
The Problem of Maps

LLOYD A. BROWN

THE LIBRARY OF CONGRESS was founded in 1800, but, writes the historian, "the only evidence there was of an interest in the collection of maps before 1865 was the vote in the committee, March 20, 1830, that the Librarian be instructed to procure Burr's County atlas of the State of New York, and the best maps of the several States which were not already in the Library; . . ." ¹ This general indifference on the part of the founding fathers in Washington was reflected in the libraries of most countries. Not only did they lack interest in maps and atlases, they deliberately shunned them—even when the maps were offered as gifts. But there are sufficient if not good reasons back of this attitude of indifference to maps and atlases, reasons which go back hundreds of years.

At the beginning of the Christian era only the brave and the pagan indulged in geographic speculation. It was a sin to probe the mysteries of the universe, and the explanations set forth by the church in regard to the heavens and earth were sufficiently vague and awe-inspiring to satisfy all but the most skeptical observers of natural phenomena.

Maps have long been associated with military intelligence as well as adventure and intrigue. Because they were potential sources of information to the enemy, it was dangerous to plot on maps and charts the location of roads and navigable streams by which an army might approach a city. It was equally dangerous to inform the hostile world of the location of military objectives such as arsenals, barracks, dockyards, and public buildings. Therefore many rulers were afraid to make good maps and charts and even more loathe to collect and to preserve them. Georg Kohl relates that the Roman Emperor Augustus locked up the maps that resulted from his extensive survey of his realm, and that he issued only partial copies to the imperial councillors of his provinces.

Mr. Brown is the author of *Early Maps of the Ohio Valley* and *Notes on the Care and Cataloging of Old Maps*.

As late as the nineteenth century it was considered an act of high treason to divulge the information on official maps, and it is safe to say that every government agency, both here and abroad, has maps of a confidential nature which are guarded as carefully as international boundaries themselves. Sea charts, too, have been jealously guarded for ages, especially those made during and after the discovery of the New World. Maritime trade routes, avenues of wealth as well as lifelines were, and still are, vital to certain nations, and charts which plotted the courses of merchant fleets across the seas were very important documents indeed. Early navigators, especially the enterprising and venturesome Spanish and Portuguese explorers of the sixteenth century, made a practice of weighting their charts with lead; and when their ships were boarded by the enemy, they jettisoned them overboard rather than let the foe profit by their hard-earned information about the high seas. Such a custom was not favorable to the dissemination of geographical information, nor did it contribute to a wide appreciation of the value and importance of maps and charts.

Map production received its first real impetus in the fifteenth century. Within the short period of fifty years, the printing press was invented and developed, Ptolemy's *Geographia* was revived, and the New World was discovered. But at this very time, when maps were being published in rapidly increasing quantities to meet the demand and to keep up with the "new discoveries" in the Western Hemisphere, a new trend appeared which threatened and delayed for years the systematic collecting of maps. This was the tendency to discard old maps for new.

It is not strange that people should assume that the latest will naturally be the best, whether it be automobiles or maps; but it is unreasonable, in the case of a map, to think that because it is out of date it is of no value and therefore should not be allowed to take up valuable space. The best maps and charts are nearly always compilations of data taken from earlier reliable maps or charts. Keeping this fact in mind, let us suppose that it is possible to produce a perfect map, embodying all the information which could be gleaned from previously compiled sources. Would there be any excuse for discarding and destroying the sources from which it was compiled? If there were, the same reasoning applied to books and manuscripts would eliminate most libraries and all archival collections. And yet there is evidence which indicates that this destructive tendency has

The Problem of Maps

operated continuously for hundreds of years and still persists to a certain extent.

