CLASSIFICATION IN REFERENCE SERVICE

E.J. Coates

[Makes out a case for the correlated teaching of classification and reference service. Points out the limitation of memory and subject specialisation in efficient reference service. Intellectual handling is shown to be easier with the facet-analysis of CC than with DC. Shows the advantage of the sameness of patterns in all subjects brought out by the concept of the five fundamental categories of CC. Testifies to the advantage experienced by the BNB from the pattern of CC. Describes the route to be followed in locating relevant materials, by chain procedure, in generic, co-ordinate and collateral subjects. Estimates the advantage of classified catalogue based on a good scheme of classification, over a dictionary catalogue.

Mr. Coates, F.L.A., is Chief Subject Cataloguer of the British National Bibliography].

0 Introduction

The evolution of a new idea is always impeded by the classificatory partitions and separations established by its predecessors. It is perhaps ironical that, in the field of librarianship, the subject of classification itself is being retarded in just this way. The two subjects, classification and assistance to readers, have been isolated as parts of a curriculum, and thereafter the connection between them has been overlooked both in professional education and library practice. Too often, courses in the two subjects aim at unrelated objectives. Behind the classification course hovers the image of the back room assistant who briefly intercepts a stream of new accessions on their way to the public shelves. The assistance to readers course on the other hand visualises the enquiry desk assistant answering queries out of a mind well stocked with bibliographical information. It is unfortunate, for the development of both classification and reader service, that the twain rarely meet, even in the same person.

1 Reference Librarian

In a world in which scholarship has come to mean knowing more and more about less and less, the librarian in charge of a general reference library finds himself in an invidious position. The service he can give to his enquirers is efficient in proportion to his subject knowledge of the material comprising his stock. Those whose
enquiries could be answered through the reference stock, will in many cases be better informed in their specialities than the reference librarian. He cannot hope to match his knowledge against theirs combined. Yet his function is to locate knowledge for them. How far can he locate what he does not fully understand?

11 Memory and Its Limit

No system of memory training offers a complete answer to the problem. The power of retention varies widely from individual to individual but it is well to recognize the existence of capacity limits. Even the so-called encyclopaedic memory does not go on adding to itself indefinitely. Indeed many psychological schools would assert that forgetting plays a positive and necessary part in the balanced economy of the human mind. In certain circumstances expansion of stock, without expansion of staff, may lead to the lowering of the quality of personal service, simply because the memory load upon the staff may have exceeded the optimum.

12 Subject Specialisation and Its Irrelevance

Subject specialisation has been suggested as the answer to our problem. While the value of special subject interest among reference departmental staffs should not be underrated, subject specialisation is scarcely of practical significance in this context except in those libraries of very large cities in which some form of subject departmental organisation is possible. In the vast majority of libraries the specialist enquiry will in fact be dealt with by a “generalist” whose area of operations may be at the very best a large fraction of the field of knowledge. This is not anyone’s fault. It is mentioned here in order to indicate the practical irrelevance of staff subject specialisation in most general reference libraries. It certainly suggests a partial explanation of the indifference of business and industry to the possibilities of public reference libraries as sources of information.

13 Facet Analysis and Its Help

This paper suggests a third answer to the problem. It suggests that the reference librarian operating over a wide subject area which hopelessly outranges the limits of individual specialist knowledge can make good some of the deficiencies of his situation by utilising
certain recent discoveries (or should one call them inventions?) in the field of library classification. In particular the method of classificatory analysis exemplified in the ‘fundamental facet categories’ of the Colon Scheme may prove as helpful a discipline for extracting information from the field of knowledge as it is for feeding information into it.

2 Classification and Its Application

To the reference assistant the technical enquiry about a subject in which he has had up to this moment no interest, about which he feels he knows nothing, which is not covered in any of the standard reference books which he studied in his professional examination, classificatory analysis can be helpful in two ways.

21 Orientation

In the first place, it will assist him to orientate his own mental field rapidly to the subject. Instead of desperately threshing around in a vacuum, he quickly establishes a set of relations with the known. They may well be dim relations, but they give him a bearing.

