Western Association of Map Libraries

"... to encourage high standards in every phase of organization and administration of map libraries..."
# Western Association of Map Libraries

## Information Bulletin

### March 1991

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WESTERN ASSOCIATION OF MAP LIBRARIES  
1991 SPRING MEETING  
March 20-23, 1991  
Map and Imagery Lab, Library  
University of California, Santa Barbara  

Theme: Spatial Data in a Digital World  

**March 19, Tuesday**  
UC/Stanford Map Librarians meeting (SEL conference room)  

**March 20, Wednesday**  
Workshop: “Accessing Spatial Data in Digital Form” (MIL)  
8:30-9:30  a. what is “digital form”?  
9:30-10:00  BREAK  
10:00-noon  b. hardware: cpus, monitors; input; output; finances  
noon-1:30pm  LUNCH  
1:30-2:30pm  c. data available (good points & limitations; what is needed to access it; what questions one should ask)  
2:30-3:00pm  BREAK  
3:00-4:00pm  data available continued; self-education and establishment of support groups. Format: lecture plus demos  

**March 21, Thursday**  
9am-noon  WAML Executive Board (SEL conference room)  
8am-noon  Tours of MIL  
noon-1pm  Registration (outside Room 1575, Library)  
          (All presentations are in Room 1575)  
1:00-1:15pm  Welcome  
1:15-1:45pm  Keynote speaker: Dr. Terry Smith: brief intro to spatial data; problems/challenges to be solved in dealing with spatial data (large/global db's); NCGIA's efforts in this line  
1:45-2:30pm  The practicalities - minimum investments; servicing; local capabilities - what should you be alert to?  
2:30-3:00pm  BREAK  
3:00-4:30pm  WAML business meeting  
4:30-5:30pm  Sounding Board  
6:30-8:30pm  Reception, Map Link, 25 Mason Street, Santa Barbara  

**March 22, Friday**  
9:00-10:00am  Federal Digital Data  
10:00-10:30am  BREAK  
10:30-noon  Papers on applications - using spatial data in digital form  
noon-1:30  LUNCH  
1:30-3:30  Digital Spatial Data in the Map Publisher and Dealer World  
3:30-4:30  transport to Santa Barbara Museum of Natural History  
4:30-6:00  Reception for T. Dibble  
6:30-  Dinner
Mapping the Canadian Rockies

by

Frances Woodward
Special Collections
University of British Columbia
Vancouver

The Rocky Mountains, the easternmost range of the Western Cordillera, run from the American border at the forty-ninth parallel to the Liard valley in the north. Their height of land forms the “Great Divide” between waters that flow to the Pacific and those that flow to Hudson Bay, and constitutes the boundary between Alberta and British Columbia to about 54 North.

Most exploration was a search for routes, both through the mountains and down the rivers. The first European to penetrate the Rockies was Alexander Mackenzie in 1793, when he traversed Peace River Pass on his way to the Pacific. He made no attempt to survey the mountains, and his maps show little more than his route. Simon Fraser followed this route in 1805 when he founded the first transmountain fur-trade post, Fort McLeod, on McLeod Lake. Unfortunately he did not leave us any maps.

The first mapmaker in the Rocky Mountains was David Thompson. Thompson - who was taught mathematics at the Grey Coat School and then apprenticed to the Hudson’s Bay Company at Fort Churchill, where he became the pupil of “Philip Turnor, the first scientific surveyor in the Canadian West, and a master of his trade” - joined the North West Company in 1797. For the next approximately twenty-five years Thompson explored, mapped and established trade in the Oregon country. He perfected versions of his Oregon maps in 1843 for the British government. One map he made for the North West Company occupied a prominent position in the Company’s headquarters at Fort William, and copies of it were used by various mapmakers, from a political pamphlet of 1817 to a Japanese map of 1854. The mountain ranges are the most distinctive features of his maps, depicted in the “hairy caterpillar” style.

Although Lt. Vavasour was a Royal Engineer and capable of drawing fine maps, his mission in 1845-46 was to get to the Oregon Territory as quickly as possible to report on conditions there. Father DeSmet, who was in the mountains at the same time, drew his own maps in a rather unusual style. Wheat refers to DeSmet’s “curious drawings of mountains, with great pyramids and castellated peaks.”

By 1857 the various fur traders and travellers in the Kootenays had provided general information on the Rocky Mountains, but very little in the way of detailed information and maps. However, two expeditions set out that year which produced the first scientific surveys of portions of the Rockies.

Approaching overland from the east was the British North American Exploring Expedition, led by John Palliser, with Dr. James Hector, geologist-naturalist-medical man; John W. Sullivan, astronomical observer-secretary; Lt. Thomas Blakiston, R.A., magnetical observer; and Eugene Bourgeau, botanical collector. In 1858 the expedition divided into two small parties, with Palliser and Sullivan exploring the eastern flank of the mountains south of the Bow. Hector crossed Vermilion Pass to the upper Kootenay and north to Kicking Horse Pass (where he had his famous accident, from which the river and pass were named), then east across the pass and north up the Bow to cross Bow Pass. Blakiston explored the North and South Kootenay Passes and returned to Edmonton. Palliser crossed into the Kootenays by the North Kananaskis Pass and returned by North Kootenay Pass. The following summer Palliser and Sullivan again crossed North Kootenay Pass and explored the southern Kootenays for a route to the coast within British territory, going as far as the American Boundary Commission camp near Midway. Hector crossed Howse Pass and travelled up the Columbia, then
followed the Hudson's Bay Company route to Fort Colville, where he met Palliser and Sullivan.

In the meantime the international boundary was being surveyed from the west. Although the 49th parallel was accepted as the boundary in 1846, actual surveying of the line was not begun until 1857, beginning at Point Roberts. It was completed in the fall of 1862 when the crest of the Rockies was reached. The British North American Land Boundary Commission returned to London, and work continued towards the preparation of the final atlas, which was produced in 1869. Following a meeting of the Joint Commission in Washington, revisions were made, and the final atlas was released in June 1871 (although the imprint date remained 1869).

In 1871 British Columbia joined the Canadian Confederation. One of the Articles in the Terms of Union called for a trans-continental railway. Almost immediately several survey parties were sent out to look at the various possible routes through British Columbia. One party, led by Walter Moberly, surveyed the Howse Pass area before moving north to the Athabasca and Yellowhead. Finally, a decision was made to use the Kicking Horse Pass. Unfortunately the various survey field books and maps do not seem to have survived.

The Geological Survey of Canada had field parties out, too, looking for coal deposits which could be mined to operate the trains, and for economic minerals which could generate business for the railway company. They concentrated on the northern route until about 1875, when the decision was made to use a southern one. The Dominion Land Surveyors were busy in British Columbia as well, mapping the areas near the line, and surveying the British Columbia Railway Belt.

Another of the Terms of Union required the federal government to provide a geological survey of British Columbia. Work began in the early 1870s but progress was slow as in most cases it was necessary to make a topographical survey first, in order to have a map on which to place the geology. For this reason, the Geological Survey of Canada added a topographic specialist to the survey teams.

The federal Department of the Interior had surveyors mapping the railway lands from the early 1880s, and in the early 1890s began a series of sectional maps of Canada, which were the forerunners of the present National Topographic System. The first Canadian attempt at a truly topographic series was the twenty-one sheet Topographical Survey of the Rocky Mountains, surveyed and drawn between 1888 and 1892. The survey method used was a distinctly Canadian adaptation of a system invented in Europe but little used there. In Canada ground photo-topography became the standard method of establishing mapping control in mountainous areas for almost seventy-five years. This series was an ingenious and economical solution to the problem of surveying mountain areas.

This method of photo-topography was brought to Canada by Edouard Gaston Daniel Deville, a French hydrographic officer with six years experience. In 1885 he was promoted to Surveyor General of Dominion Lands, and in the next field season initiated the new method in the Rocky Mountains along the C.P.R. under field supervision of one of his senior surveyors, J. J. MacArthur, D.L.S., to whom he had given special instructions and equipment for the new work. Deville designed and had produced survey cameras especially for Canadian conditions, and in 1895 published a classic textbook, Photographic Surveying. His methods were adopted by the British Columbia government in the Kootenays in 1891-1898, and by the international commission on the Alaska-Canada Boundary survey, 1893-1895.

Although the British Columbia government had its own surveyors in the field in the 1880s and 1890s, their main concerns were regional maps, and cadastral and trigonometrical surveys in the settled areas, particularly the mining regions of the West Kootenay District.

The first map of the Rocky Mountains produced by the Geological Survey was Publication 223, the Reconnaissance map of a portion of the Rocky Mountains between latitudes 49° & 51°30' geologically coloured, by George Mercer Dawson, published in 1886. Probably the last pre-photography map of the Rockies, this was the first of many geological maps of the district. Dawson is regarded as one of Canada's most outstanding scientists, and was a legend in his own time; Dawson Creek, B.C., and Dawson City, Yukon, were both named after him, as well as other features.

As part of the agreement between British Columbia and the federal government to construct the
transcontinental railway, the Terms of Union, confirmed by later Acts, gave to the Dominion a strip of land forty miles wide, extending twenty miles either side of the Canadian Pacific’s projected main line, from the Alberta border to New Westminster, containing 17,150 square miles. This land, known as the British Columbia Railway Belt, was returned to the province in 1930. Disputes over the limits of the Belt delayed survey, but agreement was reached in 1907 and the Department of the Interior produced the first editions of two sets of maps. The two-sheet British Columbia Railway Belt (James White, F.R.G.S., geographer; special edition prepared under the direction of R.E. Young, D.I.S., Superintendent of Railway and Swamp Lands, showing lands disposed of, also timber berths, corrected to July 1st, 1907, with a scale of 1:500,000) was issued in colour, in a preliminary edition. The eastern sheet includes the Rocky Mountains. At the same time, a series of maps of the various sections of the Railway Belt were issued, on a scale of 1:90,080. Each sheet bears the main title, British Columbia Railway Belt, and a subtitle. Donald Sheet West of the Fifth Meridian includes the Rocky Mountains, and the Yoho Park Reserve. The Department used these maps to promote its interests in land settlement and colonization.

The supreme effort in surveying the Rocky Mountains was the work of the Interprovincial Boundary Commission. By the Imperial Act of 1863, British Columbia was “bounded ... to the East ... by the Rocky Mountains and the 120th Meridian.” When Alberta was created in 1905, it was bounded on the west by British Columbia. In 1912, due to mining activity and other considerations, it was necessary to clarify the rather vague definition of the boundary as being in part the Rocky Mountains. Deville’s interpretation of “the Rocky Mountains” for the purposes of this boundary was officially adopted by Order-in-Council of 18 February 1913 as “the line dividing the waters flowing into the Pacific Ocean from those flowing elsewhere.” To survey and mark this natural boundary, it was necessary to make a detailed topographic map along it to locate and prove exactly where the waters divided as specified. The obvious and only way to do this was by Deville’s method of photo-survey.

Work began in Kicking Horse Pass in 1913, and continued until the boundary was surveyed from the 49th parallel to latitude 57° 26’39” on the 120th meridian in 1924; the remaining portion north to 60 was not surveyed until 1960-1963. A. W. Cautley, D.I.S., A.L.S., Commissioner for both Alberta and the Dominion, assumed supervision of detail survey and monumentation (which primarily passes through the main range of the Rocky Mountains), and A.O. Wheeler, D.I.S., B.C.I.S., Commissioner for British Columbia, specialized in the photo-topographic survey of long and complex segments of alpine terrain between the passes. The atlas for the first part of the survey was published in 1917, and contains an index sheet on the scale of 1:792,000, sixteen sheets of the boundary line at 1:62,500, and ten detail sheets of the passes at 1:25,000 (except for two sheets, which were at 1:35,000). The sheets have contour intervals of 100 feet, and show the boundary along the natural line of watershed, and the boundary marked by the Commission, as well as the usual topographical and cultural details. The detail sheets show the same information plus additional monuments and cairns, and tables of “Bearings and distances between monuments.”

In 1881 it was decided that the Canadian Pacific Railway would cross the Rocky Mountains through the Kicking Horse Pass. By August 1883, the end of steel had reached Fort Calgary. Sir Sandford Fleming inspected the route laid out through the Rockies and Selkirks by Major A.B. Rogers, and proposed a national park. William Cornelius Van Horne, CPR general manager, also proposed a park, in the vicinity of Banff. When construction stopped for the winter, three railway workers went prospecting and discovered the hot springs on Sulphur Mountain. On 28 November 1886, twenty-six square kilometres were reserved as Canada’s first national park, which was called Rocky Mountains Park. The first superintendent was Dominion Land Surveyor and landscape architect, George Stewart. Further reserves were set aside in British Columbia in 1886, at Field and in Rogers Pass (the beginning of Yoho and Glacier Parks), and in Alberta in 1890 at Lake Louise (which was added to Rocky Mountains Park in 1902). In 1901 the Mount Stephen Park Reserve at Field was expanded to become Canada’s second national park, Yoho. Waterton Lakes was established as a Forest Park in 1895, Jasper in 1907, and Kootenay in 1920. The Dominion Parks were re-named Canadian National Parks in 1930, and the name Rocky Mountains Park was changed to Banff National Park.

The possibilities of drawing tourists interested in mountains encouraged the Canadian Pacific Rail-
way to build its mountain resorts, and the federal
government to establish the national parks. Many
of the early tourists were wealthy people with time
and money to spend in mountain climbing for
months at a time, all over the world. Some of the
climbers were quite skilled amateur surveyors and
mapmakers, and a few were asked to assist the
Geological Survey of Canada. In 1911 Mary Schaffer
Warren surveyed and mapped Maligne Lake at the
request of D.B. Dowling, “who felt that the infor-
mation would be valuable and that her fame would
help to advertise the beauties of the area.”

The provincial governments also saw the advan-
tages of tourism. The British Columbia govern-
ment established Mount Robson as its second
provincial park in 1913. There are now nine British
Columbia and one Alberta provincial parks in the
Rocky Mountains. The recently designated Rocky
Mountain Parks of British Columbia and Alberta is
one of the nine World Heritage Sites in Canada,
and is comprised of Banff, Jasper, Kootenay and
Yoho, and a massive portion of the Canadian Rocky
Mountains.

Once access through the mountains was estab-
lished, the focus became the land itself, and the
gaps on the map were gradually filled in. New
technology made the process easier, and increased
the accuracy of the finished products, the maps.
From the initial use of photo-topography developed
by Deville, through the beginnings of air photo-
graphy in forest surveying in the early 1930s, to the
latest applications of satellite imagery from 1972
to the present, the Rocky Mountains have changed
from an unknown impenetrable barrier to a chain
of beautiful mountains accessible to all, from the
armchair traveller with his illustrated guidebooks
and videos to a wide variety of tourists “on the spot”
with their guidebooks and maps (of various scales)
and cameras at the ready.

FOOTNOTES

1. Victor G. Hopwood, David Thompson:
Travels in Western North America, 1784-1812

2. “A Map of America...” in Notice Respecting
the Boundary Between His Majesty’s Possessions in
North America and the United States... (London: B.
McMillan, 1817).

3. Nakayama Motonori, MIRIKEN SHINZU
[New Map of America](Kaei 7 [1854]).

4. Carl Wheat, Mapping the Transmississippi
West (San Francisco: Institute of Historical Carto-
ography, 1957), v. 3, p. 45.

5. “The Terms of Union,” in Memorandum
Respecting Claims of British Columbia for Better
Terms (Victoria: King’s Printer, 1914), Appendix
A, p. 22, Clause 11.


of Canada (Folkestone, Kent: Wm Dawson & Sons
Ltd; Hamden, Conn.: Archon Books, 1981), pp. 15-
16.

Deville: ‘Father’ of Canadian Photogrammetric
Mapping,” in British Columbia Historical News,
v. 9 no. 3 (April 1976), pp. 19-20.


10. “An Act to Define the Boundaries of the
Colony of British Columbia ..., “ 26 & 27 Victoria,
c.83, Imperial Statute, July 28, 1863, in Appendix
to the Revised Statutes of British Columbia, 1871,
no. 36, p. 116.

11. Alberta and British Columbia Boundary
Commission, Report of the Commission to Delimit
the Boundary Between the Provinces of Alberta and
British Columbia (Ottawa: King’s Printer, 1917-
1928, 1955), 4 v. & atlas, 4 v.

12. W.F. Lothian, A Brief History of Canada’s
National Parks (Ottawa: Environment Canada,

13. Maggie Paquet, The B.C. Parks Explorer

14. Cyndi Smith, Off the Beaten Track (Jasper:
A Conversation with Stuart Allan, Cartographer

by

Peter Stark
Map Library
University of Oregon, Eugene

Most map librarians have come to know Stuart Allan through his spectacular color shaded-relief maps of the western states, produced by Allan Cartography and marketed through Raven Maps and Images since 1986. But his cartographic career began many years before at the University of Oregon, where he worked on Professor William Loy's Atlas of Oregon, which is used for educational purposes. Since the publication of this book, he has continued to work independently on cartography projects. He has collaborated with other University of Oregon geographers in the production of the Atlas of California. Since then, Allan has secured a unique place for himself in American cartography. Allan Cartography specializes in large-format, precision registry, contract map work, and, with the introduction of his large-scale shaded relief state maps, has taken this specialization to the average consumer. Allan is one of the few cartographers in America who has successfully sold his products in the general art-poster marketplace. His experiences as an independent cartographer and as a map dealer are explored in this conversation.

I drove to Medford on Friday, June 29, 1990, for a 10:00am appointment with Allan at his downtown studio. The studio is located in an older multi-story store front/office building on Medford's main commercial street. Medford's downtown, like many others across the country, has lost most of its business to the newer shopping malls and has been reduced to a shadow of its former commercial vigor. Allan Cartography helps keep the downtown some-

what alive. A long wooden staircase characteristic of turn-of-the-century business blocks leads to Allan's shop. Internal walls, which once separated offices occupied by insurance salesmen, lawyers, ticket agents, and the like, have been in the main torn down to create large drafting, camera, and duplicating rooms. The classic Older building, with large windows above street level and its high ceilings, gives the studio plenty of natural light and a sense of space. While on a tour of the studio, I noticed that the building's spaciousness was well utilized by the oversized equipment. The dominating presence of large drafting tables, cameras (the largest camera in Oregon), and other apparatus, as well as the large maps hung everywhere on the walls, makes it clear that this studio produces large-format work. I was shown several works in progress, including an Oregon wine country map and a large-scale hydrocarbon map of Trinidad commissioned by a well known oil company.

The informality of the work force in dress as well as in behavior owes much to the tone set by their leader. Allan totally lacks pretension and willingly does whatever needs to be done at the moment to further the business of the studio, such as moving equipment, answering the phone, running by the Greyhound station to pick up or deliver parcels and tubes, or making coffee. One might say that the following is more correctly an interview, but from my point of view the word 'interview' seems too prescribed. The informal nature of Allan and his studio environment leads me to adopt the word 'conversation' as the more accurate descriptor.

Stuart Allan is in his mid-forties; he radiates energy. He is a pleasure to talk to because he obviously enjoys discussing map design and the map making process. He is a thoughtful person with a wide range of interests beyond cartography. What was remarkable during our conversation and later when transcribing the voice tape was that
Allan generously shared his knowledge, experience, and considerable insight in a frank and articulate manner. He enjoys challenges of every kind and often gets sidetracked into a design intricacy or by a demanding phone call.

Allan is a cartographer who is most challenged by map color and design. We talked at length about his new map of the world created by presenting three globes rotated 120 degrees to show the entire planet. It is a marvel of color and imaginative design. Not entirely satisfied with the color on the first printing of his Wyoming state map, Allan decided to go for an eighth ink in order to make room for another band of color elevation tinting. The result is a more attractive second printing of Wyoming, and it reveals a reflective cartographer seeking ways to improve his past work.

The digital terrain models he has produced with Dynamic Graphics of Berkeley, California, assert that computer cartography need not be unsightly and uninteresting. In the computerized landscape model of the Rocky Mountains, Allan’s use of colors and added design embellishments, such as the curved data edge representing the curvature of the earth, the orange band of a sunset, a crescent moon, or a solitary shooting star, make the map a blend of art, design, and technology.

Allan often notes that maps are built, not drawn. He builds his state shaded-relief maps by obtaining U.S. Geological Survey feature separates of the agency’s state maps, such as planimetric or shaded relief features, then filling each elevation band with its own shade of green, yellow, brown, or gray. The state maps employ four green elevations, two or three yellow, and five or six brown, which are painstakingly put together piece by piece. As many as 40 sheets have to be prepared for the different elevation bands and other graphic details, on which seven or eight different colors of ink are applied during the print run.

The creative use of color, fine printing, and thoughtful design have yielded maps and computer generated landscapes attractive enough to be hung in galleries, offices, and homes. One of the markets that Raven Maps has successfully entered is the growing poster-art market. Michael Beard, Allan’s partner in Raven Maps and Images and its marketing director, is heartened by the public response to the maps. The detailed shading on the state maps gives such depth to the land forms that people often run a hand over the map’s surface. While I was visiting Beard in an upstairs office similar to Allan Cartography’s studio just down the block, a California retiree entered the office, purchased an Arizona map (his newly adopted state), and praised the map’s wealth of detail.

The state maps are by no means the final and only product marketed. It was interesting to hear both Beard and Allan discuss the secondary market. Once the basic state map has been built, thematic information can be applied to it, as, for example, the earthquake epicenter map of California and viticulture map of the same state (Susan K. Goter, *Seismicity of California, 1808-1987*, Reston, Virginia: U.S. Geological Survey, 1988, USGS Open-File Report 88-880, 1:1,000,000-scale; Donald Holtgrieve, *Vineyards and Wineries of California*, Medford, Oregon: Allan Cartography, 1989, 1:1,000,000-scale). There was some talk in the studio about making a thematic plate showing the extent of the Prince William Sound (Valdez) oil spill and printing this plate with the Raven’s Alaska state map. Portions of the state maps can also be reproduced; a recent example of this is the 1:500,000-scale map of Lane County that graces the cover of the new *Atlas of Lane County* which is an extract from Raven’s Oregon map (James E. Meacham, et al., *Atlas of Lane County, Oregon*, Eugene, Oregon: Lane Council of Governments, 1990).

What encourages Allan and Beard and what has made their unique enterprise a success is the enthusiastic public response to their maps. The general lack of geographic awareness in the country today probably stems partly from the lack of public exposure to well-executed and engaging maps, not from indifference. What Allan has discovered is that people will respond to an artistic presentation of geographic facts. We can all take encouragement from that!

The idea for this article was at least two years old and going nowhere until a sabbatical leave afforded me the time to pursue and complete my somewhat aged intentions. In light of this, I would like to thank the University of Oregon Library for its support of my sabbatical leave.

I am appreciative and gratefully acknowledge the kind support generously provided by Harold and Loretta Otness.
WAML: It might be best to begin by having you describe your cartographic enterprise.

ALLAN: Raven Maps and Images or Allan Cartography?

WAML: Let's start with Raven Maps and Images.

ALLAN: Raven Maps and Images is a partnership of Stuart Allan and Michael Beard. It's a map publishing and distributing company. All we are publishing at this point are products made by Allan Cartography, although we assume in the long run that we will be marketing other people's stuff as well. We rely on direct mail, which accounts for about 80% of our business. We do a fair amount of retail selling, but our principal business is catalog sales of the maps that we produce expressly for Raven Maps and Images. These are maps which I would have produced years ago if I had had any way of selling them. When Mike [Michael Beard] saw the work we were doing here at Allan Cartography five years ago, he said, "Gee, you ought to be publishing these." I explained to him that I had that experience once before when Mike Donley and I were partners in Northwest Cartographics and we learned that while making maps was a lot of work, selling them was just as big a job or bigger. You really have to have somebody full-time just doing that. Michael Beard took over marketing as a part-time job and ultimately, two and a half years ago, became full-time marketeer and distributor of the maps.

WAML: So Raven Maps and Images is the marketing arm of Allan Cartography.

ALLAN: Well, not exactly, in that it is different ownership. Mike and I are equal partners in Raven Maps and Images, a publisher and distributor, whereas Allan Cartography mostly does contract cartographic production work. Raven Maps and Images is a business that would have been very difficult to build ten or fifteen years ago. With fancy UPS computer label printing, computerized VISA invoice recording, accounting procedures like direct crediting of bank accounts, and 800 numbers, all this kind of thing has made Raven's success possible. There is quite a technology which has grown up around the need to separate people from their money. Current American marketing practice of selling by direct mail through catalogs serves us very well.