Maps did not come into their own and did not attain the dignity of "historical documents" according to Kohl, until the beginning of the nineteenth century, when a few far-sighted European scholars began to search musty book stalls for the long lost items of historical cartography. They found some, but many were apparently gone forever. Baron Charles Athenase Walkenaer (1771-1852) is usually given credit for arousing interest in historical cartography because of his writings and the exploitation of the remarkable collection of source material he assembled in his Paris home. Edme Jomard contributed much toward the formation of a branch of the Imperial Library in Paris, in which were gathered remarkable examples of early cartography which had been forgotten and "lost" for many years. The Polish scholar Joachim Lelewel and the Portuguese Visconde de Santarem stimulated the interest of scholars by publishing facsimiles of important maps and charts, accompanied by learned dissertations.

The vigorous efforts of a few scholars, supported by a generally awakened interest in antiquities, resulted in the formation of many fine collections in the latter part of the nineteenth century, and others have since been formed. Today it is being constantly reasserted that the civilized world is becoming more and more map conscious. But, in spite of the alleged status of maps at the present time, there has been a definite lag between the growth of interest in the subject and the development of administrative technique. This situation is due, in large measure, to the traditional attitude of considering maps as minor publications and administering them as such. As reference tools, maps are seldom given major consideration. As minor publications, maps are cataloged and classified after all other material has been taken care of, which means that they seldom receive the attention they deserve. Maps cannot be properly administered as adjuncts to the newspaper or periodical collection of a library.

Taking into account these various inhibiting factors, it is not strange that there is a lack of well established rules and procedures governing the administration of maps and charts, nor is it surprising that a card catalog and system of classification are not considered essential aids to the use of the map collection. History proves that a casual attitude toward ancient cartographic material is not justified, especially among the members of the library profession.

Prior to the twentieth century few, if any, maps and charts were reproduced solely for decorative purposes. Every decade of the past two thousand years has produced maps and charts which were compiled and executed for the purpose of imparting geographical information in picture form. To the men who made them, they were not amusing or quaint. On the contrary, such geographical products were serious attempts to portray the earth or parts thereof, with accuracy and clarity. If the end product happened to be artistic, so much the better, but it was a purposeful kind of artistry aimed to please several different audiences.

Good or bad, accurate or inaccurate, the maps of a given period tell a story such as few written documents can tell. Often they supplement—for the historian, the geographer, and the lexicographer—the narratives and memoirs, the personal letters and diaries, the official pronouncements of the famous and infamous people who have had a part in history making. Time and research have proved the validity of Captain John Smith's often quoted statement that ". . . it is fit . . ." for historians to offer to our view the stage whereon the pageant of history is and has been acted. ". . . for as Geography without History seemeth a carkasse without motion; so History without Geography, wandreth as a Vagrant without a certaine habitation." ²

In addition to the obvious uses of maps and charts—the location of obsolete towns, cities, and countries, the spelling of proper names that have changed throughout the centuries, the verification of political boundaries that have long since lost their identity—old maps offer a great deal of extra-geographical information which is not apparent to the casual reader. Usually they serve as representative examples of current art forms: the skill of the engraver or lithographer and the use or abuse of color, either as a decoration or an aid in the identification of geographical areas or geological formations. Decorative features such as cartouches and decorative border ornamentation often reveal the costumes of the times, the natural resources of the area involved, and the prominent buildings (shown in profile) which a geographer and traveler would like to know about. Only in modern times have maps and charts been shorn of adornment in favor of more utilitarian lines and letters.

Intelligent evaluation of maps and charts is the first and most important factor in the administration of the material. Such an obvious statement of fact would not be worth repeating except that

The Problem of Maps

the true value of cartographic material has gained recognition only by slow and painful degrees.

A favorite protective device employed by librarians when faced with unfamiliar material such as maps and charts which do not fit neatly into the library scheme of storing things is to point out the prohibitive cost of maintaining the collection. It is not a very good device, however, and does not always represent the true state of affairs. The importance of administrative costs dwindles with the proper appreciation of the intrinsic and extrinsic value of the material under consideration. For example, the great elephant folio edition of John James Audubon's *The Birds of America* is probably the largest format ever produced by a publisher in this or any age. These four volumes are heavy, awkward to handle, and difficult to store. Yet what librarian would complain about the problems of handling or storing such books if he were to receive them as a gift? And what librarian would not make a strenuous effort to see that the money was forthcoming to do it properly?

