

Map and Aerial Photo Collections in the United States: Survey of the Seventy Largest Collections

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COLLECTIONS OF CARTOGRAPHIC MATERIALS may be grouped into three categories for statistical purposes: large (250,000 items or more); medium (100,000 to 250,000 items); and small (up to 100,000 items). More than five years have elapsed since data were collected for compilation of the third edition of *Map Collections in the United States and Canada*.¹ An analysis of the 744 collections reported therein reveals that there are 70 in the United States that hold 100,000 or more maps, aerial photos and other cartographical items. The purpose of the present survey is to bring up to date the data for those seventy largest collections, and to determine the trends and conditions of map librarianship by determining growth of the collections, the physical facilities and equipment, promotion and use of the collections, quantity of support for acquisitions and equipment, the status of the head of the collection, and activities of the heads of collections in map librarianship associations.

Equal attention has been given to collections of aerial photos, since they are the original source material for the compilation of all modern maps, but included in the data are counts of atlases, globes, relief models, reference books and gazetteers, serials, and maps on microform. The last is a critical factor. If one examines the ranking tables carefully, he will notice that the first-ranked collection, that of the National Capital Planning Commission, reports 250,000 maps and only 600 aerial photos, but 35 million maps on microform—almost all of which have been added to the collection during the past five years. Cartograph-

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ical items, therefore, encompass all items in the collection—not just map sheets—and emphasis is placed on units of geographical information regardless of format.

Methodology

In an earlier review of *Map Collections in the United States and Canada*, I had ranked the collections according to size.² Since I had previously sorted out all large and medium collections in the United States and Canada, it was easy to identify the seventy largest in the United States. A questionnaire (see Appendix B) was designed to elicit data that would be comparable to those reported in the third edition.³ Several questions were designed that would also provide some personal information about the head of the collection. I was sensitive to the possibility that no information would be given if the question were too personal, so it was indicated that the “information will be used only for tabulation, and no individual name will be disclosed.” Questions were designed to ask respondents to reveal their salaries and pay raises in comparative terms, so that specific amounts would not have to be revealed. The favorable comments received about the questionnaire, as well as the high response rate to these questions, indicate that the design was successful.

Of the seventy questionnaires mailed (with return envelope and postage added), fifty-six were returned—an 80 percent overall response. Table I shows the returns by number in each category.

TABLE I
QUESTIONNAIRE RESPONSE

<i>Category of Collection</i>	<i>Number of Responses</i>	<i>No Response</i>	<i>Percentage Returned</i>
State agencies/departments	4	0	100.00
University libraries	29	5	85.29
College/University depts. geology or geography	13	4	76.47
Federal agencies	6	3	66.66
Public libraries	4	2	66.66

The 70 Largest Collections

If there is any weakness in the sampling strategy, it is that the number of collections surveyed in some categories is insufficient to determine accurate trends and conditions for those categories. For example, it might be presumed that trends and conditions revealed by the data collected for the largest collections could be utilized as representative for the entire field, regardless of the size of the individual collection. However, the difficulty with this presumption is that there are too few of the seventy in certain categories, e.g., four public libraries, six federal agencies and four state agencies. Therefore, it might be argued that the trends and conditions reported for these groups are not representative for all other collections within the respective group. Future surveys, perhaps, could reveal the validity of any extrapolation of the present data—especially for small collections.

Anomalies

In my earlier review, cited previously, I overlooked the Cartographic Information Division of the Library, Air University, Maxwell Air Force Base, Alabama. According to the third edition of *Map Collections*, the Air University holds 500,000 maps, 4 globes, and 100 gazetteers—placing it in tenth position in the ranking table. However, this error was discovered too late, and the Air University was neither sent a questionnaire nor included in the rankings.

It should further be noted that the original tabulation was based on the aggregate number of cartographic items in the collection, and the cutoff figure was 100,000. This excluded some collections that hold aerial photos in greater quantity than some of those in the largest seventy; for example, the Pacific Scientific Information Center at the Bernice P. Bishop Museum in Honolulu has a significant collection of 70,000 aerial photos of the Pacific Islands. If a ranking of aerial photos alone were to be made, the Bishop Museum collection would outweigh several of the collections, and would rank seventeenth largest. However, the total number of cartographic items held is 88,053, and so the library is automatically excluded from the parameters of this survey.

Other omissions do occur, not by design but due to lack of information. For example, no aerial photos are reported in the third edition among the holdings of the Defense Mapping Agency Topographic Center's library. An agency that produces maps must have aerial photos, so the fact that the DMATC library cites none among its holdings indicates that another unit within DMATC must hold them.

The Collections

Appendix A indicates the relative position of all seventy collections, including those which did not respond. Several of the respondents corrected the data reported in the third edition, and two collections now fall below the 100,000-item level—outside the parameter of this survey, but these data are nevertheless reported here.

I am sensitive to the possible inequity of ranking dissimilar types of collections in the same table. While Appendix A ranks all collections together according to size and growth, the balance of the survey data is presented by category, such as those used in table 1. The funding conditions and clientele served are often different between categories, and statistical comparisons should recognize this by making a separation. Sometimes it is difficult to determine from the title and mailing address of a collection whether, for example, the collection is a unit of the university or college library, or whether it might be a departmental collection supported by funding by the geology or geography department. Future surveys would be well served to include a checkoff question that would categorize each collection.

