1935-) J. B. PRIESTLEY C. MORGAN JOYCE CARY WM SANSOM, etc	Novel: H. G. WELLS (fl. 1895-1928) J. GALSWORTHY (fl. 1906- 28) A. BENNETT (fl. 1908-30) J. CONRAD, G. MOORE; E. M. FORSTER, J. JOYCE; V. WOOLF, A. HUXLEY; D. H. LAWRENCE, G. GREENE Short Story R. KIPLING; K. MANS- FIELD; W. S. MAUGHAM Welsh school, Irish school Essay: M. BFERBOHM; E. V. LUCAS, H. BELLOC, G. K. CHESTERTON Biography: L. STRACHEY, J. GUE- DALLA, O. SITWELL

Reading List

General

A handy selected bibliography which covers the whole field is available in *English Literature: History and Criticism*; compiled by F. Seymour Smith (National Book League, 1949. N.B.L. Book List, second series).

(i) Text-books and Outlines

EVANS, B. IFOR. *A Short History of English Literature* (Staples Press, Library edition, 1949).

A very readable primer which conveniently surveys English literature in four main categories: poetry, drama, the novel, and prose.

RICKETT, A. COMPTON-. *A History of English Literature* (Nelson, 1918 and re-prints).

A bulky volume which nevertheless attacks the subject very suitably; of special value for its introductions and the range of lengthy quotations.

SAMPSON, G. *The Concise Cambridge History of English Literature* (C.U.P., 1941),

Follows the "Cambridge History" framework, but Sampson has opinions of his own on a number of the major figures. Use it for these and avoid being immersed in the many minor names which are mentioned. This is the student's text-book *cum* reference tool and is particularly stimulating for such authors as Milton and Dickens and for the period since 1870.

WILLIAMS, T. G. *English Literature: A Critical Survey* (Pitman, 1951).

Commends itself in several ways, but is somewhat variable in value. Chapters 1-4 provide vital background data on the development of language, metrical forms, and the like. The treatment is by major forms, as in Ifor Evans. Selected readings are given at the end of each chapter. Use this survey in conjunction with the other histories.

Certain other general surveys need to be reviewed. *The Literature of England, A.D. 500-1942*, by W. J. Entwistle and Eric Gillett (Longmans, 1943) has the advantage of being up to date, but at the expense of earlier centuries. Two-thirds of the book deals with the last 150 years. The chapters on the period 1890-1942, by E. Gillett, provide a useful store of authors and titles. A. C. Ward's *Illustrated History of English Literature* (Longmans, to be published in three volumes) provides a welcome graphic approach and is sufficiently detailed for the period so far covered (vol. 1, Chaucer to Shakespeare (1953), vol. 2, Ben Jonson to Samuel Johnson (1954)).

Virginia Woolf's *A Common Reader*. Series 1 and 2 (Hogarth Press, 1925, 1932) is attractive in its own right; it contains essays which are superb examples of literary criticism, ranging from the Pastons to Conrad. Lord David Cecil (*Early Victorian Novelists*, etc.) has to some extent followed in her footsteps.

(ii) Reference Books

HARVEY, Sir P., ed. *The Oxford Companion to English Literature* (O.U.P., 3rd edn, 1947). Extremely useful for data on the main writers, forms and movements, for definitions of literary terms, for plots and characters. A condensed version is the *Concise Oxford Dictionary of English Literature* (O.U.P., 1939), which the student should purchase; it is ideal for Registration purposes, being in handy form and losing little of the basic matter of the original.

Also valuable for occasional reference is another O.U.P. publication, *The Oxford Companion to the Theatre*; edited by Phyllis Hartnoll (1951).

CHAMBERS'S *Cyclopaedia of English Literature* (3 vols, 1925-38) is a storehouse of material on individual writers, arranged chronologically. The standard of quotation is a high one. Volume 3 goes up to about 1920.

Also worth a mention is the *Annals of English Literature, 1475-1925*; edited by J. C. Ghosh and E. G. Withycombe (O.U.P., 1936), a very detailed chronological survey. For a briefer chronology which relates the English classics to contemporary events, see T. G. Williams's *English Literature* (already mentioned) pp. 280-305. Miss H. R. Keller's *The Reader's Digest of Books* (1948 edition) also has its uses when original texts are not at hand.

So far only four volumes of the Oxford History of English Literature (O.U.P., 1945-) have been published, but they represent the latest research in the fields covered. The older Cambridge History still has considerable value as a supplementary source of reference. The Periods of English Literature Series, edited by B. Dobrée and E. Batho (Cresset Press, 5 vols., 1939) is strong on the bibliographical side and the introduction to each volume gives the hidebound student an opportunity to enlarge his mental horizon. Thus, the intellectual development during each of the periods concerned is dealt with.

(iii) Literary Forms

Poetry

GRIERSON, Sir H. T. C. and SMITH, J. C. *A Critical History of English Poetry* (Chatto & Windus, 1944). Stimulating and authoritative; includes a fairly full study of the Elizabethan dramatists as poets.

Anthologies. The *Albatross Book of Living Verse*, edited by L. Untermeyer (Collins, cheap edition, 1934) is well balanced (despite the omission of Dunbar and Goldsmith), and is especially good on the ballad. It has a noteworthy appendix on poetic forms, with definitions and examples. Palgrave's *Golden Treasury* should also be mentioned, despite its limited selection. The *Oxford Book of English Verse, 1250–1918* (Clarendon Press, 1939 edition) is still the standard anthology, although it does not include extracts from longer poems. To remedy this, we have *Fifteen Poets* (Clarendon Press, 1941), which includes 1,000 lines from each of fifteen great English poets; in each case the selection is prefaced by an essay. *A Book of English Poetry*, edited by G. B. Harrison (Penguin Books, 1950 edition) is remarkable value for 2s. 6d. The *Albatross Book* (which includes a number of American poets) and modern reprints of Palgrave provide fair coverage for the twentieth century.

Drama

For a brief survey which should be thoroughly assimilated, see *A Short History of English Drama*, by B. Ifor Evans (Staples Press, 1950 edition). For reference, use Allardyce Nicoll's *British Drama* (Harrap, 4th edition, 1947), with its accent on theatre rather than drama. *Great English Plays*, edited by H. F. Rubinstein (1928) contains a representative collection of twenty-six plays, ranging from the Mystery to the nineteenth century. It excludes Shakespeare.

Prose

On the novel, consult E. A. Baker's monumental *History of the English Novel* (Witherby, 10 volumes, 1924–39) for its excellent chapters on Richardson, Fielding, Thackeray, and others. V. S. Pritchett's *The Living Novel* (Chatto & Windus, 1946) will give the jaded student fresh ideas. For a classic summary of the craft of novel writing, there is E. M. Forster's *Aspects of the Novel* (Arnold, 1927).