22 Framework

Anyone who has embarked upon a course of study, especially when lacking tutorial guidance, which has been carried through to a successful completion, will know of a definite point in his study, which may be late or early, but always after a period of blind and unrewarding effort, at which everything suddenly falls into place. One ceases thenceforth to amass items of information; instead, one observes that the separate pieces of information are now making a pattern, a gestalt, in which each separate item appears related to each other item through the whole in which they participate. This is the beginning of understanding, of grasp of a subject in contradistinction to the mere possession of information about it. Classificatory analysis provides the reference assistant with the necessary framework around which a rudimentary understanding of the subject may be built up with the minimum of informational raw material.

23 Intellectual Handling

The patterned arrangement of material and its intellectual handling are correlates. We need a pattern in order to handle a
subject area intellectually; conversely, material which is constantly subject to intellectual handling tends spontaneously to organise itself into a patterned arrangement. The latter fact is very clearly brought out if we take the Decimal and the Colon schemes as reference points in the recent history of library classification. It is often easy to see how an embryonic pattern in the Decimal scheme has become fully developed in Colon.

231 DC AND CC COMPARED

Comparing, for example, the art of painting in the two schemes we observe that the Decimal Classification names the main categories as Technique, Materials, Colour, Subjects depicted, and History and schools of painting. These categories are given a schedule order in Dewey, but no guidance is offered as to their use in composite subjects. Thus we have a place for landscapes, another for watercolour painting, and yet another for the French schools and a prescribed order for books dealing with these separate subjects. No direction is however given for the placing of the composite subject French Landscape in Watercolour. In the Colon scheme, all but one of the Decimal categories are maintained. We now have

Technique or Medium (e.g. oil, tempera) Subject depicted
Base material (masonry, canvas) History and schools of painting

The Colon goes further than the Decimal scheme in prescribing the order in which elements from two or more of these categories should be combined in composite subjects. This combination order is, in fact the reverse of the order in which the subjects taken separately would appear in the classification. The arrangement thus acquires a certain symmetry. The final pattern, incorporating a composite subject for illustrative purposes, is as follows:

<table>
<thead>
<tr>
<th>Painting, General works</th>
<th>Landscape painting in 16th century</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technique or media</td>
<td>Landscapes painted on masonry, 16th century</td>
</tr>
<tr>
<td>Distemper</td>
<td>Landscapes painted in distemper on masonry, 16th century</td>
</tr>
<tr>
<td>Base materials</td>
<td>Schools of painting</td>
</tr>
<tr>
<td>Masonry</td>
<td>French</td>
</tr>
<tr>
<td>Painting in distemper on masonry</td>
<td>French distemper painting</td>
</tr>
<tr>
<td>Subjects depicted</td>
<td>French painting on masonry</td>
</tr>
<tr>
<td>Landscapes</td>
<td>French landscape painting</td>
</tr>
<tr>
<td>Landscapes painted in distemper</td>
<td>French painting in 16th century</td>
</tr>
<tr>
<td>Landscapes painted on masonry</td>
<td>French 16th century landscapes</td>
</tr>
<tr>
<td>History</td>
<td>French 16th century landscapes on masonry</td>
</tr>
<tr>
<td>Painting in 16th century</td>
<td>French 16th century landscapes on masonry in distemper</td>
</tr>
<tr>
<td>Distemper painting in 16th century</td>
<td>French 16th century landscapes on masonry in distemper</td>
</tr>
<tr>
<td>Painting on masonry in 16th century</td>
<td>French 16th century landscapes on masonry in distemper</td>
</tr>
</tbody>
</table>
24 Recall of Ramifications

It is of far greater utility for the general reference librarian to know such a schedule-pattern giving immediate recall of all the ramifications of the subject, without the possibility of an omission, than to know a select number of hazardously connected facts.