WAML: Allan Cartography does all the Raven Maps and Images work, but that's only a quarter of the work we do. Most of Allan Cartography's production is contract work for government agencies, oil companies, scientific organizations—anybody who needs a large-format precision map built.

WAML: Yes, I took a peek at a large proprietary map of world oil and gas prospects while on the tour.

ALLAN: Yes, we do a fair amount of that kind of work, and our specialty is large-format work.

WAML: How many people do you have working with you now?

ALLAN: Ten of us now with Allan Cartography plus five at Raven.

WAML: I talked briefly to Karen, a cartographer from Germany, who used to work for Nelles Verlag. Do you have an exchange program?

ALLAN: Yes, this is the second German cartographer I have had here; both of them came here via the Carl Duisberg Gesellschaft which gets young technically trained people posted overseas.

WAML: A practicum?

ALLAN: It's a practicum of sorts, although Karen, unlike the first student who was here, actually has had her diploma for some four years. There are three cartographic technical schools in Germany: Frankfurt, Berlin, and Munich. Cartography is an engineering degree by the way in Germany. Karen has her diploma and has been working at Nelles Verlag for four years. That's been a very good experience for all of us here to have a trained European cartographer. You virtually cannot get training like that here in this country. The schools that have a real cartography program, as distinguished from a course or two, are training people in computer cartography now. They are not training production people. Computer cartography is definitely the main wave of the future. If you read the American Cartographer— which has just changed its name to American Cartography and Geographic Information Systems—this tells you the way things are going. When people make the switch from a production orientation in cartography to plotting maps with computers, what happens is that the visual display and cartographic design tend to go
out the window and the systems people take over. Now you need the systems analysis mind in order to make automated systems work, and the things that can be produced through GIS and computer output in whatever form are absolutely wonderful. Typically, they are produced by people who have so little grasp of design that all the advantages of the computer are thrown out the window. The final output is just awful - most of the time. Of course that was also typical of hand cartography too. But you can do, for example, very detailed intricate choropleth maps of anything you are interested in: age structure, economic structure, voting patterns, any demographic statistics, in a way that could never be done accurately by hand. I am entirely in favor of cartographers using computer output, particularly for choropleth maps. Not only for that, but obviously, anytime you want to get cute with projections, a computer can do that practically for nothing. Applications are extremely important, they are critical, but what ought to happen in my view is that (computer cartography) should free the cartographer for design work. The cartographer should spend her time working on color, working on line weight issues, working on type, working on placement, working on page design. Unfortunately, what usually happens is that we get raw computer plots and these are presented as maps. They are not very good maps.

WAML: So modern cartography takes a combination of skills.

ALLAN: Yes, with the combination of cartographic designer’s eye and some computer output, you can do things with a push of a button that we could only dream about fifteen years ago. It is quite remarkable what can be done now.

WAML: How did you learn about mapmaking and graphic design?

ALLAN: Well, as a geography graduate student at the University of Oregon, originally from Mike Donley. I was working at the Lane County Health Department and taking evening courses at the University. In September 1972, I started as a full-time graduate student. The first year I was there I had taken Mike Donley’s cartography classes - all of them and at the same time I got started working on the Atlas of Oregon - when Bill Loy successfully received the necessary funding. Landing the Atlas of Oregon job really happened by accident. Since my background as an undergraduate was in history at UC Berkeley, the faculty couldn’t very well have me teaching any geography courses as a graduate assistant - I simply hadn’t had any of these courses as an undergraduate. Another graduate student, Wayne Fogg, was pulled off the Atlas of Oregon to teach an Asian geography course. Wayne had the Atlas job, so, when they pulled him off to teach, the job was open. I actually had some graphic production background in newspaper work. I had more art and graphics background probably than any other geography graduate student, but it was very little. So, I went to work on the Atlas of Oregon in 1974. At the same time, Mike Donley had been working on his Rogue River recreational map (Michael W. Donley, Rogue River Canyon: River and Trail Guide, Eugene, Oregon, Northwest Cartographics, 1976, 1:62,500), and I got involved with him in the publication of that map. That was where I learned never to turn your back on a press inspection, but to stay there all the way through.

WAML: Were there complications in the printing of the Rogue River map?

ALLAN: They gave us some pretty awful color. We should have stayed there, but we were told that we didn’t have to and we foolishly believed the printer. That was the last time I have done that. So, I just spent more and more time on the Atlas of Oregon - and Clyde Patton and I really became engrossed in amplifying the Atlas. In the course of the Atlas’ production, I got more and more interested in map design and production. I have been doing maps ever since.

WAML: Could you provide some essential details about the production and publication of the Atlas of Oregon and the Atlas of California?

ALLAN: The Atlas of Oregon was Bill Loy’s project. Clyde Patton was the text author and I was the associate project director in the end. I started out just being a research assistant, but I spent more and more time on it. Mike Donley was involved only peripherally on the Atlas of Oregon. After that, Mike Donley, Clyde Patton, Pat Caro, and I, the four of us, put together the Atlas of California for the distributor, Academic Books of Portland, who had distributed the Atlas of Oregon. To their surprise and everyone else’s the Atlas of Oregon was a great success and actually made money. So, Academic Books thought that an atlas of California would be more successful and we agreed. We put
one together. Basically, what we learned there was that you cannot sell an atlas for $50.00, or you couldn't back in 1979. The Atlas of California was not a commercial success.

WAML: Were there also distribution problems?

ALLAN: No, it was a problem of marketing and pricing, not distribution. Academic Books was a book distributor and they did not have any problems distributing it. The problem was the price.

WAML: Do you have any plans to revive the Atlas of California?

ALLAN: That would be a decision that Clyde Patton, Pat Caro, Mike Donley, and I would have to make in concert. We do own the copyright and we do have all the mechanicals and the printer's film here in Medford. We did talk to the University of California Press. They were willing to republish the Atlas and they did not really seem to blink at the cost, which was substantial; about $120,000 to get the Atlas back in shape ready to print. They were willing to pay that amount. Then they discovered we expected a royalty on top of that. Well, I should have known better. Academic presses reward people indirectly through tenure and merit increases. From our point of view - none of us is in the academic world any longer - all that glory and 50 cents will buy a cup of coffee. We need compensation in order to justify our time away from the other things we have to do. So, really, we have just let the Atlas sit. Ultimately, it should be redone.

WAML: What about the years after the Atlas of California?

ALLAN: I was already in Medford, in fact I had moved to Medford before we had gotten the Atlas of California started. I worked on that here and then started to do contract work. Bill Loy once again came to the rescue. He was at a meeting in Menlo Park right after the Atlas of California was finished and he called me up and said, "Boy, some people down from Anchorage need somebody to do the cartographic work for a coastal zone management atlas" (Anchorage Coastal Resource Atlas, Anchorage, Alaska: Anchorage Planning Department, Physical Planning Division, 1980). So, I got a hold of them. That was the first big contract which paid for the initial plate burning and other equipment that I needed. And then it's gradually picked up over time.
in effect, you fly around the entire mountain. On the St. Helens views what I was trying to do on this two color print was really to replicate the medallion pattern of a tribal carpet.

WAML: Then you moved to the San Francisco Bay perspective?

ALLAN: Yes, the next one was the San Francisco Bay area, and what we were doing there was to create a computer view using the colors and paper texture of a Japanese woodblock. The subsequent poster projects with Dynamic Graphics got much more complex and more expensive to prepare and print.

WAML: Like the view of the Rocky Mountains?

ALLAN: The view of the Rocky Mountains is the last thing we have done. We will probably do another. We are in touch with Dynamic Graphics. These products have elicited a very enthusiastic public response. In fact that is why we started Raven Maps. Dynamic Graphics, Pikes Peak Litho, the printer, and Allan Cartography had been giving these computer-generated views away free as calendars. And they worked. Everybody knows about us.

WAML: A good marketing tool.

ALLAN: Yes, as a marketing technique it worked well. They were so successful that we thought, why are we giving them away, let’s sell them. They were successful for Dynamic Graphics, which is really a leader in a very specialized form of visual imagery. It was costing them at commercial rates for programming time probably $100,000 to $200,000 for each of these projects. The Rockies was the first time, as far as any of us knew, that anybody had draped a mesh terrain model on a spheroid to simulate the curvature of the earth. We wanted to do that both for artistic reasons and for a very practical consideration and that is, that the emotional, intuitive response to a terrain model tends to be blocked by the data edge of a conventional block model. The kind of block diagram that geologists have been doing by hand for years is now being done almost entirely by computer from digital topes, Tau Rio Alpha being one exception. People love block diagrams because they can see exactly where they are. They simulate the effect of flying over the area and they provide a perspective you cannot get with a flat map. So far so good, but you come to the edge of the data, and all of a sudden it looks completely unnatural. Well, we solved that problem. I proposed a solution and Dynamic Graphics executed it, which cost them a fortune, by figuring out how to project the data onto a spheroid. Now that is a standard part of Dynamic Graphics’ package. That means that you do not have to have an unlimited amount of data. You can have the data for your part of the world, you can put it on a curve, and you have a horizon.

WAML: Nicely rounded off - an excellent finishing touch.

ALLAN: It’s a small thing, but it makes a difference. That was expensive to do and it’s been very successful. Dynamic Graphics owns the copyright on the Rocky Mountains image and we pay them a royalty on all copies which we sell through Raven Maps. But they are not anxious to do another one. We have talked a lot about doing an east-coast view, probably including the bathymetry, off of New England and the North Atlantic states, but it would be a major project for them and they are really much too busy. They sell the software to create images like the Rockies for about $150,000 plus another $20,000 per year for upkeep and maintenance. Anybody with a Macintosh in his office can create the St. Helens view in no time. The more complex view cannot be quickly produced, but probably in five years a PC will be able to create more complex images. It’s really evolving very fast.

WAML: These digital terrain models caught the attention of Michael Beard, you two met, and together you decided to market more products?

ALLAN: That’s right. He came by to see what we were doing. He was so impressed he thought that he could market them. And we had some success in marketing them, but of course we learned again what we already knew - Mike from his background in marketing and I as a result of my experiences with Mike Donley and Northwest Cartographies - which is that it is a major effort to market maps; it’s a full-time job. At the same time I had been working on a state map of Oregon for a long time. It had been an interest of mine ever since the Atlas of Oregon. In the index maps of the state that appear in the back pages of that atlas, we merged the 1:500,000 state USGS shaded-relief map with the planimetric data. Those maps are printed in sections in the Atlas of Oregon. The prosemen who were working on that printing were so taken with
the map that they took to make a sixteen-page mosaic of the whole state. So I thought, we really ought to take the whole state and put together on one sheet the planimetric data with the topography and shaded relief. Let's put elevation tints in as well. It was an obvious thing to do. I thought 500-foot contours were much too fine, so we very laboriously opaqued out every other contour and made peel coats. We did our first color proof with 1000-foot contours. We realized afterwards that was idiotic. There is no problem with a finer contour interval. It shifts the constraints on color choices, of course, because when you have more categories you have to choose colors a bit differently. Michael Beard was also impressed with the Oregon map. We thought we could sell some of these Oregon maps, but, really, we ought to do the other states in order to justify the marketing effort. There is that problem that you have to have enough products to pay for the marketing effort and the marketing staff, but in order to have the products, of course, you have got to have money to make them. Well, we financed production work on a shoestring out of Allan Cartography's other earnings, which had always been marginal. They are now substantial enough that I actually pay myself a little bit every month, but for ten years I was not able to do that and my wife supported the family. Allan Cartography did the production work while supporting itself. The costs of printing and marketing were ultimately financed with a bank loan. That was about three years ago.

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<tr>
<th>WAML: Can you describe the production of your state maps?</th>
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<td><strong>ALLAN:</strong> The state maps were all basically the same approach, but we varied some things from state to state, and we now have a system down. It took awhile to evolve it though. The states are 1,500,000 bases. We had to shoot New Mexico, Nevada, and Arizona down to 1,550,000 in order to accommodate the 44 x 65 inch press we were working on. We had to shoot Montana down to about 1,600,000. California is at 1,750,000. The Geological Survey did not publish California at 1,750,000 at all. They published it at 1,500,000 in two sheets [topographic base] and 1,1,000,000 [shaded relief] in one sheet. So we enlarged the 1,1,000,000 sheet and reduced the 1,500,000 and put them together. It was a minor nightmare, but now we have all the pieces. We are now currently working on Texas at 1:1,000,000.</td>
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<td>WAML: What aspect of cartography do you really like to do day to day?</td>
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<td><strong>ALLAN:</strong> I like to design map layout and color. I used to do all the production work here, but I do very little now. This is about a half million dollar a year business, so that means I am doing a lot of administrative work. I am on the phone, paying bills, writing letters, and trying to drum up new work. We always have many irons in the fire; lots of projects that may happen a year from now, or projects that we are in the middle of, or projects we are revising. I am on the phone an awful lot.</td>
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<td>WAML: You remain the final arbiter of map design, correct?</td>
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<td><strong>ALLAN:</strong> Yes, although in many cases there are not a lot of decisions to be made on design - if we are taking about contract work. For Raven Maps, really it comes down to the color scheme, exactly where we want to trim, where we want to put the title, and where we will put the legend box. The basic map is the state. We kind of compromised on our first printing of Washington state. We put in blue for water. We did that because of the problem of Vancouver Island and Puget Sound. We had to establish some sense of figure ground. I think that was a mistake and on our reprinting, we left the water fill out entirely for the ocean and Puget Sound. We simply indicate with a blue coastline where Vancouver Island is, which makes sense out of the type for the Strait of Juan de Fuca.</td>
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<td>WAML: Do you like solving problems like that?</td>
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| **ALLAN:** Oh yeah, that's a lot of fun. I made some bad decisions early on. They were financial decisions, but they turned out to be false economies. We ordered a single composite sheet of roads and type, which was absolutely crazy. A single piece of film from USGS saved us money, but, of course, after that we had to go back and separate out the type, then make an enlarged spread and a contact knock-out positive of that in order to get the roads out from under the type. Now we get everything separately. For the first time in our eastern states and our Wyoming reprinting two months ago, we finally have gone to an eighth ink for the roads. One of the reasons for that is in our printing we try to get all of the elevations, tints and drainage, or all the stuff which is critical in achieving proper registration, on the first four colors. So we are printing a dark blue, yellow, a brown, and a dark gray on the
first pass on a four-color press. That includes drainage and all elevation tints. Then on the second pass, we print two shading inks, a highlight in a medium purple, and a full range shading in a light gray/brown, then roads and railroads in a rust red and type in black. One of the reasons for doing that is that we are able to shut off the last two color units and get a few dozen sheets that have no line work or type on them. These are suitable for color separation and reproduction by four color process at other scales. We sell portions of our state maps to advertisers, for example.

WAML: Is there a secondary market?

ALLAN: Yes, for our state maps or portions of them. Continuing with the subject of color, an awful lot of the received wisdom in American cartography is based on the principles that have evolved by people who have been doing monochrome, black and white work for journal reproduction. Black and white work is much more difficult than color work, but technically less complicated to print. From a design point of view, black and white maps are a nightmare. It is extremely difficult to do well and it is hardly ever done well in professional academic cartography. Everybody who has been through the program is familiar with these wretched British forty-seven different patterns drawn with ruling pens for choropleth maps. These things are simply exercises in torture. You could say that it's a very perverted mind that would think that they were anything other than exercises in technical craftsmanship. Anyone who thinks he can communicate thematic map information this way is simply deceiving himself. Once you are into color cartography, the technical requirements of production, of course, are much more complicated. You are not just sending something to a camera. The design considerations become more complex; however, in some respects, they also become much easier. You can actually manage to show all kinds of things if you have a full range of colors to fool around with, and you get the full range of colors with process color, but there are constraints. In practice we find that maps of the first quality are going to need a fifth ink for something, contours in brown for example. Brown is a very difficult color to get from a four color process. You will see some very sophisticated publications where, if you look closely, you will realize that the contours are printed in a screened red. That is one way around the problem of a fifth color. If the map is more complex and you need a little more subtlety, then you go to a fifth or a sixth ink. Process, plus brown contours, plus gray, so that you can have fine cultural features, for example, without putting holes in the map by screening black. That would be a very typical arrangement. So, you design most things with six colors - process, plus two.

WAML: What do you consider to be your best work?

ALLAN: The best of the computer graphics was the Hawaiian Islands, although it does not have the impact of the Rockies. I am very pleased with the way the Rockies turned out. Technically, I think that the Hawaiian Islands is a most spectacular piece of work, although commercially less successful than the Rockies. Of the other series of state and national park maps, I suppose the Yosemite map is probably the best.

WAML: When did you decide to produce a series of national park maps?

ALLAN: I have a character defect. I always want to have about a hundred maps in the works. Actually, the very first map that we did, even before the Oregon map, was a Crater Lake map. David Imus of Eugene had a contract to do a map of Crater Lake and we had the Crater Lake separates, including the shaded-relief plate in the shop. We were doing some reductions, camera work, and film processing for him. I was so taken with the original USGS shading - a particularly beautiful piece of work - I thought, gee, here is a chance for us to experiment with different color schemes. It is small enough that we could do it without spending an arm and a leg. Crater Lake is essentially a truncated cone, an inverted cone at that. So, it's a textbook situation where we could play around with different colors - different colors for shading, different half-tone values, different elevation tints. We duplicated the USGS materials that David had gotten in the first place, we peeled the elevation tints, and we peeled the bathymetry within the lake itself. We had to come up with another source for the bathymetry, but that was no problem. We probably went through fifteen different sets of composites of color proofs to get the effect we wanted. I was up at a Pacific Coast Geographers meeting in Eugene when we first had the various alternative color scheme proofs of Crater Lake and also of Oregon. I had a nice chat with Sam Dicken* and other geographers about the color scheme. That must have been five years ago.

* [Samuel Newton Dicken (1901-1989) joined the
University of Oregon faculty in 1947 as a professor of Geography and chaired the department from 1947 to 1963. He was granted Emeritus status in 1971, but continued his research on Oregon geography and authored, with his wife Emily, the two volume work *Two Centuries of Oregon Geography.* Published by the Oregon Historical Society, Volume one, *The Making of Oregon: A Study in Historical Geography,* 1979; Volume two, *Oregon Divided: A Regional Geography,* 1982, these remain the best monographic study of the state.

WAML: You also exhibited your work up at the Western Association of Map Libraries Fall 1986 meeting that was held at the same time as the Association of Pacific Coast Geographers.

ALLAN: Right! Four years ago then. We did Crater Lake first. Then we did Yosemite. We had a wholesale order from the people who run the concession at Crater Lake. They were very enthusiastic about the maps. What we have discovered is that they do sell, but they do not sell as well as the state maps. We think that just from a business point of view, we need to have a larger customer base than we have now to effectively market the two national park maps already in our catalog, and the half dozen national park maps we have in various stages of construction.

WAML: Which are those?

ALLAN: We have Yellowstone ready to print. We have the Grand Canyon ready to composite. We have Death Valley ready to go and a number of others. But the same resources will return more money at this point if put into more state maps. Ultimately, we will do all the national parks. We have the Great Smokies ready to go, for example. But that is something we have to postpone for a couple of years simply because of the realities of marketing. People understand why they would want a map of their state. They would have to have a more specialized interest to buy a map of a national park. Which is a little odd if you think about it.

WAML: So here is an example of how marketing considerations can influence your activities as a cartographer.

ALLAN: Yes, they can defer one project and put another one on the fast track. Of course, with the western states, we sell more California maps than anything else. Per capita, we sell more Oregon maps. Alaska is right up there; Alaska is a map that people from all over the place buy. Montana, curiously, is the same way. Wyoming, to my surprise, is not. I would have thought that plenty of people in the mid-West would have been buying Wyoming. They buy Montana, but they don't buy Wyoming so much. Utah is the least successful of the state series; I think Utah is the most beautiful of all the state maps. That is because the landforms there are so abrupt for one thing, and for another, the shading is particularly good. For Arizona and Utah the original USGS shading is extremely good. Utah sells very badly and we joke that we mistitled it. We should have titled it “Deseret” and then we would have sold them by the carload. From a strictly commercial point of view, I suppose what we should have done is simply make the California map alone. On the other hand, it has been of some value to us that we have all the western states. We now have, in addition to the western states, Alaska and Hawaii, and the northeastern states.

WAML: And those northeastern states are...

ALLAN: We have Maine, Vermont and New Hampshire together, and southern New England, which includes Massachusetts, Rhode Island and Connecticut - the six New England states in three sheets. We have New York ready to print. Pennsylvania and New Jersey are close to being printed, but we may not have them ready this year. The fact that we are producing consumer items means that we sell most of them before Christmas. In fact, we will be meeting in an hour and a half with the designer of the Christmas catalog. Here it is, not quite July, and we are designing our Christmas catalog that has to be printed by the first of September.

WAML: Why the big jump to the east coast?

ALLAN: Well, we have done the west and obviously the next population center is in the northeast. I would be very happy now to do North and South Dakota and Nebraska for which shaded relief exists.

WAML: Some very nice shaded relief.

ALLAN: Yes, very nice shaded relief maps of the Dakotas and Nebraska exist. They are very interesting because the landforms of those states are far from flat. But realistically, those are going to take
a long time to recoup our investment on. We will do them, absolutely, but we will recoup our investment a hell of a lot faster in New York than we will doing Nebraska, which is going to cost just as much.

WAML: As far as you know, do you think the USGS is getting out of shaded relief maps?

ALLAN: They certainly seem to be doing that. They let some of them go out of print, which is fine with me, of course, from a selfish point of view. As a taxpayer I am outraged, but as a vendor of maps that uses their material, I think it is a fine thing. We have bought most of the other states where shaded relief exists. The only states we have not gotten, and we will purchase them soon, are Wisconsin, Arkansas, and Missouri. We have the materials for Texas and are now working on it.

WAML: So you keep track of what the USGS publishes?

ALLAN: Yes, very much so. In terms of the state maps, what they don't publish is also important. The GS is making the move to digital in a big way and that makes sense in most respects. I don't fault them at all for doing that.

WAML: Do you watch other commercial firms and take note of their products?

ALLAN: Yes, as a cartographer I am always interested. As a publisher, I am interested in another way, of course. We have talked to Nystrom and Rand McNally about joint ventures of one sort or another and about their distributing some of our maps. Of course, Rand McNally sells our maps in their retail outlets. Rand McNally is the giant in this field. They have, I have been told by someone who used to work there, some 2,400 employees and only 200 have anything to do with mapping. Rand McNally is basically a ticket printing firm. They are the ones that print the airline tickets that you use. They market some first-class work, which they typically buy from someone else.

WAML: David Imus in Eugene sold the rights to his Eugene/Springfield map to Rand McNally.

ALLAN: Yes, David Imus for a local map, or Esselte in Stockholm for an international map. Of course, they are perfectly capable of producing first-rate work, but that is not a business that's run by cartographers. If it were run by cartographers, it would have gone broke years ago.

WAML: Have other commercial firms ever determined what products you might put on the board?

ALLAN: No. But I should say they may in the future. DeLorme's 1:150,000 state atlases come to mind. They use the USGS 1:100,000 series and reduce them to fit their atlas format. Those are products we recommend to everybody. Everybody ought to have their state in the car. They don't have Oregon yet, but they soon will have. They do have Washington and northern and southern California. Cartographically they are not interesting. On the other hand, what they are doing there is commendable and it's an absolutely mammoth undertaking. It inspires us to think that, starting with California probably, an atlas, in an 11" x 14" format, saddle stitched, 40 pages, built around our materials, is possible. We would re-write the roads and re-letter, because lettering and roads are minor elements on the maps as the USGS designed them, but if you are going to sell them as travellers maps, you need to redesign that component. We would probably subdue the elevation tinting and shading to make it not quite as dominant, so that the road and lettering information would stand out. I have used our 1:500,000-scale Colorado map while driving around the remote sections of that state and I have been pleased and surprised to discover that it has been the best road map I have ever had. You can see exactly where you are as opposed to the traditional schematic American road maps. The Europeans, of course, have shaded-relief road maps of the first quality, especially those issued by the Touring Club Italiano, Nelles Verlag, and Kummerly + Frey.