In the study of prose an important theme is the development of style. This is admirably treated in Professor Saintsbury's *A Short History of English Prose Rhythm* (Macmillan, 1912)—still the best book on the subject, and abounding in excellent examples. For more modern prose-writers, consult B. Dobrée's *Modern Prose Style* (O.U.P., 1936). Two standard anthologies are the *Oxford Book of English Prose* (O.U.P., 1925), in which the treatment is chronological; and the *London Book of English Prose*, in which the arrangement is by subject matter or form: story-telling; history; biography; philosophy; theology; politics; criticism; drama; oratory. Highly recommended for its selection is *A Book of English Essays*, compiled by W. E. Williams (Penguin Books, 1951 edition).

(iv) Periods

(a) Latter Middle Ages and Early Tudor (1350–1558)

Chaucer: the English and Scottish Chaucerians. The ballad. Origins of the drama (miracle or mystery play; morality; interlude; prototypes of historical play, comedy and tragedy). Prose translations (Chaucer; Wyclif's Bible). Fifteenth century prose: Paston Letters; Malory; Caxton and the influence of printing. Earlier eighteenth century: influence of Renaissance. More, Colet, and others. Wyatt and Surrey and Italian verse forms (sonnet; blank verse).

Apart from the general text-books already mentioned, consult *A History of English Literature*, by E. Legouis and L. Cazamian (Dent, 2nd edition, 1945) for its excellent approach to the Chaucerian and Elizabethan periods (by E. Legouis). A translation of Chaucer into modern English verse has been made by Nigel

Coghill. For a full treatment of the period, consult the Oxford History of English Literature, volume 2, part 1, *Chaucer and the Fifteenth Century*, by H. S. Bennett, 1947; part 2, *Close of the Middle Ages*, by E. K. Chambers, 1945, and volume 3 (*Sixteenth Century (excluding Drama)*) by C. S. Lewis, 1954). Volume 1 in the new Guide to English Literature series (Penguin Books) is entitled *The Age of Chaucer* (1754) and goes up to Spenser.

(b) Elizabethan and Early Stuart (1558–1660)

An extremely productive period, the Romantic Period. Poetry and the drama overlap to some extent. The sonnet, lyric and narrative poetry; Spenser, Sidney, Marlowe, Shakespeare, Daniel, and Drayton. The reaction: Jacobean and Caroline poets—Jonson and “the tribe of Ben”; the Metaphysical Poets, both religious and lyrical (Donne, Herrick, etc.). The earlier Milton.

The Elizabethan drama, to 1642 (Marlowe, Shakespeare, Jonson, etc.).

The development of prose: essays, biography, history, travel, theology, politics; the prototypes of the novel; translations (especially the Bible, 1611 A.V.).

Grierson and Smith are certainly adequate for the poetry of the period. On the Elizabethan drama there is an admirable primer—G. B. Harrison’s *Introducing Shakespeare* (Penguin Books, 1939). More advanced is *A Companion to Shakespeare Studies*, by H. Granville Barker and G. B. Harrison (C.U.P., 1945), which consists of authoritative essays on the Elizabethan stage, Shakespeare’s plots and background. Volume 3 of the Oxford History of English Literature covers the Elizabethan Age, in complementary fashion, by omitting the drama. On the period 1603–1660 the outstanding work is *English Literature in the Earlier Seventeenth Century, 1600–60*, by Douglas Bush (Oxford History of English Literature, vol. 5. O.U.P., 1945). On a smaller scale, Miss C. V. Wedgwood’s *Seventeenth-Century English Literature* (O.U.P., Home University Library, 1950) is first class.

(c) Restoration and Eighteenth Century (1660–1798)

The later Milton. The heroic couplet (Dryden). The Restoration drama; the comedy of manners (Wycherley; Congreve). The new prose; Dryden; Bunyan; Pepys.

The Augustan Age. Pope. Decline of the drama. The flowering of prose; journalism; Defoe; Swift; the periodical essay (Addison and Steele, etc.).

The Age of Johnson. Premonitions of Romantic Revival: Thomson; Gray and Collins; Goldsmith, etc. Cowper; Burns; Blake.

The novel proper: Richardson, Fielding, Smollett, Sterne, Francis Burney; the Gothic novel; the didactic novel. Prose: Johnson, Goldsmith, Boswell, Burke, Gibbon. Revival of the comedy of manners by Sheridan and Goldsmith.

The latter half of Miss C. V. Wedgwood’s *Seventeenth-Century English Literature* should certainly be used. By way of continuation, consult J. Duff’s *The Augustan Age* (Hutchinson’s University Library, 1950). The general text-books are otherwise adequate. Oliver Elton’s *A Survey of English Literature*, part 1, 1730–80 (2 vols. 1928) should be used for reference.

(d) Romantic Revival (1798–1837)

Poetry: Wordsworth and Coleridge; Scott; Byron, Keats, and Shelley.

Prose: Coleridge; Hazlitt; Lamb; De Quincey. The reviews (“Edinburgh”; “Quarterly”).

C. H. Herford’s *The Age of Wordsworth* (Bell, 1897) still has value. Consult also Grierson and Compton-Rickett. For a detailed account the best contribution

is Elton's *A Survey of English Literature*. Part 2, 1780–1830 (2 vols. 1912). Considerable use should be made of verse and prose anthologies.

(e) **Victorian Age (1837–1901)**

Poetry: Tennyson; Robert Browning; the Rossettis; Morris; Swinburne; Gerard Manley Hopkins. Revival of the literary drama; W. Robertson and the new comedy (1867); Oscar Wilde and the comedy of manners.

The novel: Dickens; Thackeray; the Brontë sisters; George Eliot; Trollope; Meredith; Hardy. Prose: Carlyle; Macaulay; Ruskin; Arnold; Stevenson.

David Cecil's *Early Victorian Novelists* has already been mentioned. The general text-books, such as Sampson and Compton-Rickett, are sufficiently detailed on the nineteenth century. Oliver Elton's *A Survey of English Literature*. Part 3, 1830–80 (2 vols. 1920) is certainly advised if the student is specializing. Grierson is more than adequate on the verse of the period.

(f) **Twentieth Century (1901–)**

Poetry: Nineteenth-century tradition (e.g. Bridges, De la Mare); twentieth-century mood (Hardy; Masfield); Modern poetry (W. B. Yeats; T. S. Eliot, etc.).

Drama: Irish National Theatre; G. B. Shaw; Barrie; Galsworthy; Sean O'Casey; T. S. Eliot.

The novel: Wells, Galsworthy, Bennett, and Conrad; "stream of consciousness" (Joyce; Woolf); Aldous Huxley; Graham Greene. The short story. The essay. The biography, new and traditional. Travel literature. Criticism.

There are a number of text-books which cover the period: F. Swinnerton's intimate *The Georgian Literary Scene* (Hutchinson, 1935) may be read for pleasure; A. C. Ward's *Twentieth-century Literature, 1901–40* (Methuen, 11th edition, 1950), for information; and R. A. Scott-James's *Fifty Years of English Literature, 1900–50* (Longmans Green, 1951), for something of both. A very readable approach to modern verse is provided in *Auden and After: the Liberation of Poetry, 1930–41*, by Francis Scarfe (Routledge, 1942). Also recommended is *Crisis in English Poetry*, by V. de Sola Pinto. C. Day Lewis and L. A. G. Strong have edited *A New Anthology of Modern Verse* (Methuen, 1941) and there are also two acceptable anthologies published by Penguin Books. The student is once again urged to sample as much material as he can *at first hand*, so as to mould his own judgements where published critical studies are lacking. On the drama, consult *Modern English Drama*, by Ernest Reynolds (1949).