Growth of collections (compared to data reported in the third edition) is not a measure of quality. No attempt has been made, nor is intent implied, to measure this important factor. Perhaps an enterprising student of library science will choose from these seventy a group of similar collections and attempt to create a model of quality.

Collection size and growth are an indication of: (1) the basic nature and purpose of the collection, (2) the needs of the clientele served, (3) the economic conditions within society and the institution, (4) location and proximity to other collections, and (5) political conditions within the institution, including the vigor by which the head of the collection takes advantage of an opportunity presented. Depository agreements, which frequently are a major cause of growth, are an integral part of these factors. The agreements exist, it must be presumed, to fulfill the purpose and needs of the collection.

Personnel

Federal agencies employ a larger number of full-time professional and nonprofessional persons than part-time employees. Six agencies report staffing as follows: professional/full-time, fifty; nonprofessional/full-time, forty-five; professional/part-time, eleven; nonprofessional/part-time, eight. The total aggregate number of hours per week for all employees in these six agencies is 4300, for an average of 717 hours per week.

The 70 Largest Collections

University libraries employ about an equal number of professionals and nonprofessionals on a full-time basis, but as one might expect, a much larger number of nonprofessionals are employed part-time—typically student assistants. For the twenty-nine libraries reporting, twenty-seven professionals are employed full-time, twenty-four nonprofessionals full-time, six professionals part-time, and eighty-one nonprofessionals part-time. The total aggregate number of hours per week for all employees is 3760, for an average of 130. College and university departmental collections also have a larger number of student assistants, an equal number of full-time and part-time professionals, and an average of seventy-one hours per week for all employees.

Public libraries employ persons for an aggregate average of eighty hours per week, employ about as many professionals full-time as part-time, but employ one-third that number of nonprofessionals full- and part-time.

State agencies fare better than departmental and public library collections, with an average of 116 hours per week reported for all employees. They employ a higher percentage on a full-time basis: of the four responses, nine professionals were employed full-time and six nonprofessionals full-time; this is compared with one part-time professional, and two part-time nonprofessionals.

Optimism is a typical characteristic of persons in map libraries. In response to Question 8, fifteen indicated that they anticipate an increase in the number of employees during the next two years. Thirty-eight indicated that the number of employees would probably remain the same; no one expected a decrease in staff.

Patrons

All collections serve the general public, with the exception of the Defense Mapping Agency (DMA) Aerospace Center. The level of service does vary according to the situation, however; one of the saddest situations, which may be more typical than the results of the survey reveal, is reported in the following comment: "While the library is indeed open 7 A.M.—2 A.M., the map room itself is always locked and users must request the key from the circulation desk and leave some identification in exchange for the key. While any one...as well as the general public may use the map collection, the only service provided is a small amount of aid in finding a particular map."

The number of patrons served is, of course, a factor of the size of the community or institution in which the collection is located. The survey averages are reported for comparison, but the type of institution may be

a stronger factor in the number served. Because of the variables and complexity of this subject, "patron use" is an area that should receive further study. Table 2 presents the compilation of responses to Question 10. The number of hours of service during the past two years has increased for seventeen collections, decreased for six, and remained the same for twenty-seven.

TABLE 2
PATRONS SERVED ANNUALLY

<i>Category of Collection</i>	<i>High</i>	<i>Low</i>	<i>Average</i>
State agencies/departments	11,000	993	4,178
University libraries	19,840	500	6,168
College/University depts. geology or geography	7,857	100	2,658
Federal agencies	24,864	4,000	13,621
Public libraries	9,000	200	5,991

Equipment

The number of collections that have a separate budget for equipment is almost nil. Woods Hole Oceanographic Institution had \$3000; the University of Wyoming had \$4600; Detroit Public Library had \$2478; the National Capital Planning Commission had \$3000; and the Department of Geography, Western Illinois University, Macomb, had \$500. Certainly atypical of the annual situation, but interesting, is the amount that the University of Wisconsin—Milwaukee allocated for the American Geographical Society Collection: \$279,369.54.

The ability to interpret, copy and transfer cartographic information to another medium is essential for adequate service to clientele. Table 3 reports the equipment available within the facilities of map collections, with an indication of plans to add any equipment in the next two years. The survey also asked what kinds of equipment would be added if circumstances were favorable, even if no plans have been made to add equipment.

Acquisitions Program

Question 15 solicited information about the acquisitions budget. A checkoff question in increments of \$5000, from "less than \$1000" to "more than \$30,000," produced responses displayed in table 4. The

The 70 Largest Collections

amounts reported are total dollars in all categories: serials, standing orders and other discretionary amounts, but not the value of depository receipts.