WAML: Do you remember the first map that made an impression on you?

ALLAN: I remember the first map very clearly. Well, two of them. The first one, of course, was the wonderful relief map of California that was up on the wall in the Ferry Building at the foot of Market Street in San Francisco for many years. That thing has since been dismantled and is in pieces in a warehouse in Sacramento and probably will never be hung again. I was entranced by that as a small child. Then, in 1949, when I was seven, my family went up to the opening of the Central Valley Project in Sacramento. There was a big ceremony. My father was an agricultural economist by training
and he was very aware that this event was a significant historic moment. He wanted us to be there. I arrived at the ceremony enthralled with visions of the governor pushing a button and a wall of water would come down somewhere. I was really looking forward to this, but of course what happened was he pushed a button which started turbines along the project somewhere, or some critical locks opened for the first time, and the water started flowing. We could not see that, so, I thought the ceremony was very disappointing. But my disappointment was entirely compensated by the huge relief model of the Central Valley Project. This was a model of the Sacramento Valley on a sand table made of plaster. I am guessing this thing was probably 1:125,000-scale—might have been an inch to a mile. I don’t know. It was big. It had every canal, the whole drainage system. Magnificent thing! That was 1949. Boy, I was entranced!

WAML: Interesting that both of these maps were relief maps, your specialty.

ALLAN: Yes, both relief maps. The sense that you could actually see everything that was going on was magic for a kid. I grew up in the Berkeley hills. The Bay was spread out in front of us as was Marin County and the Golden Gate Bridge, which was new in those days. I had a very vivid sense of that just growing up in that setting, but then to be able to jump from that piece of the Bay, probably about 80 miles on a clear day, to the relief map of the Central Valley Project, you could see 300 miles! So that was a formative experience and I must say that the experience that got me into in geography in graduate school was very specifically cartographic. My wife was already in Law School. She was studying all weekend for winter exams her first year and I was wandering around the campus at the University of Oregon after a very heavy snowfall in 1972. I went into a building and by pure chance it happened to be Condon Hall. I came around a corner and there was the 1:500,000-scale, perhaps it was larger, WPA plaster relief map of Oregon. I must have spent ten minutes staring at that. That evening, I asked my wife to go down to Condon Hall as I was working at the Lane County Health Department, to find out what it took to get into the geography program. Any place that had maps like that around is where I want to be.

WAML: Another relief map.

ALLAN: Another relief map! That’s it exactly.

Exactly. What we have done in our state and park maps is try to convey three dimensionality, convey relief, with a combination of elevation tinting and shading. To the extent that the Raven Map series represents a kind of a genre in cartography, that is it.

WAML: What role have map libraries played in your career and also in your student days?

ALLAN: Well, in both my student days and still as a publisher, I need a source for maps and obviously, we have to have a map library. Having the University of Oregon Map Library and, to a lesser extent the Southern Oregon State College Map Library, has been invaluable. Between interlibrary loan and direct reference inquiries, they have made an enormous difference to us. You just have to have a resource like that. The map libraries are, interestingly, a market of really no significance at all. In the production end of cartography, map libraries are indispensable—critical. At the marketing end, map libraries are few and tend to be slow to pick up on new products. We send our catalogs to all the map libraries. We will send out catalogs literally in the hundreds of thousands near Christmas time from mailing lists, and we include map libraries on our mailing lists. Map libraries tend to be starving and have to be very careful in what they buy. They tend to buy what they have already bought. But it is unbelievable to me that any map library would not want a Raven map of their state. I think there are many map libraries which have taken years to get around to discovering us and ordering from us. Librarians do tend to be conservative people. Their tasks require a person with a sort of a conservative approach. You have to be thinking in terms of conserving materials, of keeping track of maps, and building systematically. These are traits that are antithetical to the American consumer ethic. And let’s face it, that’s who we are marketing our maps to and that is how we are marketing our maps.

WAML: Finally, are you keeping track of all the maps that you have published over the years?

ALLAN: I am counting on Harold Otness to do that!

WAML: I will certainly tell him of his responsibility as soon as I can. It has truly been a pleasure talking with you this morning. Thank you very much for the tour and your time, and before I go, I
will thank Mike Beard for his hospitality.

ALLAN: Well, I enjoyed it too. Thanks for coming.

[A sales catalog containing all the map products distributed by Raven Maps and Images can be obtained by writing to Raven Maps & Images, 94 North Central, Medford, Oregon 97501 or by calling toll free, 1-800-237-0798.]

SOFTWARE FOR TIGER

UPDATE: list dated June 1990 of graphic information system vendors that have informed the U.S. Bureaus of the Census of their capability to process TIGER/line files.

Address Information Mapping Services, 8403 Rockwood Lane, Austin TX 78758

American Digital Cartography, 715 West Parkway, Suite A, Appleton WI 54914

Caliper Corporation, 4819 Cumberland Avenue, Chevy Chase MD 20815

Chadwyck-Healy, Inc., 1101 King Street, Alexandria VA 22314

ComGrafix, Inc., 620 E Street, Clearwater FL 34616

Contemporary Technology Corporation, 3701 West Alabama, Suite 460, Houston TX 77027

Coresoft Corporation, 514 2nd Avenue West, Seattle WA 98119

DeLorme Mapping, Main Street, POB 298, Freeport ME 04032

Digital Wireless Corporation, 1 Progress Boulevard, Suite S10-01. Alachua FL 32615

Dynamic Ventures, 992 Inverness Way, Sunnyvale CA 94087

EAI Systems, 13770 58th Street, Suite 315, Clearwater FL 34620

Educational Data Systems, Inc., 901 Campisi Way, Suite 160, Campbell CA 95008

Education Logistics, Inc., 1024 South Avenue West, Missoula MT 59801

Election Data Services, 1522 K Street, NW, Suite 626, Washington, D.C. 20005

Enforth Corporation, 432 Columbia Street, Cambridge MA 02141

ESRI, 380 New York Street, Redlands CA 92373


Etak, Inc., 1435 O'Brien Drive, Menlo Park CA 94025

Facility Mapping Systems, Inc., 38 Miller Avenue, Suite 11, Mill Valley CA 94941

Frost Associates, Inc., 3 Navy Lane, Essex CT 06426

Geobased Systems, 12526 High Bluff Drive, San Diego CA 92130

GENASYS, Inc., 2629 Redwing Road, #330, Fort Collins CO 80525

Generation 5 Technology, Inc., 8670 Wolff Court, Westminster CO 80030

GeoBased Systems, 12526 High Bluff Drive, Suite 160, San Diego CA 92130

Geographic Data Technology, Inc., 13 Dartmouth College Highway, Lyme NH 03768-9713

Geographic Systems Corporation, 504 North Adams Street, Green Bay WI 54301

Geographix, Inc., 156 North 3rd Street, Philadelphia PA 19106
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<thead>
<tr>
<th>Geosoft Corporation</th>
<th>Montage Information Systems, Inc., 1050 Oakbrook Drive, Suite 435, Norcross GA 30093</th>
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<tr>
<td>3533 Old Conejo Road, Suite 127, Newbury Park CA 91320</td>
<td>PlanGraphics, Inc., 202 West Main Street, Suite 200, Frankfort KY 40601-1806</td>
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<tr>
<td>GIS Corporation, 7927 Jones Branch Drive, Suite 100 W, McLean VA 22102</td>
<td>Recordata West, Inc. 2501 West Burbank Boulevard, Suite 202, Burbank CA 91505</td>
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<tr>
<td>Hydro Quebec, 201 Garry Street West, Montreal, Quebec H2P 1S7, Canada</td>
<td>Sammamish Data Systems, Inc. P.O.Box 70387, Bellevue WA 98007</td>
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<tr>
<td>IBM Corporation, Neighborhood Road, Kingston Road, Kingston NY 12401</td>
<td>SAS Institute, Inc., SAS Circle, Box 8000, Cary NC 27512-8000</td>
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<tr>
<td>Intelligent Computer Engineering, Inc., 17A Landing Lane, Hopedale MA 01747</td>
<td>Strategic Mapping, Inc., 4030 Moorpark Avenue, Suite 250, San Jose CA 95117-1848</td>
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<tr>
<td>Intergraph Corporation, One Madison Industrial Park, Huntsville AL 35807-4201</td>
<td>Street Map Software, 1014 Boston Circle, Schaumburg IL 60193</td>
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<tr>
<td>Intelligraphs International, 20925 Watertown Road, POB 828, Waukesha WI 53187-0828</td>
<td>Synercom Technology, Inc., 2500 City West Blvd., Suite 1100, Houston TX 77042</td>
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<tr>
<td>International Computaprint Corporation, 475 Virginia Drive, Fort Washington PA 19034</td>
<td>TerraLogics, 114 Daniel Webster Highway South, Suite 256, Nashua NH 03060</td>
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<tr>
<td>Keystone Management Systems, Inc., 522 East College Avenue, Suite 200, POB 10830, State College PA 16801-5538</td>
<td>Tidewater Consultants, Inc., 160 Newton Road, Suite 401, Virginia Beach VA 23462</td>
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<tr>
<td>Klynas Engineering, POB 499, Simi Valley CA 93062</td>
<td>TYDAC Technologies, Inc., 165 North Fort Meyer Drive, Suite 320, Arlington VA 22209</td>
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<tr>
<td>Labtek Corporation, 8 Lunar Drive, Woodbridge CT 06525</td>
<td>U.S. Statistics, Inc., 1101 King Street, Suite 601, Alexandria VA 22314</td>
</tr>
<tr>
<td>Logistic Systems, Inc., 1024 South Avenue West, Missoula MT 59801</td>
<td>Wild System 9, 373 Inverness Drive South, Suite 207, Englewood CO 80112</td>
</tr>
<tr>
<td>McDonnell Douglas, 700 West Center Road, Suite 402, Omaha NE 68106</td>
<td>XiCAD North American, Inc., 300 Broad Street, Stafford CT 06001</td>
</tr>
<tr>
<td>MapInfo Corporation, 200 Broadway, Troy NY 12180</td>
<td>ZYCOR, Inc., 220 Foremost Drive, Austin TX 78745-7324.</td>
</tr>
<tr>
<td>M.A.P. Systems International, Inc., 258 Broadway, Troy NY 12180</td>
<td>For more information about TIGER/Line Files on tape or CD-ROM call (301)763-4100 (voice) or (301)763-1568 (modem).</td>
</tr>
</tbody>
</table>
Your Editor just can’t resist this stuff! — for example, from The Cockpit, 47-10 33rd Street/POB 019005, Long Island City NY 11101-9005: Briefing-map (China) underwear, 100% cotton (silk would have been, geographically speaking, far more appropriate); #75205, S, M, L, XL, $14.50. Although I must say, I’ve become a bit picky. I see some bright soul selling one of the DMA world wall maps for $80 and I scarcely even quiver; a scrimshaw Sir Francis Drake globe for $130, old-world map maps and coasters (for the cultured table - actually, these may be rather fun to use) for about $50, and my eyebrows may raise a hair. I hold out for such tidbits (in one case, literal) as the following:

- a giant chocolate map of Hawaii; #20883, $9.95, from Mauna Loa Macadamia Nut Corp., POB 1772, Peoria IL 61656
- one of the libraries at the University of Texas at Austin is actually shaped like the state of Texas
- from World Impressions, Inc., 1493 Beach Park Blvd., #102, Foster City CA 94404 (California has a great deal to answer for, one way and another), c1989, the Official National Football League ArtMap (TM) postcard
- the New Road Map Foundation, POB 15981, Seattle 98115 asks, “Can you soar like an eagle if you spend like a turkey?” For $60, they’d be happy to help you turn your life around; as Larry Cruse (who sent me this gem) puts it, “Caveat emptor.”

All joking aside — I’m glad to echo the Design & Production Magazine for October of 1990 (p. 58) in saying that it’s true that the “most ubiquitous icon” of the 1990s is the Earth. It’s about time.

The American Library Association (50 E. Huron, Chicago IL 60611) this year has one of its posters, called “Home Sweet Home,” with Bugs Bunny perched on top of a globe, reading a book.

Things getting slow in the map library? Perhaps you need to offer another service, like, say, a quick hand of bridge. Y&B Associates (33 Primrose Lane, Hempstead NY 11550) will be happy to sell you playing cards with maps of major cities printed on the faces of a full deck of 52 cards plus 3 jokers. Each card covers a small area of the city, and presents the location of all major streets and places of interest; together the cards provide a full map of the city. Their brochure informs us that, “Playing cards with maps on their faces can be traced back to 1590 when the first such deck appeared in England. Each card showed a map of one of the counties of England and Wales along with other information about the area. Over the centuries, many such cartographic decks have been published throughout the world. All of these decks were intended to be educational rather than useful maps [Ed.: !]. In 1979, about fifteen years after the first map depicting roads was published, John Lenthall, a playing card manufacturer in London, took that map of the British Isles and cut it into 52 sections and stenciled suit markings on each to form a deck of cards. Although the cards did form a complete, detailed map, since he did not include any means for determining the card location for any particular city the cards never became popular, and no other decks such as this were published until the present series of Map Decks. Thus, these decks can trace their ancestry back almost 400 years, yet represent only the second time playing cards using the principle of a jig-saw puzzle to form a large map has been used. They are also the first cartographic decks to present city plans.” $6.00 plus $1.50 shipping; NY & London currently available - Amsterdam, Paris, Rome, DC, San Francisco, Chicago, Boston, Montreal, Toronto in preparation.

As in Cartography
For a future issue of the IB, Rosanna Miller will be talking about Cartographic Designer Prints of California, but your Editor wanted to have a notification of the firm’s products in this IB. As with all maps, it’s a bit difficult to explain what they’re like; they give the appearance of abstractions of geography, very formalized, with rather a block-diagram look to them. Jeffrey Kowal, the artist, says: “Actual features - usually roads and highways - are subjected to a formal analysis submitted for expression through the inspiration of modern art. Emphasized are the easily and long overlooked aesthetic and symbolic properties of the map that now find use in contributing and supporting a vision or revision of ‘place.’” Over thirty compositions are available, as 4” x 6” color photographic prints priced at $5 per copy; subjects covered include Sacramento, Lompoc, Arizona, Dallas, and Tulsa. Direct enquiries to: Jeffrey A. Kowal, P.O. Box 163562, Sacramento CA 95816.
ADVANCING BY DEGREES: THE ROAD NOT TAKEN

by

Carlos B. Hagen-Lautrup
University of California, Los Angeles

Part II

After the account, in the first part of this two-part article, as to how I entered into the world of libraries, I would next like to mention the important ethical and professional issues that we are bound to face in this environment.

The Librarian-Scholar

In retrospect, I can only say that I was extremely naive when I found myself recruited for library service during that unique period in American academia, the “Post-Sputnik—pre-Vietnam War” era. There was in all likelihood no malice in the UCLA administrators who were, to a great extent, unwittingly responsible for wrecking my academic and research career in order to recruit me for library service. I do believe that they showed immense naivete when they promised me the rosy future of the librarian-scholar they envisioned for the future of American academia. It worked, because in me it struck a familiar and sympathetic chord. In the Latin American and European milieu in which I grew up, the librarian-scholar has always been a respected working reality. Top specialized library administrators have always been well recognized, practicing authorities in their respective fields. Through their vision and their professional research activities and contacts, they provide the overall direction and development of a major collection, a vision that in turn is carried out by their technical staffs. The librarian-scholar was only one of many new concepts and visions that blossomed in the U.S. during that “Post-Sputnik—pre-Vietnam” era, when millions upon millions of dollars were lavishly poured into American universities by a government intent upon the scholarly surpassing of the Soviet Union. But anyone with a sense of perspective in American history would have realized that this was not the “luminous dawning of a new era,” as most university administrators of the time fondly seemed to believe. Such an unprecedented outpouring of resources for American universities was unfortunately only an anomaly, a fluke, prompted by an intense and temporary competitiveness; the book, Anti-intellectualism in American life, by the late American historian, Richard Hofstadter, offers a far truer picture. And that lavish era did indeed come to a screeching halt during the Vietnam War and the long following years of inflation, budget deficits, and the anti-intellectual legacy of the Reagan period.

And yet, even today, I remain a staunch advocate of the librarian-scholar concept. In my case alone, I can mention many instances in which I have been able to obtain for UCLA unique gifts, exchanges, depository arrangements, or other favorable treatment, just because I was able to pick up the telephone or write a note to some key administrator of a mapping agency or governmental department, in each case speaking not as a librarian but as a professional colleague, speaking the same language, sending papers or articles I had written, or even offering technical advice - in other words, establishing with them a professional contact from a practicing geographer and cartographer to another practicing geographer and cartographer, not from someone who may have a secondary interest in the subject, but rather from a researcher whose main interest and activities take place in that particular discipline. Sadly, today this concept is virtually defunct in American academia. The emergence of a library technocracy infatuated with automation technology, coupled with an almost chronic oversupply of librarians and the resulting insecurity of librarians, has dealt a mortal blow to that concept. Today, almost uniformly, library administrators look askance at the idea of scholars from outside of library science being placed in top positions. This happens even in the case of specialized collections and materials, where, I firmly maintain, such a practice is not only justified, but is a vital necessity.
The only place where the concept is still jealously preserved is at the Library of Congress. There, the head of every major division must be - above everything else - a respected, well-published, nationally and internationally known authority and researcher in the specialized area represented by the division directed.

Library Profession

Coming into the library world, to me the most admirable trait I have seen, and in so many librarians, is the most intense dedication, stoicism, and devotion to public service. In this regard, librarians find a counterpart in groups of workers such as nurses or social workers. Yet, at the same time, one can detect a most disturbing parallel trait. This is a substantial timidity, reserve, and restraint that - even in the face of the most flagrant abuses by the non-library world - exists, usually politely defended with a remark such as the one I have heard so many times, to the effect that, "We cannot protest loudly, we are ladies and gentlemen." To witness this atmosphere of what appears to be almost "collective masochism" has been for me one of the most difficult points to comprehend in the library world. I recall an article in a newspaper a short time ago, with the headline, "Librarians Wanted! High Skills and Low Salaries." The article described, almost in glowing terms, the fact that librarians, often with double or triple degrees, seem to be only too happy, even eager, to work for salaries that are anywhere from 30% to 50% lower than those existing in other professions requiring equivalent or even fewer skills, effort and responsibility. I came from the world of mapping and engineering, where one is used to working with field surveyors and construction crews, persons who guard their workers' rights, and where work action - even violence - is a constant possibility. As a firm believer in these hard-won rights, suddenly to contemplate the timidity, patience and submissiveness of librarians has been for me an appalling, sad, and regrettable experience. Reportedly so if we realize that information truly means power, and that librarians - not unlike communications, media, and transportation workers - could, if they so chose, virtually paralyze in moments the most vital functions of this society. Thinking of Dante's Inferno, many times I have thought that the worst torment to be inflicted upon a union organizer would be the eternal, ever-frustrating task of organizing a community of librarians for work action!

A phenomenon well known in social psychology is that of groups of individuals showing submissiveness and timidity, which in turn creates or attracts tyrannical supervisors. The library profession unfortunately seems to have had an inordinately high proportion of the latter. The few courageous persons who dare to voice their grievances and try to protect the rights of themselves and their peers seldom seem able to rally others to action, and as a result such courageous persons have been badly burned and have suffered dismissal or even ostracism from their peers.

Automation

The impact of automation has been immense, sometimes devastating, in the realm of libraries. This remark is not made lightly. It comes from a person who - as all my colleagues know - has been from the very beginning a strong advocate of automation. But my conceptual vision has been of a system where cost management, combined with a humanistic and humane environment, is of the utmost importance. That vision is unfortunately miles away from the often monstrous results we see everywhere. This whole matter is obviously the subject of many articles and even monographs that I am sure are already in the writing!

One of the disturbing results is the emergence of a new breed of administrator, the librarian-technocrat. Unlike the well-rounded scholar of the recent past, these persons can become infatuated, even obsessed, with the new technology, acting at times almost like willing accomplices of the vested interests of equipment manufacturers. Even in the academic environment, these new administrators can show an appalling lack of scholarly qualifications, and also of that most vital quality, an overall, long-range vision. Some years ago, two outstanding Princeton University economists, William J. Baumol and Sue Anne Datey Blackman, published an epochal article ("Electronics, the Cost Disease, and the Operation of Libraries") in the prestigious *Journal of the American Society for Information Science* (34(3):181-91; 1983). In this article - that I feel should be mandatory reading for anyone connected with contemporary library service - the authors documented the obvious, something that many of us have been arguing for years - namely, that conventional library operations are extremely labor-intensive, are not readily amenable to cumulative increases in labor productivity, and that the common expectation that computerized operation of libraries will become increasingly inexpensive (relative to conventional procedures) is a
fallacy. Unfortunately, these urgent warnings have been like a cry in the wilderness.

On the surface, we all enjoy the dramatic accomplishments of automation, which are remarkable and worthy of praise and admiration. Yet, behind that golden curtain, the situation is often disturbing, to say the least, and some of the bitter fruits can be experienced everywhere in increasing amounts:

— The skyrocketing costs of automation and the obvious unwillingness of universities to keep dumping millions into this virtually bottomless pit, combined with the traditional timidity and submissiveness of the rank-and-file librarians and the emergence of a new breed of library technocrats have often created veritable "sweatshops" where bleary-eyed employees spend day after day punching data on computer terminals. Faced with ever-increasing demands for technical personnel, coupled with budget deficits, even unit heads are often compelled to spend an increasing part of their time performing technical duties. In such conditions, the scholar-librarian is not only unwelcome but is actually a disruptive annoyance that librarian-technocrats look upon with increasing dislike.

— Ever-increasing amounts of materials are shipped to remote storage places, classed only by accession number, retrievable only through electronic means, and thus the library user is totally deprived of the privilege of browsing, one of the most cherished and traditional library activities of scholars.

— A new dislike for special materials emerges: since they often mean snags or a non-uniformity of processing, and thus create "problems." This reinforces the traditional discrimination that book librarians have always shown in the past toward the so-called "non-book materials."

— Skyrocketing costs introduce the concept of privatization and ever-new kinds of "fees," which begin to erode the basic concept of free access by the public to library materials.

— Massive discarding and destruction of unique materials takes place at an increasing rate, because of two favorite arguments of the new librarian-technocrats: "One single copy is already stored someplace," "That material has already been put on microform." This latter remark conveniently ignores the difficulties and costs involved in obtaining copies from microforms; and especially does it totally ignore the most obvious fact, that a black-and-white microform can never be a replacement for the multi-colored original hardcopy item.

I view this present situation with immense sadness, distress, and disillusionment, as I believe that this new breed of librarian-technocrat administrators — acting mainly behind the backs of an unsuspecting public — have ignored the legitimate needs and rights of the scholars and public at large, and in the process are seriously undermining some of the most traditional values of American librarianship.

Academic Counseling
What happened to me is a textbook case of poor advice in an ethical and delicate aspect of academic counseling, a process that may either fulfill or ruin the potential of an entire life. When I came to Los Angeles, I was a confused, naive young man trying to sort out the mysteries and labyrinths of the American academic world. UCLA administrators, realizing my obvious accomplishments, enthusiastic about the new atmosphere at UCLA, and bedazzled by the largesse of the era, immediately tried to recruit me for a position. Even though done in good faith, unfortunately no long-range consideration was given to the potential activities and future of this (at that time) young man, or as to whether the heady and enthusiastic atmosphere of that time would be a lasting reality.

Perhaps because of my training and interest in psychology through the years I have counseled hundreds of students, especially about their academic future, and due to my own experiences I have always given a strong ethical tone to my counseling. My cardinal rule is that NEVER should the interest of the institution prevail over the interest of the person, and that every consideration must be given to the potential contribution of that individual to society. Some of the "facts of life" of American academia are not difficult to explain. The sad fact is that — perhaps due to personal biases or vested interests — they are seldom clearly and forcibly communicated. Here are some the most important:

— For anyone showing potential for research, the only clear course of action is an early Ph.D., leading to a faculty position. Any other academic course (librarian, specialist, technician, middle manager)
may prove to be a most frustrating dead-end course with little or no possibility for research facilities, publishing, travel, or access to major grants.