25 Sameness of Pattern in All Subjects

The surprising and satisfactory thing about subject classificatory structure is that the general pattern for most subjects is more or less the same. Three of Ranganathan’s fundamental categories, Personality, Matter, Energy still need elucidation, but they are sufficiently clear to enable us to notice a family resemblance, though not actual identity, in the patterns for such dissimilar subjects as Painting and Animal Husbandry, Medicine and Sociology. It is not necessary to learn the classification pattern for each subject anew. Once the general categories are understood in their application to a few subjects, the pattern for other subjects reveal themselves almost instinctively. It must be conceded that the discovery of the outline pattern of a new subject, requires a certain minimum of general knowledge of the subject. One must understand thoroughly its dictionary definition, its basic theoretical concepts, its operational methods, its results and applications. Classificatory technique in reader service work does not absolve the reference librarian from the need for all informational background, but it does help him to make the utmost use of the slender personal knowledge, which is the starting point of his search.

26 BNB Experience with CC Pattern

It may be asked whether, as most libraries are in fact classified by older schemes, as few libraries outside India use the Colon scheme, the structural patterns derived from Colon are likely to be generally useful. The evidence on this point is indirect. No reference library using an earlier scheme, or system of training has tried it. But it is well known that perhaps the most ambitious of all attempts to classify books, the British National Bibliography, has systematically tried to impose Colon pattern on Dewey, without finding that the difference of classificatory idiom of the respective schemes made the
task of translation difficult or fruitless. On the contrary it has immensely lessened the labour of maintaining consistency of treatment. It has revealed analogous situations in widely separated parts of the field of knowledge, and has provided a ground plan for the placing of some thousands of subjects not scheduled in the Dewey scheme. In addition it has made possible a systematic procedure of attack both on new subjects and on the finely divided subject matter of report material.

27 CC Approach in Reference Service

In some senses classing is reader service in reverse. The reference assistant as it were reads back the formulation of the classifier; and if the resolution of Decimal Classification ambiguities in terms of Colon solutions is helpful and worthwhile in one direction it is likely to be equally so in the other.

3 Search Procedure

The second function of classificatory analysis in reference service work is really a logical extension of the first. Having helped the librarian to get to grips with the subject, as subject, at the outset, it may then be used to systematise search procedure.

Whether the enquirer's object is a specific piece of information or the perusal of everything in the library stock relevant to his subject, the search procedure is the same, except that it may be cut short in the first case.

31 Specific Subject

The first step should always be to check up whether there is material on the specific subject, if necessary by reference to the subject index.

32 Generic Subjects

After the specific subject has been tried, each step in the hierarchy of generic subjects up to general encyclopaedias of knowledge should be examined in turn. In the Decimal scheme these steps in the classificatory hierarchy are not necessarily self-evident from the class symbols. In order to miss none, the reference service assistant should be fully cognisant with the real hierarchical structure.
After information given in the chain of generic subjects has been tried (or in the case of the second type of enquiry, collected), recourse should be had to index and schedule co-ordinates both of the specific and generic subjects previously examined.

33 Co-ordinate Subjects

Index co-ordinates of a subject are presented in a subject index prepared on chain procedural methods, by the entries on aspects of the subject other than the one already examined which appeared to cover the enquiry. It is worthwhile examining material under general unrelated aspects. Thus for a particular piece of information about oil-bearing strata, if material indexed as “Petroleum. Geology” and its set of generic terms up to “Geology” fails, it would be worthwhile turning next to material on “Petroleum. Wells. Engineering”, or “Petroleum. Chemical Technology”, and even under “Petroleum. Economics”, but not under “Petroleum. Labour disputes”.

34 Generics of Co-ordinate Subjects

Index co-ordinates of the respective generic terms should next be checked. They are likely to be of decreasing help in proportion to their height in the hierarchy, but they should not be ignored as they often bring to light cross connections in the web of knowledge which the undimensional classification schedule does not reveal.

Schedule co-ordinates are the topics which sit beside a given topic in the classified catalogue. Order of an array of subjects is often so arbitrary in Dewey that one cannot make a general recommendation that all schedule co-ordinates should be checked as a matter of course. But closely allied schedule co-ordinate material should be checked both at the specific and lower generic levels.