TABLE 3
IN-HOUSE EQUIPMENT

<i>Type of Equipment</i>	<i>State Dept.</i>	<i>University Library</i>	<i>Coll./Univ. Dept.</i>	<i>Fed. Agy.</i>	<i>Public Libraries</i>
Xerographic copy machine	3	3 (1) [4]	6 [1]	4	2 [1]
Microfilm reader	3	5 (2) [1]	5 (1)	5	2
Microfiche reader	2	15 (2) [1]	5 (2)	5	2 [2]
Microfilm reader/ printer	3	1	2 [1]	3	1
Microfiche reader/ printer	1	4 (1) [2]	2	3 (1)	(1)
Aerial photo & other image-viewing equipment	1	14 (1) [1]	4	3 (1)	1
On-line data base terminal	1	2 [3]	2 [1]	3 (2)	(1)
Terminal with printer	1	2 [3]	1	3	
Map drafting equipment		10 [2]	4 [1]	2	1
Map or image enlarging or reducing equipment	1	4 (1) [4]	4 [2]	3	1
Light table	3	25 (2) [1]	7 [2]	5	1 [2]
Laminator		1	1		
Photo lab for proces- sing original & copy work				1	[1] 1

Note: Number of collections planning to add equipment within two years indicated in parentheses; number of collections desiring to add equipment, but with no plans to do so, indicated in brackets.

Table 5 reflects the replies to Questions 16 and 17. Public libraries appear to face rougher financial years ahead, while federal agencies anticipate no decrease in budget. The questions stipulated that responses were to ignore the value of the dollar and report change in actual dollars; however, it is well understood that increases, if any, are very probably just enough to accommodate inflated purchasing prices.

TABLE 4
ANNUAL BUDGET FOR ACQUISITIONS (IN THOUSANDS)

Category of Collection	Less than \$1	Less than \$5	Less than \$10	Less than \$15	Less than \$20	Less than \$30	Over \$30
State dept.		1					3
Univ. lib. Coll./univ. dept.	3	11	4	4	1		2
Federal agencies	4	5					
Public libraries	1	1	2		1		3

TABLE 5
INCREASE/DECREASE IN ACQUISITIONS BUDGET

Category of Collection	Anticipate Increase	Anticipate Decrease	Anticipate No Change	Increased Last 2 yrs.	Decreased Last 2 yrs.	No Change Last 2 yrs.
State dept.	2	2		2	2	
Univ. lib. Coll./Univ. dept.	13	4	9	17	1	8
Federal agencies	4	3	2	3	1	6
Public libraries	4	3	1	4	1	

The 70 Largest Collections

The survey attempted to determine whether there was any significant trend in cartographic format acquisition. Nearly 60 percent of the collections will continue with no special emphasis in format. Atlases will be emphasized by five collections; aerial photos and orthophotoquads by five; microforms by four; globes by one; and seven responded by citing particular *content* rather than format. No geographic area emerged as one receiving special emphasis during the past two years, although the local region within which the collection resides continues to dominate the interest of most collections.

The percentage of increase or decrease in cartographic items (see Appendix A) is a measure of the dynamics of collection development, and should not be viewed as prejudicial to the performance of the head of the collection. In fact, a negative change may be as healthy as an increase in the collection size. The measurement may reflect any, or a combination, of the following: (1) acquisition of a new depository collection; (2) a vigorous effort to bolster areas that were weak in coverage; (3) an effort to consolidate materials from, or to, another unit of the institution; (4) a new weeding program; (5) a new inventory with more accurate reporting of data; or (6) technological developments, especially in microcartography, that permit the acquisition of a large collection of maps and images on microform—including the discarding of the paper copy.

Depository Collections

Thirty-eight collections did not add a depository collection within the last five years, sixteen did, and two did not respond to this question. Nearly one-third of the university libraries reported acquisition of a new depository collection. The agencies that have granted depository collections are at federal and state levels, both foreign and domestic.

Space

The amount of floor space allocated to the collections varies considerably. The Library of Congress Geography and Map Division is in a class by itself, in more ways than one, but it definitely takes first place in the space category with 93,000 square feet. Table 6 summarizes the highs, lows and averages of space allocation for each type of collection.

The Head of the Collection

Table 7 gives the responses to Question 21 with degrees in a subject field being differentiated from degrees in librarianship. Table 8 presents the responses to Questions 22-27 related to the number of years of

service, the annual salary relative to a base of \$19,300, and the amount of time the head of the collection spends on the collection as compared to other duties.

TABLE 6
SQUARE FEET OF FLOOR SPACE

<i>Category of Collection</i>	<i>High</i>	<i>Low</i>	<i>Average</i>
State agencies/departments	5,000	2,500	4,133
University libraries	35,000	1,150	5,448
College/University depts. geology or geography	4,500	375	2,149
Federal agencies	93,000	300	22,671
Public libraries	10,000	350	3,750

TABLE 7
EDUCATION OF HEAD OF THE COLLECTION

<i>Category of Collection</i>	<i>No College</i>	<i>No Degree</i>	<i>Associate</i>	<i>BA</i>	<i>MA</i>	<i>Ph.D.</i>
State dept.			1	2	2	
Univ. lib.	2	2		12	11	3
Coll./Univ. dept.	1			6	3	2
Federal agencies	1	2		3	7	1
Public libraries	2			1	3	

Note: Subject field appears above dotted line. Library/information science field appears below dotted line.

Participation in Map Librarianship Organizations

One of the realities of map librarianship is that continuing education takes place at meetings of organizations such as the Geography and Map Division of the Special Libraries Association, the Western Association of Map Libraries, or ALA's Map and Geography Round Table. Several survey questions were included in an effort to determine the

The 70 Largest Collections

degree of participation by heads of the seventy largest map collections in the United States. Table 9 reflects the responses to Questions 28, 30, 31, and 34. Responses to Question 29 (Are your dues paid by your employer?) are as might be expected; 75 percent of the respondents pay their own dues to professional organizations. Twelve did not respond to the question. Two that did respond are not personal members of an organization, as qualified by Question 28.

