Map Collections and Map Librarianship in Australia

DOROTHY F. PRESCOTT

IN THE TAUBER REPORT, presented to the Australian Advisory Council on Bibliographical Services in 1962, the following comments appeared:

There has been a general neglect of maps which have been either regarded professionally and physically as problem material or disregarded entirely as insignificant. Professional or institutional incapacity, inability, or unwillingness to deal with maps is reflected by (1) the embryonic state of collections in most libraries, (2) omission of maps in professional library training, (3) separation of collections and librarians by departments or institutions having both, and (4) staffing of collections by non-librarians.¹

There is a dearth of published comment or record for the earlier years of this century with regard to map collections in Australia. For the purposes of this study, therefore, we shall take the Tauber Report as being indicative of what might have been found if the earlier years had been documented. Perspective may be added to this study by noting that the National Library in Canberra was created in 1960, although it grew out of the Commonwealth Parliamentary Library, founded in 1901. The other great collection, the Mitchell Library in Sydney, was founded in 1910. The state libraries of New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania were established between the years 1849 and 1889.² However, maps were not collected systematically within any of the six state libraries until much later (see table 1). In 1961 only two general reference collections of any note existed in the country; these were the National Library and the Mitchell

Dorothy F. Prescott is Map Curator, National Library of Australia, Canberra.

TABLE 1 STATE LIBRARIES

Library (and Year Map	^	3	ıffi		No. of Maps	Cataloging	Classification
Librarian Appointed)	Commenced	Prof.		Nonprof.	(6/61)	Code in Use	
		FT P	PT FT	PT			
New South Wales	General Reference,	1	ъс		10,000	B & L*	B & L, with Mitchell
(1940)	Mitchell, 1910				{ 70,000 maps }		Library expansion & adaptation
	Dixson, 1952				750		
Queensland	Since 1950s. Systematic acquisition commenced 1971			-	General Reference Library: 13,063 John Oxley Li- brary: 3,500	AACR 1	B & L, with Mitchell Library expansion & adaptation
South Australia (1967)	Maps held since 1836. Systematic acquisition com- menced 1930	2	_	-	73,400	B & L	B & L, with Mitchell Library expansion & adaptation
Tasmania	Small collection until 1976, when systematic collection began		_		3,000	AACR 2	B & L, with Mitchell Library expansion & adaptation
Victoria (1970)	1856 (more intensive acquisition began 1970)	64		1	73,000	B & L	B & L, with Mitchell Library expansion & adaptation
Western Australia (1978)	1960		2		8,100	AACR 2	TC

Source: Data were obtained from a questionnaire, with the exception of figures of map holdings for South Australia, Tasmania and Victoria, which were obtained from the *Directory of Map Collections in Australia*, 3d ed. Canberra, National Library of Australia, 1980. *B & L. Boggs and Lewis

Library. The Tauber Report identified three functional groups of map collections: (1) general reference collections, which have already been mentioned, (2) teaching and research collections, and (3) collections of government departments or authorities. These groups represented "a disconnected series of narrowly specialised special map libraries staffed by a heterogeneous body of people of no common profession and with little outside contact." Within universities, maps were subjected to intensive use and exploitation, in contrast to libraries, where they were inspected rather than used. The Tauber Report identified the government collections as being the "outstanding national resource of maps."4 This description remains accurate today, as do many of Tauber's other comments. Librarians are severely criticized in the report on several counts: inadequate professional training; lack of knowledge in fields of study that are relevant to maps, resulting in a "cramping of vision untoward in a professional where breadth of vision and historic perspective are fundamental"; failure to demonstrate the efficiency of their systems and methods at an effective administrative level; and a reluctance to appreciate that map collections are often, in effect, special libraries lacking services and facilities which professional librarians are capable of rendering.5

The Present Situation

The third edition of the *Directory of Map Collections in Australia* provides a good overview of the state of collections today. This edition lists 303 collections, as opposed to 226 in the second edition, 157 in the first edition, and 64 in the Tauber Report⁶ (see tables 2 and 3). Of the 303

TABLE 2
GEOGRAPHICAL DISTRIBUTION OF MAP COLLECTIONS IN AUSTRALIA

	Ν	lumber of Collection	ns
State or Territory	1st ed. (1974)	2d ed. (1977)	3d ed. (1980)
Victoria	41	54	79
New South Wales	30	50	72
Australian Capital			
Territory	12	19	20
Queensland	19	33	37
Western Australia	19	27	36
South Australia	19	23	33
Tasmania	14	15	21
Northern Territory	3	5	5
Total	157	226	303

Source: Directory of Map Collections in Australia.