35 Diagonal Move

Slight information gleaned from enquiry at generic level may suggest a ‘diagonal’ move to an entirely different category of the subject. Let us suppose that an assistant in a small reference library receives an enquiry for material on jade carving. He has no book on the specific subject, and pursuing his enquiry on the generic level he discovers in a book on general sculpture that the Chinese were
pre-eminent in this art. He immediately switches over to material on Chinese sculpture, which includes a fair general account. We all do this unconsciously because we accept that every subject has a 'place' category. Knowledge of the role of Energy, Matter, and Personality categories in the general pattern of subjects would enable us to take fuller advantage both of our own necessarily meagre informational background and of the brief hints offered by general books on the subject.

4 Scheme with Chaotic Sequences

This paper has so far concentrated on the way in which classificatory analysis of the type first propounded by Ranganathan can help the reference assistant whose material is actually arranged by some comparatively primitive scheme such as Dewey. It has taken for granted the work of transposing the analytical principles into Dewey terms and vice versa. It has been noticed in this connection that undesirable separation of aspects of the same concrete topic (which is perhaps the most baneful characteristic of Dewey from the classifier's point of view) is not a decisive defect for reference service, though it must be gratuitously time-consuming in the long run. Checking of subject index co-ordinates should in any case be routine, and classification defects of this kind do not mean that part of the relevant material is missed altogether. If classificatory defects of division can be regarded as hindrances rather than decisive obstacles to the reference assistant, the same cannot be said of defects of sequence in classification schemes. The checking of "schedule co-ordinates" of a required subject has been given among the essential search operations; this check cannot be carried out effectively where the sequence in an array of subjects is chaotic. Deficiencies in this respect decisively limit a classification scheme's usefulness in reference work.

5 Scheme, Ideal for Reference Service

The ideal scheme from the reference librarian's point of view would have a notational apparatus devised to permit interpolation of a new subject at any point, in chain or array; this would almost certainly mean that the notation would not reflect the hierarchical
structure. In actual structure the scheme would certainly bear a recognisable generic resemblance to the Colon Classification, but with sufficient elaboration of the facet structure, particularly with regard to the Energy facet, to make it possible to eliminate the uncertainty attaching to Colon's Auto-Bias device. New knowledge often brings to light hitherto unsuspected relations between topics which may be sufficiently profound to reshape a smaller or larger part of the pattern of knowledge. The classification structure and notation should be designed to permit easy topic relocation, as a routine maintenance matter rather than as a desperate surgical emergency. Finally the classification should be sufficiently elaborated for precision placing. In spite of the size of the 14th edition of DC, lack of vital development in this scheme strongly militates against its utility in the reference library.

6 Classified vs. Dictionary Catalogue

The exploitation of classification for reference work would have certain repercussions upon reference library subject cataloguing. It has been assumed so far, in connection with index co-ordinates that the library would have a classified catalogue with subject index. While it is possible to construct a dictionary catalogue on chain procedural methods, so that the type of connection covered by what have been called index co-ordinates could be explored more rapidly than in the classified form, the dictionary cannot refer systematically from specific to generic subjects, and the primary line of exploration is therefore closed. For these it would, of course, be possible to rely on the sequence on the actual shelf. But spine titles and class marks cannot compete with a well guided and verbally featured classified catalogue in efficiency in displaying the classificatory pattern in its full ramifications.

61 Reduction of Annotation

Precision subject specification by class symbol and feature on the catalogue entry reduces the need for subject annotation.

62 Reduction of Subject Analyticals

The catalogue would include a fully rationalised policy of analytical subject cataloguing. The rule is simply that an analytical
should be made for any part of the subject content not included in the schedule under the class number chosen. Thus in a book classed in Electricity (Physics) we should consider making an analytical entry for a section on Electrolysis (which the schedule places in Chemistry) but not for Semi-conductors—new and exciting subject though it may be.

7 Conclusion

Classificatory technique is an adjunct but not a substitute for knowledge. In the situation where the librarian knows at the outset precisely where the query is answered classification is clearly irrelevant. All other cases, including that of the subject specialist librarian, where the location of the answer is not immediately known or where the reader desires to see everything that the library can produce on a subject, the search requires systematisation on a classificatory pattern.