TABLE 8
PERSONAL DATA: HEAD OF THE COLLECTION

	<i>State Dept.</i>	<i>Univ. Lib.</i>	<i>Coll./Univ. Dept.</i>	<i>Federal Agencies</i>	<i>Public Libraries</i>
Years prior experience before maps	2.0	7.60	4.3	2.0	1.50
Years in map work	8.0	11.20	7.3	12.8	14.00
Years as head of collection	8.0	9.50	8.0	7.4	11.25
Salary below \$19,300	3.0	18.00	8.0	1.0	1.0
Salary same as \$19,300	0.0	4.00	0.0	0.0	1.00
Salary above \$19,300	0.0	6.00	3.0	3.0	2.00
Percent salary increase	5.5	10.86	10.0	6.0	7.50
Percent time on maps	20.0	69.50	27.5	35.0	45.00

Question 35 asked whether respondents were aware that income tax deductions for educational expenses may be made each year; only one person did not know this, although six indicated that they are now aware, and forty-four were already aware of the provision. The question on financial support for attendance at meetings drew a mixed response, with the greatest number of respondents (fourteen) receiving partial support some years, and six respondents receiving full support some years. Fourteen indicated that they do not get all they ask, but do not hesitate to apply for funding. Eleven get time off only, seven get transportation only, and only six had received 100 percent support in the past year.

TABLE 9
PARTICIPATION IN ORGANIZATIONS

<i>Category of Collection</i>	<i>Member</i>	<i>Non-Mem.</i>	<i>Member Comm.</i>	<i>Held Office</i>	<i>Attend Meet.</i>	<i>Publish Map Lit.</i>	<i>Intend to Pub.</i>
State dept.		3					
Univ. lib.	24	5	16	6	20	17	21
Coll./Univ. dept.	6	7	3	1	6	3	3
Federal agencies	1	4	1		2	1	1
Public libraries	3	1	3	3	3	3	3

Question 32 was designed to elicit the primary reasons that persons attend meetings of map librarianship organizations. The respondents ranked their primary objectives in the following order: first is a desire to learn some practical or theoretical information that will help them in the job; second is to make a contribution to map librarianship by participating in the organization's activities; and third is to engage in social activities with colleagues.

Computer-Readable Data Bases

The use of computers for bibliographical control, cataloging, patron reference service, acquisitions, and interlibrary loan is becoming a necessary and cost-effective tool for map libraries. The use of the computer in libraries generally developed in the early 1960s and has more recently spread to map libraries through the development of OCLC and RLIN (Research Libraries Information Network). The Library of Congress MARC-Map data base, containing 60,000 or more cataloging records, has been supplemented by input into the OCLC and RLIN systems of cataloging contributed by participating libraries. The utilization of and contribution to these data bases is an increasing trend, for which no data have heretofore been collected. The present survey shows that 43 percent of the fifty-six respondents use a computer-readable data base. Of the thirty that do not, 43 percent indicated that they have plans to utilize one in the next two years. Two-thirds of the federal libraries responding indicate use of a data base, and 50 percent of public libraries, 41 percent of university libraries, 38 percent of college/university departments, and 25 percent of state departments also utilize computers.

OCLC is used by 96 percent of the twenty-four data base users, while one federal agency, the DMA Aerospace Center, uses its own

The 70 Largest Collections

system. Some libraries use more than one utility, e.g., four respondents use RLIN in addition to OCLC. There is scattered use of other data bases, such as GeoRef, GeoArchive, MARVAL, EROS Data Center, NCIC, SCORPIO, etc.

The greatest use made of the data bases by twenty-two of the respondents is for on-line searching for cataloging copy; sixteen use data bases as an acquisitions tool; eleven use them for patron reference work; and seven use computer-readable data bases for interlibrary loan transactions. Eleven respondents contribute cataloging on-line.

Conservation/Preservation Programs

The questionnaire asked whether map collections have a conservation/preservation plan. Seventy percent of those responding do have a plan, including all four of the public libraries, twenty-two of twenty-nine university libraries, seven of thirteen college/university departments, four of six federal agencies, and two of four state agencies.

The use of acid-free folders was reported by 52 percent, while 41 percent use polyester-film encapsulation, 25 percent use lamination, and only 20 percent use deacidification. Humidity and temperature controls are used by only 30 percent of the libraries. A variety of other techniques are used, including thymol crystals, dust filters, varnish removal, microfilming, patching and paper repair, mounting, edging of maps with tape, and fireproof vaults. Some use standards for types of map cases and for the number of maps filed in each drawer; some separate older maps into a protected area; and one restricts access to the collection as a preservation measure.

Promotion of Use

The survey included questions to determine the types of efforts which map libraries undertake to promote use of the collection. The responses confirm the presumption that map librarians/curators are good advocates of the use of the cartographic materials entrusted to their care. Activity in the nation's seventy largest map collections is quite vigorous (see table 10). Other techniques of promotion included: eight respondents taught adult education classes in which the use of maps was stressed; two encouraged faculty to use and assign maps to their students; other respondents gave lectures and conducted workshops, published book catalogs of the collection, held annual map sales, gave slide-tape tours. One respondent provided air photos and LANDSAT imagery for a magazine feature that led to a television interview and the use of pictures of the map library in two television news broadcasts.

