

### 3. The British Archaeological Bibliography: a fully computerised service for archaeology

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#### 3.1 Introduction

The *Archaeological Bibliography and Abstracts* publications of the Council for British Archaeology (CBA) have been described by Barry Cunliffe (1986) as 'essential tools which all archaeologists need'. The publication of *British Archaeological Abstracts (BAA)* has become increasingly vital as archaeologists drown in a sea of information. Every year there is a growing number of publications related to archaeology (Fig. 3.1 and also Lavell 1981 Fig. 2). These publications are in the form of books, journal articles, conference proceedings, collected works, theses, pamphlets, newsletters, etc. Many of these publications contain new information or ideas.

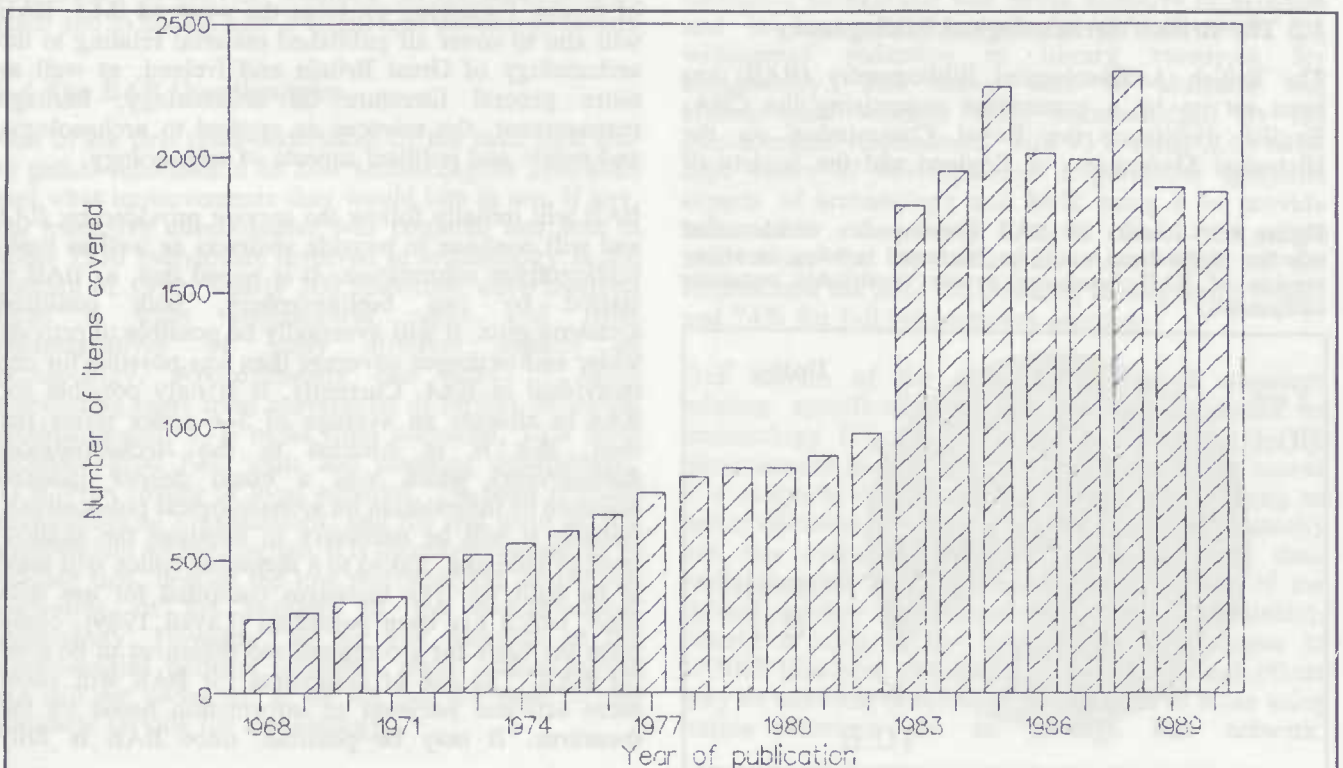
Consequently it is now very difficult, if not impossible, without an abstracts service such as that provided by the CBA, for most people to keep up to date with publications covering their own particular areas of interest let alone maintain an overview of developments in the subject generally. It would certainly be impossible for most people to keep up to date with areas of the subject that are peripheral to their own main interests, particularly in such a diverse subject area as archaeology, even though these areas may contain the answer to a problem within their own specialism.