A weekly scanning of the *Times Literary Supplement* is an essential exercise, whatever the periods of English literature under study. The *British Book News* supplements (*Writers and their Work*) are worth scanning and so, too, are journals appealing to different reading publics, such as *The London Magazine*, *Essays in Criticism*, and, until recently—it has now ceased publication—*John o'London's Weekly*. It is a mistake to pursue all these readings only for the data on literary figures and movements; the student should read critically and begin to acquire the elements of a prose style such as the essay form demands.

7. LITERATURE OF SCIENCE AND TECHNOLOGY

(Group D(vii)(b))

By S. C. GODDARD, B.Sc., A.L.A.

Syllabus

One paper of three hours

"The work and writings of the great scientists, discoverers and inventors, with special emphasis on the nineteenth and twentieth centuries, and an acquaintance with the methods of disseminating and using current scientific information, including a knowledge of the essential reference books, bibliographical aids and periodicals, and the libraries and publications of scientific and technical societies and institutions."

Analysis of Syllabus¹

Owing to the novelty of this alternative paper to "Eng. Lit.", neither the syllabus nor the examination papers has settled down to an ultimate form, and changes of emphasis are apparent as we look over recent papers. The lack of text-books and of instructional facilities made it difficult in the early stages to decide what the candidate could be expected to know. The picture is becoming clearer, and we shall not be far wrong if we assume that two-thirds of the paper will deal with topics up to the end of the nineteenth century, while the remaining one-third dealing with the twentieth century will be devoted mainly to current reference works.

First of all, it should be made clear that the examination is not on the history of science. An acquaintance with the history of science is indispensable, but the real subject of study is the development of the means by which science is transmitted. Scientists use several means other than the printed word in order to spread their ideas—societies, museums, government departments all play their part—and so the literature of science cannot be studied fruitfully apart from the organization of science. Throughout the course, the student must bear in mind that, for example, we are not so much interested in the theory of gravitation as in that important treatise Newton's *Principia Mathematica*; that in its own way the birth of the *Philosophical Transactions* of the Royal Society was just as important an event; and that without the humdrum compilation of tables, encyclopaedias, bibliographies, and other reference works, the science of today would be seriously handicapped.

The Ancient World

The earliest written records of science are numerous clay tablets from Babylonia, and a few papyri from Egypt. The earliest Greek philosophers

¹ Refer to reading list on pp. 79–82 for details of books mentioned.

wrote works which have been lost. The first scientific treatises which have survived intact are the medical works in the *Hippocratic Corpus*. The first scientist whose works have survived in bulk is Aristotle. In addition to his metaphysics, physics, and biology, note his importance as the founder of logic and scientific method, including the theory of classification. The museum at Alexandria is of obvious importance and two of its librarians, Euclid and Eratosthenes, require study. Two other librarians, Aristarchus of Samothrace and Apollonius of Rhodes, are not to be confused with the astronomer Aristarchus of Samos and the mathematician Apollonius of Perga. Students often make this mistake.

In Rome original thought is lacking, and a number of encyclopaedic writers are the best that can be offered, together with Lucretius, whose *De Rerum Natura* is Greek philosophy in a Latin dress. Our first technical treatises date from this period.

The Middle Ages

After the fall of Rome, knowledge of the ancient writers practically died out, although Pliny's *Natural History* was never lost. Some of the ancient learning was preserved in elementary manuals by writers like Boethius, Martianus Capella, and Bede. In addition there were the popular and fantastic *Bestiaries* and *Lapidaries*.

Of extreme importance in the transmission of Greek science is the activity of the Arabic translators in the reigns of the caliphs Harun-al-Rashid and al-Mamun in Bagdad. Arabic science produced its own advances, and a number of Arabic treatises had a great influence in the West. The translation of Arabic versions of Greek books into Latin, and the direct translation from Greek into Latin requires study. This period is dealt with in rather specialized publications which the student would hardly be expected to know: he should therefore make a point of reading Singer's *Short History*, Chapter 4, which gives a fuller treatment than the other works listed in the reading list.

Following the revival of interest in the writings of the Greeks came a period in which the church and universities were forced to assimilate the ancient learning, until in the thirteenth century Aristotle's works became an official subject of study. The period of scholasticism has begun.

During the Middle Ages, alchemy appears as one of the most important branches of science and produced a rich and very baffling literature. The exhibition catalogue produced by the Science Museum is a valuable bibliography, while John Read's *Prelude to Chemistry* has a chapter on alchemical literature.

The Scientific Renaissance

The invention of printing (Thornton and Tully, Chapter 2) and the voyages of discovery are important factors in the change of mental attitude which brings about a revolution in astronomy (Copernicus) and physics (Galileo), while advances are also made in mathematics and the biological sciences. Some attention should be paid to the encyclopaedic

writers like Conrad Gesner, whose bibliographical activities should also be known. The scientific treatise takes shape, and the most important must be memorized.

The beginnings of Modern Science

Francis Bacon holds a high place in the history of philosophy and method of science, and his *New Atlantis* had an influence on the formation of the scientific societies. The one-volume histories of science say little about the scientific societies which arose in the seventeenth century (Mason is probably the best here): for a fuller treatment Chapter 4 of Wolf's *History of Science . . . in the Sixteenth and Seventeenth Centuries* and Chapter 7 of Thornton and Tully should be consulted, while Ornstein's book is a classic. The article "Academies" in the *Encyclopaedia Britannica* is worth looking up. (N.B. When answering questions on this subject remember the spellings: Academy (English), Académie (French), Academia (Latin), and Accademia (Italian).) Note the publishing activities of these early societies, and the rise of the scientific periodical (Thornton and Tully, Chapter 8). The *Philosophical Magazine, Commemoration number*, has chapters on societies and on the periodical which should be read. See also the article "Periodicals" in the *Encyclopaedia Britannica*. From now on the scientific paper assumes ever greater importance for the first announcement of new work, while the treatise tends to become a secondary source, a systematic exposition based on papers in the periodicals.

Other forms of scientific collaboration become important. National observatories are founded, in particular those at Greenwich and Paris. Wolf (*loc. cit.*, Chapter 8) gives a good account and Sir Harold Spencer Jones's small book on *The Royal Observatory, Greenwich*, should be read.

The Eighteenth Century

With the eighteenth century we come to the beginning of the Industrial Revolution and inventions begin to roll in thick and fast. The inventors as a general rule were not "literary gents" and their inventions are not recorded in treatises or in papers to the learned societies. The *Patent Specification* now takes its place as the key publication for the recording of inventions, although our patent system begins some time earlier. Gomme will tell you all you need to know about that.