Another respondent is planning to develop better signs that will direct potential users to the map collection.

TABLE 10
PROMOTION OF USE OF CARTOGRAPHIC MATERIALS

<i>Activity</i>	<i>No. of Collections</i>
Promoted and/or wrote one or more news articles about some aspect of the collection for release to local media	29
Conducted tours of the collection as part of the library's program	41
Gave lectures to one or more audiences in which the use of the collection was encouraged	37
Wrote a guide to the collection that describes its contents, etc.	23
Compiled (perhaps on a regular basis) an acquisitions list or newsletter for distribution to on-campus and/or off-campus potential users	22
Selected and arranged an exhibition of cartographic materials for a location where the general audience of library users would see it	31

Summary, Comments, and Recommendations

The trends and conditions found among the seventy largest U.S. collections of cartographic materials have been presented, based on a survey conducted for this issue of *Library Trends*. The 80 percent response to the survey has been divided according to the categories of institutions in which the collections are located: state agencies/departments, university libraries, college/university departments (geology or geography), federal agencies, and public libraries.

A total of 77,339,385 cartographic items are held by these seventy collections. This total represents an increase of 49,635,316 items (or 179 percent) over the total for these collections as reported in the third edition of *Map Collections in the United States and Canada*. This is a tremendous growth in the five years since data were collected for the third edition. The seventy collections are ranked according to size, with an indication of total number of cartographic items held, total maps, total aerial photos, and the percentage increase or decrease as compared with the data reported in the third edition. Although fourteen collections were not represented in the questionnaire replies, they are included in the ranking by use of the earlier data.

The 70 Largest Collections

Equal emphasis is given to aerial photos as to maps, because aerial photos are the original source material for all modern maps. The trend indicates that most of those collections that have previously collected aerial photos continue to add to their collections: twenty-eight of fifty-six show an increase, fourteen reported no change, three had a decrease; eleven do not collect aerial photos.

Based on the experiences gained from conducting this survey and analysis, it is recommended that future surveys include a question to categorize the collections by type of institution. This would help make the analysis easier, and the conclusions more valid. I have noted that comparing the conditions of dissimilar institutions is not valid. The clientele served, the funding source, and the purpose of the collection vary for each type of institution.

As mentioned earlier, no uniform method of counting cartographic items has been established, which raises serious questions about the validity of some of the data reported. One collection—and there appear to be others—increased its holdings by one-third without also showing some other data which might indicate how this occurred. Some reported data may have simply been guesses, rather than actual counts.

The map librarianship profession needs to take a serious look at the methods of statistical reporting. There are, for example, problem areas that became obvious in the collecting of data: does one report rolls of microfilm, or the number of maps reproduced on the rolls? (I prefer to count the latter, because it indicates the number of cartographic sources available for reference.)

It is hoped that this survey has answered some questions; it undoubtedly will raise others. It may also present some ideas for others to use in future studies.

References

1. Carrington, David K., and Stephenson, Richard W., comps. *Map Collections in the United States and Canada: A Directory*. 3d ed. New York, Special Libraries Association, 1978.
2. Stevens, Stanley D. "Map Collections in the United States and Canada: A Directory, 3d ed." (review), *Western Association of Map Libraries Information Bulletin* 10:46-49, Nov. 1978.
3. Reference to Appendix B for specific context of the questions will be necessary to interpret the tabular data fully.

Appendix A

Ranking of the Seventy Largest Map and Aerial Photo Collections

<i>Name and Location of Institution</i>	<i>All Items</i>	<i>Rank</i>	<i>Maps</i>	<i>Rank</i>	<i>Photos</i>	<i>Rank</i>	<i>%† Change</i>	<i>Rank</i>
National Capital Planning Commission, Washington, D.C.	35,250,656	1	250,000	16	600	41	125	2
U.S. Geological Survey, National Cartographic Information Center, Reston, Va.	15,120,000	2	120,000	56	15,000,000	1	329	1
*U.S. National Archives, Washington, D.C.	4,050,000	3	1,800,000	2	2,250,000	2	•	•
U.S. Library of Congress, Washington, D.C.	3,978,050	4	3,700,000	1	none	0	12	33
*U.S. Defense Mapping Agency, Topographic Center, Wash., D.C.	1,766,917	5	1,608,260	3	none	0	•	•
Woods Hole Oceanographic Inst., Woods Hole, Mass.	1,533,438	6	29,000	67	1,500,500	3	26	18
Tennessee Valley Authority, Chattanooga, Tenn.	863,076	7	12,950‡	68	850,000	4	29	16
*Cornell U., Center for Aerial Photographic Studies, Ithaca, N.Y.	700,000	8	none	69	700,000	5	•	•
U. of Oregon Map Library, Eugene	502,152	9	200,000	30	300,000	7	43	8
Louisiana State U., School of Geoscience Map Lib., Baton Rouge	460,167	10	325,000	4	60,000	18	35	10
U. of California, Map & Imagery Library, Santa Barbara	454,584	11	254,424	14	193,584	8	114	3
U. of Georgia, Science Library, Map Collection, Athens	446,138	12	254,423	15	167,845	9	33	12
U. of Illinois, Library, Map & Geography Library, Urbana	442,585	13	301,913	10	121,242	14	7	40
U. of Florida, U. Library, Map Library, Gainesville	413,956	14	287,137	12	125,367	13	97	5
Whittier College, Geology Dept., Whittier, Calif.	401,500	15	none	70	401,500	6	34	11
New York Public Library, Map Division, New York	369,351	16	350,000	6	88	50	9	37
U. of Wisconsin, American Geographical Society Collection, Milwaukee	357,071	17	350,000	5	none	0	2	45
U. of Washington Libraries, Map Section, Seattle	344,347	18	325,000	8	18,000	23	88	6
U. of Minnesota, Map Division, Minneapolis	334,166	19	200,338	25	130,000	11	15	30