— In the American milieu - for a number of reasons too lengthy to mention here - any career in the health sciences (medicine, dentistry, veterinary medicine) must start very early. After age 30, such a career becomes increasingly difficult, not to say impossible.

— In contrast, a few careers or degrees do not seem to carry any negative age connotation, and can be started at virtually any stage in life - for example, library science or law.

— In contrast again, a Ph.D. leading to a faculty position must be started generally before age 35. A Ph.D. obtained after age 40 suffers a drastic decrease in value. While matters may change, in recent decades - due to over-supply and a number of other reasons - universities are not at all eager to hire older faculty (especially for junior positions), and many older graduates may find themselves in the category popularly known as “Gypsy scholars” or “49ers.” These persons receive yearly appointments that may or may not be renewed, or temporary positions at 49% or less of FTE, which means no security of employment and no major benefits (e.g., insurance, retirement, paid leave). At the end of the appointment period, the search and scramble for another position begins anew.

In my own case, the fact that I was dissuaded from working towards a Ph.D., and instead persuaded to start a program on a second master’s degree (in library science) was instrumental - as I would discover years later - in most effectively wrecking my future in academic teaching and research.

Positive and Negative Aspects
In any life situation, one must try to look objectively at all sides of the picture. On the positive side, the course I followed spared me the major crisis that have affected academic geography in the United States - American geography has moved from the macro to the micro world, which in turn has caused several universities to eliminate geography departments and curricula. I have written extensively about that crisis, so I shall not elaborate more about this development, which I do not hesitate to call a tragedy, sufficing it to say that regional and political geography (two of my strong interests) have virtually disappeared from the American scene. Mentors such as I had - e.g., that great American geographer and Latin Americanist, Preston James - are nowhere to be found today. Jean Bastie, a French geographer, says it supremely well: In the United States ... geography has become ever more abstract, theoretical and quantitative, based on computer models, using an esoteric jargon, incomprehensible to the non-specialist. ... geography has lost her soul. (*A propos de la geographie aux Etats-Unis,” Acta Geographica, no. 73:49-50, March 1988*).

The sad irony is that the large global outlook provided by this type of geography, now abandoned in the United States, flourishes in other countries; but here the vacuum has been filled by other, perhaps less well-prepared scholars. A most obvious illustration can be seen during the present Persian Gulf crisis. Experts in the Near East - political scientists, economists, historians, sociologists, anthropologists - appear everywhere. Yet, the most logical choice, geographers, are nowhere to be found ... !!!!

Yes, geographers of my type can scarcely find a niche in today’s U.S. academia. But given my extensive background in history, Latin American studies, and psychology, I have no doubt that I would have found eventually a satisfactory academic faculty position, leading to tenure and a profusion of research activities. Probably I would have found a position in one of the many area institutes that have flourished in recent decades in American academia and that have to some extent replaced what geography used to be.

On the negative side, the losses are considerable. In terms of salary alone, I estimate that in terms of 1990 dollars, my income over a span of three decades may well reflect a loss of about three-quarters of a million dollars! But far more serious and grievous are other losses and contrasts. While I constantly see former academic classmates or even younger geographers showing accomplishments such as number of books published, yearly attendance at international conferences with all expenses paid, frequent sabbaticals and research activities, generous grant subsidies (often in the tens of thousands of dollars), my situation is striking indeed:

— not a single sabbatical leave in nearly three decades;
— a grueling forty-plus hours a week, eleven months a year;
— virtually no research time allowed, having to do most of my research activity on time robbed from my own evenings, weekends and vacation time;
— travel allowances that, at best, are only a few hundred dollars a year, which means that most of my papers have to be delivered in absentia;
— no access to the vast number of grants that are generally available to faculty personnel, the only type available being tiny “mini-grants” that seldom are over a few hundred dollars each;
— no access to research assistants or research facilities or laboratories of the type that are a common, and fully expected, privilege of faculty positions.

If my colleagues detect in me, in recent years - as I have often been told - an increasing amount of sadness, bitterness and disillusionment, I believe that what I have put forward in this paper provides a logical explanation.

Specialized Collections
In the “old times,” specialized collections suffered an almost chronic second- or third-rate status in library systems. It was a time when most library administrators generally looked down at anything that was “non-book.” I have written a number of articles on this sorry subject.

In this era of automation, technocratic administrators generally do not have any better knowledge or sense of the many and peculiar needs, requirements, situations, and sometimes ephemeral quality of those “non-book” materials. I am using “ephemeral” in the sense of items being published in limited numbers, with little notification to the outside world of such publication, and items available for acquisition for relatively short periods of time. I could mention many shocking instances of this appalling lack of understanding, but two examples will suffice. Two observations I have heard not once, but several times, are that, “If you do not have the time or personnel to catalog a map, then you should not acquire it,” and, “If you can have access to the map on microform, why bother to acquire it in hard copy?” Issues as fundamental as color-coding, quality of reproduction, ability to reproduce the information, or the extreme ephemeral quality of so many maps do not seem to enter into the minds of those administrators. In recent years I have heard, in the realm of specialized materials, too many depressing stories from throughout the country - namely, the cases of colleagues in charge of specialized units, who have been fired, demoted, or harassed because they dared to speak out too forcefully in defense of the integrity of their collections and particular procedures. They were the victims of high-level supervisors who - with virtually no knowledge or even the desire to know more about those materials - tried to enforce rigid rules of disposal, curtailment, transfer, or technical processing.

A few years ago, a high-level, campus-wide ad hoc committee at UCLA, composed mainly of faculty and other scholars, produced a position paper on the library of the future. The recommendation - surprising to many - was that while the books should be the province of librarians, specialized materials should be administered independently of the library system. These recommendations did not surprise me at all. Regretfully, these are the same strong feelings I have developed over many years. The daily tasks of technical services, acquisitions, circulation, etc., will always be a place for professional and para-professional library personnel. But the administrative development and overall view of major specialized collections should always be in the hands of scholars who are thoroughly familiar with those materials.

At the risk of sounding immodest, let me illustrate what I say with my own case. Coming into this position, my main qualifications were certainly not those of a map lover, collector, or “armchair geographer.” As a geographer, cartographer and engineer, I have worked in the field doing surveys and have thus been a field geographer, I have interpreted aerial photography and remote-sensing data, I have designed, calculated, compiled, drawn and produced a number of maps, and I have continued my cartographic and geographic research in the form of many articles and papers presented at professional meetings. In other words, I have spent many years as a professional geographer, participating in every aspect and phase of the materials, from inception to finished item.

From this vantage position, my opinions may sound controversial, but they are both very strong and well founded - namely, that it is one thing to have developed a certain liking for or knowledge of the materials and to know something about how they are processed in a collection; but it is a completely different matter to be an expert and a scholar on these materials, having spent years and years of one's professional life dealing with every aspect of the inception, design, production, and final desti-
nation of these products, as well as keeping abreast - through work, research, and participation in professional meetings - of every major advance and new thinking in that particular field. It is this knowledge and expertise that gives such an authority to anyone in charge of a large collection of specialized materials. It is for this reason that I so strongly defend that concept - as I formerly stated, still in existence at the Library of Congress - that only an authority and scholar of the materials must always be in charge of the overall administration and direction of major specialized collections, a concept that, with the deepest regret and sadness, to my eyes has virtually disappeared from the realm of academic library systems.

It is beyond the scope of this paper to probe this phenomenon. Personally, I believe that to a great extent it is the result of a new professional assertiveness in libraries, coupled with insecurity and a chronic oversupply of library graduates, a combination that makes many persons in library circles, especially administrators, look with great disfavor at outside scholars occupying administrative positions in library systems.

Research Centers and Collections in American Academia

Foreign-born scholars coming to the U.S. often find it baffling to see the development of major research centers and collections in places that seemingly do not have much need for or relationship to those activities. For example, one might find a major center of Polynesian or Pacific Studies not in Hawaii or California, but at some university of the Midwest. Or, a major center of earthquake research not in California, but in New York. Or a center of Mexican studies not in one of the southwestern or border states, but in some college or university in New England. The explanation may generally be found in the peculiar politics and the considerable autonomy of American universities.

Generally, behind those major centers and collections one finds the conjunction of some powerful and politically savvy top administrators, perhaps a president or chancellor, some deans and department chairs. They share a common, life-long interest - often traced to childhood or a particular background - and, finding themselves now in a position of power and political influence, they decide right there, on that spot, to create a large center and collection to fulfill those dreams and visions. In most such cases, the justification is easy to come by, the prestige of such a center and collection adds much to the status of a particular college or university, regional justifications are seldom an issue, after the project is rolling it generates a momentum that can bring faculty and researchers with common interests together, and as a result in a few years a large specialized center and collection, to serve those needs and original visions, is created.

Swimming Against the Current

Being at a large academic research center, sharing the vision of all those working there, experiencing administrative support, developing major collections in the subjects, attracting researchers and students from distant places, can be a most gratifying experience. One of the major reasons why I came to UCLA when I did was that at that particular time, I did agree with and shared the vision of those administrators who asked me to come here. This vision was to create at UCLA a large entity that would be not an obsolete “map room,” but a well-integrated cartographic information center - commensurate with the importance of this university and of the southern-California area.

Unfortunately, shortly after I came here, those administrators left, and - as I would learn many years later, a sign of my naivete in these matters - were replaced by new ones with a very different outlook, almost opposite, showing disregard, even displeasure, at the idea of creating here such a large cartographic information center. A crucial question is this: can one person, without administrative support, continue the original vision? In larger projects, e.g., a school, institute or department, it is obviously impossible. On a smaller scale, as is the case with a major specialized collection, I did continue working towards that vision, against overwhelming odds. It can be justly said that through all these years, my allegiance was not towards the library administration and system, but towards UCLA and towards the people of southern California. This was recognized by a sympathetic former University Librarian who once stated that I had taken this collection to its level of excellence, “not because of, but in spite of, the library administration.”

I am very glad of the dissenting course of action I chose to take, the only one I could, in all conscience, take. It is here where my professional standing and contacts fully paid off. Despite the abysmal lack of administrative support - especially painful because it took place during a period of unprec-
ended governmental largesse - I was able to continue building the collection at a very rapid rate. But library administrators, as I have said previously, have ways of letting you know of their disapproval. Perhaps because of my national and international professional standing in cartographic and geographic circles, it was most difficult to discipline me through firing or demotion. Instead, I was given the now-famed treatment of “benign neglect,” translated into a miniscule budget frozen for years. Years later I found out that even the inadequate, embarrassing location the collection now suffers is perhaps a legacy of that disapproval, as apparently we were several times passed over when the opportunity came to move to a better location. As a result, having the largest collection of maps of any academic library, in contrast we occupy what is probably the smallest and most embarrassing location of any map collection in the UC system, not to speak of comparing these overcrowded quarters with those at many other universities in the country.

Another serious problem that I am most reluctant even to discuss is that of the level of personal suffering and frustration experienced, that has been translated into a chronic case of hypertension and stress. My only satisfaction is to say that with the years my own vision has been fully vindicated. With a collection of well over half a million maps, ours is now a magnificent asset, not only for this university community, but for the entire southern California region. Unfortunately the price has been high and, much to my regret, it is not a course of action that I can recommend to anyone else.

Experiences like mine - and those suffered through by many other colleagues throughout the country - bring to mind the case of Billy Mitchell, the general who, in the 1920s, had the vision of the superiority of air power in modern warfare. It was not at all the vision held by his superiors; the strong advocacy of his vision, and his outspoken comments, caused him to be court-martialed, and he was forced to resign in disgrace. Fortunately he lived long enough to see his vision vindicated, and as a result he was re-instated. much praised. and justly acclaimed as a genuine hero.

In academic cases such as ours, we can scarcely expect this type of vindication. Presently, as I say, the only concrete satisfaction that I - and a small, immensely dedicated staff who have helped me through many years to carry out the original vision - have is to be able to provide excellent service in depth to faculty, students, and scholars of the area who constantly show utter amazement as to how we are able to render such services in a cramped, inadequate location, and with such a small staff and support.

Administrative Career
In nearly three decades I have seen many changes in the library profession. It is a profession that has suffered from a most unfortunate, almost chronic case of a collective inferiority complex. The image and stereotype of librarians has for decades been unglamorous and low, to say the least!! As a result, librarians as a group have suffered considerably from without and from within - from the outside, discrimination, abuse, low pay; from within, low self-esteem, insecurity, and, sometimes, autocratic, abusive supervisors and administrators. An amazing situation, because, as I said earlier, information workers (e.g., librarians), like communication and media workers, are the very backbone of a technological civilization.

I have worked a great deal in many efforts aimed at improving the lot of these overworked, underpaid professionals through a number of writings, papers, and articles. Unfortunately, I am not optimistic about the outlook. Recently someone showed me some library position papers dating from the 1940s and 1960s, asking for sabbatical privileges for UC librarians; nothing has been realized. I am almost certain that ten, twenty, or forty years from now, we may see the same type of requests and position papers, and the result will be similarly negative.

Here and there throughout the country, I have found some remarkable library administrators with great vision and courage, and some of them have shown a good understanding of special materials. Often I am asked by these friends if I have ever considered a career in administration in upper-level academic library circles. Once, long ago, when I was very naive, and when I believed that the concept of the librarian-scholar might endure - as fortunately is the case in many library circles in Europe and Latin America - I might have considered such a move. In recent years, that concept not only is defunct to a great extent, but it has been replaced (as I have previously said) by a new, very narrow, almost dogmatic technocracy that has seized control in most library circles and professional organizations. In such an atmosphere, a person with my views, and my outspoken and
abrasive comments, would probably find himself blacklisted from every administrative position in the country. This reality, combined with my own experiences, means that the answer to such a question is an immediate, absolute, and most categoric negative.

Conclusion
The most asked question I receive from friends and colleagues who are well acquainted with my background is, "How could you stay so long in such an unfortunate position?" From what I have already said, the answer may be relatively easily inferred - basically, it is an interacting combination of feelings that can be summarized as follows:

1. When I finally realized that a promising academic career had been most effectively derailed and when I found myself in a position with little administrative support or sympathy, I experienced an anger and indignation that it is difficult to describe. Should I go out in a "quiet and gentlemanly fashion" as I felt the new administrators dearly wished me to do? It was at this point when my friendship with a remarkable man - the late Dean of the School of Information and Library Science, Andrew Horn - was instrumental. He strongly advised me not to take that route - which he had seen many unfortunate persons follow before - and he advised me to stay and fight.

2. Perhaps the most important overall consideration has been a sense of mission - namely, to carry on with the original intent of creating on this campus a first-rate cartographic information center, and thus show those unsympathetic administrators that it was this vision, and not their narrow outlook, that is the proper course of action at a major, first-class university such as UCLA.

3. I believe it to be of supreme importance for me to continue to advocate, from my position, the concept of the "librarian-scholar" as a vital necessity in this society, and also to advocate a selection of large specialized collections from library systems. At the risk of sounding repetitious, I say again that, like museums, such specialized collections can be effectively administered only outside the present narrow scope of library systems, and must be headed by scholars thoroughly acquainted with the materials represented in those collections.

4. Additionally, after so many years of dedication, creating such an entity, one cannot but develop a strong sense of commitment. Given the new atmosphere I have described, I have no doubts that if I were to leave, most of what I have done, building this collection, would in no time be reversed, discarded, and undone. It is this knowledge that has contributed to a great extent to my remaining at UCLA, almost as an act of salvaging something that one has created, and to see that it is transferred to hands that will preserve and continue what one has created, not destroy it - not a technocrat, not a "yes sir/yes madame" type of person, who docilely follows orders, but a strong individual who will fight for the integrity of the collection. And the only person I see in such a position is a practicing professional of the type I have described.

5. Also, as an insider, I feel a deep sense of obligation towards my colleagues in scholarly and academic circles - to advise and inform them (through papers, talks, and articles) about the negative, long-range consequences I perceive in some recent developments in libraries, that deeply trouble me. I have already mentioned some of these aspects, such as wholesale discard of materials, excessive reliance on microform, lack of concern for the peculiar needs and procedures of specialized collections, disregard for traditional methods of scholarly access, etc. To act in such a manner is in some ways an unpleasant, even dangerous, course of action, as it inevitably places you on a collision course with many persons and with administrators in library circles. Yet it is a course of action in which I deeply believe.

Another question I often hear, after my decades of service at this institution is, "If you could relive your life, would you choose this course of action again?" with the implied hope that the interlocutor will receive an enthusiastic, positive answer. In my case, regretfully, the answer is firmly negative. No, if I could go back and have the choice, never, under any circumstances, not for all the gold in the world, would I take the road I took.

Many, many are the times when my most ardent desire has been to put an end to my tenure heading this collection in such thankless, unrewarding circumstances, draw a curtain of complete oblivion over these two and a half decades of my life, and continue with my true vocation and calling - academic research at various levels and in various subjects. I still earnestly hope to follow such a course before it is too late.
In closing, I wish to state that I have written so openly and in such an outspoken fashion because I do earnestly hope that cases like mine will be warnings to young persons finding themselves in confusing periods of their lives, such as the time I experienced. Lately, I think of many young scholars from countries such as China, Arab countries, or Central America, who suddenly find that they cannot return to their homelands. I dread the possibility of seeing academic administrators - well-intentioned as they may be - trying to change and alter the academic careers of these persons, in order for them to get jobs and positions which may not be suited to their skills and preparation. This is why it is so crucial to place special emphasis on the true vocation of the individual, and the potential contribution such an individual may have for society. If what I have said in this paper contributes to guiding even a handful of young persons in the direction that is proper for each of them, I shall feel satisfied.

Metro Aerial

Publisher Profile

by

Jason Smith

Metro Aerial

Metro Aerial (formerly California Real Estate and Zoning Aerial Survey) publishes color aerial atlases that contain vertical aerial photographs together with coordinated zoning maps. These atlases are used by real estate developers, commercial real estate brokerages, residential building contractors, environmental and civil engineers, city planners, advertising agencies, property management companies, insurance companies, appraisers, utility companies, emergency dispatch organizations, government offices, legal firms, sand and gravel companies, regional planning agencies, libraries, and real estate market analysis firms.

Aerial photography in combination with zoning maps makes for a comprehensive information resource. All major streets are highlighted, as are county and city boundaries, schools, master-planned communities, shopping malls and golf courses. Prints are accurately matched in scale and tone, making them easy to mosaic together for presentation purposes. Each page represents approximately fifteen square miles and is scaled to 1" = 1,200'; it can be enlarged to 1" = 300'. Each laminated aerial photograph and zoning map is 16" x 20" and is updated at least once a year.

Metro Aerial currently has color aerial atlases for the state of California that include the following cities: Sacramento; Roseville; Loomis; Rocklin; Lincoln; El Dorado Hills; Elk Grove; Galt; Yuba City/Marysville; West Sacramento; Shingle Springs; Auburn; Folsom; Placerville; Davis; Woodland; Winters; Dixon; Vacaville; Fairfield; Rio Vista; Suisun City; Cordelia; Napa Airport; Vallejo; and Benicia. These atlases also include the following counties: Contra Costa; Solano; Napa; Yolo; El Dorado; Placer; Sutter, Sacramento; and Yuba. We plan to expand into other major growth areas including the southern California region.

Metro Aerial also has published color aerial atlases for the state of Washington covering the greater Seattle area, including Bremerton, Bellevue, Kirkland, Mercer Island, Issaquah, Redmond, Tukwila, Sea-Tac Airport, Renton, Bothell, Clyde Hill, Beaux Arts Village, Yarrow Point, Medina, Hunts Point, Everett, Lynnwood, Mountlake Terrace, Mill Creek, Edmonds, Woodway, Snohomish, Richmond Beach, and Mukilteo. These atlases therefore include the following counties: King; Snohomish; Kitsap; and Pierce. We plan to expand into the Tacoma and Olympia areas.

Now for a bit of history. Metro Aerial was started in 1980. The founder and president, Roger P. Smith, has an extensive background in real estate development and construction. He is both a general
Tall Tree Systems in Palo Alto CA has built a business using the electronic still camera, video recorder, and computer; they will reproduce maps or parts of maps.

A conference on "Preservation of Library & Archival Materials" (Association of Physical Plant Administrators of Universities and Colleges in cooperation with the Commission on Preservation and Access) was held in DC February 29-March 1, 1991; topics were to be problem identification & evaluation (standards; challenge of communication; introduction of case study) and ensuring the best environment (providing the appropriate environment; maintaining the facility for a reliable environment; planning and designing for the library's requirements - a case study. Contact: APPA Seminars, 1446 Duke Street, Alexandria VA 22311-3492.

From American Libraries 10/90:842 - Ed Dahl of the Cartographic and Architectural Archives Division of the National Archives of Canada reported that 24 atlases (including several 16th century Ptolemaic atlases) and about 50 flat sheets from the Atlantic Neptune were damaged when an air-conditioning drainpipe burst July 4, soaking valuable materials on the fourth floor of the building.

University Microfilms International's Preservation Division offers a free 13-minute VHS video, "Providing a Future for the Past," which describes how books and other items printed on acid paper are prone to decay. Tina Creguer (800/521-0600, extension 805).

A GIS (Geoscience Information Society) poster session on 10/30, in Dallas: "Referencing and archiving digitally produced maps at the Kansas Geological Survey," by Janice H. Sorensen and Rex C. Buchanan, KGS, 1930 Constant Avenue, University of Kansas, Lawrence KS 66047.

A 1989 murder mystery (Skom, Edith. The Mark Twain Murders. Tulsa: A Brown Bag Mystery from Council Oak Books) deals with the stealing of valuable books off open shelves, pointing out how many rare items still remain on the open shelves because of lack of time by librarians to pull them. Incidentally, the mystery takes place at a very thinly disguised Northwestern University (here called Midwestern University), and mainly in the library; LUIS (NOTIS) appears on p. 104. There are some points which will provide the seasoned librarian with some humor that I doubt the author intended. For example, at one point a library tour guide says, "To my left ... is the catalog with a card for every book in Hub [Library]" (p. 96) - only ONE card? You'd have to be very careful about looking it up exactly the right way (or is it just the shelflist?). During large portions of the rest of the book, an English faculty member is trying to find the source for a student's paper which she is sure is plagiarized; I yearned to tell her she was going about it the wrong way - she started with the card catalog (!) looking at ALL the books on criticism of Mark Twain, instead of going to the MLA bibliography (which surely is available online?). Anyway, the point of my putting this under Preservation News is that we are fast approaching a time where library general stax and special-collections stax are about to do an exchange in terms of amount of space required; many university libraries have been around long enough that by definition many of the items on the shelves are quite valuable; this may be one of the hidden virtues of remote-access, where by definition the works are out of reach of light-fingered users. The same situation holds true in the map world; those of us with large-scale foreign-country topos (especially of third-world countries) are painfully aware that we are serving as a Swiss bank to hold these sheets, many of which are no longer available - either because they have been declared of strategic importance by the country, or because the survey has gone out of business (like Kenya, or because they're just plain out of print. And the only way to protect cartographic materials that are single-sheet items is closed stax. There is no alternative that works even half as well. In both my previous places of work, I had an open-stack map collection, and in both of them, items were stolen with dismaying regularity. I now have a closed-stack collection, and unless there is a striking change for the better in the human psyche, I'll never willingly work with an open-stack collection again.
# State Geological Surveys in the West

**contributed by**

**Dr. Larry Fellows**  
State Geologist, Arizona Geological Survey

<table>
<thead>
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MicroCartography

by

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30th in a Series

Holders of the French, German, Austro-Hungarian and Polish fiche sets will be receiving, respectively, copies of the maps missing from LC's fiche set, a copy of LC's printed introduction/index, replacements for poorly duplicated fiche indexes, and copies of LC's fiche indexes. I hope that correlates.

We now have a master set of the U.S. ward maps on microfiche. LCGM printed the guide to these maps some time ago, and most depository libraries received a copy (Ward maps of United States cities: a selective checklist of pre-1900 maps in the Library of Congress / compiled by Michael H. Shelly. DC: GPO, 1975). The fiche set consists of 321 fiche; WAML's price is $100.

