

surge phenomena; it could be said, in fact, that the last section is rather out of date and has been put into the book rather indiscriminately. The general adequacy of mathematical treatment, however, is to be seen in the chapter concerned with the penetration into and propagation of surges through generator windings. Nowhere do the mathematical equations get out of hand. The treatment is, in fact, a perfectly adequate summary of the situation, leaving the reader to fill in for himself wherever a particular solution is required. Each major section of the book also ends with a brief but useful conclusion.

It is probable that the treatment of surge voltage dividers and surge voltage generators is not really as good as those which can be found in specialist books of the subject, particularly those concerned with high voltage technology. Nevertheless, the whole volume is a comprehensive treatment of the behaviour of surge phenomena in plant and the generation of surge phenomena by other forms of apparatus, and as such it could be a very welcome addition to any power engineer's shelf. It is not cheap, but it is an excellently produced book with a very readable page layout.

COLIN ADAMSON

lished literature of projects elsewhere. Inevitably, this is the least satisfactory part of the study, as "the lack of . . . a literature about failures is keenly felt". Also this sort of information tends to be out of date almost at the moment when it is committed to paper. But it in no way detracts from the value of the rest of the book, which will long remain valid because it systematically relates the problems and their solutions in mechanized systems.

Perhaps I may be allowed a small grumble. The term automation is interpreted throughout to mean the use of electronic computers and there is thus no distinction between mechanization and automation. This is a debasement of linguistic currency—but it is a losing battle.

This book is intended for the librarian without special knowledge of computer techniques, but the minimum needed for intelligent understanding is very well provided by Anne Boyd (Department of Engineering Mathematics at Queen's) in the chapter "Introduction to Computers". Thus at last we have a textbook that can be recommended without reservation for all students in library schools.

HERBERT COBLANS

COMPUTERS IN LIBRARIES

Automation in Libraries

By Richard T. Kimber. (International Series of Monographs in Library and Information Science, Vol. 10.) Pp. viii+140. (Pergamon Press; Oxford, London and New York, December 1968.) 45s.

THE appearance of this book is a welcome sign that the computer is gradually finding its useful level in documentation—a practical tool for the routines of housekeeping rather than the panacea for the problems of information retrieval. The author, a lecturer in the School of Library Studies at the Queen's University, Belfast, strictly limits himself to "the processes of book ordering and cataloguing, periodicals accessioning and circulation control, whose purpose is to make a library an efficient machine for acquiring, storing, and disseminating knowledge and information". These operations may not be spectacular but they are essential, and, above all, their mechanization is feasible and efficient under the right conditions of size and purpose.

In a series of four chapters, each of the procedures is systematically analysed (traditional librarianship has never taken this prerequisite for rationalization seriously enough) and translated into flow charts and hardware which the use of computers implies. The practical steps to perform each function are described and related to the variant needs in different libraries and the levels of mechanization that are possible. It is here that this book is so valuable a guide for the librarian who wishes to understand what is involved in mechanization and to evaluate its potential value for the present and the future of any given configuration. At this stage of semi-anarchy, both in computer systems and in criteria for library service, there are so many possible combinations and permutations that planning is difficult. Thus there is a range of input forms (punched cards or paper tape, edge-punched cards with paper tape code, optical character recognition) and output forms (line printers, computer-aided typesetting); modes of operation (off-line, on-line, time-shared); computer times and programming potential as a function of high or low level languages. It is therefore very useful to have these variables evaluated in the specific situations of the main library routines.

The final chapter, "The Present State of Automation in Libraries", examines the facts of life in contrast with the models for which mechanized systems were described. It is based on the author's personal knowledge of the state of mechanization in the United Kingdom and on the pub-

Correspondence

Digging but not Keeping

SIR,—Your article "Digging but not Keeping" and subsequent correspondence both raise the question of the facilities which can be put at the disposal of archaeologists by the universities. In discussion on this topic it is usually tacitly assumed that material can be "farmed out" (you follow custom in using this term) to the appropriate university departments. Sometimes it is appropriate that this should be done, and I for one owe a great deal to the staff of the Ancient Monuments Laboratory for bringing to my notice material relevant to my own research.

It is an easy step from this, however, to the expectation that the universities will carry out routine work such as identification of plant and animal remains, soil analysis, pollen analysis and so forth. Certainly the universities have the expertise and the practical facilities, but a university exists for teaching and research; routine analysis which has no bearing on the research is not its proper function. In point of fact, most scientists will give as much help as they possibly can, because they realize that if they reject a request basic data of a unique nature may be lost.

So great has been the growth of archaeology, not only in the volume of excavating but in the awareness that the specialist study of samples can greatly enhance the value of an excavation, that the amount of routine work which should be done is quite beyond what the available manpower can cope with as a sideline. There is a real danger that research will suffer if more routine work is accepted.

The predicament in which the Ancient Monuments Laboratory finds itself is symptomatic of a situation which is now widespread in this country. The volume of material which should be examined has outstripped the resources of trained manpower that can deal with it. No longer can the archaeologist hope to get the work done on a goodwill basis; the goodwill is there, but to accept the load would be to stop the machine. We are now in the ridiculous position where it is perhaps possible to cope with a minor site which only throws up half a dozen

samples, but an important one has no prospect whatever of being dealt with.