TABLE 3. MAP COLLECTIONS BY TYPE

		Victoria	a	New	South	Wales	Q	ueensla	nd
	1st (1974)	2d (1977)	3d (1980)	1st (1974)	$\frac{2d}{(1977)}$	3d (1980)	1st (1974)	2d (1977)	3d (1980)
Archives	2	2	2	1	2	2	1	2	2
National and State	l	1	1	3	3	3	1	1	l
University and College	5	8	17	12	16	19	4	7	14
Government	32	39	41	12	19	25	13	19	17
Industry		2	1	ł	8	2		2	1
Societies	l	ì	4		l	1			
Public			10		1	14			2
Private		1	3			6		2	
Total	41	54	79	30	50	72	19	33	37

listed collections, 151 are located in the states of Victoria and New South Wales. Queensland, Western Australia and South Australia each have roughly half the number of collections found in either Victoria or New South Wales. If one includes the Australian Capital Territory with New South Wales, the two southeastern states of Victoria and New South Wales dominate the map library scene in Australia.

It is interesting to note that government departmental collections form over 51 percent of the total, the next largest group being university and college collections, with over 23 percent (see table 4). Thus, the comments in the Tauber Report remain basically true today. Government departments are still the outstanding national resource of maps and, together with the teaching collections, hold the majority of the country's map resources. The analysis of collections by type is worth closer scrutiny. The figures for industry and public libraries do not reflect the true situation, possibly due to a certain reluctance by these two groups to be listed in the *Directory*. In the case of the first group, this reluctance relates to a desire for privacy of information; and in the second case, the reasons advanced usually relate to the embryonic state of most collections within public libraries. This is a pity, because it is particularly the latter group which needs to be better known.

The most remarkable growth in collections is displayed in the academic group, where there is a 43 percent increase in the number of collections reported in the second edition of the *Directory*, and a 65 percent increase in the third edition. This situation can be attributed to

Australia

AND GEOGRAPHICAL DISTRIBUTION

Weste	em Au:	stralia	Sout	h Aus	tralia	T	asman	ia	Austr	alian Ferrito	Capita ory	l Nort	hern T	erritory
1st (1974)	2d)(1977)	3 d (1980)(1st (1974)	2d (1977)	3d (1980)	1st (1974)	2d (1977)	3d (1980)	1st	2d	3d	1st (1974)(2d (1977)(3d (1980)
	2	2	1	2	2	l	1	2	1	1	1		ì	1
l	l	1	l	l	l	1	1	l	1	1	1			
3	3	9	2	2	6	l	i	ì	3	6	4			l
15	18	20	15	17	22	11	12	15	7	11	12	3	4	3
	3	1		1										
					l									
		2						2						
		l			l						2			
19	27	36	19	23	33	14	15	21	12	19	20	3	5	5

Source: Directory of Map Collections in Australia.

TABLE 4
GROWTH IN NUMBER OF COLLECTIONS AND PERCENTAGE ANALYSIS
BY TYPE

	Tauber Report	1st ed. (1974)	2d ed. (1977)	3d ed. (1980)	Percentage total (3d ed.)
National and State	4	9	9	9	3.0
Archives		7	13	14	4.6
University and					
College	9	30	43	71	23.4
Government	51	109	139	156	51.5
Industry		l	16	14	4.6
Public			l	30	9.9
Societies		l	2	6	1.9
Private			3	3	1.0
Total	64	157	226	303	99.9

Source: Resources of Australian Libraries; and the Directory of Map Collections in Australia.

two factors: first, the development of map collections within existing colleges and institutes of advanced education; and second, the natural growth that resulted from the establishment of many new colleges and institutes of advanced education by the Labor government in the mid-1970s.