The 70 Largest Collections

Appendix A—Continued

<i>Name and Location of Institution</i>	<i>All Items</i>	<i>Rank</i>	<i>Maps</i>	<i>Rank</i>	<i>Photos</i>	<i>Rank</i>	<i>%† Change</i>	<i>Rank</i>
Indiana State U., Dept. of Geography-Geology, Terre Haute	332,190	20	325,000	7	7,000	30	100	4
Kentucky Dept. of Commerce, Map Sales Division, Frankfort	332,180	21	200,000	29	120,000	15	?	49
U.S. Defense Mapping Agency, Aerospace Center, Air Force Station, St. Louis	326,266	22	225,000	19	none	0	63	7
*Boston Public Library, Boston, Mass.	322,800	23	320,000	9	none	0	*	*
U. of Wisconsin, Map & Air Photo Library, Madison	310,008	24	181,900	32	127,300	12	24	20
Yale U. Map Collection, New Haven, Conn.	303,043	25	300,000	11	none	0	1	48
U. of Chicago Library, Map Collection, Chicago	268,357	26	257,329	13	10,000	28	7	41
*U.S. Geological Survey Library, Reston, Va.	253,803	27	250,000	17	none	0	*	*
Penn State U., Pattee Library, University Park, Pa.	251,888	28	248,000	18	none	0	31	13
U. of Texas, General Libraries, Geology Library, Austin	246,982	29	138,041	48	108,895	16	14	32
*California State U., Geography Dept., Northridge	241,885	30	163,000	36	65,000	17	*	*
Illinois State U., Map Library, Normal	241,242	31	196,500	31	40,475	21	25	19
Pennsylvania Dept. of Environmental Resources, Bureau of Topographic & Geologic Survey, Harrisburg	232,869	32	80,000§	65	152,000	10	1	47
*U. of California, Map Library, Los Angeles	231,700	33	220,000	20	11,000	27	*	*
U. of California, Map Room, General Library, Berkeley	219,263	34	213,638	21	3,823	33	31	14
U. of Michigan, Map Room, Ann Arbor	216,789	35	210,000	22	3,000	35	21	22
Indiana U., Geography & Map Library, Bloomington	212,901	36	200,000	28	none	0	22	21
Princeton U. Library, Richard Halliburton Map Coll., Princeton	208,676	37	205,000	23	1,000	38	21	23

STANLEY STEVENS

Appendix A—Continued

<i>Name and Location of Institution</i>	<i>All Items</i>	<i>Rank</i>	<i>Maps</i>	<i>Rank</i>	<i>Photos</i>	<i>Rank</i>	<i>%† Change</i>	<i>Rank</i>
U. of Kansas, Map Library, Lawrence	205,198	38	203,000	24	500	42	20	24
U. of South Carolina, Univ. Libs. Map Depository, Columbia	202,793	39	160,000	37	41,000	20	28	17
*Columbia U., New York	200,359	40	200,000	27	none	0	•	•
*Middlebury College, Map Library, Middlebury, Vt.	200,305	41	200,000	26	none	0	•	•
Southern Illinois U., Map Library, Science Div., Morris Library, Carbondale	196,496	42	149,000	45	45,500	19	15	31
U. of Wyoming, Coe Lib., Documents Div., Laramie	179,439	43	179,000	33	(part of maps no.)	52	2	44
U.S. Dept. of Transportation, Federal Highway Admin., Washington, D.C.	175,000	44	175,000	34	none	0	?	50
Johns Hopkins U., Government Publications & Maps Dept., Milton S. Eisenhower Lib., Baltimore, Md.	166,486	45	165,000	35	100	48	9	38
Western Washington U., Dept. of Geography & Regional Planning, Map Library, Bellingham	165,881	46	150,000	43	15,000	25	37	9
Western Illinois U., Geography & Map Library, Macomb	162,098	47	140,000	47	13,000	26	31	15
*Southern Methodist U., Science Lib., Dallas	159,276	48	155,000	41	3,550	34	•	•
Northwestern U. Library, Map Collection, Evanston, Ill.	159,187	49	155,100	38	1,727	37	15	29
New York State Library, Manuscripts & Special Collections, Albany	156,828	50	155,000	40	25	51	4	43
Western Michigan U., Map Library, Kalamazoo	156,740	51	155,000	39	300	45	7	42
Northern Illinois U., Map Library, DeKalb	156,666	52	154,721	42	655	40	16	27
U. of Arizona Map Coll., Tucson	155,680	53	135,800	50	16,274	24	16	28
Detroit Public Library, History & Travel Dept., Detroit	154,455	54	149,247	44	none	0	11	34
Free Library of Philadelphia, Map Collection, Phila., Penn.	145,655	55	140,000	46	100	49	9	36