Methods of preservation and classification have been devised throughout the years to facilitate the use of library materials. If the methods fail or prove inadequate for the handling of materials such as maps, do not blame the maps; be thankful that the day of the papyrus scroll and the cuneiform tablet is over.

No subject could be more appropriate for discussion today among librarians concerned with present-day working problems than maps and map administration. The interest of the public in the geography of the world has increased steadily during the past fifteen or twenty years. It is no longer the casual interest of neutral observers; it is the interest of persons who have come to realize that world geography is our geography, and that it is high time to learn a little more about it. And from official government sources we find that today the need for maps and charts of various parts of the world is both vital and urgent.

The interesting thing about this urgency in connection with maps is that it seems always to have existed. For centuries explorers, travelers, and military men have complained about the lack of good, accurate maps and charts. George Washington, our first military commander-in-chief, whose field of operations extended from Quebec to St. Augustine, found himself handicapped time and time again by the lack of good maps of the country over which his troops had to move and to fight.

In 1813, when control of the Great Lakes was being contested, the United States naval squadron under Oliver Hazard Perry had to depend on a few crude charts of the more important harbors to sail by; very few of them even pretended to be accurate, and a complete set of lake charts was nonexistent.

In 1849 there was a rush for the gold fields of California. The road to wealth lay beyond the wilderness of the plains and the Rockies; consequently, map makers and publishers sold out entire editions of maps and "tourist guides" in a very short time. Old maps were refurbished and corrected, more or less, and new ones were hastily drawn and then redrawn many times over. People would take almost anything in the way of a map which would show them an overland route to the riches on the other side of the mountains. The West, and the ways to get there, had not been well mapped. Up to that time there had not been an urgent need for careful surveys, and the maps which existed were full of errors. Vast areas were virtually unknown to white men. Hostile Indians and precarious transportation facilities added to the hazards of the overland route.

Sea captains sailing from New York to San Francisco were equally handicapped by the lack of good charts of the coast of South America, the Strait of Magellan, and the west coast of North America. Good charts of San Francisco were so rare as to be practically nonexistent. But so pressing was the demand for ships to carry passengers and freight to California that some captains sailed out of New York harbor with nothing more than an elementary school atlas to guide them around Cape Horn, an 18,000-mile voyage which sometimes took as long as five months.

An alternate route to California, avoiding the wilds of North America and the perils of Cape Horn, was established across Mexico. Starting at Veracruz the way led through San Blas to Acapulco on the Pacific Coast. From there, parties went by boat to San Francisco. This route cut the time to about sixty days. However, all those who took it were warned to go in parties of not less than fifty, in order to avoid the danger of attack by robbers.

The United States, you see, was still so huge that the unmapped territory in the middle and western parts of it would never be needed. Even as late as 1868 there was still a great deal to be learned about the West. In that year while returning with General Ulysses S. Grant from a trip to the Rockies, William Tecumseh Sherman wrote his friend Admiral Bailey bemoaning the fact that there

The Problem of Maps

were so few good maps of the region through which they were traveling.

I mention these incidents of United States history because once again history is repeating itself, in more ways than one. Today we are faced with the same shortage of geographical and cartographical information as Christopher Columbus, George Washington, and Dwight Eisenhower faced; for, in spite of the tremendous advances which have been made in geographical and cartographical research, the information is scattered and spotty.

The geographical world has shrunk in size until it has reached a point where we Americans can no longer ignore any part of it. To keep informed of the affairs which concern our welfare and safety, it is not enough to be familiar with the geography of the United States and its dependencies. Regardless of our political sentiments regarding isolation, and whether we like it or not, the world is closing in around us, and it behooves us to examine it more closely—every part of it.