#### 3.2 The Council for British Archaeology's bibliographic services

The CBA has provided important sources of information on archaeological publications for many years, initially through its *Archaeological Bibliography of Great Britain and Ireland* which covered forty years of publications from 1940 (though it was initially called the *Archaeological Bulletin for the British Isles*), and, since 1968, through *BAA*, compiled by Cherry Lavell. However, the CBA's resources have always been limited and it has become increasingly difficult to offer a comprehensive service able to cope with the volume of publications that are produced each year (Lavell 1984).

The CBA has tried for many years to obtain the funds to benefit from the application of computers in its bibliographic work but has been unsuccessful. A seminar held back in 1976, funded by the British Library Research & Development Department, discussed the application of computers to the *Archaeological Bibliography* and *BAA* (British Library 1977). The discussions have been repeated many times in subsequent years, and the desirability of the use of computers has never been in doubt, but it was just not possible to find the necessary funding (Lavell 1981, 1986). With the retirement of Cherry Lavell in April 1991, it seemed that *BAA* might even cease publication

Figure 3.1: Number of items covered each year in *BAA* (the large increase in 1983 was after the demise of the *Archaeological Bibliography*)



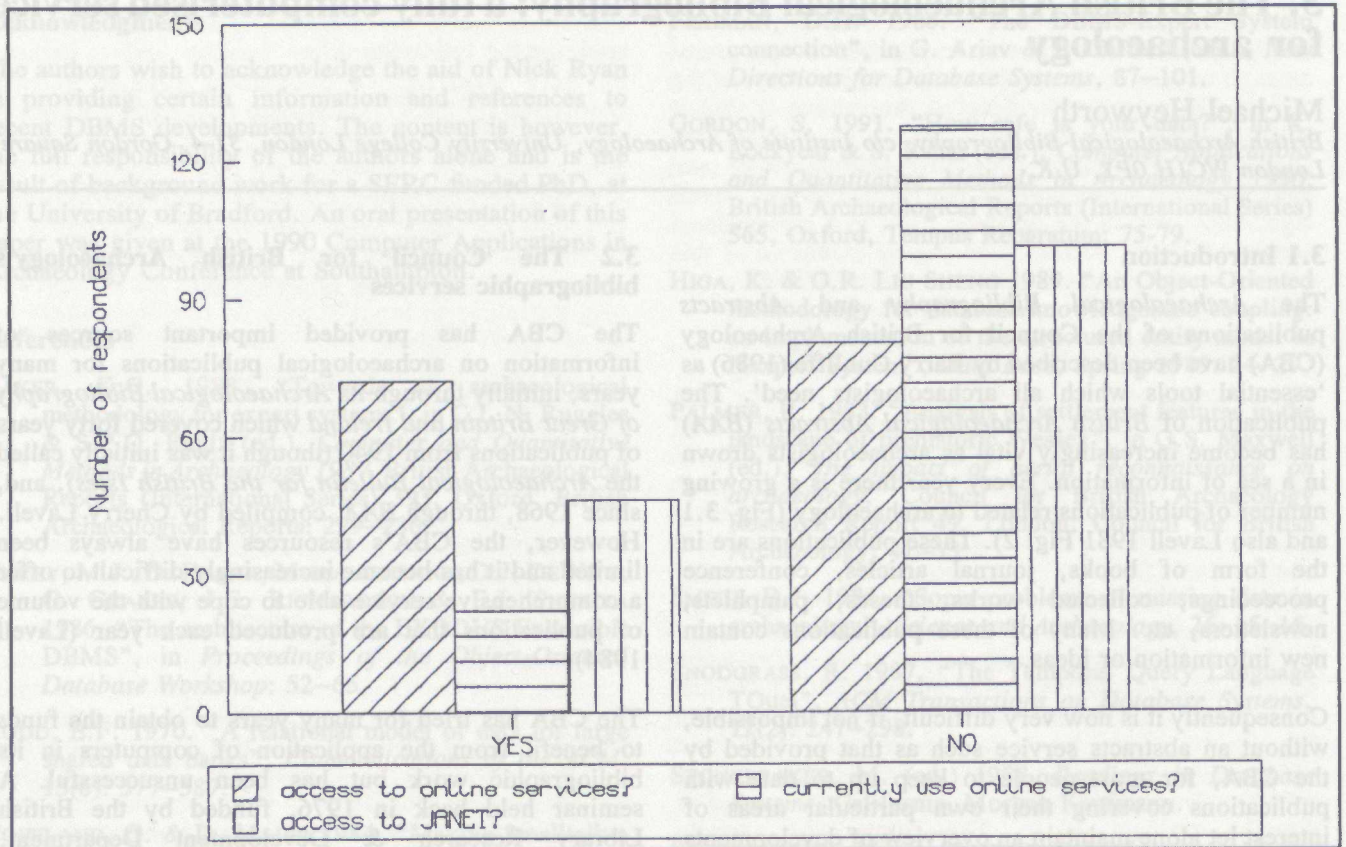


Figure 3.2: Results of BAB questionnaire relating to the use of computers in archaeology (in late 1990).

(as did the CBA's *Archaeological Bibliography* after the issue covering 1980, due to the lack of resources). However, the contribution of *BAA* in providing a vital information tool for archaeologists was widely recognised and steps have now been taken to ensure that not only will the bibliographic service continue after 1991, it will at last benefit from the application of computer technology.

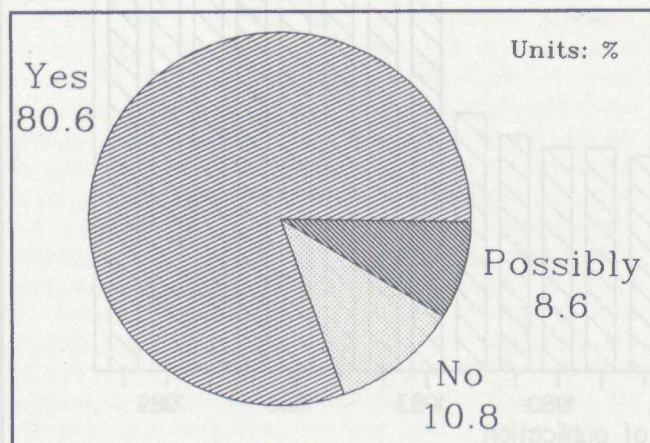