The increase in numbers of government collections is mostly due to improved recording rather than to natural growth in this group. Government collections, particularly those concerned with map production, are usually as old as the departments themselves. It is particularly in respect to this group that the *Directory* is proving to be a valuable guide to those in need of specialized maps. A comparison of Australian and North American collections shows that while government collections are the predominant group in Australia (61 percent of the total number known, according to the second edition of the *Directory*), the comparable figure for North American collections is only 14 percent, or 104 collections.⁸

A study of reported sheet holdings further underlines the trends identified above (see tables 5 and 6). The potential for growth in the figures reported for government collections is demonstrated by the fact that the total figure for this group takes no account of the holdings of more than sixty collections. The great collections in this group are those of the Registrar-General's Department and the Public Works Department of New South Wales, and the Titles Office of Victoria, collections of over 200,000 maps each. The only other collections in this category are those of the National Library and the Archives Authority of New South Wales. There are three collections with over 100,000 maps: the State Library of New South Wales, the Victorian Lands Department, and the Country Roads Board of Victoria. In the group of seven collections with over 50,000 maps are two university collections (Sydney and New England departments of geography), collections of the state libraries of Victoria and South Australia, and those of three government departments (Telecom and State Rivers in Victoria, and National Mapping in New South Wales). Collections with holdings of 25,000-50,000 maps are the Queensland State Archives, the Geological Survey of New South Wales, the Forests Commission of Victoria, University of Melbourne Baillieu Library, and Monash University Department of Geography. There are nineteen collections containing between 12,500 and 25,000 maps, but one-third of the collections listed hold fewer than 1000 maps each.

The archival collections are a most important group, and as yet one about which there is little information. These should ultimately

TABLE 5
Total Sheet Holdings by Type of Collection
(in thousands)

National Library	240	
State Libraries	263	
Archives	291.2	(7)*
University and College	512.4	(3)
Government	15,661.6	(60)
Industry	64	(4)
Public	11.1	
Societies	3.2	(1)
Total Sheets	17,046.5	(75)

^{*}Figures in parentheses indicate number of collections which did not report holdings.

Source: Directory of Map Collections in Australia. 3d ed. Canberra, National Library of Australia. 1980.

become the great map collections of the country, but as a group they have not to date assumed this role. Reasons for this state of affairs include inability to enforce archival deposit requirements, a lack of interest or a late appearance by archivists in the field of map collecting, and a dearth of personnel knowledgeable in map curatorship. The belated interest in these materials by archivists has resulted in some instances in the retention of archival maps by government departments which have assumed responsibility for their own collections of retrospective mapping. This is particularly evident in Victoria, which has the largest number of map collections and a huge number of maps controlled in this fashion. Within the archival collections there can be found, in addition to maps in document files, discrete collections of maps. The federated nature of Australian government is effectively responsible for the existence of fourteen archival collections, two in each state and one in each of the territories. The Australian Archives is the body responsible for Commonwealth government noncurrent records: it has branches in each state and also in the Australian Capital Territory and the Northern Territory. The maps held in each branch tend to reflect the region served by the branch, but this is not always so. The organization and functions of state archives vary from state to state. In some instances the archives is a branch of the state library; this is so in South Australia, Western Australia, Queensland, and Tasmania. Their responsibility is for state government noncurrent records; however, this does not in every case mean that they are responsible for collecting maps. South Australia, for example, leaves this function to the state library collection.

 $\begin{tabular}{l} TABLE\ 6\\ Sheet\ Holdings\ By\ Geographical\ Distribution\ and\ Type\ of\ Library\\ (in\ thousands) \end{tabular}$