Otherwise the eighteenth century is a period of development along the lines laid down in the previous century. There are many outstanding treatises to be noted, but in addition the scientific paper becomes increasingly important. This presents difficulties, for the student cannot be expected to become a walking periodical index: nevertheless, he should try to remember some of the most important, such as Lavoisier's *Mémoires* presented to the Académie des Sciences, and, at a later date, Einstein's paper of 1905.

The encyclopaedia is a very important tool in the scientific library. A landmark in its history is the *Encyclopédie* of Diderot and D'Alembert, and others appear round about the same time. See the article in the

Encyclopaedia Britannica and also Wolf: *History of Science . . . in the Eighteenth Century* (Chapter 1).

Nineteenth and Twentieth Centuries

The science of these two centuries can hardly be separated, for in spite of such developments as quantum theory and relativity, the science which we learn at school, and to a not much less extent in the universities, is nineteenth century, or "classical", science. The ramifications of science have become so extensive and the output of literature is so vast that the student can be excused for faltering, but if he is going to work with scientific and technical literature he must have a knowledge of the broad outlines.

The best way of keeping an eye on the main trends of modern science is to read regularly one or more of the general periodicals in the reading list. Some of them make a practice of giving bibliographies, or hints on further reading, for each article, and these are invaluable for getting to know the most important modern treatises on a given subject. It is hardly possible to give much help with the scientific aspects of the modern period in these notes, so we will pass on to consider some general questions.

It is imperative on the science librarian to have a fairly detailed knowledge of the organization of science today, for without it he can hardly know where to turn for specialized information. The books by Dunsheath, Heath and Hetherington, Hill, D.S.I.R., and Staveley (listed under *Organization of research*) are particularly useful for understanding the work of the Department of Scientific and Industrial Research and other Government departments, the Research Associations, and other bodies which are responsible for a considerable quantity of scientific literature. The learned societies must receive some attention—the special position of the Royal Society, the history and functions of the British Association, and the Royal Institution, the chief societies devoted to the individual sciences, the more outstanding foreign societies and academies—and their publications—must be known. The universities' main contribution to scientific literature is in the form of papers from the individual research workers.

The relations of science with other aspects of life and society is a theme much discussed these days. Books and articles on this topic will obviously be coloured by the political views of the author. The best known are probably Bernal, Crowther, and *Mid-century*, the first two being "left-wing", while the last is based on "the American way of life". Bernal's book is particularly interesting because of his suggestions on scientific publication (see pp. 292–308 and 449–57, and *Royal Society Scientific Information Conference*, pp. 253–8).

In the Reading List, it will be noted that the emphasis of the books cited for the study of science libraries is on London. However, it is a fact (and a sore point with our colleagues in Scotland and the north of England) that the important scientific and technical libraries in this country are almost all in the London area. Back up your reading with visits to the Patent Office and Science Museum libraries (if you live within the reach of London) and to as many of the special libraries as possible.

Reference Works

It is not possible to list here the reference works which must be known. Winchell gives a selection of titles which is helpful, but for the different sciences recourse must be had to the various guides to the literature. A fairly complete list is given here. You should look at all of them if possible, but you have not got to read them all. If you have no other guidance you will have to compile lists of the main reference works from them. They all have introductory sections which may be read with profit on the more general aspects of scientific literature. Visits to libraries and talks with knowledgeable fellow librarians will give some idea of which books are most valuable.

Get to know both the general scientific reference works and the special types found in the different sciences. The following will be found in most branches:

It will be reasonable to assume that a knowledge of the reference literature in the English language will cover most questions that are likely to arise, but in some fields there are important works in foreign languages which must not be overlooked.

Dictionaries, both in one language (defining) and in two or more (translating). Take special note of polyglot dictionaries.

Encyclopaedias. Take care not to be misled by titles: Thorpe's *Dictionary of Applied Chemistry* and Glazebrook's *Dictionary of Applied Physics* are both encyclopaedias.

Handbücher, the large German collectively written compilations in many volumes incorporating a large number of individual treatises, so that the whole field is systematically covered.

Bibliographies and catalogues.

Periodicals and serials. A representative list in each science should be known, as well as the general periodicals. Periodical indexes and abstracting journals must be studied. Annual reports and reviews are important.

Patent specifications and Standard specifications. Find out what they are, how they are laid out, what kind of information they contain, how they can be traced.

Festschriften and symposia.

Reference Works Peculiar to Individual Sciences

A librarian working in a narrow field is often surprised to find how different are the reference works which his brother librarians in equally narrow fields use habitually. The following list indicates some of the types which will require study.

Mathematics: tables, bibliographies of tables.

Astronomy: star catalogues of various kinds, listing such things as positions, magnitudes, proper motions and spectra, catalogues of nebulae and star clusters, star maps and atlases, almanachs, and ephemeridae.

Physics: tables of constants.

- Chemistry: compendia of data, like Beilstein's *Handbuch der organischen Chemie*, tables of constants, tables of crystallographic structures.
- Biology: taxonomic indexes (generic indexes, species catalogues, check lists), large-scale taxonomic works like *Das Tierreich*, by Schultze and others, flora.
- Medicine: anatomical and other atlases.
- Engineering and technology: handbooks (Kempe, Mark, etc.), trade catalogues, directories, specifications.

Text-books and Treatises

Each science has its own text-books and treatises, and every issue of *B.N.B.* records more. It is difficult to know which are the most important in any given field, but browsing round library shelves and talking to the staff will soon make it clear which of them it is really necessary to know. The bibliographies to articles in *Discovery*, *Science News*, etc. will help a lot. Regular scanning of the *Aslib Book List* and *B.N.B.* is to be encouraged. Make a special note of publishers' series—Methuen's *Monographs on Physical Subjects*, Blackie's *Student's Physics*, Warne's *Wayside and Woodland*, Collins *New Naturalist*, to name a few. American publishers are very fond of series (perhaps they are really serials) with titles like *Advances in . . .* and *Progress of . . .*

Methods of Study

We have already mentioned library visits, but they must be stressed once again. Actual physical handling of the books, both those of historical interest and those in current use, is by far the best way of impressing them on the memory. For the methods of dealing with reference material see Winchell's *Guide* (7th edn, 1951), pp. xv–xvii, 3–4. The older literature should be dealt with thus. Note the bibliographical details and glance over the contents list, or if there is no contents list, over the chapter headings, so as to get a clear idea of the subject and scope of the book. Turn over the pages of the book and get an impression of the style—theoretical, mathematical, descriptive, etc. Note the use of illustrations. Look up one or two important topics and see how the author puts them in his own words. You will come across much that you do not understand, but don't be frightened of it: you are not attempting to master the book, you are merely becoming acquainted with it. Of course, if you *insist* on reading the five folio volumes of Laplace's *Mécanique Céleste*, or the forty-odd of Buffon's *Histoire Naturelle*, no one will stop you, but it is hardly necessary. The main thing to remember is that five minutes with the book itself will have the more effect on your memory than any amount of swotting up a list of book titles.

Those students who cannot use the Science Museum Library or the Patent Office Library should make an application to the nearest university for permission to use the library. It will generally be readily granted, and

even the smallest university library will have some of the books you should see.