### 3.3 The British Archaeological Bibliography

The British Archaeological Bibliography (BAB) has been set up by a consortium comprising the CBA, English Heritage, the Royal Commission on the Historical Monuments of England and the Society of

Antiquaries of London. The funding of the new operation has been guaranteed for an initial period of three years, with a review at the end of the second year.

BAB will replace *BAA*, which will cease publication in 1991. From 1992 onwards BAB will offer a fully computerised bibliographic service for British archaeology which will be made available in a variety of forms. Following on from the work of *BAA*, BAB will aim to cover all published material relating to the archaeology of Great Britain and Ireland, as well as more general literature on archaeology, heritage management, the sciences as applied to archaeology, and public and political aspects of archaeology.

Figure 3.3: Results of BAB questionnaire which asked whether respondents would be interested in using an online version of BAB (assuming access to suitable computer equipment).



BAB will initially follow the service provided by *BAA* and will continue to provide abstracts as well as basic bibliographic information. It is hoped that, as BAB is staffed by two bibliographers, both qualified archaeologists, it will eventually be possible to provide wider and/or deeper coverage than was possible for one individual in *BAA*. Currently, it is only possible for *BAA* to allocate an average of 5-6 index terms per item, this is in contrast to the *Archaeological Bibliography* which was a much deeper indexed collation of information on archaeological publications. Initially it will be necessary to continue the shallow level of indexing, linked to a thesaurus which will need to be built up. The thesaurus compiled for use with *BAA*, which has been published (Lavell 1989), could form the basis for a computerised thesaurus to be used for BAB. The use of computers for BAB will allow more efficient retrieval of information based on the thesaurus. It may be possible, once BAB is fully