	1st ed. (1974)	2d ed. (1977)	3d ed. (1980)
Victoria	,		
State Library	50.0	50.0	73.0
Archives	_	-	10.0
	(2)*	(2)	(1)
University and College	51.0	73.2	99.9
emversity and contege	(2)	(3)	(1)
Government	381.0	14,380.1	14,434.1
Government			
Y . 1	(15)	(22)	(20)
Industry		(0)	(0)
B 11'		(2)	(2)
Public	-	_	3.5
Societies	1.0	1.0	1.8
			(1)
Total	483	14,504.3	14,622.3
	(19)	(29)	(25)
New South Wales			
State Library	75.4	76.9	84.0
Archives	<i>i J.</i> T	207.0	225.0
Archives	(1)		
11 1 1 16 16 1	(1)	(1)	(1)
University and College	153.5	189.0	216.0
Government	41.7	578.9	937.6
	(6)	(9)	(8)
Industry	0.7	6.2	24.0
		(4)	(1)
Public	_	1.8	5.4
Total	271.3	1059.8	1492.0
	(7)	(14)	(10)
Australian Capital Territory			. "
National Library	270.3	330.3	240.0
Archives	410.3		4 10.0
AUCHIVES	/1\	(1)	(1)
University and Callers	(1)	1 /	, ,
University and College	25.5	40.5	29.4
6	09.5	(2)	(1)
Government	83.5	109.9	53.0
	(5)	(3)	(2)
Total	379.3	480.7	322.4
	(6)	(6)	(4)
South Australia			
State Library	30.0	50.0	73.4
Archives	30.0	.70.0	11.2
MCHIVES	(1)	/9)	11.4
University and C-11	(1)	(2)	90 0
University and College	22.1	25.8	38.0
Government	53.6	66.5	143.0
	(9)	(11)	(6)
Industry	-	3.5	3.5
Societies			1.4
Total	105.7	145.8	270.5
	(10)	(13)	(6)

TABLE 6—Continued

	1st ed. (1974)	2d ed. (1977)	3d ed. (1980)
Queensland			
State Library	6.9	11.0	21.5
Archives	17.1	20.7	30.0
		(1)	(1)
University and College	11.1	18.3	38.9
		(2)	(1)
Government	8.7	24.4	21.0
	(9)	(14)	(10)
Industry	_	4.3	4.3
		(1)	
Public		_	0.5
Total	43.8	78.7	116.2
	(9)	(18)	(12)
[A7 A		· · · · · · · · · · · · · · · · · · ·	
Western Australia	11.6	17.5	0.1
State Library Archives	11.6	17.5	8.1
Archives	(1)	(0)	14.2
Hairmin and Callera	(1)	(2)	(1)
University and College	28.9	11.5	72.3
	(1)	(1)	40.4
Government	14.9	170.7	49.4
Y 1 .	(12)	(13)	(9)
Industry		0.3	0.2
D. LE		(1)	(1)
Public		-	0.7
Total	55.4	200.0	144.9
	(14)	(17)	(11)
Гasmania			
State Library	1.1	1.4	3.0
Archives	_	_	0.8
	(1)	(1)	(1)
University and College	11.5	14.0	17.5
Government	11.0	7.4	12.6
	(6)	(7)	(3)
Industry		-	_
Public	_	_	1.0
Total	23.6	22.8	34.9
	(7)	(8)	(4)
		(0)	
Northern Territory			
Archives	_	_	
		(1)	(1)
Government			10.9
	(3)	(4)	(2)
College		_	0.4
Total	_	_	11.3
	(3)	(5)	(3)

^{*}Figures in parentheses indicate number of collections which did not report holdings. Source: *Directory of Map Collections in Australia*.

The National Library

The map collection is one of several collections of specialized materials developed by the National Library in Canberra. The library's holdings of maps were begun eighty years ago, and up to 1939 the emphasis of the collection was on historical mapping of Australia and the Pacific. The collection is rich in early engraved maps of the Australasian and Indian Ocean areas, having inherited the Nan Kivell, Petherick and Ferguson collections of these materials in the early years of this century. In 1973 the Tooley collection of maps of Australia was purchased by the library. These maps are listed in R.V. Tooley's The Mapping of Australia, published in 1979 by Holland Press Cartographica.9 With the advent of the Second World War, the library began to acquire more general mapping of areas involved in the war. By 1961, when the national and parliamentary libraries separated, there were 62,000 maps in the collection. Today the collection numbers approximately 250,000 maps and 500,000 aerial photographs, and has a staff of five. One of its more important functions is the publication of two cartobibliographies, Australian Maps and Overseas Map Acquisitons, both of which list currently produced maps received in the collection.¹⁰

The Mitchell Library

The map collection in the Mitchell Library is one of three maintained by the State Library of New South Wales in Sydney. Emphasis is on collecting for Australia, the Pacific and Antarctic areas. Many early and notable maps and atlases are held in the Mitchell collection, and for this reason it has earned the reputation of being one of the premier collections of Australiana. It has a staff of four who are also responsible for administering the general reference collection. The collection is the most completely cataloged in the country, and has been instrumental in recent years in providing guidance in this field to other libraries.