It must be honestly faced that the work which needs to be done will only be done if it can be paid for, so permitting the employment of staff appointed to the task. In this institute we are training students who will be able to undertake such analytical work; but who will employ them? Whether this is recognized as a legitimate call on the museums, on an enlarged Ancient Monuments Laboratory or on privately organized establishment is a matter for discussion, but in any case finance will have to be forthcoming.

It may be observed that one of the factors which has contributed to this crisis has been the increase in the number of excavations made necessary by the increasing development of our countryside. This is an outcome of our national policy of development, and responsibility for it should be accepted in this light.

Yours faithfully,

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SIR,—In your issue of February 22, 1969, you published a letter from Mr T. F. Profitt of the Institution of Professional Civil Servants about the ministry's Ancient Monuments Laboratory.

This ministry, like all other Government departments, has to conform with the Government's manpower policy on the size of the Civil Service. Our problem has been to allocate the manpower resources available to us between many competing claims within the department.

However, because of our concern about the laboratory a survey was carried out toward the end of last year and, as a result, the complement has already been increased from eleven to seventeen—with the object of enabling the laboratory to clear within a reasonable period the present backlog of work. Action is also being taken towards accommodating the various parts of the laboratory as a single unit. You may be aware that these facts were announced by the Minister to the House of Commons on March 10, 1969, in reply to a question from Mr Peter Jackson, MP.

It is our intention to achieve these improvements as quickly as possible, but there may be some difficulty in finding the accommodation required for the laboratory, which must be close not only to the Ministry's Inspectorate of Ancient Monuments in Westminster, but also to the British Museum and the learned societies with which the laboratory must be in close and regular contact.

Yours faithfully,

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These letters refer to an article in *Nature* (221, 206; 1969) and subsequent correspondence (*Nature*, 221, 785; 1969).

Birds Room at the Museum

SIR,—At the end of the last century the Bird Room at South Kensington was the most famous centre for systematic ornithology in the world, having a distinguished staff, and being the favourite meeting place of an outstanding generation of amateur ornithologists. The catalogue of its contents prepared at that time remains a great classic of its subject. Since then its standing and our own position in the subject have progressed steadily

downhill. For a while the Rothschild Museum at Tring seized the lead, and then it was lost abroad with the sale overseas of the Rothschild Collection of skins in the 1930s. In recent years it has taken considerable persistence to penetrate the Bird Room at all, and, while good work is still done there, one feels that the staff do not always receive the recognition and encouragement that they deserve. The collection has ceased to grow in the way that it used to (indeed, it seems possible that at the present time part of yet one more of a series of collections, the Hewitt Collection, first offered to the museum, may end in being sold elsewhere), and many other museums, some of them in much smaller countries, now produce a larger output of ornithological work.

There has already been one national outcry when this down-grading of the status of the Bird Room was accompanied by a proposal to remove it to the partly empty Rothschild Museum at Tring before the war, when I am told a petition was circulated among our leading ornithologists in favour of keeping it more easily accessible in London. In the circumstances it now seems rather ironical that the only public protest at the renewal of this proposal has come not from ornithologists but from a Member of Parliament, Mr Allason, on grounds of economy because it is proposed to pull down part of the existing Tring Museum to rebuild the Bird Room there (*The Times*, January 30). There are, of course, several arguments in favour of moving the Bird Room to Tring, including the presence of a magnificent and too long neglected ornithological library, the proximity of the headquarters of the British Trust for Ornithology, and easy access by road from other ornithological centres such as Oxford, Bedford, Sandy and Cambridge. On the other hand, I would have thought that there are even more arguments in favour of keeping the national Natural History collections together in London, including a need to maintain intercourse between people working in different departments, access for all to the general library and the different departmental libraries, and ease of access and accommodation for the great majority of the people in this country and abroad who wish to work on the collections.

It is said that the Bird Room was originally installed in its present quarters in the entomological block at South Kensington for a strictly temporary period until a new extension could be built for it beyond this at the far north-west corner of the South Kensington Museum site. Since then the library and the mammals have been rehoused but the birds have been left in an increasingly overcrowded block until a new administration hit first on the idea of moving them out to Tring, and then of rebuilding the Tring Museum to accommodate them. If any new building needs to be done, it is not clear why it cannot be done at South Kensington. The majority of the visitors to the Bird Room are busy people who have other business in London and cannot afford the time for the laborious train journey to Tring, where the station is moreover still a long way from the museum and there is little accommodation in the vicinity. It is said that another department would have been prepared to move into the Tring Museum as it stands. Much time has been lost already because the proposal to move the Bird Room received so little public discussion, but now that Mr Allason has questioned its wisdom on grounds of economy it seems time that, at the eleventh hour, attention should be paid to its justification in terms of policy as well. It does not seem wise to break up the national Natural History collections and exile important parts of them to remote places in this way.

Yours faithfully,

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