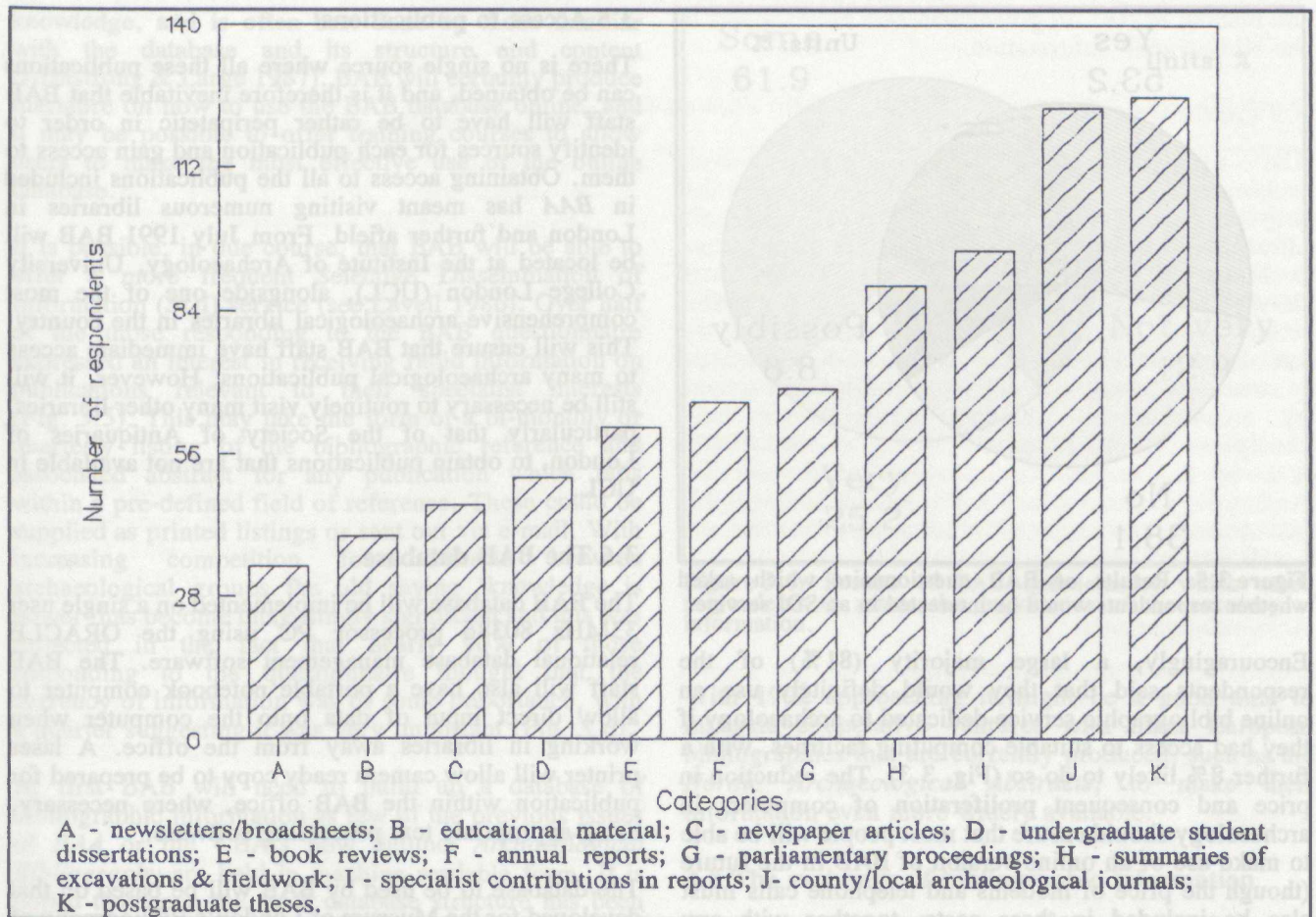


Figure 3.4: Results of BAB questionnaire relating to the types of publication which respondents thought should be covered by BAB.

established, to consider deepening the indexing to provide a more detailed access to the information contained within the publications. This will largely depend on what the users want from BAB and extensive discussions will be held with the archaeological community to provide feedback on the usefulness of BAB and to decide how it might best develop in future.