Rich Soares has produced the first few gazetteers in our new project: A gazetteer of the world, or dictionary of geographical knowledge, compiled from the most recent authorities, and forming a complete body of modern geography, physical, political, statistical, historical and ethnographical / edited by a member of the Royal Geographical Society. Edinburgh; London: A. Fullarton & Co., 1859. The original seven-volume set is now reduced to 79 microfiche, and the WAML cost is $30. ISBN 0-939112-19-1

- USGS's Geographical Names Information System (GNIS) gazetteers for California ISBN 0-939112-21-3 at $10. and Nevada ISBN 0-939112-22-1 at $5.; these are not going to be fiched by USGS, so we did it ourselves.

- Army Map Service Gazetteer to AMS 1:25,000 maps of West Germany originally 3 volumes, now on 36 microfiche. 1990 edition by WAML/ price: $15.

- The first 20 volumes of the Western Association of Map Libraries Information Bulletin has been converted to 99 microfiche and is available for $40. ISBN 0-939112-20-5

Also, still available is the WAML fiche edition of the Austro-Hungarian Empire topographic maps at 1:75,000: Spezialkarte der Osterreichisch-Ungarischen Monarchies 1:75,000. This set is available in two sets: $300. for 1st edition sheets only (1,037 fiche), or the complete set with multiple editions (3,665 fiche) for $1,200.

A complete list of

WAML Microform Sets
appears on page 160.

WAML Occasional Papers
are listed on page 159.
Map Cataloging Update

by

William E. Studwell

Cataloging Column

In a continuing effort to keep readers informed of
cataloging matters referring specifically to maps,
this present column summarizes Cartographic
Cataloguer's Newsletter no. 5 (from Velma Parker)
and a memorandum from Frank Williams of the
CGSB Working Group on Cataloguing Standards
for Geomatics (both from Canada). Subsequently I
shall offer a summary of the map cataloging section
from the second edition of Library of Congress Rule
Interpretations as well as subsequent decisions
from LC's Information Bulletin.

Cartographic Cataloguer's Newsletter:

A detailed explanation of the date codes printed on
maps issued by the Department of National Defense
is given. Also, a draft set of geographical area codes
for Canada is listed and briefly discussed. The list
of codes, expanded over what LC presently uses,
was prepared by the Cartographic and Architectural
Archives Division of the National Archives of
Canada. The full text of the newsletter is in ACML
Bulletin, no. 73.

CGSB Working Group:

In the spring of 1989, the Inter-Agency Committee
on Geomatics formed a Standards Committee un-
der the auspices of the CGSB (Canadian General
Standards Board). It was determined that stan-
dards are important for the following areas: feature
classification; cataloging; data encoding; geographic
referencing; data quality; and symbology.

The Committee first met in June 1989. Various
working groups were set up. The Working Group
on Cataloguing Standards was divided in two sub-
groups, one on descriptive cataloging, one on sub-
ject access. The descriptive cataloging subgroup,
consisting of David L. Brown, Velma Parker,
Margaret Stewart, and Frank Williams, decided to
use AACR2 revised as their basic document. The
subgroup intends to incorporate Chapter 1 (gen-
eral rules) with Chapter 3 (cartographic materials)
and Chapter 9 (computer files) into one document,
with elucidation by specific example.

A working document was expected around June
1990, with subsequent distribution or comments
and feedback. After revisions based on that feed-
back, the document will be published.

Another Break for Map Catalogers

In the June 1990 issue of WAML IB (p. 167), this
author described a strange sequence of events
relating to the notation of illustration in the 300
field. The article, entitled "Much Ado About Maps,"
told how map catalogers were the beneficiaries of a
big break from the Descriptive Cataloging Division
of the Library of Congress. That is, despite contro-
versial changes affecting other types of materials,
there was to be absolutely no change for maps.

At about the same time, map catalogers got an-
other break. As a follow-up to the 1988 revision of
AACR2, LC on December 11, 1989, issued its rule
interpretations affecting Chapter 3, "Cartographic
Materials." Although for some types of material,
most notably microform reproductions, there were
significant or even major changes, the rule inter-
pretations for maps produced seventeen almost
blank pages. In effect, there was little difference
between AACR2 revised and LC rule interpreta-
tions, and therefore map catalogers will basically
not have to consult both documents nor struggle
with reconciling the two.

LC's December 11, 1989 decisions are summarized
as follows:
1. rule 3.1C - LC will not apply the option of adding the general material designation in the case of maps.

2. rule 3.1G1 - either option one or two is to be taken depending on what seems better in the given situation. Option three is not to be considered. The option in rule 3.1G4 is preferred to option two of this rule (in other words, it is followed).

3. rules 3.2B4, 3.5D1, 3.5B2, and 3.7B4 - do not apply the option.

4. rules 3.2B3, 3.3B2, 3.3C2, 3.3D, 3.4D1, 3.5D3, 3.4E, 3.4G2, and 3.5B5 - apply the option. For rule 3.3C2, do not put statements about the ellipsoid in the statement of projection. Instead, the ellipsoid should normally be recorded in a note. The option relating to the whole of rule 3.3D should be applied only when the information is readily available.

Considering the importance and scope of maps, the rule interpretations of LC deviate remarkably little from AACR2 revised. This is certainly a break for map catalogers, and also a break for authors such as myself charged with the task of describing the process!

Second, LC has more than once stated that it does not have sufficient staff to carry out any major program for change, including the development of a subject code. LC's staffing is definitely limited, and I have echoed their staffing dilemma in my writings. But in direct contradiction, LC has also been for years quite reluctant to work with outside persons and organizations other than ALA's Subject Analysis Committee. Once again, that appears to be changing; more about that later also.

Third, LC has taken the stance that the Subject Cataloging Manual will adequately serve all our needs for documentation. Of course, we all know that the Manual is not well organized, is hard to use, and, most of all, contains little theoretical material. It is primarily a book of lists and how to use them. As the distinguished Principal Cataloger at the University of Illinois - Arnold Wajenberg - recently wrote, the Manual is no substitute for a code. Ironically, Mary Pietris, chief representative of LC in these matters, has herself publicly hinted at the Manual's difficulty of use by stating that paraprofessionals seldom use the Manual. This third excuse for avoiding major change, the overrated Manual, appears, like the first two rationalizations, also to be weakening as time goes by.

Twice before, I deferred explanations until later. Later has now arrived. Though prior to this year LC has progressed only slightly toward the changes needed for the future, there have been strong signs in recent months that LC is starting to confront reality. Its status quo position has been greatly softened by a May 1990 letter written by Lucia Rather (Director for Cataloging at LC) to me. That letter strongly suggested that LC is seriously considering alternatives for the future of LC subject access. Furthermore, LC's long-term reluctance to seek outside assistance has been dealt a blow by its contracting with Lois Chan - the distinguished author of the standard text on LC subject headings - to compile a set of philosophical principles describing the LC subject heading system as it presently is. In addition, LC's worship of the Subject Cataloging Manual has become less fervent lately, and it seems more and more willing to discuss the subject code it previously dreaded. For example, both Mary Pietris and Lucia Rather participated in a lengthy session about the development of a code at the June 1990 meeting of ALA's Subject Analysis Committee.
All of these actions tend to indicate that LC has at least implicitly conceded the inevitability of a code. The perception that the code is indeed on the way is also reinforced by events outside of LC. One of the key players in the drama, Lois Chan, wrote an article late in 1989 which clearly indicated her support for a code. Earlier, in 1988, Sheila Intner, editor of Library Resources & Technical Services, strongly proclaimed her backing for a code in a series of articles. And at the ALA Conference in Chicago in June 1990, all of the speakers in a major program about the subject code made their presentations with the attitude that the code is actually going to happen. The four speakers were Mary Dykstra (the prominent Canadian librarian), Liz Bischoff (the overseer of the OCLC Data Base), Michael Gorman (the main person in the development of AACR2), and myself. Add to these prominent individuals many other well known and not so well known librarians who support the creation of a code, and little doubt remains. It now seems that it is no longer a matter of whether we will have a code but rather when it will come and under what circumstances.

There are some understandable reasons why LC has tended to drag its feet on a subject code. In addition to natural hesitation when change is involved, its experiences with the codification of descriptive cataloging via AACR2, in which it apparently made more concessions than it had wished, has made it a bit gun-shy. It seems to want to make sure that LC retains control over LC subject headings, and this is perfectly logical, since it is LC's system. But at the same time, LC headings are widely used throughout the English-speaking world and somewhat beyond - for instance, they are also used in French Canada and in France. Any claims that the LC subject heading system is primarily for the use of one huge library in Washington, D.C., have long ago become a mockery. Whether LC likes it or not, it is the de facto national library of the United States as well as the most influential bibliographic institution in the world.

So although LC is the only organization with the power to change LC subject access, it also has the responsibility or obligation to take into account the needs of the entire library community. Among those needs are the reshaping of the LC subject system, followed by the development of a comprehensive, fully detailed, all-purpose theoretical subject heading code to document it.

When I refer to reshaping LC, I mean a moderate alteration of current policy and practice. A drastic or radical revamping is not justified and in fact would turn out to be much less than desired and even worse than the present inconsistent hodgepodge we have now. A few pages of general philosophical principles, commonly agreed upon by the majority of the library community, would be the first step in the process. These should be more or less equivalent to the Paris Principles for descriptive cataloging.

Two approaches to these basic principles could be made. One would be to develop a set of broad principles applicable to all types of subject-access systems. But such an avenue has two problems. First, it would probably be more time-consuming and frustrating to try to formulate a generic philosophical document for all possible systems than to focus on just one system, that is, LC's. Second, the generic set of principles may be too far removed from the realities of LC to be of any real value for LC. If, for instance, the broad general all-system principles prohibited the building of subdivision chains or the use of controlled vocabulary, the principles would not be relevant to the LC system.

The other way to develop basic principles would be to focus entirely on LC, but with a creative and expansive view towards the needs of the future. I have already proposed forty-seven preliminary or tentative principles in my theoretical treatise, Library of Congress Subject Headings: Philosophy, Practice, and Prospects. These concepts were followed up by fifteen somewhat more advanced and streamlined principles in the March, May, and June 1990 issues of Technicalities.

If the principles proposed by me in these publications are more or less adopted, the result would be a much more logical, consistent, understandable, and effective subject access system. Instead of the current system with its abundant flaws in structure, terminology, specificity, documentation, and application, my approach would create a revitalized system with the following characteristics:

1. Structure would be as consistent as possible with shorter-length structural elements and no inversions. I repeat, shorter-length elements and NO inversions. In addition to the changeover of inversions, long or complicated single element headings would be converted to multi-element headings. LC has already done this in part, for
example, changing “Carbohydrate metabolism disorders” to “Carbohydrates—Metabolism—Disorders,” “Teachers, Training of” to “Teachers—Training of,” “Marketing management” to “Marketing—Management,” and “Tales, French” to “Tales—France.” With shorter structural elements, LC headings would be much more flexible and the chances for retrieving the individual elements in on-line catalogs would be greatly enhanced. Have you ever tried to access complex multi-concept monstrosities like “Women electronic industry workers” or “Mentally ill, Writings of the, French-Canadian”? The last heading sounds as if it were devised by someone who was mentally ill.

2. To go along with the simpler and shorter structural elements would be a new system of punctuation. Complementing the famous LC dash (which has been used for a long time) would be equals signs and slashes. The dash has tended to imply subordination, with the more important elements on the left and the less important on the right. This left-to-right pecking order has not always been present nor consistent, but as a whole, there has been a pattern of most vital elements first.

Use of the equals sign would mean more or less equal or equivalent status between two or more groups of persons or between two or more topics. Therefore, “Women lawyers” would be converted to “Women=Lawyers,” and Jackrabbits as pets” would be converted to “Jackrabbits=Pets.” Use of the slash would mean any relationship except equality between two or more topics, between topics and persons, or between two or more groups of persons. Accordingly, “Literature and technology” would be converted to “Literature/Technology,” “Lawyers in literature” would be converted to “Lawyers/Literature,” and “Parent and child” would be converted to “Parents/Children.”

There are several advantages to this new relational punctuation system. First, an infinite number of combinations could be devised from a finite number of controlled terms in LC’s subject vocabulary. It would no longer be necessary to have every concept actually listed in The Red Book. Second, it would allow absolute and complete flexibility of meaning or semantics. For instance, “Lawyers/Literature” would mean not only the depiction of lawyers in literary works but also lawyers’ attitudes on or perception of literature as an art form. It has been my observation that the typical searcher does not make fine or subtle semantic distinctions in his searches, so why not let the relationship between elements be totally free and flexible? This carte blanche of meaning already exists in many LC headings. For example, does “Money—United States” mean money printed in the U.S., money circulated in the U.S., money speculated in the U.S., or something else?

Third, the three types of punctuation (the subordinating dash, the equating equals sign, and the relational slash) could be combined with each other to create multi-concept headings such as “Women=Lawyers/Alcoholism—United States.”

Fourth, with delimiters inserted before each element so that each and every element can be retrieved individually, the following search terms would access the above-mentioned “Women=Lawyers/Alcoholism—United States”:

Women
Lawyers
Alcoholism
United States
Women=Lawyers
Women/Alcoholism
Women—United States
Lawyers/Alcoholism
Lawyers—United States
Alcoholism—United States
Women=Lawyers/Alcoholism
Women=Lawyers—United States
Women/Alcoholism—United States
Lawyers/Alcoholism—United States

and of course, the whole heading:

Women=Lawyers/Alcoholism—United States

Note that “Women=Lawyers/Alcoholism—United States” means the relationship of women lawyers with the problem of alcoholism in the United States. The somewhat different situation of alcoholic women lawyers in the United States would be accommodated by the heading “Women=Lawyers—Alcoholics—United States.” Another somewhat different situation, of the relationship of women with alcoholic lawyers in the United States, would be covered by the heading “Women/Lawyers—Alcoholics—United States.” The possibilities for creation of headings are limitless. With total and absolute flexibility of meaning, the usefulness of such headings is also limitless. No more would we be shackled by restrictive practices or notes, like the one under “Technology transfer,”
which does not allow for technology transfer out of a country or region to the world as a whole.

3. After the architecture and psychology of headings has been redesigned as described, the terminology needed to express the content of headings would also be reworked. Terminology would be made clearer, more consistent, more concise, more accurate, more up-to-date, and more sensitive as a complement to the new structure and relationships.

4. To correct the many cases of inconsistent detail or specificity, the level or degree of specificity would be made more regular and evenly applied. Generally this would mean more specificity. For those libraries not needing a great deal of detail in headings (that is, not wishing to have long chains of subdivisions in their catalogs), a two-tier or two-level system of specificity reminiscent of the one devised for the Dewey Decimal Classification could be developed.

5. There would be guidelines for everyday, practical application of LC subject headings. Both general rules and specific application situations would be covered. One of the results would be an increased number of headings applied. The more headings supplied by the cataloger (presuming valid and appropriate headings), the better the potential for retrieval, and the merrier the searcher will be.

6. There would, in addition, be rules for documentation, or, as I prefer to express it, presentation of data. The basic rules would be that data must be clear, consistent, complete, and concise (the four C's of documentation), plus presented as much as possible at the point of primary contact. The point of primary contact would be the Red Books (if they are still printed), along with microfiche and on-line analogs. The overall principles for the system and complex matters would, on the other hand, be covered in external documentation, including the subject code.

All this (here presented in a quite abbreviated form) is what could evolve if LC is modified and reshaped according to the principles which I have previously put into writing. I must emphasize that although some of these ideas are completely my own, many of them have been conceived by others or were derived by me from the work of others. Indeed, much of the theory contained in the principles came explicitly or implicitly from LC itself, sometimes from partially developed or unverbalized trends and tendencies. Although I am in part the creator of these ideas, I am more the compiler and propagator of the concepts.

It should also be emphasized that I am not under the illusion that my perception of LC should be/is the only possible way. I do believe that my proposals - which to date are the only comprehensive suggestions for the improvement of LC headings - are logical, reasonable, and practical. They have been extensively tested by myself against a number of real cataloging situations. Note that the key word here is "practical" or workable. There is no use in pursuing paths which may look great on a drawing board, or have a fine theoretical ring, if they don’t work in everyday use.

After the adoption of the fundamental principles, whether mine or developed by others, there should be a more or less simultaneous advancement of the concepts on three fronts. LC should promptly and methodically implement the new ideas, applying them to its entire controlled vocabulary as well as to other documentation. Bibliographic utilities such as OCLC should automatically convert their bibliographic records as soon as the changes are officially made by LC. And the subject heading code should be completed as soon as possible.

The full, comprehensive, detailed, all-purpose code should culminate from using the basic theoretical principles as the first two sections of the code. The first section would consist of the broadest general concepts such as structure, logic, terminology, specificity, relationships, psychology, documentation, and creation of new headings. The second section, somewhat equivalent to Chapter 1 of AACR2, would consist of general principles or guidelines for application including number of headings, order of headings, parallelism of headings, and general use of secondary headings. The third section would consist of guidelines for applying headings in specific subject areas such as art, biography, botany, chemistry, folklore, geology, literature, and music. Section three would be somewhat analogous to the various sections in AACR2 dedicated to special types of materials, such as serials and maps. You will note that I support the subject code being roughly modelled after the patterns of the descriptive cataloging code.

Whether or not my proposed principles and my suggested paths to a code are actually adopted, I
am completely and emphatically behind the development of a comprehensive theoretical subject code in some form. A code is absolutely necessary to keep LC subject access workable, understandable, effective, and under control. A code is imperative for the increased subject-access needs of the next several decades. A code is vital to the more sophisticated but less patient upcoming OPAC generation.

Yes, not only might the next generation of adult library users by identified with a certain soft drink, or jeans, or automobile, but they will also have been nurtured on computers. The preliminary signs are that subject retrieval via the machine is not necessarily any easier or more reliable than with manual catalogs, in spite of keyword searching and similar techniques. Because of this, and because of the apparent increasing tendency toward least effort by information seekers, the importance of having a subject-access system which is thoroughly logical, consistent, efficient, and user-friendly is paramount. And the only way to accomplish that is systematically to modify LC subject headings and their application, and to document comprehensively the upgraded policies and practices in a subject code.

We are getting closer and closer to a subject code. It has been a rocky road to the code - appropriately enough considering the variety of nutty moments and personalities during the long process. As we approach our goal, I reflect on the old expression about the road to heaven being difficult to traverse. If that is true, then the completion and implementation of the subject code will be subject-access heaven. Possibly this celestial analogy is somewhat of an exaggeration; but if the LC subject-access system is not reshaped and codified, or if it is allowed to continue on its present unsatisfying way, the result may well be subject-access hell for the library users of the future.

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**Cataloging News**

*by Mary L. Larsgaard*

Phil Hoehn informs your Editor that “Geology, Structural” may now be subdivided by area.

Zorana Ercegovac has completed a dissertation in library science at UCLA - Research on knowledge-based descriptive cataloging of cartographic publications: an experimental advice-giving system — Mapper.

Bill Studwell informs me that he will going on sabbatical in about September of 1990 until January of 1991; sabbatical is “Subject Access at the Cutting Edge” - he’ll be writing articles and conference papers and doing consulting. He notes that his authorship adventures in recent weeks have included seven articles for the International Dictionary of Opera (to be published in 1991 by St. James Press, London), and text for a well illustrated carol collection, Hallmark Christmas Card and Song Book (to be published by Hal Leonard of Milwaukee in 1991).

From American Libraries, 9/90, p. 708: The Library of Congress has announced that the 1990 edition of the National Union Catalog (NUC) will not contain reports for books included in the OCLC, Research Libraries Group, and Western Library Network databases. Treatment of audiovisual and cartographic materials will be unchanged in their sections of NUC. The publication schedule and microfiche format will remain the same.

From Larry Cruse: Larry received a questionnaire concerning prioritizing of cataloging major microforms by OCLC. Larry put forward: LC Geography and Map Division’s 35mm rare-atlas preservation microfilm; currently has ca. 2,000 titles on about 600 spools; almost worthless without online bibliographic records. Larry also suggested the Geodec sheet-level files put together by Chris Baruth at U Wisconsin, Milwaukee.

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**TRADING POST**

*Free from M. Larsgaard, Map & Imagery Lab, Library, University of California, Santa Barbara CA 93106:*


HAVE MAPS, WILL TRAVEL
Traveling on Your Own
by
John Kawula

First in a series

Travel in one sense can be viewed as a logical extension of some of the work we do as map librarians. It can become an intrinsically rewarding educational experience on a par with reading or taking academic courses. Ultimately, it involves personal decisions regarding the allocation of time and money. One of the more difficult aspects of realizing the educational potential or satisfaction of travel is to have sufficient money as well as time. All too often, an individual is in the dilemma of having one without the other!

It helps to have a good sense of personal preferences and an understanding of what can be enjoyed or gained by visiting a given location. Although this may seem like an all too obvious statement, it is amazing how much money some persons will spend to do something that is incongruent with the setting. I have always been amused and somewhat disturbed by the persons who go on Caribbean cruises primarily for the party life on ship, and are almost oblivious to the culture, geology, or natural history around them.

This leads to the point of planning for the trip without overplanning. Some organization and structure is usually necessary for efficient use of travel time. Admittedly I see the point in a totally unplanned and totally spontaneous experience. Unfortunately, with the numbers of persons moving about and occupying hotel space, campgrounds, hiking trails, airplanes, etc., a truly unplanned venture is becoming less realistic each year. An understandable but disturbing trend in national parks and other such places is to require preplanned itineraries with preselected campsites. Thus, even simple hiking trips often require an unusually high degree of planning but a too highly structured trip can become stifling. You always want time to enjoy what you find, the flexibility to change details once you get there. Often the more interesting things and places are the ones you just happen to stumble across.

Enough with the theory. Now to summarize and generalize some personal experiences. For several reasons, I usually travel alone, mainly since I genuinely enjoy doing things alone. But this does place physical limits on my activities; my backpack tends to be heavier than average, so I am very cautious on unstable slopes. Clearly, some activities, such as rock climbing and white-water kayaking, need to be done with other persons for reasons of safety. Ironically, it is easier to meet persons when you are alone; if you are with a group or even with just one other person, other travelers and especially locals are not as likely to strike up conversations with you. I have had many wonderful and memorable conversations with total strangers I've met on trails, campgrounds, cafes, etc. Solo travel permits a surprisingly pleasant balance between privacy and social contact.

My experiences with group travel are limited, but I have done enough to draw some important generalizations. The foremost is that there is a selfselection process where certain personality types are attracted to certain types of group activities. The most important point of choosing groups, especially commercial groups, is to avoid those which will attract persons with whom you don't want to associate. For example, I decided several years ago that I wanted to go to the Okefenokee Swamp, but knew it would not be feasible to do this alone. I looked around and found a commercial guide that offered low-cost canoe trips on which everybody was expected to help set up camp, cook, wash dishes. I reasoned that persons who were not really interested in the ecology of the region, or who expected to be waited on, would never sign up for such a trip. I was right; the group was genuinely compatible, everyone did his camp chores without complaint, and it was a memorable experience.

Of course, you can never be guaranteed that you will have such a compatible group. The key point is not so much to select your group as it is to weed
out personality types and avoid certain persons altogether. This may sound harsh, but it works.

Personal preference for certain activities is a major factor in planning trips. Since I enjoy a wide range of activities, this presents planning problems for me. I tend to gravitate towards wilderness or semi-wilderness trips and culturally oriented trips to large cities. In between these two, I also do things like bicycle and explore country roads and small towns by automobile. Although I avoid tourist-trap places, I will admit that such areas tend to have high-quality delis, bakeries, and so on.

It would be hard for me to select my favorite type of trip, but my conception of an ideal vacation would be a wilderness hike through very scenic areas with few persons, followed by a couple of days in a large city with visits to ethnic restaurants, museums, theaters, and symphony halls thus sampling the best of two worlds, the back-country and the cultural richness of large cities.

Another logistical problem is that seemingly compatible activities often cannot be satisfactorily combined. The psychology of backpacking is such that you tend to plod slowly from the car to campsite A to campsite B and back to the car. Diversions are usually not all that welcome, and are often ignored. Really to explore an area, it's better to stay at the same camp for at least two nights, and day-hike in short circles from that campsite.

The psychology of bicycling is such that you become entranced with the rhythm of movement and the scenery as it unfolds while you are moving; bicycling becomes an end in itself.

