When assessing the possible impact of library technical processes on library space utilization in the future, it should be taken into account that the role of libraries as book and document depositories is being replaced by the emerging role of information delivery systems. Miniaturization and new technology may decrease space needs, but in most cases each activity will be replaced with another just as space consuming. The greatest savings possible from these activities is to make it possible to provide more public service time either in staff assignments or improved tools for use by public service staff and the public. (Author/EMH)
I have been asked to speak to you - briefly - primarily on the impact which systems, networks, consortia, emerging technology, space colonization, and now unknown developments can be expected to have on Technical Processes for all types and sizes of libraries within the next few years. It was only my self-recognized omniscience and the thought that in twenty minutes or less I couldn’t say much which would affect my future credibility which allowed me to accept this invitation.

Perhaps we should remind ourselves that our space needs and relationships depend quite heavily on what is included in the phrase "Technical Processing". Quite obviously the more components included the more space is going to be needed; except that duplication of tools including machinery and even staff can often be more easily avoided when components using the same tools are within one administrative grouping and even more so when proximate.

For purposes of these remarks I’m talking about those library activities having to do with the acquisition, classifying, cataloging, preparation and maintenance for storage and circulation of all types of
materials in all types of libraries. That some libraries may consider selection as a function of public service units and others assign it to an independent non-public service unit is not in this context of significant enough difference to warrant separate treatment.

Let me set the stage for these remarks by making some general observations not necessarily specifically limited to my topic. Why I think these observations are relevant will be obvious, I think, from their context and the remarks which follow.

First, libraries as basic book or, if you wish, document warehouses and delivery points are passing out of the picture now. That doesn't mean they're all going to disappear from sight tomorrow, but the function for which probably most of us assign them as their main purpose is becoming less and less important, and is also being assumed by other agencies.

I'll explain this a little more fully shortly, but at this point, I want to observe that the advances made by libraries in the use of technology will take place in a relatively few such institutions, and most of those are going to be at least medium sized and larger. Most of the advances will occur outside of libraries, of course, but the adaptations for library use will not occur in very many, if any, smaller libraries.

We should note, too, that many of the developments in Technical Processing being pursued at present are designed to provide the ultimate in a few locations - then the remaining institutions will be electronically attached to master installations.

The library's function as an information processing and conduit for the delivery of information is trying to emerge from the development
observed above but is having a very difficult time, partly because of the normal reluctance of many of us to give up what we see as a sure thing as contrasted with something which appears to be a very vague and amorphous possibility. This isn't the only difficulty, of course. There's the problem of matching concept to hardware, or the reverse in many instances. Hardware exists but it doesn't match our concept, it only appears to do so.

For most current, advanced concepts concerned with progress in the delivery of information units (I like to call all of this "intellectual resources", but my intellectual friends and colleagues are snobbish toward the phrase) radical miniaturization and new technology for the delivery of energy for the operation of contraps is needed. (Contraps is a miniaturization of the common word "contraptions" to distinguish new devices which may or may not be machines in the traditional sense). These are being developed, but most are still in rather crude forms. As an aside here, let me observe that one of the great losses we are experiencing with the abandonment of the space exploration program is the rapid development of new technology applicable to our work as well as in most areas of human endeavor.

Even in the development of mini-computers has not provided us with significant savings in space in many cases, though the potential seems to be there. The present limited applications of some of these belie their potential, though I'm optimistic that this problem will be solved. The machinery, however, does require space, and the character of the space is more critical than we customarily get in our buildings.

We must remember, too, that for the most part we're still dealing with four dimensional objects varying in size which must be physically
handled at some point in the process. True, microforms are more acceptable to the current generation, and it isn't so unusual to see students carrying portable readers, still the majority of materials are more traditionally packaged. My guess would be that the number of miniaturized items processed is probably offset by the same number of specially packaged items processed -- for instance, games, recordings, art reproductions, and so on. Even the packaging of miniaturizations such as filmstrips or slides with accompanying recording, be it disc or tape, most often results in a gross package.

These two factors, miniaturization and energy delivery, are particularly important in earth space utilization. Because of this, at present I don't foresee that there is likely to be a significant decrease in space needs for processing functions for the next 20 years. Indeed, we may need more space if we have to continue to operate parallel systems while trying to see if the new one works. There will be some modifications in the use we will make of the space, but in most instances, we will replace one activity, even though automated, with another just as space consuming.