### 3.4 The BAB Questionnaire

One of the first tasks undertaken by the BAB staff was to gather information on how archaeologists used *BAA* and what improvements they would like to see, if any. An extensive questionnaire was prepared and sent to some 1350 individuals involved in archaeology in the autumn of 1990. Nearly 200 responses were received from a wide geographical range and from representatives of many different aspects of archaeology. Approximately one third of those responding came from universities or further education establishments, 17% came from museums, 16% from archaeological field units and planning departments, 11% from county or local societies, 7% from national archaeological organisations, and the rest were mostly independent archaeologists. It is therefore reasonable to assume that, despite the low response, the results are indicative of the feelings of the archaeological community. However, as the low response to the questionnaire perhaps indicates, many archaeologists are still not aware of, or do not feel the need for, an abstracts service for archaeology.

Three-quarters of those responding to the questionnaire use abstract services and bibliographies to acquire information relevant to their archaeological interests. However, the most frequent method of acquiring information quoted was by looking through published literature, though this was never effective or efficient and is becoming increasingly difficult with the widespread reduction in library resources for archaeology. The many uses of abstracts and bibliographic services were acknowledged by the questionnaire respondents, with 93% using *BAA* to be kept aware of developments in particular specialist aspects of archaeology and 88% using it to provide information of general interest (the two prime motivations for its initiation). Also, 75% of the respondents use *BAA* for checking bibliographic details and 74% for full retrospective searches.

One section of the questionnaire asked questions relating specifically to the use of computers in archaeology (Fig. 3.2). Of those responding to the questionnaire nearly half (47%) currently have access to a computer system which is capable of accessing an online database. However very few, only 15%, actually use any online services in connection with their archaeological work (presumably a reflection of the limited number of relevant services so far available). Nearly a third of the respondents have access to JANET (the Joint Academic NETwork), though others may be unaware of the facility, but most of those using online services do so through this network.

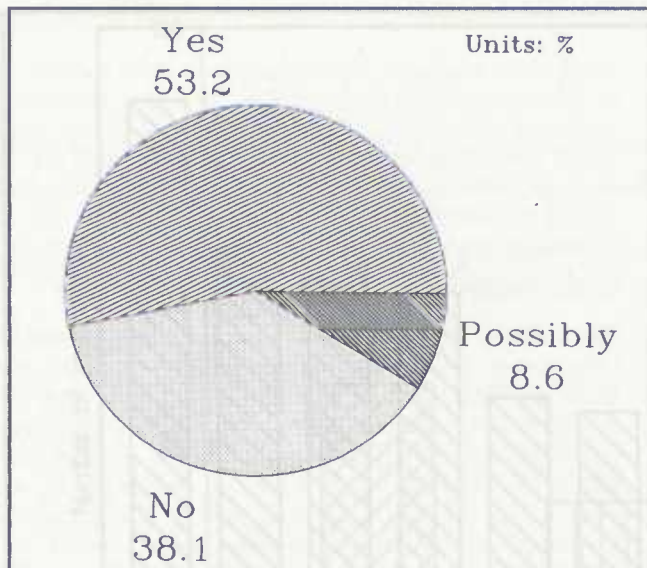


Figure 3.5: Results of BAB questionnaire which asked whether respondents would be interested in an SDI service.

Encouragingly, a large majority (81%) of the respondents said that they would definitely use an online bibliographic service dedicated to archaeology if they had access to suitable computing facilities, with a further 8% likely to do so (Fig. 3.3). The reduction in price and consequent proliferation of computers in archaeology should ensure that most people will be able to make use of an online version of BAB in the future (though the price of modems and telephone calls must also be included in these costs, together with any charges for accessing the BAB database online).

Archaeological information appears in many different types of publication, not just books and journal articles. Many of these have been covered where possible in *BAA* but, with the limitation on resources, it has been necessary to prioritise coverage. An attempt was therefore made in the questionnaire to assess what categories of publication should be given high priority in BAB. The responses (Fig. 3.4) showed that the most favoured were postgraduate student theses (by 70% of respondents), county/local archaeological journals (69%), specialist contributions within reports (53%) and summaries of archaeological excavation and fieldwork (49%). Other possibilities for inclusion, in order of demand, were extracts of relevant parliamentary proceedings (38%), annual reports of archaeological groups (37%) and published book reviews (34%) — though many individuals commented that only substantial review articles with some original content should be included. Least favoured for inclusion in BAB were undergraduate student dissertations (28%) — especially those below 2.1 grade, archaeological reports from newspapers (26%), educational material (22%) and newsletters/broadsheets (19%). Other suggestions for inclusion were videos and television programmes, archive material, reports or statements produced by archaeological groups such as CBA, the Institute of Field Archaeologists or the Standing Conference of Archaeological Unit Managers, and government and EEC papers or reports which may have some archaeological relevance.