Text-books and tutors will both find it convenient to deal sometimes with the total work of one man, e.g. Newton, and sometimes to deal with the development of one science, splitting up the work of scientists as necessary. Students must get used to making their own cross-reference so as to make sure that all aspects are covered. Newton's *Opticks*, for example, can be quoted in a question on Newton, on optics, and on the seventeenth century treatises, while a question on Huygens will require material taken from notes on seventeenth century astronomy, optics, mathematics, mechanics, and learned societies.

When answering questions, remember that the emphasis must be on the literature, even if the question does not explicitly ask for it. Do not try to go into scientific details, even if you are able to. In most historical questions it is only necessary to name the scientific advances required, to mention the main workers and to list the appropriate titles.

We deal with the choice of text-books in the Reading List which follows, but it should be pointed out that there is no one book, or even two or three books, which cover the syllabus, and that the material is rather widely scattered. Any student taking this section is strongly advised to join a proper course.

Reading List

General

Below we list a few most easily obtained single-volume histories of science. The student will find that they presuppose different levels of scientific knowledge. He should decide which of them is most suitable to him personally and then purchase that one as one of his chief text-books; but he will need to consult the others during the course, as they supplement each other to some extent.

DAMPIER, Sir W. C. *A History of Science and its Relations with Philosophy and Religion* (4th edn, C.U.P., 1948).

Not an easy book, but one of the best. Rather too much emphasis on physics at the expense of biology.

MASON, S. F. *A History of the Sciences. Main Currents of Scientific Thought* (Routledge and Kegan Paul, 1953).

Another large work, with more attention to societies and literature. Has a good bibliography. The balance of subjects is good.

PLEDGE, H. T. *Science since 1500: a Short History of Mathematics, Physics, Chemistry, Biology* (H.M.S.O. 1939).

Very condensed and requires considerable scientific knowledge. Practically no references to literature, but has a good bibliography on the history of science.

SINGER, C. *A Short History of Science to the Nineteenth Century* (O.U.P., 1941).

Does not assume so much scientific knowledge as the above. Particularly good for the Middle Ages and the early modern period, but the nineteenth century is somewhat scamped.

TAYLOR, F. S. *Science, Past and Present* (Heinemann, 1949).

A good outline, but not sufficiently detailed for this syllabus. Its outstanding feature is the large number of quotations from the literature: the discoverers are allowed to put forward their discoveries in their own words.

The general histories of science usually badly neglect technology, and to obtain a proper balance one of the two following books should be read in conjunction with your history of science:

FORBES, R. J. *Man the Maker: a History of Technology and Engineering* (Constable, 1951).

LILLEY, S. *Men, Machines and History: a Short History of Tools and Machines in Relation to Social Progress* (Cobbett Press, 1948).

All the above are sadly deficient in referring to the literature, but fortunately we now have a narrative bibliography of science which is indispensable:

THORNTON, J. L. and TULLY, R. I. J. *Scientific Books, Libraries and Collectors* (Library Association, 1954).

Biography

Many people regard biography as a comparatively painless method of approaching a subject, and indeed without it we are inclined to leave out the human element and to adopt a too mechanical view of things. There are, of course, countless biographies of individual scientists, some of them, like L. T. More's *Sir Isaac Newton* and Vallery-Radot's *Vie de Pasteur*, having reached the rank of classics. The following list sets out collected biography only.

CROWTHER, J. G. *British Scientists of the Nineteenth Century* (Penguin Books, 2 vols, 1940-1).

— *British Scientists of the Twentieth Century* (Routledge, 1952).

— *Famous American Men of Science* (Penguin Books, 2 vols, 1944).

LENARD, P. *Great Men of Science* (Bell, 1950).

Special Sciences

Many students taking this course will be interested in a particular science, and it would be as well if they read a history of their speciality. Moreover, as a general rule, the more specialized a book on the history of science, the more it goes into bibliographical details. In any case, some of the following list will be needed for reference.

BELL, E. T. *Men of Mathematics* (Penguin Books, 2 vols, 1953).

DOIG, P. *Concise History of Astronomy* (Chapman and Hall, 1950).

JEANS, Sir J. *The Growth of Physical Science* (C.U.P., 1947).

LAUE, M. T. F. von. *History of Physics* (Academic Press, 1950).

PARTINGTON, J. R. *A Short History of Chemistry* (Macmillan, 2nd edn, 1948).

SCIENCE MUSEUM. *Special Exhibition of Historical Books on Machines* (H.M.S.O., 1953).

SINGER, C. *A History of Biology: a General Introduction to the Study of Living Things* (H. K. Lewis, 1950).

— *A Short History of Medicine* (O.U.P., 1951).

Special Periodicals and Topics

Antiquity

FARRINGTON, B. *Science in Antiquity* (Butterworth, 1936).

— *Greek Science* (Penguin Books).

Middle Ages

CROMBIE, A. *From Augustine to Galileo* (Falcon Press, 1952).

SCIENCE MUSEUM. *A Hundred Alchemical Books* (H.M.S.O., 1952).

READ, J. *Prelude to Chemistry* (Bell, 1939).

Sixteenth and Seventeenth Centuries

WOLF, A. *A History of Science Technology and Philosophy in the Sixteenth and Seventeenth Centuries* (Allen and Unwin, 1950 (i.e. 1951)).

The Scientific Societies, etc.

"Academies" in *Encyclopaedia Britannica*.

ORNSTEIN, M. *The Role of the Scientific Societies in the Seventeenth Century* (1938).

STIMSON, D. *Scientists and Amateurs*. (A history of the Royal Society).

ROYAL SOCIETY. *Record of the Royal Society* (4th edn, 1940).

BROWN, H. *Scientific Organizations in Seventeenth-century France* (1934).

McKIE, D. "Scientific Societies to the End of the Eighteenth Century", *Phil. Mag.*, Commemoration Number, p. 133 (see below).

JONES, Sir H. S. *The Royal Observatory, Greenwich* (Longmans, 1946).

Scientific Periodicals

MACKIE, D. "The Scientific Periodical from 1665 to 1798", *Phil. Mag.*, Commemoration Number, p. 122.

"Periodicals", in *Encyclopaedia Britannica*.

Eighteenth Century

WOLF, A. *A History of Science, Technology and Philosophy in the Eighteenth Century* (Allen and Unwin, 2nd edn, 1952).

"Natural Philosophy through the Eighteenth Century and Allied Topics", *Philosophical Magazine*. Commemoration Number to mark the 150th anniversary of the foundation of the Magazine, July 1948.

The Industrial Revolution

GOMME, A. A. *Patents of Invention: the Origin and Growth of the Patent System in Britain* (Longmans, 1946).

DICKINSON, H. W. *A Short History of the Steam Engine* (1939).

DICKINSON, H. W. and VOWLES, H. P. *James Watt and the Industrial Revolution* (Longmans, 1948).

"Encyclopaedias", in *Encyclopaedia Britannica*.

Nineteenth and Twentieth Centuries

DINGLE, H., ed. *A Century of Science, 1851-1951* (Hutchinson, 1951).

DUNSHEATH, P., ed. *A Century of Technology, 1851-1951* (Hutchinson, 1951).