Future Trends

The economic climate today is not one in which collections can pursue their own interests regardless of others. This is demonstrated by the existence of cooperative acquisition programs between both individual libraries and groups of libraries in New South Wales and Victoria. Increasingly, therefore, we shall expect to find more regional specialization of resources, with collections concentrating on the acquisition of particular geographical areas or types of maps. The local public library can do this by collecting only for the immediate area in

depth, and supplementing this with a modicum of medium- and small-scale maps of other areas of interest to the library's clientele.

In the final analysis, this acquisition pattern will mean that a well-developed interlibrary loan system must be envisaged for the country, which will use both conventional and new techniques for transmitting information where it is required. In May 1976, a proposition to establish a cartographic information network was submitted by the Australian Map Curators Circle to the Director-General of the National Library. This is known as the ANCIS (Australian National Cartographic Information System) proposal, 11 and recommends that assessments of map resources and user requirements be conducted on a national basis; that areas in need of rationalized collection development be identified down to the level of regional and local service points within states; and that the problems of establishing a central data bank of information be investigated by a body representative of all groups with an interest in cartographic resources. It further recommends that the current state of automated cataloging and the need for standardization of data elements be surveyed. Among other recommendations were the building up of color microfilm collections of rare and valuable maps, primarily in the field of Australian exploration, development and land settlement: the establishment of centers for conservation which would be advisory, practicing and teaching units; and the creation of map librarianship courses at both specialist and technician levels. All this is discussed under the heading of future developments, although it has been four years since these proposals were first put forward.

Map Librarianship-Education

At present in Australia there is a heterogeneous group of people working in map collections throughout the country. They include draftsmen, cartographers, surveyors, geographers, and librarians, supported by nonprofessional staff. This situation is, indeed, little changed from Tauber's 1961 description, with one or two minor improvements. No longer is it necessary for such people to work in isolation. Since the first Map Keepers' Seminar, which was organized by the National Library in 1973, 12 the Australian Map Curators Circle has continued the dialogue begun at that meeting, and each year holds an annual conference for its members at which new trends and techniques are discussed, visits to map-producing agencies are arranged, and academic papers on many aspects of mapping and historical cartography are presented.

None of these people have been specifically trained for the work

they are doing, as no courses exist in Australia for the specialty of map librarianship. Such expertise as exists has been acquired by long familiarity gained during years of working with maps. A very few have been fortunate enough to receive training overseas, or have acquired a combination of qualifications in geography and librarianship together with years of practical experience working with maps in libraries. There has been little change to comment on since Cornelius's paper of 1978.13 Results of a questionnaire sent to twenty-four library schools and technical colleges in January 1980 indicate there are no fully developed courses on map librarianship taught in Australian library schools today, but maps are studied along with other material under aspects such as reference sources, bibliographical organization, selection, and storage. Attention is also given to cartographic materials in library technician courses, but again in a fairly general manner. Kuringai College of Advanced Education is about to introduce an elective in the second year of its Bachelor of Library Science program entitled "Visual Information Sources" which will permit students to study a particular medium in some depth.¹⁴ Maps are included in this program, which appears to offer the student an option similar to that available in the "Special Studies in Librarianship" unit in the second year of the bachelor program at Canberra College of Advanced Education. One further development of interest concerned a proposed postgraduate diploma course in map librarianship which failed to gain accreditation, not so much because of course content, but rather because of lack of experienced personnel to teach the course. Such a course, wherever it was set up in Australia, would need to consider the viability of inviting practicing map librarians as visiting lecturers in addition to any package programs available. Additionally, arrangements with a neighboring map collection for students to serve an internship of at least two months should be seriously considered.