The 70 Largest Collections

Appendix—Continued

Name and Location of Institution	All Items	Rank	Maps	Rank	Photos	Rank	%† Change	Rank
U. of Vermont, Map Room, Burlington	144,681	56	138,000	49	6,000	32	19	25
*U. of Wisconsin, Map & Air Photo Library, Milwaukee	132,205	57	125,590	52	6,500	31	•	•
*Appalachian State U., Geography Dept., Boone, N.C.	130,275	58	100,000	63	30,000	22	•	•
Kent State U., Map Library, Kent, Ohio	127,842	59	126,000	51	(some)	53	?	51
Florida State U., Strozier Library Map Section, Tallahassee	127,197	60	124,446	53	none	0	-40	55
Toledo-Lucas Co. Public Lib., Local History & Genealogy, Toledo, Ohio	122,581	61	121,000	54	1,000	39	1	46
San Diego State U., Univ. Library Map Coll., San Diego, Calif.	120,781	62	120,000	55	227	46	10	35
U. of California, Map Collection, Santa Cruz	120,674	63	108,475	58	9,287	29	19	26
*Cornell U. Library, Ithaca, N.Y.	114,438	64	113,000	57	400	44	•	•
*Public Library of Cincinnati & Hamilton Co., Cincinnati, Ohio	109,502	65	107,849	60	125	47	•	•
Georgia Inst. of Technology, Map Collection, Atlanta	109,360	66	108,377	59	none	0	8	39
*Clark U., Graduate School of Geography, Worcester, Mass.	108,412	67	105,000	62	480	43	•	•
Wesleyan U., Science Lib., Middletown, Conn.	107,196	68	105,000	61	none	0		52
U. of Colorado Map Library, Boulder	87,000	69	87,000	64	none	0	-21	54
California State U., Dept. of Geography, Map Center, Long Beach	37,703	70	35,000	66	2,500	36	-81	56

*Questionnaire not returned; ranking was determined from data in *Map Collections in the United States and Canada*, 3d ed.

†Compared to data from 3d ed.

‡Multiple copies of topo maps totals 2,235,000.

§Includes multiple copies of 876 topo quads.

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Appendix B

SURVEY OF THE 70 LARGEST MAP & AERIAL-PHOTO COLLECTIONS IN THE U.S.

THE COLLECTION

1. Name and Address of Collection: _____

City State ZIP Code

2. Phone Number: () - Ext. _____

3. Size of Collection: (use total as of April 1, 1980 - or - as of your last tabulation)

maps		_____
atlases		_____
globes		_____
relief models		_____
aerial photographs		_____
reference books & gazetteers		_____
serials (titles received)		_____
microforms (# of maps)		_____

4. Has your library added any Depository collections in the past five years?
 Yes No If Yes, please indicate agency name: _____

5. Indicate the approximate number of square-feet of space allocated to your collection: (or give exact figure if available)(include everything)

THE PERSONNEL

	Full Time	Part Time
6. Number of persons employed: Professional	_____	_____
Non-Professional	_____	_____

7. Total aggregate number of hours per-week for all employees: _____

8. Do you anticipate, during the next two years, an increase , a decrease , or the number of personnel will probably remain the same, I hope .

The 70 Largest Collections

Appendix B—Continued

THE PATRONS

9. Categories of patrons served: (check all that are applicable)
- | | |
|--|--|
| <input type="checkbox"/> General Public | <input type="checkbox"/> In-house staff only |
| <input type="checkbox"/> Students and Faculty only | <input type="checkbox"/> No service offered |
| <input type="checkbox"/> Students, Faculty, and General Public | <input type="checkbox"/> Other _____ |
10. Number of patrons served during your last annual statistical period: _____
11. Has the number of hours of service to your patrons, during the past two years, increased or decreased ?

THE EQUIPMENT

12. If you have a separate budget for equipment, please indicate the amount allocated during your last statistical period: \$ _____
(No response will indicate no separate budget.)
13. Do you have any of the following equipment housed in your facility proper?
xerographic copy machine microfilm reader microfiche reader
microfilm reader/printer microfiche reader/printer aerial-photo
& other image viewing equipment On-line data base terminal with
printer map drafting equipment map or image enlarging or reduc-
ing equipment light-table other _____
14. Within the next two years, do you plan to add any of the above? Yes No
If yes, what do you plan: _____
I have no plans to add any equipment, but if circumstances were favorable I
would like to add the following: _____

THE ACQUISITIONS PROGRAM

15. Budget for Acquisition of Maps & Aerial Photos: (this figure should include money in all categories: serials, standing orders and other discretionary amounts, but not the value of depository receipts): { < is less than }
<\$1,000 <\$5,000 <\$10,000 <\$15,000 <\$20,000 <\$25,000
<\$30,000 more than \$30,000 other _____
16. Do you anticipate, during the next two years, an increase or decrease .

STANLEY STEVENS

Appendix B—Continued

17. Has your acquisitions budget, during the past two years, increased or decreased ? (not in value of dollars, but an actual + or -)
18. Has there been any cartographic format to which you have given special emphasis in acquisitions during the past two years? _____.
19. Has there been any geographic area to which you have given special emphasis in acquisitions during the past two years? _____.

THE HEAD OF THE COLLECTION

20. Name and title of person in charge of the collection: (optional)

Name	Title
(NOTE: This information will be used only for tabulation, and no individual name will be disclosed.)	