Photography requires patience and careful work, and thus it is not quite as compatible with backpacking or bicycling as it may initially seem. My good photos are almost invariably taken after I have set up camp or stopped bicycling for the day. Fumbling around with different lenses and a heavy pack is not much fun; it is usually an unwelcome disruption to stop bicycling, dismount, take photos, and remount.

Planning the actual trip gives us map librarians the opportunity to practice what we preach, and utilize library materials. Tourist guidebooks are a mixed blessing; in one sense they identify places and things of interest, but in another sense they limit vision and imagination. A similar statement can be made in regard to trail-guides. The budget-oriented guidebooks are useful for identifying cheaper places to stay that the travel agents won't tell you about because they can't make a commission. Fiction, especially historical novels or other writing that makes strong geographic statements, are often better than nonfiction at conveying a sense of place. Maps of all kinds and scales are useful for planning. Each of us can think of many examples of the potential that exits in our collections; one of my favorites is to use Forest Service and topo maps to plan photograph-oriented hikes and campsites around morning light/evening light situations.

Once a trip has been planned in outline, its realization is dependent on finances. Even loading up a car with groceries and going camping often requires more money than one would think. The financial approach I take is to spend within reason what I need to get to a desired location (with the destination often determined by financial limits), keep the cost of accommodations low, and eat well. Each person has his breaking point or bottom line — mine is food. I can tolerate bad weather, dirty motel rooms, etc; but I found out the hard way that to enjoy myself and what I am doing, I need good-quality food in abundant quantity. I've also found out that for me hotels and motels are without any question the poorest value for the money in almost any travel situation. On the other hand, rental cars are one of the better values; I often fly to a destination with camping gear in a duffel bag, rent a car, and head for the wilderness. This gives me the flexibility and freedom to explore backroads and small towns, besides driving myself to the hiking trailheads. YMCA's are another alternative to hotels; but they are getting expensive in many cities. Youth hostels are very good buys for the money, and I plan to stay in them frequently in the future. The negative side of hostels is reduced privacy, but the savings are generally worth the compromise. For example, this summer I spent $12 per night for a hostel in downtown Boston; as many international travelers are attracted to hostels, hostelling is in itself an interesting social activity.

If I can get a tangible object that is a high-quality representative of the area, or something I need that I can't get at home, then I'll get it, but that's the exception. My memories are more important to me than physical souvenirs.
Welcome to CTR's [Central Technical Reports] Map Editing Group. I've compiled some information below on map editing and production in CTR. Basically, we are the middle persons between the author (geologist, geochemist, and so forth) and the production groups for maps published for the Geologic Division. Other USGS Divisions have their own editing groups.

The following map products come through CTR:

I. "Formal" maps in series—Fully edited; generally in full color, but some black and white charts and stratigraphic columns and some two-color publications; these include
A. Geologic Quadrangle Maps (GQ)—Individual quadrangles; geology as subject; always in full color; one sheet
B. Miscellaneous Investigations Series (M)—Individual or mosaicked bases or not maps at all; any topic as subject (C, CF, OC, OH, MR are specialized is); can be on multiple sheets
C. Coal Investigations Maps (C)
D. Geophysical Investigations Maps (CF)
E. Oil and Gas Investigations Charts (OC)
F. Oil and Gas Investigations Maps (OM)
G. Mineral Resource Investigations Maps (MR)
II. Miscellaneous Field Studies Maps (MF)—Black and white; a few two-color publications; generally used for preliminary or reconnaissance work; fully edited
III. Special maps not in series—Fully edited
IV. Open-file maps (OF)—Generally not edited; handled for approval only. Outside maps generally not edited; handled for approval only

Central workload
The Central region includes states west of the Mississippi, except CA, OR, WA, AZ, NV, Alaska, and Hawaii, although some maps for those states are edited here if the author is assigned to this region. Some maps for states east of the Mississippi are also edited here. 80% of maps published during the last three years in CTR are for NM, UT, CO, WY, MT, and ID. About 100-120 maps are received per year. CTR has six map editors, each of whom is expected to edit about 20 maps per year. We currently have 150 maps in progress (at stages from initial editing through corrections after final proof): 30 MFs, 120 formal maps. 26 maps are currently at the printer. CTR publishes about 60% of USGS maps.

* What a Geologic Map Editor (GME) does:

A. Reviews maps, text, illustrations, and tables for:
   (1) conformity to policy guidelines,
   (2) appropriateness for target audience,
   (3) validity of geologic interpretation,
   (4) logical organization,
   (5) clear presentation,
   (6) conformity to technical standards,
   (7) internal consistency in style and content, and
   (8) correct grammar, punctuation, and spelling.
B. Proofreads camera-ready copy, MF layouts, proofs (galleys, checkprints, map proofs), and MF printer's negatives to insure that author's and editor's changes have been incorporated and to eliminate any errors that would seriously detract from the quality of the publication.
C. Performs or monitors, as appropriate, all phases of editing, revision, approval, and production to achieve timely publication.
D. Advises scientists on
   (1) selection and planning of publication series, on effective means of presentation, and on methods of preparing maps, text, illustrations, and tables;
   (2) appropriate base materials for their publications and orders these through NMD's Base Preparation Unit;
   (3) photographic processes and orders photographic work through Base Prep

[Presented to WAML tour participants on September 14, 1990, at the USGS Federal Center, Denver.]
GME receives from author at time of edit:
A. Mill to be marked on - paper copy of map, cross sections illustrations, tables, text - all separate pieces
B. Colored copy of map (if geologic), cross sections, and correlation of map units to facilitate finding and identifying all map units
C. Review copies of everything with reviewers' comments at time of approval
D. "Original" materials - greenlines, blue lines, all Mylar overlays, corrected text on paper and diskette

Compilation on greenlines
One of the basic methods of compilation of geologic maps at the USGS is on greenlines, base-stable matte Mylar that has the topography wiped on the reverse side in green (sometimes blue). This green ink is photographically invisible - it disappears when shot through the camera and only the information inked on the top of the greenline shows up. The greenlines are punch-registered to the original topographic base negatives, which are used for the final maps. Using base-stable materials (materials that register exactly to the topographic bases) for production is very important. Some geologists ask for greenlines to take to the field and map directly on these because the material is waterproof; they compile on a second greenline. Other geologists do their field mapping on paper copies of the top maps and later transfer that linework and other information to the greenlines.

Some basics of four-color map production
Our maps are edited and designed with a four-color (sometimes five- or six-color) process in mind. In the four-color process, all the colors you see are created by combining yellow, magenta (or red), cyan, and black so that only these four ink colors need to be used in the printing process (much like the Sunday comics). Black is used for type, linework, and areas that show as printing (screened black). On more complex maps, brown may be used for the topographic base and red may be used in addition to magenta to extend the range of available colors. (Magenta produces rosy shades and clear purples, but subdued oranges; red produces bright reds and oranges, but muddy purples.) The various shades of colors are achieved by dots of varying sizes of the basic colors. These dots can be seen through a hand lens. At production time, a specialist in color design selects the colors and patterns to be used on a map, and the editor and author review this selection.

The dots are applied to the map in the form of screens of varying densities defined by percentages from color charts. 100% yellow results in a bright yellow; 10% in a pale yellow. When 100% yellow is combined with 100% cyan, the result is a dark green; when 40% yellow is combined with 40% cyan, a medium green results; and so forth. In conventional map production, areas need to be opened or peeled for each color density (percentage). This results in numerous peel coats which are then combined in color groups for the final printer's negatives (one for each of the four basic colors). Computer technology allows assignment of these percentages, application of the screens, and production of plots on film that bypass the numerous peel coats. We are using both methods to produce our maps, although we produce most by conventional means because that is currently cheaper and faster.

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**USGS GEOLOGIC DIVISION**  
Office of Scientific Publications

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Western Technical Reports  
Menlo Park, CA

Central Technical Reports  
Denver, CO

Eastern Technical Reports  
Reston, VA

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Manuscript Control  
Typesetting and Printing

Text Editing  
Graphics

Map Editing*  
Book Illus.

Thematic Mapping Section
STAGES IN THE LIFE OF A GEOLOGIC MAP
Sample of map reproduction using Macintosh and LaserWriter Plus with added captions.
The Peralta Land Grant

by

Rosanna Miller
Map Collection
Arizona State University, Tempe

James Addison Reavis was born in 1843, in Henry County, Missouri, to Fenton Reavis, a ne'er-do-well Welsh immigrant, and Maria Dixon Reavis, the daughter of a Scottish adventurer and, in Maria's fancies, a noble Spanish lady. The family never really prospered and Maria Reavis increasingly turned to daydreams and picturesque tales of Spanish conquistadors. After a hardscrabble boyhood, Reavis joined the Confederate Army. He discovered a gift for forgery which smoothed the rough edges of the military experience with frequent passes and supply requisitions turned to his own profit.

As a fledgling real estate agent in St. Louis, he met Dr. George Willing in 1871. Willing claimed land grant documents purportedly purchased in Arizona from Miguel Peralta, an elderly prospector of Hispanic origin. The price, according to the Doc, had been two bags of gold dust, some nuggets, mules, saddles, and mining equipment. Through Willing, Reavis met William "Spanish Land Grant" Gitt, an old wizard of legal chicanery in the Louisiana Territory. Gitt had a lot to teach and Reavis was an apt pupil.

In January 1874, Dr. Willing left St. Louis to file his documents with authorities in the Arizona Territory. He reached Arizona and died in Prescott that March. Reavis, his new partner, was to have proceeded to California, negotiated return of the grant's mining rights, signed away in one of Willing's frequent financial crises, and joined his partner forthwith. For reasons which are not clear, Reavis did not enter the Arizona Territory for another six years.

Some of these years were spent in Southern California where Spanish land grants were a hot property. Ambitious gringos lusted after heiresses and haciendas. Under the Treaty of Guadalupe Hidalgo concluding the Mexican War in 1848, the United States was "to recognize all legitimate titles to every description of property, personal and real, existing in the ceded territories."

In one year, eight hundred land claims, twenty million acres, more or less, were heard before the Private Land Claims Commission and over five hundred were sanctioned. Land commissioners were not averse to having their palms greased. As a case in point, it has been said that the Hearst lands in San Luis Obispo County were acquired for sixty cents an acre and some judiciously applied palm grease.

With doubtful claims, another useful ploy was settling out of court. The present landowner/occupant was spared costly litigation and risk of property loss. The Heir Apparent obtained ready cash and avoided the risk of manana in the calaboose.

Relocating from southern California to San Francisco, Reavis found work as an advertising and subscription canvasser for the San Francisco Examiner. Somehow, he obtained an interview with C. P. Huntington who, along with Leland Stanford, Mark Hopkins, and Charles Crocker, controlled the Southern Pacific railroad. Reavis told Huntington that he possessed documents entitling him to large sections of Arizona and New Mexico.

Reavis' timing was good. In the spring of 1877, the Southern Pacific had reached the west bank of the Colorado River only to be stalled by Jay Gould's influence in the Federal Government. Central Arizona was the focus of the right of way struggle between Gould's Texas Pacific and the Southern Pacific.

As the battle heated up in the summer of 1878,
Reavis met with Huntington and Crocker. He proposed a contract of fifty thousand dollars to be paid to him in exchange for denying Gould the right of way through his Peralta Grant. Given the venality of public officials and Gould’s enormous wealth, Reavis’ claim, valid or not, was potentially dangerous. Huntington decided to string him along, keep him from going to Gould, and see what developed. Amazingly enough, the contract was actually signed four years later.

In 1879, Reavis was given the nod to go to Arizona and establish his claim. In May 1880, he departed for Phoenix, neglecting to inform his backers that he did not actually possess the Peralta documents and had no legal right to them if he did. Shortly after arriving in Phoenix, he mentioned his claim to a very large Spanish land grant in the Arizona and New Mexico Territories to the editor of the Salt River Herald. The editor was not impressed. A lot of people either believed or pretended to believe they had such claims.

On this first trip to Arizona, Reavis also visited Prescott to pick up the late Dr. Willing’s personal effects and retrieve the documents he now regarded as his own. His business in Prescott concluded, he returned to San Francisco with the papers. Although Willing’s documents were believed to have been related to a Spanish land grant, it was never proved that any of his originals were actually used by Reavis when he finally registered his deeds in 1883.

Examining the papers at leisure, Reavis must have realized their inadequacy to support a successful claim, even in the lax ethical climate of the time. Though disappointed, he was too deep to quit. The assignee of the mining rights was bought off with a promise to repay Willing’s three thousand dollar debt, with interest, when the grant was recognized. Willing’s widow signed away her rights in the Peralta Grant for thirty thousand dollars....when the claim was validated. All this trouble for some old documents and a scrap of scribbled paper, the solemn contract of Doc Willing and Miguel Peralta. The Miguel Peralta who was either dead or untraceable by 1880, who may or may not have ever existed, and whose descent from any noble Peralta family of New Spain was, in any event, highly problematical.

Reavis was not lacking in resources. He was charming, smart, and a practiced forger. In September 1880, he was in Mexico to spend the winter in Guadalajara and Mexico City. He befriended the state archivists in the two cities and gained freedom of access to antique maps and molding documents of the Spanish colonial government. His quick mind noted the paper, penmanship, inks, and variations in literary style and calligraphy of the old papers. His quick hands grabbed as many relevant documents as casual supervision permitted. Others he transcribed or had photographed.

Back in San Francisco, in seclusion, he painstakingly produced the requisite evidence to establish his claim. He created not only the documents so regrettably lacking from Willing’s pathetic legacy, but an entire family and its glorious history.

The founding father, in Reavis’ imagination, was one Don Miguel Nemeio Silva de Peralta y de la Cordoba. In 1742, age thirty-four, Don Miguel sailed to the new world as Visitador del Rey of the city of Guadalajara. He was a good and faithful servant to King Philip V. In 1748, the new king, Ferdinand VI, signalled his father’s gratitude by promoting Don Miguel to captain general and signing a document conceding “to Don Miguel de Peralta y de la Cordoba, according to common measurement...three hundred square leagues, or nineteen thousand two hundred million square varas of land which shall be situated in the northern portion of the Viceroyalty of New Spain; and shall be in such shape as to not to interfere with grants previously made; they shall however include all lands, waters and streams, all minerals and all other belongings.”2

Reavis faded, forged, and forged multiple documents to establish a chain of legal evidence and allowed many years, reflecting the exceedingly slow workings of the Spanish colonial bureaucracy, to lapse between the first edict and the last. The royal endorsement of Don Miguel’s estates, long delayed due to indian uprisings, was finally granted in a document of January 22, 1776.

Reavis’ forgeries also dispatched Don Miguel on an imaginary journey to inspect his lands. A fabricated report by Father Francisco Pauer of San Xavier mission described the location and inscription of the Initial Monument marking the center of the Peralta Grant’s western boundary. The measurers “found a great and high rock at the foot of the Sierras Estrellas (near Phoenix)...ascended to the summit of this rock and looking around...we saw at
a great distance the valleys of the Gila and the Saltado (Salt) and the Santa Cruz...we descended from the rock, and ordered to be designed on this said rock the diseno of the said Barony of Arizonac, and it was so designed; and with ceremonies appropriate for the purpose of consecrating it to its destiny. Reavis later chipped a rough outline of the Peralta Grant boundaries on the “Initial Monument,” in situ, and the last baroness was photographed in front of it.

The king’s loyal servant, Don Miguel, remained very busy in Mexico all these years. In 1770, age sixty-two, he wed Sofia Ave Maria Sanchez Bonilla de Amaya y Garcia de Oroso, the young daughter of the governor of Nayarit. Eleven years later, their union was blessed with a son, Miguel Silva Jesus. Please note, long generation spans exact less drudgery from a forger. Don Miguel’s last will and testament, witnessed when the boy was seven, cited specifically the Barony of Arizonac, known as the Hacienda de Peralta. In 1894, the first Baron died at the age of one hundred and sixteen.

The extensive documentation of the first baron’s remarkable career did not extend to that of his son. Little of the son and heir is recorded until his marriage in 1822, at age forty-one. His wife was Dona Juana Laura Ibarra from a noble family of Guadalajara. In 1839, their daughter, Sofia Laura Micaela, was born.

The second baron never possessed his Arizona estates. His life held misfortune and decline. In the early 1860’s, as plain Miguel Peralta, he allegedly sold his birthright to Doc Willing. Reavis’ nobly conceived and documented family had fallen by the wayside. It was up to their creator to restore the Peraltas to their former luster.

On his second visit to Arizona in September 1882, James Addison Reavis was fully confident and sufficiently affluent as a result of his dealings with C. P. Huntington and Charles Crocker. In 1881, he had received a first payment of five thousand dollars upon signing the fifty thousand dollar contract granting the Southern Pacific right of way through his lands. He had subsequently received additional payments. The Southern Pacific company lawyer was at his service. Reavis’ arrival was heralded by self-written interviews from San Francisco newspapers recognizing his documents as proof of legitimate claim to vast estates and mining rights in Arizona and New Mexico.

At the Graham County courthouse in Safford,
Reavis deposited copies of deeds assigning Doc Willing’s rights to him and then again left the Arizona Territory. He had not yet registered his claim with Arizona’s surveyor general. He was not seen in the Territory again until the spring of 1883.

The procedure for filing a land grant claim was time consuming and tedious. The claim had to be filed with the United States surveyor general in the proper state or territory. The supporting documents had to be examined by this official, an investigation made, and the claim submitted to the Secretary of the Interior along with the surveyor general’s report on his findings. The claim was then reexamined and, bearing scrutiny, submitted to Congress for a special bill to be passed either recognizing or invalidating the claim.

Land claims in Arizona at this time were in a state of flux. Fewer than eight million acres had been surveyed and confirmation of ownership amounted to just two hundred and fifty thousand acres. An expert sent to Mexico City and Guadalajara in 1874, reported that the majority of relevant documents had perished in a fire.

Arriving in Tucson, March, 1883, with a newly acquired disreputable lawyer, a bodyguard, and trunks full of documents, Reavis visited the office of the surveyor general. The claim to the Peralta Grant was finally filed. This claim included the settlements of Phoenix, Mesa, Tempe, Florence, Casa Grande, Safford, and Globe, as well as hundreds of mines and rich mineral deposits. Also within his questionable domain were the farms and homes of many small landowners.

Having filed formal registration, Reavis moved south of Casa Grande to Arizola, the select locale of the historically nonexistent Hacienda de Peralta. Here, unhampered by financial considerations, he built the finest house in the Arizona Territory. His coffers were full as a result of a deal with the Silver King Mining Company recognizing Reavis’ claim and agreeing to pay royalties to the extent of twenty-five thousand dollars. This arrangement made verbiage propaganda as the deficiencies of the small landowner was highlighted against the capitulation of the richest mining company in Arizona.

Reavis began to gather a small army of rent collectors and agents. Posters were printed and posted in the towns. Paid announcements were inserted in the newspapers. The text instructed land occupants to contact Mr. Cyril Barratt, representing Mr. James Addison Reavis, to register tenancy and sign agreements. Those not signing were to be regarded as trespassers and would be subject to litigation and expulsion when the Peralta Grant was validated by the U.S. Government.

His agents began to call on landowners proposing a small payment on account and subsequent payments of rent in exchange for perpetuity of tenure and an impressive deed featuring Reavis’ signature and seal. People who refused to sign were subjected to intimidating tactics. His Royal Nibs, as the Arizona Gazette dubbed him, disassociated himself from his roughnecks and dealt smoothly with the more influential classes.

Reavis ingratiated himself with surveyor general Robbins’ senior clerk and accompanied the old man to Guadalajara to examine additional Peralta documents. Skillfully guided, the clerk saw selected documents and concluded that the claim was well founded. Rumors flourished, one of the most alarming being that the Federal Government was ready to offer one hundred million dollars to convert the Peralta Grant into public lands to be leased to present occupants.

At first, Territorial newspapers attacked Reavis to little avail. Tom Weedon, publisher of the Florence Enterprise, emerged as his most formidable adversary. Bribing Weedon failed and veiled threats resulted in his publishing the most heated polemic to date against Reavis. The attacks were repeated week after week. Clark Churchill, Arizona’s attorney general, joined the anti-Reavis movement by filing suit, as a private individual, pressing Reavis to either show cause of claim or withdraw. The case was adjourned, but momentum grew. Anti-Reavis committees were formed.

Despite his influential backers and contacts in Washington, Reavis lost ground. The stunning blow was an order from the commissioner of the General Land Office to the surveyor general enjoining him to discontinue consideration of the claim. Reavis locked up his palace and beat a hasty retreat.

A lesser man would have given up the quest. Reavis simply took a different tack. To fortify his case, he produced the last baronet, direct descendant of the first baron. The tortuous com-
plexities of the life of Doña Carmelita Sofía Loreta Micaela de Masó y de Peralta, Baroness of Arizona and de los Colorado, were never to be fully untangled. Bits of apparent truth mixed up with Reavis' romantic fiction lead to the conclusion that she was probably a half Indian girl orphaned at an early age and brought up on a California ranch as sort of domestic slavery. Reavis made her his secret bride on December 31, 1882 and begun grooming her for an aristocratic future.

Reavis also acquired new backers, banker Maurice Herr, with whom he formed the Arizona Development Corporation, a stock company, and John W. Mackay of Nevada's Comstock Lode. In 1887, Reavis and his wife, referred to as his ward, embarked on a visit to Europe. ostensibly to hobnob with Spanish relatives and search the Madrid archives for more documents. Mackay backed this enterprise. The trip was a triumph. In England, the erstwhile St. Louis streetcar conductor and his former scullery maid wife were received in high society and presented to Queen Victoria.

Upon returning to the states in 1887, the baroness made her first appearance as Reavis' wife. The ceremony had been performed. They alleged, in the bosom of her noble Spanish family. In addition to his elegant lady, Reavis returned with scores of documents from Spanish archives, a clutch of family portraits from the Madrid flea market, and the assurance that he had successfully salted the archives in Madrid and Seville with documents supporting his claim.

He also returned with the ambition to become a great tycoon and began forming companies right and left. The Casa Grande Corporation alone was to be funded at fifty million dollars. Investors flocked to his side and the money came rolling in. The famous and/or notorious American atheist, Robert G. Ingersoll, became his personal lawyer and first president of the Casa Grande Corporation.

The Reavis party returned to Arizona and a new claim was filed on behalf of the Baroness as a direct Peralta descendant. All the necessary documents were, of course, forthcoming. The Republicans came back to power, and Royal Johnson, a former Arizona surveyor general, returned to office. His earlier suspicions of Reavis were intensified by succeeding events and confirmed by typographical inconsistencies spotted by an alert printer. On October 12, 1889, Johnson's report, the Adverse Report of the Surveyor General of Arizona, upon the Peralta Grant, a Complete Expose of its Fraudulent Character, was sent to Washington.

The amazing upshot of this report was a lawsuit filed by James Peraltaeavis, as he now called himself, and the Southern Pacific Company in the Court of Claims against the United States of America. They charged their property rights had been violated in multiple respects including opening lands to settlement and misappropriating Gila River water for irrigation purposes. The suit called for eleven million in damages with additional claims to come. This move was the beginning of the end.

In March 1891, the Court of Private Land Claims was established in Santa Fe, New Mexico Territory, specifically to deal with Spanish, Mexican, and French land grant claims. The Reavis case came before this court on June 3, 1895. Federal Government attorneys, special agents, and experts in graphology, typography, and the Spanish language had prepared an excellent case against him. Matthew Givens Reynolds, the Government's attorney addressed the court: "The Government's submission to this court is that no such Spaniard as Miguel de Peralta ever existed; that such a grant was never decreed by the King of Spain or located in Arizona by the viceroy of New Spain; that Mrs. Sofia Loreta Micaela Peraltaeavis, the wife of James Addison Peraltaeavis, the alleged sole heir of the imaginary Baron Miguel de Peralta, is really the daughter of one John A. Treadway and a Digger Indian squaw known as Kate, and that she was born in Sherwood Valley, Mendocino County, California, and is no wise related to any Spanish family; that every document and record submitted or filed by the plaintiffs is manufactured or was forged and surreptitiously inserted in the various archives of Spain and Mexico; that James Addison Peraltaeavis was in 1886 in Spain discovered in the act of attempting to leave among the archive files forged evidence of title, that proceedings against him were taken in Spain, and that having made his escape, the said James Addison Peraltaeavis is a fugitive from justice."4

Reavis went to court as his own counsel. His influential friends had deserted him as pre-trial inklings of the Government's investigation and his probable culpability leaked out. On Friday, June 28, the court ruled: "It is therefore ordered, adjudged, and decreed that the claim to the property which is commonly known and called the Peralta
Grant, situated in the territories of Arizona and New Mexico, is hereby rejected.\(^5\)

On the same day, James Addison Reavis was arrested by a United States Marshal on a charge of attempted fraud. Unable to make bail of ten thousand dollars, Reavis was taken to the city jail to await his trial one year later. In his criminal trial, he was found "Guilty as charged in the indictment to defraud the United States Government out of parts of its public lands in connection with the effort to establish the fictitious and fraudulent Peralta Grant."\(^6\) He was given a lenient sentence of two years in the Federal Penitentiary at Santa Fe and fined five thousand dollars. Due to exemplary conduct, he was released on April 19, 1898.