### 3.5 Access to publications

There is no single source where all these publications can be obtained, and it is therefore inevitable that BAB staff will have to be rather peripatetic in order to identify sources for each publication and gain access to them. Obtaining access to all the publications included in *BAA* has meant visiting numerous libraries in London and further afield. From July 1991 BAB will be located at the Institute of Archaeology, University College London (UCL), alongside one of the most comprehensive archaeological libraries in the country. This will ensure that BAB staff have immediate access to many archaeological publications. However, it will still be necessary to routinely visit many other libraries, particularly that of the Society of Antiquaries of London, to obtain publications that are not available in UCL.

### 3.6 The BAB database

The BAB database will be implemented on a single user 33MHz 80386 processor PC using the ORACLE relational database management software. The BAB staff will also have a portable notebook computer to allow direct input of data onto the computer when working in libraries away from the office. A laser printer will allow camera ready copy to be prepared for publication within the BAB office, where necessary, using appropriate text processing software.

The database to be used by BAB will be based on that developed for the Museum of London's Bibliography of the Archaeology of Greater London (developed by Audrey Adams and programmed by Dave Evans). This will be modified to the specific requirements of BAB. It is planned that the BAB software development, which will be largely undertaken in house, will be completed in time to produce the first edition of BAB in spring 1992. BAB will initially be available in a printed form, following the format of *BAA*. The printed version will continue to be produced, probably every six months, even when the database is available for online consultation. This is necessary for revenue purposes, though it is also recognised that there will always be those who do have neither the equipment nor the inclination to use computers and prefer information to be provided in printed form.

Once the software is successfully developed and implemented it is intended that BAB will be offered as an online service to which all those with suitable computer equipment will be able to have a direct connection via a dial-in modem link. This will involve either upgrading the hardware used by BAB to a multi-user system, perhaps using Unix, or, more likely, using a suitable host computer, such as a university mainframe or a commercial service, such as Dialog. It is hoped that BAB will also be accessible via JANET (the Joint Academic Network), which may be made easier with the location of BAB within University College London. It is also intended to offer a service whereby individuals can pay for BAB staff to undertake searches of the database on their behalf. This may be of considerable assistance to many users given the difficulties of effective online searching. Searching online databases requires considerable skill and

knowledge, and is often best done by those familiar with the database and its structure and content (Armstrong & Large 1987). BAB will certainly produce literature on how to use the BAB database online, and it may be possible to offer training courses to allow users to make the most effective use of the online database.

It is possible, in due course, that BAB will be able to offer a more frequent Selective Dissemination of Information (SDI) service (see Laveil 1986). Over half of the those responding to the BAB questionnaire expressed an interest in receiving rapid information on publications relevant to their specialist interests (Fig. 3.5). This may take the form of a bi-monthly or quarterly listing of the bibliographic reference and associated abstract for any publication which falls within a pre-defined field of reference. These could be supplied as printed listings or sent out via e-mail. With increasing competition for contracts between archaeological groups the old saying 'knowledge is power' has become increasingly significant and this was reflected in the fact that nearly 90% of those responding to the questionnaire thought that the currency of information was of some importance, with a quarter suggesting it was very important (Fig. 3.6).

At first BAB will need to build up a database of bibliographic information as few of the previous issues of *BAA* or the CBA's now defunct *Archaeological Bibliography* are held in machine readable form. It is hoped that once the BAB database structure has been developed then the information held in these publications (over 25,000 items are listed in *BAA* alone) will be entered into BAB to make them widely available within a single database. This was appreciated by the questionnaire respondents of whom about 75% would like to see back issues of *BAA* and the *Archaeological Bibliography* available online. It is likely that the information will be entered into the computer by optical scanning, using character recognition software, followed by extensive manual checking and tagging of the information to allow it to be loaded into the database without the need for extensive re-keying. Unfortunately, it will not be possible to follow this procedure for the index terms assigned to each article which are printed at the back of each volume. These will have to be keyed in separately for each item.