DAWES, B. *A Hundred Years of Biology* (Duckworth, 1952).

FINDLAY, A. *A Hundred Years of Chemistry* (Duckworth, 1948).

WATERFIELD, R. L. *A Hundred Years of Astronomy* (Duckworth, 1938).

WILSON, W. *A Hundred Years of Physics* (Duckworth, 1950).

Duckworth's "Hundred years" series is of an advanced level, and these volumes need only be consulted by the specialist. The two books from Hutchinson are for the general reader. They will be needed, for this period is not dealt with particularly well by the histories.

General Periodicals

Discovery (monthly).

Endeavour (quarterly).

Science News. Penguin Books (quarterly).

Scientific American (monthly).

The Times Science Review (quarterly).

In addition there is *Science Progress* (quarterly), which operates at a higher scientific level.

Organization of Research

DUNSHEATH, P., ed. *Industrial Research*, 1947 (Todd, 1947).

A new edition is rumoured to be in preparation.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH. *D.S.I.R. A description of the work of the Department*, etc. (H.M.S.O., 1949).

HEATH, Sir H. F. and HETHERINGTON, A. L. *Industrial Research and Development in the United Kingdom* (Faber, 1946).

HILL, D. W. *Co-operative Research in Industry* (Hutchinson, n.d.).

STAVELEY, R., ed. *Government Information and the Research Worker* (L.A., 1952).

Particularly chapters 1, 5, 6, 12, 17, 18, 21, and 22.

BERNAL, J. D. *The Social Function of Science* (Routledge, 1939).

CROWTHER, J. G. *The Social Relations of Science* (Macmillan, 1941).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY. *Mid-century: the Social Implications of Scientific Progress* (1950).

Scientific Libraries

HARROD, L. M. *The Libraries of Greater London* (Bell, 1951).

IRWIN, R., ed. *The Libraries of London* (L.A., 1949), chapters 2, 3, 6, and 14.

RYE, R. A. *Students' Guide to the Libraries of London* (U.L.P., 1927). Out of date but still useful for reference to early history.

SPRATT, P. H. *Libraries for Scientific Research in Europe and Asia* (Grafton, 1936).

Guides to the Literature

WINCHELL, C. *Guide to Reference Books* (A.L.A., 7th edn, 1951); *Supplement*, 1950-2 (1954).

CRANE, E. J. and PATTERSON, A. M. *A Guide to the Literature of Chemistry* (Wiley, 1927). New edition in preparation.

SOULE, B. A. *Library Guide for the Chemist* (McGraw-Hill, 1938).

MELLON, M. G. *Chemical Publications, their Nature and Use* (McGraw-Hill, 1940).

DYSON, G. M. *A Short Guide to Chemical Literature* (Longmans, 1951).

ROBERTS, A. D. *Guide to Technical Literature* Vol. 1, *Engineering* (Grafton, 1939).

PARKE, N. G. *Guide to the Literature of Mathematics and Physics* (McGraw-Hill, 1947).

WHITFORD, R. E. *Physics Literature: a Reference Manual* (Scarecrow Press, Washington, D.C., 1954).

SMITH, R. C. *Guide to the Literature of Zoological Sciences* (Burgess, 1948).

WOOD, C. A. *An Introduction to the Literature of Vertebrate Zoology* (1931).

CHAMBERLIN, W. J. *Entomological Nomenclature and Literature* (Edwards Bros., 1946).

AMERICAN LIBRARY ASSOCIATION. *Handbook of Medical Library Practice* (A.L.A., 1943).

PEARL, R. M. *Guide to Geologic Literature* (McGraw-Hill, 1951).

Two short articles which should be read are:

MARMOY, C. F. A. "Some special forms of medical literature," *Library Association Record*, November 1951, pp. 354-62.

STOCK, A. R. "Current engineering literature," *Library Association Record*, December 1953, pp. 383-7.

8. LITERATURE OF SOCIAL AND POLITICAL IDEAS

(Group D(vii)(c))

Syllabus

One paper of three hours

“The outline of the subject from Plato to the present day.

“A broad survey of the political and social thought of particular periods, such as the Reformation era and the revolutionary periods in France and America.

“A general knowledge of the literature of utilitarianism, imperialism, socialism, and other political theories.

“A more detailed study of the works of individual English writers of importance, and of foreign writers of outstanding reputation, such as Aristotle, Machiavelli, and Rousseau.”

Analysis of Syllabus¹

The syllabus, as outlined above and as applied in the examination papers so far set, is a straightforward one. So far no attempt has been made, as in the case of the Literature of Science and Technology (Group D(vii)(b)) to stress the bibliographical aspect of the subject, but Science and Technology clearly lend themselves to this approach and the syllabus states as much.

The student must realize at the outset that it is hardly profitable to study this or that political or social thinker without relating him to his times and also to the influence of his predecessors. And the same applies to recurrent ideas. The concept of the city state, for example, must be related to ancient Greek and medieval practice; the changing ideas of what constitutes Utopia obviously represent a reflection on the contemporary scene in each case. Nor can we hope to appreciate the importance of Tom Paine's *The Rights of Man* without relating it to American and French Revolutionary thought and practice towards the end of the eighteenth century. Social and political ideas have emanated not only from the writing desks of the political theorists but also from the platforms of political agitators and publicists, such as the Levellers, the First International, and others. Contemporary events and conditions, moreover, had obvious repercussions on social and political thought, just as the latter in turn influenced and helped to shape ensuing events and alter conditions. Readings are therefore given below for those who feel that they lack the necessary historical background.

To some extent this subject has affinities with the History of English Literature, in that the main objective of the student is to acquire a knowledge of the chief writers and their works, and of the leading movements

¹ The student is recommended to pay close attention to the article entitled “An Approach to the Special Literature Papers”, in the *Library Assistant*, May 1951, pp. 74–8, in so far as it concerns the Literature of Social and Political Ideas, by Peter Havard-Williams.

with which they were (or are) connected. All three aspects need to be kept in mind. But while in the case of the History of English Literature one may have inherited from schooldays a first-hand acquaintance with at least some of the major literary writings, this is hardly likely to be true in the case of the Literature of Social and Political Ideas. One of the first aims of the student must therefore be to become acquainted with the leading *texts* in his subject as soon as he can and throughout the course.¹ There is no substitute for a reading of Hobbes's *Leviathan*, Plato's *Republic*, Machiavelli's *The Prince*, or Rousseau's *Social Contract*, although some guidance—in the form of an introduction to the text—may well be necessary.