Today we are obliged to recognize the importance of small islands which used to be nothing more than tiny dots on the map, unnamed and often poorly located with reference to other places. The strategy of our times is a strategy of world geography, with both sides probing the far corners of the earth for harbors which might be useful as naval bases, and giving careful consideration to every acre of level ground which might be used for air bases.

The result of all this feverish activity is a growing shortage of maps and charts. Publishers cannot keep up with the current demand for them, and huge stocks of what the public once considered as "obsolete" maps, and which publishers had accepted as heavy liabilities, have long since been sold out. Cartographers are hopelessly behind in the task of keeping up with world events, and the clamor for detailed maps of remote parts of the world continues unabated.

The shortage of geographical material extends even to some departments of our government in Washington. Today there are at least two departments of our government that are engaged in surveying the map resources of the country. Both agencies have been instituted, incidentally, since December 7, 1941. Librarians are the traditional guardians of our cultural heritage. What about preserving our defensive resources as well? Why should it be necessary for the federal government to make a state by state survey of our map

collections, when there might have been a union list of maps and charts started years ago?

If maps are relegated to the library storeroom, or if they receive only incidental consideration in the library budget and the distribution of labor within the library staff, no other problems need be discussed. However, many librarians would like to do more with maps as reference material if some of the other problems relative thereto could be solved without too much trouble, and the problems are not as overwhelming as they seem.

The problem of selection—supply and demand—is one of the chief concerns of the reference librarian. Aside from the limitations on all library budgets, there is always the question of what to buy and when to buy it. On the one hand is the theory that the appetite is created by what it is fed. On the other hand is the theory that the librarian should hold off buying until there is a demand for material on a given subject. Both schools of thought have sound, logical reasoning behind them, and both factions have evidence to prove the wisdom of their policies.

Let us consider briefly the policy of buying map material only when and if the need arises. Librarians are not the only ones who have questioned the interest of the public in maps and charts. A few years ago I talked with a group of newspapermen about the use of maps in their medium, a custom, by the way, which dates back to 1733. These editors were not at all sure about the reactions of their readers to maps used to illustrate a complex story. They knew, and every librarian knows, that the public is often unpredictable in its tastes, and that the demand for, and response to, certain types of material may change in a very short time and for no apparent reason. Moreover, public wants are so multifarious that the librarian is hard pressed to spread the collection so that it will cover the majority of requests that come in.

Unfortunately, demands for a new type of material come in waves of public sentiment, and waiting for the demand to hit the library sometimes means waiting until it is too late. The current shortage of maps illustrates this point.

Instead of waiting for the demand for particular types of material to arise, many librarians prefer to dig their wells *before* their public gets thirsty, following the principles of an old Chinese proverb. Given a specific sum of money with which to build up a general reference collection, very few librarians would have any difficulty in spending

The Problem of Maps

wisely one to five thousand dollars—until they came to the purchase of map material. For example, you would all buy an unabridged dictionary, the *United States Catalogue*, the *Readers' Guide*, an encyclopedia, one of several biographical dictionaries, Bartlett or some other book of quotations, etc., etc. But sooner or later the question of geographic tools would come up, because every library must have a few fundamental references to cover the subject. Now the *World Almanac* will answer just so many questions and no more. A pronouncing gazetteer is extremely useful for locating and spelling geographical place names, provided such places are still on the maps (figuratively).

The selection of map material for the collection presents an interesting problem. Unfortunately, the A.L.A. *Book List* does not contain a section on current map publications. The American Geographical Society issues a very useful list called *Current Geographical Publications* which covers geographical literature pretty thoroughly. However, this list does not include detailed descriptions or critical notes which might help the uninitiated librarian select maps for purchase. Two general considerations will be involved in the selection of maps and charts for the small library: cost and lasting value. The safest investment in map publications is an official map published by some branch of the United States government. Government maps are also publications of lasting value. They are well printed on good paper; the type is clear, and they tell the story they were designed to tell. They are produced at cost, and up to a few years ago their sale was practically unrestricted.