The deposed Baron never recouped his losses. For a time, he and his family eked out an existence on Sofia’s meager earnings as a milliner. He then sold his memoirs to the San Francisco Call and started an abortive magazine Peralta reavis Real Life Illustrated. His last years were spent on public charity and he died in Denver at the age of seventy-one, consigned to a pauper’s grave. The last Baroness survived her husband by twenty years. Her brief obituary, in April, 1934, made no mention of her noble lineage.

**NOTES**

3. Ibid., p. 34.
5. Ibid., p. 279-80.
6. Ibid., p. 283.

**BIBLIOGRAPHY**


**EMPLOYMENT**

The following all had deadlines prior to publication of the March IB; they are listed here as a matter of record.

Assistant Government Documents and Map Librarian, a full-time, 12-month, tenure-track appointment available as soon as possible following the application deadline (applications postmarked by 11/30/90 will be given first consideration; applications will be accepted until the position is filled or until 2/1/91). Contact: Sandra Gilliland, Assistant to the Dean, University of Kansas Libraries, Lawrence KS 66045-2800. Annual salary: $21,200 minimum.

Assistant Librarian - Map Cataloger, UCLA, working on a US U.S. Department of Education grant. Contact: Dr. Rita A. Scherre, Associate University Librarian, Personnel and Administrative Services, UCLA, 405 Hilgard Avenue, Los Angeles CA 90024-1575. Candidates applying by 1/1/91 will be given first consideration. Annual salary: $27,360-$35,016.

**Publisher Profile : Metro Aerial**

(continued from page 105)

contractor and a real estate broker. He has a bachelor's degree from Brigham Young University in Fine Arts with an emphasis in Urban Planning and Real Estate Development. He has done postgraduate work at the School of Architecture, University of Utah. The co-founder and vice-president, Jessie T. Smith, has a B.A. from Brigham Young University, and an N.E. from the University of Utah; her specialty is zoning. As a result of Roger's background in real estate development and Jessie's specialty in zoning, we have realized the advantage of combining vertical aerial photographs with zoning maps to create an atlas that is beneficial to clients. In addition to these atlases, Metro Aerial provides custom oblique and vertical aerial photographs, artwork and overlays, and mounting. We have a large aerial photobank, and also create areas from these photographs. For ordering information, call 1(800)488-2996, or write Metro Aerial at 1028 Haman Way, Roseville CA 95678; fax number is (916)786-6869.
New Mapping of Western North America

Compiled by

Joe Crotts
California State University, Chico

Contributors: BR Buddy Rooney
EJ Ed Jestes
KN Klaus Neuendorf

ARIZONA


CALIFORNIA


COLORADO


From map. Denver-Julesberg Balsin. 1990. col. $52.00. Oil and gas production map. 1331 17th St., Ste. 508, Denver, CO 80202. 303-229-2292. (EJ)


IDAHO

U.S. Forest Service. Payette National Forest, travel map. 1990. 1:130,000. col., both sides of
<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Description</th>
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<td>NEVADA</td>
<td>Promap. Nevada. 1990. col. Oil and gas production map. $37.00. 1331 17th St., Ste. 508, Denver, CO 80202. 303-292-2292. (EJ)</td>
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<tr>
<td>NEW MEXICO</td>
<td>New Mexico Bureau of Mines and Mineral Resources. Uranium resources in New Mexico. 1989. 1:1,000,000. col. Box 946, Campus Station, Socorro, NM 87801. $7.50. (EJ)</td>
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<tr>
<td></td>
<td>Black, G.L. Geologic map of the Reston Quadrangle, Douglas County, Oregon. 1990. 1:24,000. GMS-68. col. text. $5.00 (KN)</td>
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<td>McLeod, Norman S. Geology and mineral resources map of the Mahogany Gap Quadrangle, Malheur County, Oregon. 1990. 1:24,000. col., 40 x 27 in. DOGAMI Geological Map Series GMS-64. $4.00. (KN)</td>
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<tr>
<td></td>
<td>St. Clair, A.E., et. al. Energy resources of Texas. 1976. 1:1,000,000. col., 105 x 130 cm. G031 H 1 1976 T4. Bureau of Economic Geology, University of Texas, Univ. Station, Box X, Austin, TX 78712.</td>
</tr>
</tbody>
</table>

(Continued)
WASHINGTON


WYOMING


Promaps. Powder River Basin. 1990. Oil and gas production map. $37.00. 1331 17th St., Ste. 508, Denver, CO 80202. 303-292-2292. (EJ)

papers on a topic, figuring it just meant no one was brave enough or knew enough to write up a synthesis. It’s worth braving the terrors of your library’s serials list in order to hunt these up and read them. The reason I had to read the papers was because I spent the entire day (all I could steal from the office) at exhibits. If you ever get a chance to go to one of these, do so; it’s well worth your time and money. They seem to be joint get-togethers, co-sponsored by the American Congress on Surveying and Mapping, the American Society for Photogrammetry and Remote Sensing, AM/FM International, Association of American Geographers, and the urban and Regional Information Systems Association.


March 18-20, 1991 Progress and Promise, the Sixth International Conference & Exposition on Multimedia and CD-ROM, San Jose CA. Wait until your rich uncle dies before you decide to attend this one - the registration fee is $1,085. Contact: Cahnors Exposition Group, 999 Summer Street, Stamford CT 06906-0833.

March 20-23, 1991 WAMLSpring meeting, University of California at Santa Barbara. “Spatial Data in a Digital World.” See full-page announcement elsewhere in this issue of the IB.


May 26-30, 1991 Association of Canadian Map Libraries and Archives Conference, to be held at the National Archives of Canada, Ottawa. Tentative program - Sunday afternoon: open for workshops and committee meetings; Monday: new non-
paper based cartography, emphasizing the various products now appearing and trying to understand their impact on our map collections; Tuesday: documentation of our collections, our progress in describing them and sharing that information, and how we can use PCs to make our collections more accessible (Yves Tessier and Joan Winearls); Wednesday: morning is open, afternoon is the annual business meeting. 1991 marks the 25th anniversary of the founding meeting of ACMLA; a number of special events & activities are planned to commemorate this special occasion. Accommodation has been reserved at the University of Ottawa; there are a number of hotels near the National Archives Building - reservations at these hotels should be booked before the end of January (Albert House; Doral Inn Hotel; Relax Inn). For further information: Louis Cardinal, Cartographic and Architectural Archives Division, National Archives of Canada, Ottawa, Ontario, K1A 0N3 (613/996-7619; fax 613/995-4451).

June 8-13, 1991 Special Libraries Association annual conference; 75th anniversary of the Geography and Map Division, San Diego. DONT miss this one! Johnnie Sutherland (who in his sane moments is the map curator at the University of Georgia) has promised that he will grace this event - he's the incoming chair of SLAG&M - by wearing an outfit ti- (oops, started to type "tacky" - a freudian slip) totally caparisoned in cartographic clothing. On the serious side, Johnnie has invited every past SLAG&M chair to attend, and apparently has roped as many as possible into giving papers. Theme of SLA conference: Masterminding Tomorrow's Information - Creative Strategies for the '90s. The Division papers should focus on: history and accomplishments of the Division and its members; presentations on new technologies and directions for the Division. map librarianship, geography, and cartography; information on San Antonio and the borderlands; papers developing the Conference theme. John Sutherland, Curator of Maps, Science Library, University of Georgia, Athens GA 30602 (404/542-0690; jsuthersl@uga.bitnet; fax 404/542-6523).

June 10-13, 1991 International Society of Curators of Early Maps, Uppsala. Topics: improving reference services; cataloging and other documentation of early maps; disaster preparedness; security and thefts; fakes, forgeries and authentication; cartobibliography. Ed Dahl, Cartographic & Architectural Archives, National Archives of Canada, 395 Wellington, Ottawa, Ontario; or Barbara McCorkle, Map Collection, University Library, Yale University.


Fall, 1991 WAML, California State University, Chico; contact person, Joe Crotts.

September 23-October 1, 1991 15th International Cartographic Conference, Bournemouth; theme is "Mapping the Nations," in honor of the 200th anniversary of the British Ordnance Survey, with subthemes of modern cartographic technology, design and marketing, and the history of cartography. For further information - I.D. Kember, Organising Secretary for ICA, 16 Highlands, Taunton, Somerset, TA1 4HP England.

Spring, 1992 WAML, San Francisco State.

Fall 1992 WAML Fall meeting, Hawaii. Riley Moffat says:

Start saving your pocket change for WAML's 25th anniversary meeting in Hawaii in the fall of 1992. Let me know your time preferences between Labor Day and Thanksgiving. Right now I'm looking at our traditional day and a half of meetings split between BYU in Laie and Bishop Museum in Honolulu. I'd like to plan a full-day field trip to the Big Island to check out the volcanoes; right now I think we could do that for about $80 per person. Besides hearing about local mapping projects I'd like to see some reminiscences in honor of our silver anniversary, or reviews of the profession. Expect plenty of food, fun, and sun. (Division of Learning Resources, Brigham Young University, Box 1966, Laie HI 96762; 808/293-3850).

Combine two biggies:
2. August 9-14, 1992 27th International Geographical Congress, Washington, D.C.: the biggest, the best - the prospectus alone is nearly 1/2" thick, and includes a colorful separate handout.
maps of the cities as well as their historical development and economic activities. The atlas clarifies the natural characteristics of each city, and gives information about population density in Saudi cities. (Michael found this in the Arab Information Bank on DIALOG; it looks to the Editor rather like an atlas Russell Gyu. of Geoscience Resources, Burlington NC, was showing at the Southeast AAG meetings in Columbia SC this last November)

The Hertz people are coming out with “Hertz travel guide including maps” for major metropolitan areas; (213)284-3140.

UC Berkeley junior Adam Shavit (22 years old) is the founder and president of University Map Makers, a firm that produces and distributes posters with information for the new student on campus.

Tommy Thompson wants to sell (and may have done so, by the time this is published) his Map Center, 2611 University Avenue, San Diego (619/291-3830); asking price of about $450,000.

Need a diagram for how an acre fits into a square mile? See Planning (from the American Planning Association, 2/90), from the letters to the editor (no page number given).

Periodicals received since last IB:

Association of Canadian Map Libraries and Archives Bulletin, no. 76, June 1990:
Features (new books and atlases, regional news, ACMALA membership list, etc.) plus: “The 3-Mile to One Inch Sectional maps of the Canadian Prairies” by Lou Sebest; “New trends in map collections” by Patricia Bellamy; “New trends in map collections” by Richard Pinnell

Association of Canadian Map Libraries and Archives Bulletin, no. 76, September 1990:
Features (new books and atlases; reviews; regional news) plus: “MAC Mapping in the Map Library” by Colleen Beard; “La geographie municipale au Quebec” by Bernard Vachon

California Map Society Newsletter, December 1990: news & notes

Special Libraries Association Geography & Map Division Bulletin, no. 161, September 1990:
Features (announcements, catalogs received, new
got pubs, cartifacts, book reviews, letters to the editor) plus: “Index to Map Collectors’ Circle” by Barbara B. McCorkle

Special Libraries Association Geography & Map Division Bulletin, no. 162, December 1990: Features (announcements; catalogs received; book reviews; annual index) plus: “Orbis Terrarum, or Martin Hurlimann (1897-1984) as author/photographer/publisher of the world’s countries, peoples, and landscapes: a bibliographical review essay,” by Eugene B. Jackson

FEDERAL NEWS

Army Corps of Engineers

New item coming on depository - Digital data digest. This product of the Engineer Topographic Laboratories came out with vol. 1, #1, in summer of 1990. Lead article: “Understanding the digital topographic revolution.”

Census Bureau

In case you’ve been wondering about how much it costs to count us, the following from an unidentified source (highly placed - well, it is a newspaper clipping) provided by Larry Cruse (UCSD):

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (in millions)</th>
<th>Pages in reports</th>
<th>Census cost/person</th>
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<tbody>
<tr>
<td>1790</td>
<td>3.93</td>
<td>56</td>
<td>$0.01</td>
</tr>
<tr>
<td>1890</td>
<td>62.95</td>
<td>26,408</td>
<td>$1.83</td>
</tr>
<tr>
<td>1990</td>
<td>249.89</td>
<td>500,000</td>
<td>$10.40</td>
</tr>
</tbody>
</table>

[given inflation, not bad at all]

Your Editor is beginning to believe she doesn’t have the strength to keep up with all the TIGER information coming out; please consider the following to be probably no more than the tip of the iceberg:

Doubtless anyone on the depository system has now seen the news of the about 45 CDs that will be coming sooner or later (apparently sooner - there are about 30 of them sitting on my desk as of early January).

The Bureau’s Geography Division put out an initial proposal “For the exchange of TIGER digital geographic data,” for discussion at a working group meeting at GIS/LIS’90, 11/6/90, Anaheim. Two sentences from the first page summarize the gist of the matter: The Bureau of the Census is committed to updating and improving the TIGER data base. By working together and developing effective mechanisms for data exchange, governmental data users [from all levels of government] can avoid duplication of data development efforts. Successful cooperative data development and maintenance will allow the Census Bureau and others to efficiently update and enhance TIGER and other geographic data bases.”

The Bureau has issued “1990 Census TIGER/Line (TM) File Release Note 1.0” on 10/24/90 - the first release note. Files are to be available beginning 1/91 through the end of 3/91; price will be $200 for the first county in a state (magnetic tape), plus $25 for each additional county in the same state ordered at the same time.

[Bibliography of articles on TIGER next issue - we’ve run out of space]

The APDU (Association of Public Data Users) Working Group on Census Product was preparing contributions for a new manual, called the Geographic Concepts Manual; it is intended to be a compilation of profiles for each state.

Federal Emergency Management Agency

The agency has chosen Terralogics Corporation to help it digitize more than 37,000 maps of flood insurance rates and put the maps on CD-ROM for distribution. FEMA is using Census’ TIGER system data and a GIS to digitize the maps; Terralogics will handle the CD conversion (Federal computer week 9/17/90)

Geological Survey

Through an agreement signed in 90 between USGS and the circum-Pacific Council for Energy and Mineral Resources, USGS will publish the remaining maps in the Council’s Circum-Pacific Map Project. The first map to be published under this new agreement is Natural hazards map of the Circum-Pacific region, Pacific Basin sheet (CP-35). USGS shipped this map on its map shipping list #90-49 (8/27/90), under item number 0619-G-08, SuDocs # I 19.912/2:CP-35. Dallas Peck, Director of USGS, officiated at the public dedication ceremony for the USGS National Map Distribution Center and Core Research Center on 6/27/90 at the Denver Federal Center Building 810.
Bureau of Land Management

BLM was planning to convert all its records to automated form; apparently this failed to receive the blessing of the persons controlling the purse strings.

National Geodetic Survey

See its useful June 1990 brochure - Information flyers of the National Geodetic Survey; National Geodetic Information Center, N/C/GI/74, Rockwall Building, Room 24, NGS, NOAA, Rockville MD 20852 (301/443-8631). A substantial amount of digital data.

NOAA

Intergraph is installing the Automated Nautical Charting System II, NOAA's program to modernize the agency's chart production operations and create a unified digital database for marine navigation applications across the nation (from Federal computer week, 8/20/90, p. 19).

DIGITAL NEWS

If you're interested in desktop mapping, get a copy of GeoForum ("published for desktop mapping users by Strategic Mapping, Inc." Address: 4030 Moorpark Avenue, Suite 250, San Jose CA 95117-1848). Vol. 6, #3 (Fall 1990) has as a cover story, "Maps help Centers for Disease Control in international eradication effort."

Do you covet a copy of the CD-ROM, Star Disc Catalog, from the Space Telescope Science Institute? Contact: Patty Trovinger, (301)338-4794.

If you haven't yet read "Rollo and Whistle" by Tom Gaughan - Editor of American Libraries - in AL for 12/90, p. 1012, and you desperately need a laugh, run, do not walk, to the shelves and wrest this issue from the enfeebled grip of a dissertation student. It starts out with, "Are the machines in your world becoming too capable? Are they outstripping your ability to remember how to use them completely?" and goes on from there.

GIS periodicals that are most useful: Jenny Marie Johnson (University of Washington) got a copy of these from Earl Wilson at USGS in Denver - Monitor (ERDAS, Inc., 2801 Buford Highway, Suite 300, Atlanta GA 30329; 404/248-9000)

- SPOTLIGHT: the quarterly newsletter from SPOT Image Corporation (1897 Preston White Drive, Reston VA 22091-4368)
  GIS sourcebook (annual; GIS World, POB 8000, Ft Collins CO 80526; $119.95)
  GIS world (see address above; $96/year; 6 times/year); the October/November '90 issue has an article on the National Geographic Society's uses of GIS (starting on p. 36)
  GIS/News (Generation 5 Technology, Inc., 8670 Wolff Court, Westminster CO 80020)
  TYDAC news (TYDAC Technologies, Inc., 1655 N. Ft. Myer Drive, Suite 320, Arlington VA 22209)

While we're on the topic of GISs - here are the ten deadly sins when buying a GIS system: disregard your business plan when designing your GIS; let everyone have a crack at writing the RFP; make the RFP sacred; never check out references; believe everything you hear; design a multiagency GIS; accept vaporware as reality; require custom demos; blindly decide your GIS must run on multiple platforms; let a system integrator run the show (from what one suspects may be a prejudiced source - The Harlow Report, Geographic Information Systems, vol. 13, no. 7, July 1990).

Digitized map data bases in one's car are here - more than 100,000 units are already installed in Toyotas, Nissans, and Mazdas; as yet, non-commercial cars equipped with the system are available only in Japan, but General Motors has obtained the right to use navigation technology purchased from Etak, Inc., and plans to offer the system in its 1994 Tornado.

NORTHSTAR (at the Thayer School of Engineering at Dartmouth) has now fulfilled one of its commitments to its vendors (e.g., IBM, Sun, Digital) to make NORTHSTAR applications available free of charge to other universities. Other institutions can request a tape with Northware distribution, or they may gain access to it electronically via the experimental ftp server: northstarftp.dartmouth.edu. The software has been tested on IBM RT, Sun 3/60,
Sun SPARC-station, DEC3100, Convex, IBM RISC System/6000, and HP9000 machines.

Questions about Northware may be sent to: source@northstar.dartmouth.edu.

NORTHSTAR has developed two programs that interface to Modflow, the USGS code for groundwater flow modeling. Modinput is an easy-to-use, interactive program that will build Modflow input files and run the program; Modoutput is a program that reads the Modflow output data files and produces contour plots using Graf, the NORTHSTAR graphing utility. The Modflow program is well known and useful, but large numbers of complicated input files are required to run it. NORTHSTAR's interfaces will facilitate the use of this important program. (Thanks to Joanne E. Farrar for the information)

More DIGITAL NEWS

From an e-mail message of 12/7/90 from David Cobb (University of Illinois: A group of Soviet companies are developing a system to convert Soviet maps into digital form. The company's representatives claim that 1.1,000,000 maps of the USSR will be available in computer form during 1992.

The work to develop digital map storage and processing is being performed by a group of companies including Moscow-based ASUAS, Kartografiya mapping production amalgamation, and Antares Company. ... They estimate a sheet representing a reduction of 1.1,000,000 will result in a 5MB file ...

Press Contact: Mark Beletsky, Kartografiya, Phone 7 095 177 3701.

From a press release dated 9/17/90: Merit, Inc., IBM Corporation, and MCI Communications Corporation today announced the establishment of Advanced Network and Services, Inc. (ANS), a new company that will help propel high-speed computer networking into the next century for the nation's research and education communities.

The new not-for-profit organization is to manage and operate the federally-funded National Science Foundation Network (NSFNET) backbone, under subcontract to Merit, as well as provide a broad spectrum of networking services to researchers and educators in universities, federal laboratories and the private sector. ... [ANS] complements and is designed to support the concepts proposed in the National Research and Education Network (NREN) recently put forward within the [U.S.] Administration and Congress as part of the High Performance Computing Program. Headquarters for ANS are in Elmsford, New York.

More on NREN: Compromise legislation developed by the Senate Committee on Commerce, Science, and Transportation and Senate Committee on Energy and Natural Resources to establish and fund a national research and education network passed the Senate on October 24, but the House failed to pick up the Senate-passed bill for consideration. The compromise legislation will likely be reintroduced early in the next session. Departing from the original Senate bill, no single agency is given lead authority over the development and management of the network in the compromise bill; many of the provisions relating to education and libraries were deleted to accomodate the Senate Energy Committee's jurisdictional concerns [Ed.: Sounds as if we're lucky the House DIDN'T pass it]

NEWS: REMOTE SENSING

Effective November 15, 1990, EOSAT relinquished its exclusive rights to sell Landsat data older than two years. Now USGS will be able to sell such data from their Landsat archives; for further information, get in touch with the EROS Data Center, Customer Services, Sioux Falls SD 57198 (605/594-6151). This new strategy makes more than 600,000 MSS scenes, dating from 1972 to 1988, immediately available. See Eosat's news release, 90-36 for full information (EOSAT, 4300 Forbes Boulevard, Lanham MD 20706).

Speaking of EOSAT - the September Landsat Data User Notes notes yet another seller of satellite posters - WorldSat International Inc., 1495 Bonhill Road, Unit #10, Mississauga, Ontario, L5T 1M2

ERIM's 1991 calendar is out, and it looks as beautiful as previous years. Your Editor doesn't know if there's a charge for this or not - perhaps they have some left - write them at ERIM, POB 8618, Ann Arbor MI 48107-8618.

There is a remote sensing on-line retrieval system called RESORS, available from Horler Information, Suite 704116 Albert Street, Ottawa, Ontario, Canada K1B 5G3 (613/594-5155; fax 613/230-9937).
NEWS: STATES AND PROVINCES

Arizona

The Map Collection at the University of Arizona has received a grant from the U.S. Department of Education to improve bibliographic access to a rare, specialized, and extensive collection of Latin American & Hispanic cartographic materials in its collection; this $71,000 grant will focus on creating and enhancing cataloging records for over 2,000 map titles, and provide electronic access to these materials through the two major national databases, OCLC and RLIN. The project period for this grant is calendar year 1991; Project Director is Charlene Baldwin, Head Map Librarian and Project Cataloger is Christine Kollen.

In September of 1991 a traveling exhibit of rare historic maps, to commemorate the 500th anniversary, in 1992, of the first voyage of Christopher Columbus and his landfall in the Caribbean will be mounted in the Main Library. In conjunction with the exhibit, a symposium on "Maps and the Southwest" will be held in the University Library during that month; distinguished scholars of Southwest history and anthropology will be invited to make presentations concerning the effects of the Columbian encounter on the Southwest region.

California

Dr. Norman Thrower and Cherie Semans are collaborating on two cartography projects. One has been consulting with the San Francisco Exploratorium on a new display that will focus on how humans navigate. The second is a book on the 500 years of mapping since the Columbian voyages; it is to be titled Christopher Columbus SAIL TO THE MOON (Hinckle & Sons), and is to consist of a series of maps and text that illustrate our knowledge of the world after it was opened up by Columbus, continuing up to exploration of the solar system.

The following is from Phil Hoehn - "Improving Access to California Maps: A Grant-Funded Cataloging and Conversion Project"

UCLA and UCB are embarking on Phase I of this grant-funded project on November 1, 1990. A grant application is being submitted shortly to the U.S. Dept. of Education for the second year (Phase II - 1991/1992). Phase II will permit the remaining maps at UCB and UCLA to be cataloged and converted. Now is the time to investigate and prepare for the third and final phase of the project, which will see (nearly) all California maps at UC cataloged into machine-readable form.