What of courses outside the library schools? For the last four years, a course called "Cartographic Information Systems" has been offered within the Department of Surveying at the Royal Melbourne Institute of Technology (RMIT). The subject is taught as part of the Bachelor of Applied Science degree in cartography, but is available as a separate subject to students other than those in cartography. There are no special prerequisites. The broad aspects dealt with are maps and related documents, map producers and production, map documentation, map keeping, and map collections. The course runs for twenty-eight weeks, with one two-hour lecture per week, and is at present being reviewed to consider a reduction in the number of hours to twenty-eight one-hour

lectures supplemented by twenty one-hour tutorials. RMIT has also introduced the John Storey Junior Memorial Scholarship, which is for a cartography graduate undertaking the graduate diploma in librarianship. This is the first year of the award. At present, facilities such as these are only available in Victoria. Cornelius has identified a requirement for a small number of highly trained map librarians, who will in the future be responsible for the large map collections in the country. In addition to these, Cornelius identified a field for future development in most public libraries and educational institutions, which at present have no map resources but are eager to introduce these materials. Such institutions would benefit from staff attendance at short practical courses covering the basics of collection building, information organization and retrieval of cartographic material. This group is potentially large and could probably be catered to along with the much smaller group of practicing map librarians already in charge of modest collections. The Victorian Branch of the Australian Map Curators Circle (AMCC) is planning a one-day workshop directed at just such a group of people. To be effective, such workshops should be held regularly (about once a year) or packaged as a short course which can be presented by informed practitioners at various locations throughout the country. The AMCC recognizes the need for such action, but is physically handicapped by the scattering of its membership and the resulting difficulties of assembling a group to work on such a project. Under these circumstances, effort should be concentrated where the greatest return may be expected. For these reasons, the AMCC would be wise to concentrate its effort on catering to the groups identified above and to encourage RMIT to make its course on cartographic information systems more widely known.

Professional Associations

There are a number of professional bodies in Australia concerned with maps and mapping, each of which has a particular emphasis or approach to the medium. Among these are: the Australian Institute of Cartographers; the Institution of Surveyors, Australia; the Australian Photogrammetric Society; the Remote Sensing Association of Australia; and the Australian Map Curators Circle. Increased interest and participation in each other's meetings and activities has been noticeable in the past five years. Joint projects such as map user meetings have also been arranged, notably in Melbourne, by the Victorian Branch of the AMCC and the Institution of Surveyors, where three of these meetings

for the public have already been held.

The AMCC was founded in 1973 and is open to anyone with an interest in maps. It seeks to promote the development and effective exploitation of map collections throughout Australia; to improve the skills and status of persons working with maps; and to promote communication between producers, users and curators of maps. It is unique among associations of map librarians in that it opens its membership to map producers and users, and should perhaps be more aptly named the Australian Map Circle. In any case, it has been extraordinarily successful in establishing and maintaining dialogue with map producers and actively encourages their membership. This approach has helped to make publishers, particularly the federal and state mapping authorities, much more aware of the problems that obtain in managing map collections, and of the ways in which producers can help alleviate difficulties such as access to map information. (It is not simply a coincidence that the number and availability of official map lists has burgeoned in the past five years.) The group holds an annual conference, usually in a different city each year. The papers delivered at such conferences are issued in its journal, The Globe, which normally appears twice a year. 16 For current events and news, the AMCC also publishes an occasional newsletter, which is issued when the need arises. It is included in the subscription to The Globe.

In the international sphere, Australia has had the opportunity to communicate through occasional attendance at the Geography and Map Libraries Section of the Interational Federation of Library Associations, and most recently through the Anglo-American Cataloguing Committee for Cartographic Materials. Such contacts act as a stimulus and are particularly significant for special groups such as map librarians; however, geographical isolation and the high cost of travel militate against on-the-spot participation by Australians in meetings held in the Northern Hemisphere. In the case of the International Cartographic Association, there has been no communication between this body and the AMCC until very recently, probably because Australia is already represented in this organization by the Australian Institute of Cartographers. At the present time, the New Zealand Mapkeepers Circle and the AMCC are discussing the possibility of a joint meeting within the next three years.

In retrospect, it is only seven years since the first meeting for map keepers was held in Australia. More has happened in those seven years than had occurred in the previous eleven years since the publication of the Tauber Report. Australia now has an association for map curators;

it holds regular annual conferences, publishes a journal and a newsletter, has a *Directory of Map Collections*, and issues several cartobibliographies. What Australia lacks is education for map librarians, a national union catalog and automated cataloging service—all of which are tied to the status of maps in libraries. It is here that effort is needed, most of all in gaining administrative support and acknowledgment of the intrinsic value of maps as concise, precise documents of value not only to history and social science, but also to science and technology.