21. Degrees (check highest applicable in each column):

	Subject Field	Library/ Inf. Sci.
22. Indicate the number of years library experience before becoming employed in map librarianship: _____ or, None <input type="checkbox"/>	No College <input type="checkbox"/>	<input type="checkbox"/>
	No Degree <input type="checkbox"/>	<input type="checkbox"/>
	Associate <input type="checkbox"/>	<input type="checkbox"/>
23. Indicate the number of years in map librarianship: _____	Bachelor <input type="checkbox"/>	<input type="checkbox"/>
	Master <input type="checkbox"/>	<input type="checkbox"/>
24. Indicate the number of years as Head of the collection: _____	Doctorate <input type="checkbox"/>	<input type="checkbox"/>

25. The Special Libraries Association's 1979 Salary Survey (Special Libraries, December 1979, pp. 559-589) indicates some trends which I would like you to verify with respect to your own position. "The mean (average) basic annual salary of SLA members on Apr. 1, 1979, was \$19,300." For that date, was your salary below , even , or above that average?

26. "The 1979 survey indicates that the mean salary of SLA members is no longer keeping pace with the CPI". (Consumer Price Index) The survey "shows that while the mean salary has increased 101.0% since 1967, the CPI has increased 113.4%". Would you indicate the increase in your base salary, since Apr. 1, 1979?

0% 2% 4% 6% 8% 10% 12% or, _____ amount \$

The 70 Largest Collections

Appendix B—Continued

27. Please indicate the amount of time per week that you, as Head of the collection, are assigned to work on the map or aerial photo collection.
100% 80% 60% 50% 40% 20% 10% no set amount
28. Do you have a personal membership in one or more of the U.S. organizations that represent map librarians? (e.g., SLA Geography & Map Division; Western Association of Map Libraries; ALA Map & Geography Round Table)
Yes No
29. Are your dues paid by your employer? Yes No
30. During the past two years, have you served on a committee , held an office , attended one or more meetings , of one or more of the map librarianship organizations to which you belong?
31. During the past two years, have you written and had published one or more contributions to the literature of map librarianship? yes no
Do you anticipate any within the next two years? Yes No
32. Please indicate your primary reasons for attending meetings of map librarianship organizations (mark primary with # 1, second with # 2, third # 3)
 To learn some practical/theoretical information that might assist me in my job.
 To get recognition from my institution that will help in promotion and/or salary advancement.
 To engage in social contacts among my colleagues.
 To satisfy my institution's and/or supervisor's request to attend.
 To make a contribution to map librarianship by participating in the organization's activities.
33. Please indicate the kind of support that you receive to attend meetings of map librarianship organizations:
 Do not attend because my employer won't permit time off.
 Time off only.
 100% financial support: transportation, food and lodging, reg. fees.
 Use of institution's vehicle at its expense.
 Transportation only: least expensive means - air-fare, car, etc.
 Food and lodging only.
 I pay all expenses, and take vacation-time to attend.
 Support varies from year to year, some time I get full partial
 I did get support, but all travel allowances have been eliminated.
 Registration fees only.
 I applied for funds last year, but competition exhausted available funds.
 Although I don't get all I ask, I don't hesitate in applying for funds.
other _____.

STANLEY STEVENS

Appendix B—Continued

34. Approximately how much money did you spend of your own funds to attend your last meeting of a map librarianship organization ? \$ _____.
35. Have you previously been aware that U.S. Treasury Reg. 1.162-5 permits an income tax deduction for educational expenses (registration fees and cost of travel, meals and lodging) undertaken: 1) to maintain or improve skills required in one's employment... (2) to meet express requirements of an employer or a law imposed as a condition to retention of employment, job status or rate of compensation. (see IRS Pub. 508)
Yes No I am now

Computer-Readable Data Base

36. Do you utilize a computer-readable data base? Yes No If no, do you have plans to utilize one in the next two years? Yes No
37. Assuming you do, how do you use the data base: On-line searching
On-line cataloging Patron reference Potential acquisitions
Inter-library loan Other _____.
38. Which computer-readable data base do you utilize? MARC-Map DMA
OCLC WLN RLIN Other _____.

Conservation/Preservation Program

39. Do you have a conservation/preservation plan for your collection? Yes
No
40. If yes, do you presently use any of the following techniques? humidity-temperature controls lamination polyester-film encapsulation
deacidification acid-free folders other _____.

Promotion of Use

41. Please indicate the type(s) of effort(s) that have been undertaken to promote the use of your collection during the past two years: (check more than one category if applicable)
- Promoted and/or wrote one/or more news article about some aspect of the collection for release to local media.
 - Conducted tours of the collection as part of my library's program.
 - Given lectures to one/or more audiences in which I encouraged the use of the collection.
 - Wrote a guide to the collection that describes its contents, etc.
 - Compiled (perhaps on a regular basis) an acquisitions list or newsletter for distribution to on-campus and/or off-campus potential users.
 - Selected and arranged an exhibition of cartographic materials for a location where the general audience of library users would see it.
- other _____

Thanks again for you time in answering this survey. Mail in enclosed envelope to: STANLEY D. STEVENS, UNIVERSITY LIBRARY, UNIVERSITY OF CALIFORNIA, SANTA CRUZ, 95064