However, it is as difficult for the working librarian to keep up with government map publications as with other government documents. But, in the case of maps, the reward is well worth the effort. There is a movement afoot to prevent wasteful duplication of effort in the federal government as well as in state and civic mapping agencies. Just a few years ago an organization was created, calling itself the National Congress on Surveying and Mapping. Its membership is composed of persons who are interested either directly or indirectly in surveying and mapping, or in the end products of these fields. All sections of the country are represented in this body, and its general purpose is to coordinate the efforts of twenty-eight federal agencies (each of which is receiving a substantial annual appropriation) engaged in making surveys and maps. Another general purpose of the Congress is to see that the material is available to those who need or want it. Although this National Congress is the eighteenth attempt

made by various groups over a period of years to plan and to institute a coordinated mapping program, there are indications that this one may actually succeed.

Meanwhile there are hundreds of excellent government maps and surveys available to libraries at a nominal figure. Which of these have permanent value, or the most nearly permanent value? Which are best adapted to the use of the small public library?

One of the most obvious, of course, and one with which we are all familiar, is the series of United States topographical sheets. These maps, are on a scale of one mile to an inch, which is large enough for most needs. They are probably the most accurate maps of their kind that we shall have for many years. Frequently they combine data obtained by more than one government agency. The maps and charts issued by the U.S. Coast and Geodetic survey, and the charts of the Hydrographic Survey are well known and widely used for reference in many parts of the country. The General Land Office wall map of the United States, revised from time to time, is a boon to librarians. There are lists issued periodically by the U.S. Superintendent of Documents, which explain the important features of each map and how it may be used. Official maps of other countries, when and if available, are usually well made and equally desirable.

If a librarian must be limited in the purchase of map material, he should have a good general atlas of the world and a few sheet maps on a larger scale of the various continents, countries, and smaller political subdivisions. A good wall map of the world and a good-sized globe would be highly desirable additions to any collection.

In buying sheet maps from a commercial publisher, it is necessary only to follow a few simple rules which also pertain in the selection of books and other library material. A map is supposed to convey a picture. If it does this clearly, without confusing the reader, the chances are it is a good map. And if a map is drawn to scale, with clean lines carefully laid down, with parallels of latitude and meridians of longitude indicated, the chances are it will be a fairly accurate map, though not necessarily so. Whether we realize it or not, all of us are capable of editing a map or chart which is badly done. Good maps are almost never badly printed!

The storage of sheet maps is an old problem which has been simplified in recent years by the construction of several types of map storage drawers. They now have certain things in common. They are usually narrow, from top to bottom, not more than two inches or close

The Problem of Maps

to it. They measure 26½" from front to back, and 43½" from side to side. They come in banks of five drawers apiece, are interchangeable, and can be stacked high without danger. The dimensions are arbitrary, but they are the ones that have proved most generally acceptable among librarians who have purchased them.

Everything said here about maps and map administration has been said before, in one way or another, and the problems today are essentially the same as they were seventy-five or a hundred years ago. But these remarks will have been justified if they encourage librarians to go ahead, if they reassure the profession regarding the fundamental value of the material, and if they help to discourage the publication of such fatalistic literature as "Floundering Among the Maps."³

References

1. Johnston, William Dawson. *History of the Library of Congress, 1800-1864*. Washington, Government Printing Office, 1904, Vol. I, p. 340.
2. Smith, John Capt. *The General History of the Bermudas, 1593-1623*. In Edward Arber, ed., *Captain John Smith, Works, 1608-1631*. Birmingham, The English Scholar's Library, 1884, p. 625.
3. Badger, H. C. "Floundering Among the Maps," *Library Journal*, 17:375-377, 1892.