It is not suggested that the whole text of these and other major works should be digested, but the leading arguments must be studied in the original context and not read in some potted form. In order to give shape and order to your impressions, it will obviously be advisable to refer to a summary, but let this come second, and be sure that the summaries are made by experts in the field. Worthy examples are Lord Lindsay's preface to the Everyman edition of Plato's *Republic*, and the lengthy and systematic introduction to Hobbes's *Leviathan* by Michael Oakeshott, in the Blackwell's Political Text Series. It is worthwhile listing the Blackwell series, in order to make the most of the political theorists covered:

- AQUINAS, THOMAS. *Selected Political Writings*; edited, with an introduction by A. P. d'Entrèves, 1948.
- FILMER, SIR ROBERT. *Patriarcha . . . and Other Political Works*; edited by P. Laslett, 1949.
- HOBBS, THOMAS. *Leviathan*; edited with an introduction, by Michael Oakeshott, 1946.
- LOCKE, JOHN. *Treatise of Civil Government*; and *Letter on Toleration*; edited by J. W. Gough, 1946.
- HAMILTON, ALEXANDER, and others. *The Federalist*; edited by M. Beloff, 1948.
- BENTHAM, JEREMY. *A Fragment on Government*; and *An Introduction to the Principles of Morals and Legislation*; edited, with an introduction by W. Harrison, 1948.
- SAINT-SIMON, HENRI, comte de. *Selected Writings*; edited and translated, with an introduction, by F. M. H. Markham, 1953.
- MILL, J. S. *On Liberty*; and *Considerations on Representative Government*; edited by R. B. McCallum, 1946.

This list needs to be supplemented by such texts as Machiavelli's *The Ruler*; a new translation by Peter Rodd (Lane, 1954) and Jean-Jacques Rousseau's *Political Writings, containing the Social Contract . . .*; translated and edited by Frederick Watkins (Nelson, 1953).

A series of texts which have a more limited value but which provide at least some of the flavour of the original is the Living Thoughts Series, published by Cassell, at the moderate price of 5s. to 6s. In each case a number of significant passages are given, with an introductory essay, usually of a literary nature. The following are the appropriate volumes and

¹ I am indebted to Mr C. A. Potts of the War Office Library for suggesting this point.

their editors: Descartes, by Paul Valéry; Jefferson, by John Dewey; Kant, by Julien Benda; Machiavelli, by Count Sforza; Marx, by Leon Trotsky; Mazzini, by Ignazio Silone; Nietzsche, by Heinrich Mann; Paine, by John Dos Passos; Rousseau, by Romain Rolland; Saint Paul, by Jacques Maritain; Schopenhauer, by Thomas Mann; Spinoza, by Arnold Zweig; and Voltaire, by André Maurois. Also mentioned below are the histories which provide copious quotations.

It is also worth bearing in mind that the syllabus for this subject should not be interpreted too narrowly. It is important to go beyond the formal political theorists dealt with in such text-books as Sabine. Such literary figures as Charles Dickens and Charles Kingsley exerted a profound influence in their own day and beyond, and this must be appreciated.

The student is very prone to devote more attention than he should to the earlier periods in the history of the subject—ancient and medieval times. This is understandable: these are the periods which he studies first; the background, furthermore, is less complex than that of the nineteenth and twentieth centuries—the last period to receive his attention. This tendency must be guarded against and corrected. A good plan is to browse at the shelves of a large library in order to discover who are the leading contemporary or near-contemporary contributors to social and political thought. Their writings should be worth dipping into, for they use modern English and up-to-date analogies. Good reviews of recent works by present-day thinkers, in the *Times Literary Supplement* and elsewhere, provide comparisons or assess the writer's place in a particular line of thought. These contemporaries or near-contemporaries, to take the British writers alone, include writers as various as Norman Angell, Walter Bagehot, Sir William Beveridge, Henry George, Tom Harrisson, F. A. Hayek, L. T. Hobhouse, J. A. Hobson, J. M. Keynes, H. J. Laski, Sir Henry Maine, George Orwell, Bertrand Russell, Bernard Shaw, Graham Wallas, and H. G. Wells.

Reading List

(apart from the texts already mentioned)

(a) Introductions; Background Material

As an introduction, Phyllis Doyle's *A History of Political Thought* (Cape, 2nd edn, 1949) has sound qualities: it is attractively written, stresses ideas as well as thinkers, has a five-page bibliography, and is fairly up to date. Also worth glancing at for its non-academic approach is C. Delisle Burns's *Political Ideas* (O.U.P., 4th edn, 1942). The beginner who is uncertain of the historical setting and the practice of politics as well as its theory will find R. H. S. Crossman's *Government and the Governed: A History of Political Ideas and Political Practice* (Christophers, 1939) of interest. For a grasp of basic factors, nothing is more stimulating than Lord Acton's *The History of Freedom*, and other volumes of his lectures.

A historian, F. J. C. Hearnshaw, has edited a series of lectures delivered at King's College, University of London, between 1925 and 1932 which provide the historical and literary corrective to the more formal approach to the major contributors to political theory. These lectures are noted below under the periods concerned.

(b) Text-books

G. H. Sabine's *A History of Political Theory* (London, Harrap, 3rd edn, 1951) is the text-book *par excellence* for the subject; it is sound, compact, and well documented, and there are further readings at the end of each chapter. Sabine's *History* is pre-eminently the text-book used by undergraduates, for it concentrates on the formal political theorists and connects contemporary events with contemporary thought, but quotations are much less generous than they might be. Less restricted in its coverage is J. Bowle's *Western Political Thought: An Historical Introduction, from the Origin to Rousseau* (Cape, 1947). It is to be followed by a badly needed second volume, covering the nineteenth and twentieth centuries. The first volume has the ideal approach: it is up to date and is very readable while at the same time adequately detailed for the purpose. Like the Hearnshaw series of lectures, it provides a corrective to the academic approach of Sabine by drawing attention to literary figures of the calibre of Milton and Burke. A select bibliography of some 170 items is added.

It is not to be expected that the student will have time to study more than the significant portions of the text of the basic works, but he must certainly do that much as a *minimum*, as we have already pointed out. Two histories which recommend themselves because of the use they make of quotations from originals are: *History of Political Thought*, by R. G. Gettell (Allen & Unwin, 1937), and *The History of Political Science, from Plato to the Present*, by the Rev. R. H. Murray (Heffer, 2nd edn, 1929). The latter book is somewhat dated, and in general one should be wary of studying from material published before, say, 1930, especially for the period since Hegel and Marx. An American parallel is the *Masters of Political Thought* series (Harrap), edited by E. M. Sait, in three volumes. Vol. 1, *Plato to Machiavelli* (1942), by M. B. Foster, and vol. 2, *Machiavelli to Bentham* (1947), by W. T. Jones, have been found to be excellent source books, giving many representative quotations as well as helpful comments and interpretations. Bibliographies are provided.

(c) Periods

Ancient Greece and Rome. Plato's Dialogues (especially *The Republic*); Aristotle's *Politics*; the Greek city state—Cicero's *Republic* and *Laws*, and the Stoic doctrine of natural law; Seneca.

On ancient Greek and Roman political theory it is worth while supplementing readings of the translated texts and Sabine's account with Sir Ernest Barker's *Greek Political Theory: Plato and his Predecessors* (Methuen, 2nd edn, 1925) and his *Political Thought of Plato and Aristotle* (1906). To those who are lacking in background, G. Lowes Dickinson's *The Greek View of Life* (Methuen, 1896) may be consulted with profit, especially chapters 2 and 3.