It might be assumed that smaller libraries would be able to eliminate processing space and the activity of processing materials. This has not been our experience even though we operate a Processing Center and provide free processing; and unless our experience is unique it hasn't been yours either. This is not entirely due to the attitude of the people involved, as will be detailed later, but job concepts play an important part. However, one consolation here is that the needs are not elaborate; the staff is usually so small that devising and creating imaginative or previously sanctified activities has little opportunity to come to fruition much less to thrive.
Bill DeJohn has told you about the impact of networks and systems on library operations, and I mentioned earlier that I could foresee modification rather than reduction of space. This could apply to relocations of staff and materials for better and wider utilization by staff and the public. The latter is becoming more important as it becomes more sophisticated in both its needs and in the use of our networks. In our own activities as a System providing service from its headquarter's library, we have found that the traffic operation which includes receiving and delivery of materials between agencies and from other sources needs more space than we anticipated because location tools have become more necessary and more available.

Since much of this activity is involved in Interlibrary Loans, these same tools are of great benefit to the headquarter's library staff. In extension of this, we find, too, that it is convenient to have a bibliographic centre at which we have located the general catalog of the main library, and right adjacent to it the National Union Catalog, CBI, and the Wilson indexes, plus the GPO Monthly Catalog, Books in Print, PTLA and several other common bibliographic tools. Staff of the System, the Rockford Public Library, and patrons have access to all of these tools; but space is required which in other situations would have to be assigned to other units.

You have already been told about the libraries in California which were relying on the continued existence and services of the state library processing center,* and which were severely pressed for space

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*American Libraries, May 1975. "Demise of California State Library Processing Center"
When that center closed, and they were forced to fend for themselves.

My first reaction to that situation is that the libraries involved really should have joined together in a cooperative venture to form their own processing center; or sought out an existing center which could service them. In fact, however, most libraries have a need for some space to be set aside for processing functions, whether they use a centralized service or not. Every library, even though using centralized services, will want to have work space for staff members who maintain the catalog, i.e., do the filing, make the guide cards, repair the trays, label the trays, replace worn and damaged cards, etc. Similarly there are some functions which most processing centers usually are not equipped to do, such as putting the individual library's identification or special marking on materials; or, mending the materials that become damaged or begin to wear out. In addition, special collections usually require analytic entries for the subjects of that collection. At the present time, there is a great reluctance to accept the product of centralized processing "as is", and it is only by doing so that any significant savings can be made in this space. If even a small proportion of materials is going to be put through an adaption process, then the only space savings I can see is that usually assigned to the "backlog" and that which would result from a slight reduction in staff. Otherwise the same tools and machinery will be needed even though used less frequently and over a narrower range of materials. If you still maintain a shelflist it will occupy space. Has it been miniaturized or computerized? If not, then it will need the traditional amount of space; if it has, then it will still occupy space but of a modified nature.

Another critical factor will be the nature of the tools to be produced.
by the processing activities. While their nature is critical to the units where they are to be housed and used, it is critical too, to the technical team because they may require different approach techniques and different tools to produce. As a consequence, there will be different space needs depending on the quality and quantity of the specificity required as well as the form or forms of the copy produced. Or, also, to the extent these products are produced essentially complete in-house or are prepared to a certain level in-house and farmed out to some other agency for finishing. If the latter, does it come back home for proofing or other activities which again may require a different kind of space?

Your capability of using computerized data bases will also affect your space needs. At present, their incompleteness in providing retrospective information is serious for those having sizeable budgets or special needs for retrospective information. This lack may eventually be eliminated, but this depends to a large extent on the priority given to doing so. Cataloging at source has the same limitation.

Space for shipping, receiving, and storage for materials and supplies depends, again, on general factors to be treated locally. I think these requirements can be inferred from what has been said earlier. We're still working with bulky items which require space. When we consolidate their use, we transfer the space from one location to another. If we have to further process a product, we generally require different and additional machinery. If we concentrate these activities where like ones are being performed for many units in one place, it allows us to specialize in our space requirements probably with some savings.
The greatest savings we can hope to gain in all of these activities, however, is to make it possible to provide more public service time either in staff assignments or improved tools for use by public service staff and the public.

And as a final note, the greatest consumer of space in most libraries is the "backlog" though unfortunately it's often in an area not usable by technical processing.