### 3.7 Other bibliographic data

It may also be possible to either incorporate other bibliographies into BAB or mount them alongside BAB on the computer, particularly those produced by other groups or individuals whose compilers would be glad to see more general use made of their work. Such bibliographies, even if they have been effectively 'sealed off' because no resources were available to keep them up-to-date, can be very useful to other workers. In addition, some compilers of currently maintained bibliographies might be prepared to supply regularly updated machine-readable versions for incorporation within or alongside BAB. In particular, it would be extremely useful for bibliographies covering the archaeology of other European countries to be made available in computerised form alongside BAB (though there would be problems of language and translation).

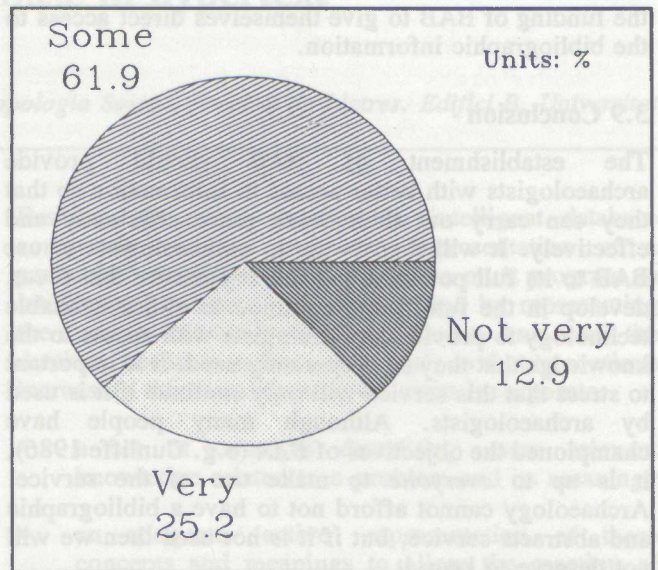


Figure 3.6: Results of BAB questionnaire which asked respondents to assess the importance of the currency of information.

With 1992 approaching it might be a good time to instigate cooperative ventures with other European bibliographies that are currently produced, such as the *Nordic Archaeological Abstracts*, to make their information even more widely available.

### 3.8 The exchange of bibliographic information

The potential for exchange of bibliographic information between archaeological organisations will be improved by the adoption and dissemination of a standard exchange format for this type of data in archaeology. With this aim in mind, the current joint working party of the Royal Commission on the Historical Monuments of England (RCHME) and the Association of County Archaeological Officers (ACAO) on information standards for archaeology will shortly be considering, in liaison with BAB, a standard for the exchange of bibliographic information. It is hoped that this standard will be made available in 1992, and will be widely disseminated and used.

BAB will encourage the close co-operation and sharing of bibliographic information between organisations to reduce any duplication of effort where possible. At the moment there is inevitably some duplication, particularly in archaeological libraries and other organisations where bibliographic information is collected. Although the various organisations may be extracting information for different purposes, many of them share the need for the basic bibliographic information to link into their own particular information system. The organisations which are members of the BAB consortium are working together to minimise the duplication through BAB, which can provide a focal point for the exchange of information. Invitations have now been issued to other major archaeological organisations in England, Wales, Scotland and Ireland to join the BAB consortium and contribute to the development of BAB by providing financial assistance, as well as sharing in the benefits that BAB will be able to offer them. Other organisations may wish to assist in

the funding of BAB to give themselves direct access to the bibliographic information.

### 3.9 Conclusion

The establishment of BAB should provide archaeologists with better access to information so that they can carry out their work more efficiently and effectively. It will then be up to archaeologists to use BAB to its full potential and thereby ensure that it can develop in the future and continue to utilise available technology to provide archaeologists with access to the knowledge that they so desperately need. It is important to stress that this service will only continue if it is used by archaeologists. Although many people have championed the objectives of BAA (e.g. Cunliffe 1986), it is up to *everyone* to make use of the service. Archaeology cannot afford not to have a bibliographic and abstracts service, but if it is not used then we will not deserve to keep it.

### Acknowledgements

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