Middle Ages. Church and State; Christian doctrine; St Augustine's *City of God*. Feudal society and the sovereignty of law; John of Salisbury. The twelfth-century revival of Aristotelianism; St Thomas Aquinas. Papal sovereignty; the Church Councils; John of Paris; William of Occam; Wycliffe. Transition to modern times. Monarchy and absolutism; Machiavelli's *Il Principe*.

There is a wealth of material on medieval political theory. A handy survey is available in *The Social and Political Ideas of Some Great Medieval Thinkers*; edited by F. J. C. Hearnshaw (1923). The bare essentials are given in an illuminating chapter in *The Legacy of the Middle Ages* (Clarendon Press, 1926) on political thought, by E. F. Jacob. From the same press has come, more recently, *The Medieval Contribution to Political Thought, Thomas Aquinas, Marsilius of Padua, Richard Hooker*, by A. P. d'Entrèves (1939). It is important to have some grasp of

the historical setting of the period, and for this purpose H. O. Taylor's *The Medieval Mind* (2 vols., 1925) is worth a glance.

Sixteenth Century. The Protestant Reformation: Martin Luther; Calvin; Knox. Thomas More's *Utopia*; Hooker's *Ecclesiastical Policy*. Jean Bodin's theory of sovereignty, in his *République*. Althusius; Grotius and natural law (*De Jure Bellis ac Pacis*).

Useful coverage of this century is given in *Political Thought in England*. Tyndale to Hooker, by C. Morris (O.U.P., Home University Library, 1953), and in *The Social and Political Ideas of Some Great Thinkers of the Renaissance and Reformation*; edited by F. J. C. Hearnshaw (1925).

Seventeenth and Eighteenth Centuries. ENGLAND: Bacon's *New Atlantis*. The Civil War period: Hobbes's *Leviathan* and the logical case for absolute monarchy; the Levellers and the Republicans; Harrington's *Oceana*; Milton's pamphlets. The Revolution of 1688 and Locke's *Civil Government*. Eighteenth century: Hume's *Treatise*; Edmund Burke and the American and French Revolutions; Adam Smith's *Wealth of Nations*.

U.S.A.: William Hamilton; Thomas Jefferson.

FRANCE: Descartes; Montesquieu's *L'Esprit des Lois*; the Encyclopédistes, etc.; J. J. Rousseau's *Contrat Social* and the French Revolution.

GERMANY: Pufendorf; Kant; Fichte.

HOLLAND: Spinoza.

In the examination papers so far set, the accent has been on the modern period, from 1600 onwards, and on British thinkers in that period. The English seventeenth century was certainly a most productive age for political ideas. An adequate text-book is G. P. Gooch's *English Democratic Ideas in the Seventeenth Century* (C.U.P., 2nd edn, with supplementary notes and appendices by H. J. Laski, 1927). Illustrative material is available in William Haller's *The Rise of Puritanism, 1570-1643* (O.U.P., 1938). The English eighteenth century is dealt with in J. H. Laski's *Political Thought in England, Locke to Bentham* (O.U.P.: Home University Library, 1948). For the French theorists of the eighteenth century, of vital importance, there is Kingsley Martin's *French Liberal Thought in the Eighteenth Century: a Study of Political Ideas from Bayle to Condorcet* (2nd edn, 1954). Ably covering these two crucial centuries is a two-volumed work by C. E. Vaughan—*Studies in the History of Political Philosophy before and after Rousseau*; edited by A. G. Little (Manchester University Press, 1925), scholarly and providing a close study of the original texts. The period covered is from Hobbes to Mazzini.

The following are relevant volumes in the lecture series edited by F. J. C. Hearnshaw:

The Social and Political Ideas of Some Great Thinkers of the 16th and 17th Centuries (1926).

The Social and Political Ideas of Some English Thinkers of the Augustan Age, A.D. 1650-1750 (1928).

The Social and Political Ideas of Some Great French Thinkers of the Age of Reason (1930).

The Social and Political Ideas of Some Representative Thinkers of the Revolutionary Era (1931).

Nineteenth and Twentieth Centuries. ENGLAND: Utilitarianism; English Liberalism; Jeremy Bentham; James Mill; John Stuart Mill (*On Liberty*; *Representa-*

tive Government); *Laissez faire* school. Malthus; Ricardo. Victorian writers: Dickens; Carlyle; Charles Kingsley; Ruskin; Morris. Later Liberal theory: Herbert Spencer; T. H. Green. Development of English socialism (Robert Owen onwards). Imperialism (J. A. Hobson, etc.). Some later writers are listed on p. 85 of this chapter.

GERMANY: Hegel's *Philosophy of Right* and the idealization of the State; Treitschke; Schopenhauer; Nietzsche and philosophic irrationalism; Nazism.

FRANCE: Fourier; Syndicalism and Sorel; Proudhon; Bergson.

ITALY: Croce; Pareto and Fascism.

U.S.S.R.: Marx's *Das Capital* and the origins of Communist theory; Lenin; Trotsky; Stalin.

The nineteenth and twentieth centuries are apt to get least attention of all from the student, who may well be bewildered by the mass of material and the cross-currents. Crane Brinton's *English Political Thought in the Nineteenth Century* (Benn, 1935) deals with events as well as ideas, and has an annotated bibliography. The final two volumes in the lecture series edited by F. J. C. Hearnshaw may also be recommended: *The Social and Political Ideas of Some Representative Thinkers of the Age of Reaction and Reconstruction, 1815-65* (1932) and *The Social and Political Ideas of Some Representative Thinkers of the Victorian Age* (1933). Commendably brief and acting, in some sense, as a continuation is Sir Ernest Barker's *Political Thought in England, from Herbert Spencer to the Present Day*, in the Home University Library series (Butterworth, 1928 edn, has a most useful annotated reading list. A standard work which should also be glanced at is A. V. Dicey's *Lectures on the Relation between law and opinion in England in the Nineteenth Century* (Macmillan, 2nd edn, 1926).

Continental political thought during the century and a half is best treated in movements and in various countries, e.g. France, Germany, Russia and, in the New World, the U.S.A. A useful approach to the development of Communist thought is provided in *Europe in the Nineteenth and Twentieth Centuries* (1789-1939, A. J. Grant and H. Temperley (Longmans, 5th edn, 1939), pp. 581-600. The European near-contemporary scene is well handled in M. Oakshott's *The Social and Political Doctrines of Contemporary Europe* (C.U.P., 1939); it provides good analyses of the main works concerned and has short chapter reading-lists. J. Jacobson's rather weighty *The Development of American Political Thought* (New York: Appleton-Century, 1932) is worth glancing at for the American angle. Less satisfactory is *Twentieth Century Political Thought*; edited by J. S. Rotundo (New York: Philosophical Library, 1946) which has, it is true, a useful American bias, but the treatment is altogether too diffuse.

Finally, the student will need to consult a subject encyclopaedia on the various thinkers and movements. Seligman's *Encyclopaedia of the Social Science* is obviously far too voluminous for this purpose. Walter Theimer's *Encyclopaedia of World Politics*; revised by Peter Campbell (Faber, 1950) is recommended. Theimer's *The Penguin Political Dictionary* (1939) is also a mine of information on modern "isms".