References

- 1. Tauber, Maurice F. Resources of Australian Libraries. Canberra, Australian Advisory Council on Bibliographical Services, 1962, pp. VIII—6-7.
- 2. Munn, Ralph, and Pitt, Ernest R. Australian Libraries: A Survey of Conditions and Suggestions for Their Improvement. Melbourne, Australian Council for Educational Research, 1935, pp. 38, 50, 61, 68, 77, 83.
 - 3. Tauber, op. cit., p. VIII-8.
 - 4. Ibid., p. VIII-13.
 - 5. Ibid., p. VIII-7.
- 6. Rauchle, Nancy M. Directory of Map Collections in Australia. 3d ed. Canberra, National Library of Australia, 1980. I am indebted to Nancy Rauchle for permission to use the manuscript of the third edition; ________, and Alonso, Patricia A., eds., comps. Directory of Map Collections in Australia. 2d ed. Canberra, National Library of Australia, 1977; _______, eds., comps. Directory of Map Collections in Australia. Melbourne, State Library of Victoria, 1974; and Tauber, op. cit., p. VIII-8a, fig. 3.
 - 7. Tauber, op. cit., p. VIII-13.
- 8. Stephenson, Richard W. "Map Collections and Map Librarianship in the United States: A Review," *Special Libraries* 70:117-26, March 1979; and Rauchle and Alonso, 2d ed. (1977), op. cit.
- 9. Tooley, Ronald V., ed. *The Mapping of Australia* (Holland Press Cartographica Series, vol. 1). London, Holland Press, 1979.
- 10. Australian Maps. Canberra, National Library of Australia, 1968-; and Overseas Map Acquisitions. Canberra, National Library of Australia, 1975-.
- 11. Prescott, Dorothy F. "Submission to the Director-General, National Library of Australia, on the Need for an Australian National Cartographic Information System (ANCIS)," *The Globe*, vol. 1, no. 5/6, 1976, pp. 99-106.
- 12. See Ellis, Elizabeth, ed. Proceedings of the Map Keepers' Seminar and Workshop Held at the National Library of Australia, 12th and 13th April, 1973. Canberra, National Library of Australia, 1973.
 - 13. Cornelius, H.F. "Education for Map Librarians," The Globe, no. 9, 1978, pp. 36-57.
- 14. Trask, Margaret (Head, School of Library and Information Studies, Kuringai College of Advanced Education), to Prescott, Feb. 1980.
- 15. Bertacco, J. (Senior Lecturer in Cartography, Department of Surveying, Royal Melbourne Institute of Technology), to Prescott, Feb. 7, 1980.
 - 16. The Globe. Janet F. Schultz, ed. Canberra, National Library of Australia. 1974-.

Additional References

- Alonso, Patricia A. "Maps and Australian Libraries," Australian Library Journal 24:90-93, April 1975.
- Knight, T.M. "Map Libraries in Australia," Australian Special Libraries News 7:114-17, Sept. 1974.
- . "The Growth and Development of the Map Collection of the National Library of Australia, Canberra," *SLA Geography and Map Division Bulletin*, no. 93, Sept. 1973, pp. 2-8.
- Mitchell Library. Maps Section. The Maps Collection in the State Library of New South Wales. Sydney, State Library of New South Wales, 1979.
- Rauchle, Nancy M. "Towards Intellectual Foundations of Map Librarian Education," Australian Library Journal 24:94-99, April 1975.
- ______, and Alonso, Patricia A. "Map Collections in Australia," Australian Library Journal 23:316-20, Oct. 1974.
- Ristow, Walter W. "Map Library Education in the United States and Canada," SLA Geography and Map Division Bulletin 104:38-41, June 1976.
- Ross, Margaret U. "Map Collections in India, Australia, and New Zealand—An Overview," Special Libraries 66:32-36, Jan. 1975.
- Van der Valk, S. "Continuing Education Course in Map Librarianship," *The Globe*, no. 11, 1979, pp. 53-66.
- Wolter, John. "Geographical Libraries and Map Collections." In Encylopedia of Library and Information Science. New York, Dekker, 1973, vol. 9, pp. 236-66.





