In my library school days a dozen years ago, it was common (though perhaps not very prudent) for those of us intending careers in rare books and special collections studiously to avoid all courses in—or indeed any exposure to—computers. I can recall explaining that while automation was certain to have a major impact on mainstream librarianship, I wasn’t going to be “that kind of librarian.”

Indeed, in those days library computer applications were limited to rather remote systems tasks, and a high level of data processing expertise was a necessary ticket of entry. But very soon thereafter, this picture changed radically. First came the growth of the national cataloguing databases, OCLC, RLIN, and the others. Rare book librarians were not slow to realize that these databases could provide benefits not only in access to information about books held in libraries all over the country, but also in standardization of the way bibliographical information was recorded. Our professional groups rushed to develop extensions to the MARC format to accommodate rare and older materials, and our enthusiasm has been reinforced by the automated projects of the ESTC and the rapidly growing Nineteenth-Century STC.

In the past five years, the microcomputer revolution has crept up on us as well. And this time around, special collections departments have sometimes been the first place in the library to recognize the utility of microcomputers. Microcomputers have now been introduced in many rare book libraries, and innovative applications are being developed.

The purpose of this column is to explore the potential uses of micros in the
special collections setting. I will be reporting on hardware and software that offers particular functionality appropriate for our environment.

Despite this focus, in this first column I want to talk a bit about some general considerations applicable to any kind of office that is automating for the first time. This can be an anxiety-ridden experience. Computer hardware is expensive, and mysterious to most people; there is fear of making wrong decisions, of breaking things. The patterns of work in a department may change as a result of automation, and this too provokes uneasiness.

The good news is that costs are falling, and de facto standards have emerged that will save you from buying equipment that will be orphaned. And people are growing more accustomed to working with microcomputers. For most of these columns, I will be assuming that we are using PC/MS-DOS standard machines, i.e., the IBM Personal Computer and its “compatibles.” The IBM PC, and its big brothers the XT and the AT, have become the standard business microcomputers: so standard, in fact, that their architecture has been copied by an army of “compatibles,” similar machines manufactured by companies like Compaq, Leading Edge, AT&T, Tandy, Epson and others, as well as non-brand “clones.” These other brands can run the same programs, use the same disks, printers, and other add-ons, as IBM’s own computers. They are not necessarily the most technologically advanced or innovative microcomputers available, but they enjoy a large base of software supporting almost every conceivable application, and a near-universal base of users from Fortune 100 companies to small businesses, to academic writers, to the home hobbyist.

The purchaser of computer equipment must steel himself to face the inevitable obsolescence of whatever is acquired, and that in a very short time. Even if you buy the latest new computer with the 80386 CPU microprocessor (the chip which runs the main operations of the computer)—and as I write, no such machine has yet been introduced, though at least one will be by the time you read this—within six to nine months some more capable machine is bound to appear. With printers, the situation is even more discouraging: a new generation of printers seems to appear every three to four months! You must not let this bother you: if you select a system and its components carefully, you will have a setup that provides functionality for you; it is better than what you had before you got it. It will continue to serve you for several years, when the cycle can begin again.

One of the advantages of following the PC standard is that its installed base is so great that companies cannot afford to issue new versions of software that are not “downwardly compatible,” i.e., capable of running on earlier incarnations of the machine. All versions of DOS, the “operating system” software that runs the computer, have thus far been downwardly compatible, so that DOS 3.2, which came out to support the new kind of disk drives in IBM’s “lap-top” portable computer, and also features support for a new keyboard for the AT, still
runs well on my old-fashioned “plain vanilla” PC. Rumor has it that the next version of DOS may not run on PCs and XTs; but even if that is so, applications software—word processors and databases and spreadsheets and such—must continue to support the millions of installed PCs that create their market.

But what, you may be thinking, am I to do with a microcomputer? It is likely that a special collections department has acquired the microcomputer with some particular project in mind: perhaps for producing a register of an archival collection, or maintaining records of a friends’ group. In fact, the “antiquarian micro” can begin its useful life performing much the same tasks that are accomplished in any office: word processing, keeping accounts, maintaining mailing lists. Because there are a wealth of programs available for these tasks, and much help available in their use, they provide a good way to get acquainted with your micro.

The selection of a word processing program may be the first complicated decision you will be faced with. Hundreds of programs are on the market and dozens of them are widely used. Modern word processing programs are very capable: they can do footnotes, tables of contents, outlining, spell-checking, columns, and so on, in addition to the basic tasks which facilitate writing and editing. Nowadays it is hard to choose a bad program, so many good ones are available. Nevertheless, some care is warranted in making the choice.

Word processors can be divided into two sorts, page-oriented and document-oriented. The former, which include programs like Multimate and Display Write 3, are particularly suitable for use by secretaries and others who are typing text already composed. The latter, including WordPerfect, WordStar, Microsoft Word, XYWrite, and others, are more appropriate for those who are composing their own text on the computer. There are other differences among programs that may feature the same capabilities, but nevertheless have different “feels.” Once you have found candidates which meet your specifications, it may help to try out the different programs. Although there may be some genuine personal preferences, most users end up feeling comfortable with whatever “first” word processor they learn; only when subsequent programs, with different interfaces, are encountered, do preconceptions about how programs should work come into play.

For special collections libraries, however, certain features often of little importance in business settings should be investigated. One common requirement in our environment is entering text in foreign languages. Does the word processor you are thinking about support foreign language characters? What about the symbols used in collation statements? IBM and compatible computers have a built-in “extended character set” which contains most of the accented letters used in European languages, as well as line-drawing characters and scientific and mathematical symbols, including some (but not all) Greek letters. How-
ever, not all word processors allow you to use these characters. WordStar, the predominant word processing program until about two years ago, is a notable example of one which will not permit this.

Practical considerations also come into play. Will you want to exchange documents with colleagues in other departments? Each word processor stores text in a different proprietary format, so that for example, WordStar cannot read files created with WordPerfect. If your institution has already standardized on a particular word processor, you may want to go along with that choice. It is possible, though, to exchange disk files in a format called “ASCII” (American Standard Code for Information Interchange); most word processors have a way to save files in that format, and to read ASCII files as well. But ASCII files do not preserve all formatting information, and cannot be used to print out hard copy, without further processing.

Most modern word processors come with an integral “mailmerge” capability, which permits you to merge an address list with form letters. In some programs, these merge capabilities considerably exceed simple form letter requirements, and allow sophisticated maintenance of mailing list data that rivals that of some database programs. Some merge utilities will allow you, for example, to select only those addresses matching stated criteria (including reference to fields other than those for name and address; you can have special code fields to indicate, say, donors or docents) from a master list.

Word processing and mailmerge are standard business applications for which you can expect to get considerable guidance from your dealer, and find lots of information in magazines. The kinds of information handling you are likely to want in a special collections setting, however, are of a different degree from that common in business. Ordinary business databases reference things: inventory parts, or employee birthdates, for example. Such things are easy to define and delimit. The data in your register of, say, the Abraham Lincoln Archive, are more apt to be text: long titles, even longer descriptions, provenance records, etc. It is hard, if not impossible, to define in advance the form this data will take.

Most business databases require that information be stored in fixed-length fields: each data element (“name,” “part number,” “author”) is defined in advance to be so many characters long. That amount of space, and no more, is then allotted for that item in each individual record. If you are dealing with inventory parts, this is not a problem: you know in advance that they will have, say, five digits, and no more. But if you are dealing with the title of a book, or a provenance record, you cannot know what every possible record will present. You may be tempted to allot a very large length, to allow for contingencies where it will be needed; but then you will be wasting storage space in all the records that do not actually need that length of field: soon, your disk will be
filled up, although much of what fills it will be empty space reserved for long fields. If the program has an absolute limit on the size of a record (and most do), reserving a lengthy fixed field for one field will also diminish what is available for other fields.

There are a few database programs available which permit, instead, the use of “variable-length” fields. With these programs, you do not have to define in advance how long a field is to be, and each record only takes up as much space as there is actual information entered. The penalty paid by such programs is in speed of indexing and searching, since the program cannot jump to a fixed location for each data element when performing these functions. This will be troubling if your application is to be an online catalogue, used by the public. But if you are preparing a collection register for use by staff, with hard copy output for the public, speed will be less critical.

My favorite variable-length database program is a little gem called Notebook II, from PRO/TEM Software in Stanford, California. This program was originally written with bibliographies in mind and operates in a fashion that will seem natural to anyone who has used the MARC format, DIALOG, or indeed almost any other bibliographical listing. However, unlike some dedicated library programs available (Professional Bibliographic System, for example, or BibBase Cat), Notebook II does not come with predefined bibliographic fields. You can set up any fields you choose, tailoring the format to fit your non-standard collections. And it is not limited to strictly bibliographical applications: I have used it to track the items in an exhibition (including information about lenders, insurance, conservation, and framing requirements, as well as description of the items themselves), maintain my acquisitions records, keep my Christmas card mailing list, and store RBMS committee lists.

In my next column, I will discuss some additional features of Notebook II, and consider other “flat-file” database programs. I will also treat some “relational” databases, which offer the ability to relate one file (say, “acquisitions”) to another file (say, “donors”), if there is a field in common between them. Another category of application I will cover is “textbase” or text search programs. I hope also to examine some of the latest printers to hit the market.

This column aspires to answer your questions about the use of microcomputers. I therefore welcome your questions, as well as comments and suggestions. Do you want more discussion of hardware configurations? How to shop for equipment? Service and support? Address your comments to me at the Yale Center for British Art, Box 2120 Yale Station, New Haven, CT 06520.
SADLON'S

109 N. Broadway, De Pere, Wi. 54115
414-336-6665

Old and Rare Books
including
Early Americana, History, Exploration,
Travels, Juveniles, Literature
and
Misc. works

American and European
Prints
featuring important works
by early and modern masters

16th through early 20th century

Fully Illustrated Catalogs Issued