The final phase (1992/1993?) was initially envisioned to include all remaining map records at those UC, Stanford and state library collections that were interested and able to participate. Since Irvine, San Diego, and Santa Cruz are the only UC collections (besides UCB and UCLA) that are now creating machine-readable map records, presumably these are the ones to be included in Phase III. Branner, Special Collections and Stanford Archives at Stanford, and the California and Government Document Sections at the state Library might also be involved. Perhaps at some future time Davis, Riverside, and Santa Barbara could be done in a separate project.

The job now is to investigate possible funding sources and prepare a grant application for this third phase... [For further information, get in touch with Phil Hoehn, Map Library, General Library, University of California, Berkeley]
THE LIBRARY OF CONGRESS
GEOGRAPHY AND MAP DIVISION
ATTN: Ralph E. Ehrenberg, Assistant Chief
WASHINGTON, D.C. 20540

January 14 1991

The Library of Congress Geography and Map Division will sponsor the 35th Special Project during the summer of 1991. As in recent years, the 1991 Project will be limited to cooperative participants. University and college libraries are invited to participate in the Project according to the following procedures.

Qualified librarians, faculty members, or students will be accepted as cooperative participants. Sponsoring institutions are responsible for salaries and transportation costs of participants. Project members are assigned to work with permanent staff members of the Geography and Map Division on various tasks related to technical processing and bibliographic and reference services. In exchange for services rendered participants select maps charts and atlases from available duplicate stocks for transmittal to their sponsoring institutions. A selection of up to 1,000 maps (or their equivalent in atlases) is made for each week of participation.

The Project will begin on Monday, July 8 and conclude Friday, August 16. For maximum benefit to your institution and representative, we encourage participation for the full six week period. Project members are expected to report at 9:00 a.m., July 8, to Room B02, James Madison Memorial Building, Library of Congress, 1st and Independence, S.E.

Requests have, in recent years, far exceeded the number of participants who could be accommodated. An early reply to this announcement is therefore recommended. To assist in making selections and work assignments, please complete fully the enclosed questionnaire. [The content of which is indicated below.]

One of the objectives of the Geography and Map Division Special Project is to process quantities of non-current maps, charts, and atlases received by transfer from various Federal agencies. Providing professional and technical assistance to permanent members of the staff is also an important objective. Although Projects are not designed as workshops or training sessions, participants benefit from experience gained by working in a large research map library with highly qualified professionals. A series of lectures by senior staff members will deal with specialized aspects of map librarianship and introduce participants to distinctive segments of the cartographic collections.

Special Project Questionnaire
Date [questionnaire mailed]
Name (Last, First, Middle Initial); Work Phone Number; Home Phone Number; Street Address, City, State, Zip Code; Emergency Notification (Name), Phone Number, Street Address, City, State, Zip Code; Education (College or University), Degree, Date; Undergraduate Major(s); Graduate Major(s); Foreign Languages — Reading Ability (Excellent, Good, Fair); Library Work Experience/Skills (acquisitions, cataloging, reference, preservation, etc.); Cartographic/Geographic Skills (map making, computer cartography, special studies, etc.); Microcomputer Experience (hardware, software, etc.)
WAML Denver Meeting
September 12-15, 1990
Attendance, Minutes, and Program

Minutes
by
Julie Hoff, WAML Secretary

Minutes, Executive Board Meeting, 12 September 1990, recorded by Julie Hoff, Secretary

President Collins called the meeting to order at 1:50 pm. In attendance were:

Janet Collins - President
Peter Stark - Past President
Michael Noga - Vice President/President Elect
Julie Hoff - Secretary
Herb Fox - Treasurer
Stan Stevens - IB Production Manager
Larry Cruse - Microforms Subcommittee
Riley Moffat - Microforms Subcommittee
Linda Newman - CUAC Chair

The minutes from the spring meeting in Tucson were approved as published.

The newly revised schedule for future meetings is:

Spring 1991 - Santa Barbara, CA
Fall 1991 - Chico, CA
Spring 1992 - San Francisco, CA
Fall 1992 - Maui, Hawaii
Spring 1993 - Bellingham, WA
Fall 1993 - Albuquerque, NM
Spring 1994 - Riverside, CA
Fall 1994 - Jackson Hole, WA

The 1995 meeting will be held jointly with the Association of Canadian Map Librarians and Archivists (ACMLA), probably in either Vancouver or Victoria.

Herb Fox gave the Treasurer's and Business Manager's reports and stated that the organization is financially healthy and the membership numbers stable.

The committee members reported on their activities. Highlights include:

The Membership/Hospitality Committee will work with the Publications Advisory Committee in producing new membership brochures.

The Nominating Committee has an opening for a new member.

The Publications Advisory Committee is reviewing an offer from Scarecrow Press to handle publication and marketing of the WAML Occasional Paper series. PAC will also provide information to the Board on current and upcoming projects. The next O. P., the Information Bulletin Index to Volumes 1-20, is still in progress.

The Microforms Subcommittee has several map and gazetteer projects under-way. The 19th Century World Gazetteer on microfiche has been completed and will be advertised in the next IB.

Changes in the WAML Constitution and Bylaws concerning the status and duties of the Business Manager were discussed. The proposed changes will be read to the WAML membership and put to vote later in the fall. The results will be published in the March 1991 IB and announced at the Spring 1991 meeting.

CUAC requested $50 from each of the six member map organizations to help CUAC meet its operating expenses. The Board voted to grant the request for the upcoming year.

Linda Newman announced that Charles Bennett is retiring from the USGS Product Distribution Policy Office. On behalf of CUAC she has drafted a letter to Gary North, Chief, Information and Data Services, USGS, expressing appreciation for Mr. Bennett's dedication to map depository libraries, and in support of the USGS retaining Mr. Bennett as a consultant. President Collins, on behalf of WAML, will also send letters to Mr. North and Mr. Bennett in appreciation.

The meeting adjourned at 4:25 pm.
### Minutes, Business Meeting, 14 September

President Collins called the Business Meeting to order at 9:45 am. She thanked Buddie Rooney and Cheryl Sund on behalf of WAIL for hosting the meeting. Julie Hoff, Secretary, read the minutes of the Executive Board Meeting and the proposed Constitution and Bylaws changes to the membership. There were no questions or comments on the proposals. The secretary also thanked the vendors for their support and contributions. Next, Herb Fox gave the Treasurer’s and the Business Manager’s reports. The Membership, Microforms and Publications reports followed. Stan Stevens has agreed to serve on the Microforms Subcommittee.

The liaison reports were given next. Dates and locations for upcoming meetings are: ALA, Jan 12-17, 1991 in Chicago and June 29-July 4 in Atlanta; SLA and 50th Anniversary of C & M Division, June 1991 in San Antonio. The GIS 25th Anniversary Meeting was held in Dallas in October, 1990. At the June 1990 meeting in Montreal, the ACMLA Executive Board approved a joint meeting with WAIL in 1995. The minutes from the March 1990 CUAC meeting will be published in the IR. Questions and concerns about Federal map and depository programs should be directed to Linda Newman, who will raise them at the next CUAC meeting.

Stan Stevens announced that Roy Boswell, an Honorary Lifetime member of WAML, passed away on August 26, 1990 at age ninety-six.

The meeting then adjourned to sounding Board.

### WESTERN ASSOCIATION OF MAP LIBRARIES

**FALL MEETING 1990**

**DENVER, COLORADO**

#### PROGRAM

**WEDNESDAY SEPTEMBER 12 1990**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 - 9:00</td>
<td>Conference Registration: Federal Center, Building 20, Rm. BL409</td>
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<td>9:00 - 9:20</td>
<td>Opening and announcements: Cheryl Sund, Conference co-chair</td>
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<td>Bob Bier, U.S. Geological Survey</td>
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<td>Joanne Lerud, Colorado School of Mines</td>
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<td>Janet Collins, WAML President</td>
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<td>9:20 - 9:40</td>
<td>Vendor introductions: Buddie Rooney, Conference co-chair</td>
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<tr>
<td>9:40 - 10:15</td>
<td>Break and vendor displays</td>
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<tr>
<td>10:15 - 12:00</td>
<td>First session: Suzanne Taylor, moderator.</td>
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<td>Focus on Federal Mapping - presentations by:</td>
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<td>David Schoolcraft, National Geophysical Data Center</td>
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<td>Ronnie Walls, National Park Service</td>
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<td>David Taylor, Bureau of Land Management,</td>
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<td>Colorado State Office</td>
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<td>Jim Castagnaeri, U.S. Bureau of the Census</td>
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<tr>
<td>12:00 - 1:20</td>
<td>Lunch - Federal Center Cafeteria, Bldg. 41.</td>
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<tr>
<td>1:30pm - 3:30</td>
<td>Tour: For transportation meet in the lobby of Building 41 at 1:20.</td>
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<td></td>
<td>U.S. Geological Survey Books and Open Files and Map Sales, Federal Center, Building 810.</td>
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<th>Time</th>
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<tr>
<td>3:30 - 3:45</td>
<td>Break and vendors displays</td>
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<tr>
<td>3:45 - 5:00</td>
<td>Second session: Moderator, Linda Zellmer</td>
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<td></td>
<td>Charles Seavey, University of Arizona</td>
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<td></td>
<td>“The ARL Map Collections: Evaluation and Rankings”</td>
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<td></td>
<td>Vlad Shkurkin, publisher: “GUGKand Glasnost”</td>
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<tr>
<td>5:15 - 6:30</td>
<td>Happy hour - Compri Hotel</td>
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<td>7:00 -  Optional Dinner - Mount Vernon Country Club, Lookout Mountain</td>
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**FRIDAY SEPTEMBER 14 1990**

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00am - 8:30</td>
<td>Vendor displays</td>
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<tr>
<td>8:30 - 9:30</td>
<td>Tours: Building 20, Room BL409</td>
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<tr>
<td>1) U.S. Geological Survey Library including Field Records and Photographs</td>
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<tr>
<td>2) U.S. Bureau of Mines Mine Map Repository</td>
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### THURSDAY SEPTEMBER 13 1990

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<th>Time</th>
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<tr>
<td>6:00am - 9:00</td>
<td>Committee breakfasts at the Compri</td>
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9:30 - 9:45 Break and vendor displays
9:45 - 12:00 Business Meeting & Sounding Board
12:00 - 1:20 Lunch - Federal Center Cafeteria.
1:30pm - 3:00 Tours:
   1) ESIC, the USGS Earth Science Information Center
   2) USGS Central Technical Reports - production of geologic maps
   3) USGS GIS Lab
3:00 - 3:30 Break and vendor displays
3:30 - 5:00 Third session: Carol Edwards, Moderator
   Jack Reed, U.S. Geological Survey
   "The New Geologic Map of North America"
   Linda Zellmer, University of Wyoming
   "Ferdinand Vandiveer Hayden: The Beginning of Geologic Mapping in Wyoming"
   Frances Woodward, University of British Columbia "Mapping the Canadian Rockies"
5:30 - 6:30 Happy hour - ComPri Hotel
7:00 - Optional dinner - Jose O'Shea's (Mexican)

SATURDAY SEPTEMBER 15 1990

FIELD TRIP - Rocky Mountain National Park

Rocky Mountain National Park, 65 miles northwest of Denver, is celebrating its 75th anniversary this year. The glacially carved area was dedicated as a National Park in 1915 to protect the environment, the natural features, and wildlife, including elk, bighorn sheep, and deer, 700 species of wildflowers, 150 lakes, and 18 mountain peaks over 13,000 feet high.

We plan to visit Estes Park for shopping and early lunch (on your own), then we will drive to the Park Visitors Center where we will have a presentation by Curt Bucoltz, author of Rocky Mountain National Park: A History. We will continue to the top of Trail Ridge Road, elevation 12,227 feet, before returning to Denver. Be sure to bring warm clothing, as this time of year can be cold and even snowy at higher elevations.

Transportation will be by Grayline bus.

WESTERN ASSOCIATION OF MAP LIBRARIES
FALL 1990 MEETING
DENVER, COLORADO

VENDOR REGISTRATION

Color Microimaging
5078 List Dr., Colorado Springs, CO 80919
ph. (719) 594-9202
Representative: Malcolm Duffek
Product: Color microfiche

Geoscience Resources
P.O. Box 2096, Burlington, NC 27216
ph. (919) 227-8300
Representative: Russell Guy
Product: Map dealer

Graphics Information, Inc.
600 17th St., Suite 2020 South, Denver, CO 80202 ph. (303) 623-9117
Representatives: David Wassum, Herb Cohen
Product: Computer mapping, GIS, LIS, and geodetic database management.

MapLink Inc.
25 E. Mason St., Santa Barbara, CA 93101
ph. (805) 965-4402
Representative: Bill Hunt and Bill Tefft
Product: Map dealer

National Geophysical Data Center
3100 Marine St., Code E/GCI, Boulder CO
ph. (303) 497-6125
Representative: David Schoolcraft
Product: Digital data and maps

WESTERN ASSOCIATION OF MAP LIBRARIES
FALL 1990 MEETING
DENVER, COLORADO

CONFERENCE REGISTRATION

Greg Armento - California State University-Long Beach, 343 N. Colorado Place, Apt. B, Long Beach, CA 90814 ph. (213) 438-5451

Dennis Baird - Social Science Library, University of Idaho, Moscow, ID 83843 ph. (208) 885-6344

Kay Baker - Librarian, U.S. Geological Survey Library, Box 25046, M.S. 914, Denver, CO 80225 ph. (303) 236-1002
<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Department</th>
<th>Address</th>
<th>Phone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Michele Bates</td>
<td>Student, Graduate School of Library &amp; Information Science</td>
<td>University of Washington, 23732 Locust Way 1112, Bothell, WA 98021</td>
<td>(425) 407-0079</td>
<td></td>
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<tr>
<td>Robert A. Bier, Jr.</td>
<td>Chief, Denver Library, U.S. Geological Survey Library</td>
<td>Mail Stop 914, P.O. Box 25046, Denver, CO 80225</td>
<td>(303) 236-1004</td>
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<tr>
<td>Jane Bonn</td>
<td>Librarian, U.S. Geological Survey Library, P.O. Box 25046, M.S. 914, Denver, CO 80225</td>
<td>(303) 236-1002</td>
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<tr>
<td>Cheryl Burchan</td>
<td>Cartographer, Colorado Geological Survey</td>
<td>313 Sherman, #715, Denver, CO 80203</td>
<td>(303) 866-3510</td>
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<tr>
<td>Tim Byrne</td>
<td>Head, Government Publications, University of Colorado</td>
<td>Boulder, Boulder, CO 80309</td>
<td>(303) 492-8834</td>
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<tr>
<td>Janet Collins</td>
<td>Map Librarian, Western Washington University, Arntzen Hall 101, Bellingham, WA 98225</td>
<td>(206) 670-3272</td>
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<tr>
<td>Kathy Covert</td>
<td>Cartographer, U.S. Geological Survey, Mail Stop 504, Box 25046, Denver, CO 80225</td>
<td>(303) 236-5829</td>
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<tr>
<td>Barbara Cox</td>
<td>Science Division Head, University of Utah, 158 Marriott Library, Salt Lake City, UT 84112</td>
<td>(801) 581-7533</td>
<td><a href="mailto:bcox@uahlib.bitnet">bcox@uahlib.bitnet</a></td>
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<tr>
<td>Larry Cruse</td>
<td>Head, Maps, University of California Library C-075P, La Jolla, CA 92038</td>
<td>(619) 334-1248</td>
<td><a href="mailto:lcruse@ucsd.bitnet">lcruse@ucsd.bitnet</a></td>
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<tr>
<td>Nancy Dahy</td>
<td>Head of Documents, Montana Tech Library, Butte, MT 59701</td>
<td>(406) 496-4286</td>
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<tr>
<td>Malcolm Duffek</td>
<td>President, Color Microimaging Corp., 5078 List Dr., Colorado Springs, CO 80919</td>
<td>(719) 594-9202</td>
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<tr>
<td>Carol Edwards</td>
<td>Head, Field Records Library, U.S. Geological Survey, MS 914, Box 25046, Federal Center, Denver, CO 80225-0046</td>
<td>(303) 236-1005</td>
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<tr>
<td>Herb Fox</td>
<td>Map Librarian, Henry Madden Library, 5200 N. Barton, Fresno, CA 93740-0034</td>
<td>(209) 278-2405</td>
<td></td>
<td></td>
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<tr>
<td>Ariene Greer</td>
<td>Reference Librarian, University of Northern Colorado, Greeley, CO 80631</td>
<td>(303) 351-1536</td>
<td></td>
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<tr>
<td>Joseph K. Herro</td>
<td>Map Specialist, Stanford University Libraries, Branner Library, Mitchell Bldg., Stanford, CA 94305-2174</td>
<td>(415) 725-1103</td>
<td><a href="mailto:cnear@forsythe.stanford.edu">cnear@forsythe.stanford.edu</a></td>
<td></td>
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<tr>
<td>Julie Hoff</td>
<td>Library Assistant, Map Collection, Noble Science Library, Arizona State University, Tempe, AZ 85287-1006</td>
<td>(602) 965-7214</td>
<td></td>
<td></td>
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<tr>
<td>Isabella Hopkins</td>
<td>Head, Special Collections Section, U.S. Geological Survey Library, Denver, CO 80225</td>
<td>(303) 236-1010</td>
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<tr>
<td>Bill Hunt</td>
<td>President, MapLink, Inc., 25 E. Mason St., Santa Barbara, CA 93101</td>
<td>(805) 965-4402</td>
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<tr>
<td>Julie Irwin</td>
<td>Library Assistant, University of Colorado, Boulder, 255 Otis Ct., Lakewood, CO 80226</td>
<td>(303) 492-7578</td>
<td></td>
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<tr>
<td>Priscilla Johansen</td>
<td>Map Librarian, Amoco Production Co., Rm. 15.150, P.O. Box 3092, Houston, TX 77253</td>
<td>(713) 556-3387</td>
<td></td>
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</tr>
<tr>
<td>Jenny Marie Johnson</td>
<td>Head, Map Collection and Cartographic Information Services, University of Washington Libraries, Map Collection FM-25, Seattle, WA 98195</td>
<td>(206) 543-9392</td>
<td><a href="mailto:jmj@max.u.washington.edu">jmj@max.u.washington.edu</a></td>
<td></td>
</tr>
<tr>
<td>Bernice Kimball</td>
<td>retired, 586 N. Windsor Blvd., Los Angeles, CA 90004</td>
<td>(213) 469-8903</td>
<td></td>
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<tr>
<td>Harrison Kimball</td>
<td>retired, 586 N. Windsor Blvd., Los Angeles, CA 90004</td>
<td>(213) 469-8903</td>
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<tr>
<td>Donna Koepp</td>
<td>Map Librarian - Thomas R. Smith Map Library, Government Documents &amp; Map Library, Malott Hall, University of Kansas, Lawrence, KS 66045-2105</td>
<td>(913) 864-4000</td>
<td>bitnet@docmap@ukanvm</td>
<td></td>
</tr>
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map library community, tried to pressure UMI, etc., to no avail. Alternately, we have launched a "repatriation" project to send surplus copies back to their respective home states as a temporary expedient. The project is premised on publication for each state of a quadrangle-based index to geologic publications and mapping; coordination is through Michael Noga at UCLA (ecz5geo@ uclamvs.bitnet). Michigan is not yet being done. We're looking for volunteers to set up the indexing or to act as state liaison for the Repatriation Project; details on quad repatriation are in the November '90 IB.

Answer from J. Jones (jjones%ccnode@ vaxf.colorado.edu): we have humidified, flattened, deacidified, repaired and encapsulated about 30 maps thus far. See Government Publications Review 15(1), 1988, or get in touch with me.

Answer from Mary Larsgaard: Some years ago Donna Koepp (now at University of Kansas) got a grant to get maps from USGS publications removed, flattened, and encapsulated, which is the only way to preserve them - this was while she was still at Denver Public Library. Preservation of these valuable maps (you can tell how valuable they are by how often they get stolen) - indeed, of any maps folded up in publications requires that the maps be removed, unfolded, encapsulated if they're in tatters or about to be, and then stored in map cases.

2. How about some good news? John Sutherland, Curator of Maps at the University of Georgia (404/542-0690; jsuther@uga.bitnet) has received authorization to set up an e-mail maps listserver (analogous to the GOVDOC L referred to above. If you're interested in being on the "mailing list" for this, let Johnnie know - have your e-mail address at the ready! John and Jim Minton (University of Tennessee) gave an excellent presentation on e-mail at the meeting of COSMAL (Committee on Southeast Map Libraries - part of South East Division of the Association of American Geographers) in mid-November; the 3 handouts I had firmly clamped in my hot little hand by the end of the presentation are: The Utilization of BITNET (a sort of general-purpose handout - all the basics, including - of course! - a bibliography); University of Tennessee (e-mail procedures; this because Johnnie's campus uses one type of software - Profs - and Jim's uses another); BITNET uservhelp (10/90). Larry Cruse suggests we have a directory of map tile servers and bulletin boards; send in your in-
formation on this to your Editor, and I'll be happy to include it into Sounding Board. As a subpart of this - at USCB, Eric Dahlin (Humanities Computing Facility, UCSB; he/dahl@uebuxa.bitnet) is putting together a listserver on Hungarian issues; if you're interested send Eric a note (UCSB mailing address is Santa Barbara CA 93106 if you prefer that to email).

3. Do you have a U.S. depository inspection coming up? Some helpful hints from Linda Newman (Mines Library, University of Nevada):
   a. BIG deal is over inventory (talk to Donna Kopep for more info on this). All map folks hope that the annual map list (as opposed to monthly) to be generated by USGS will be helpful with this. We were rated down for having no complete inventory.
   b. Having a copy of the newly issued Federal Depository Library Manual PROMINENTLY displayed didn't hurt ... (the inspector commented on its presence).
   c. At a prior quasi-inspection I was down-graded for not having a stamp which included the words US DEPOSITORY (can be abbreviated, so I promptly had one made).
   d. Do READ the depository manual - very helpful. It sits in my office beside my own set of Administrative Notes. Section 7 of the Manual is on maps.
   e. My inspector was an easy-to-deal-with person; panic is not justified.
   f. Have procedural manuals ready for show-and-tell. The inspector wants to know that you run an efficient operation.
   g. Work closely with your documents department in preparation for the visit; the inspector has a timetable which you need to be aware of and part of. Be ready to get your two-cents worth in concisely.

4. Anyone know if and where a Buckminster-Fuller Dymaxion Air Ocean World map might still be available? (asked by David Cobb). Answer from Larry Cruse: My last copy of the sky ocean world map was from the Buckminster Fuller Institute, 3001 Market Street, Philadelphia PA 19104-3306; theirs is a facsimile of the 1954 Raleigh edition (whatever that means). It is not as pretty as the later Dymaxion Maps edition (last address, POR 909, Carbondale IL 62901 - that's circa 1972, so don't get your hopes up).
Query from Mary Larsgaard: ? seems to me that I got my copy of this while I was at Mines from some little firm somewhere in California, with a name something like Regeneration. Does that ring a bell with anyone?

5. From Larry Cruse: "There seem to be attempts by local bureaucrats to charge for access to their information databases. We're taking a proactive tack in San Diego, hoping to establish reciprocal access between public institutions, and respect for each other's bureaucratic integrity (translation: we think we have something they want, and we KNOW they have things we want, like mapping). Now we have to develop an agreement so we have access but don't abuse each other's systems. I'm looking for legal precedents; if you stumble across them, please relay.
Larry also notes generally - any legal precedents concerning mapping might be handy for all of us to know about; we could call this section of the Sounding Board "Stare Decisis"! (brief pause while I go look that up in Webster's - "the doctrine or policy of following rules or principles laid down in previous judicial decisions unless they contravene the ordinary principles of justice" - p. 2226; the heart of the U.S. judicial system).

6. The Anniversary and Special Events Subcommittee of the 1991 ACMLA Conference Organizing Committee is trying to find current addresses for attendees at the ACMLA Founding Meeting/First Conference held in 1967 and for former ACMLA members and former conference participants. We intend to send special invitations to these individuals to attend our 1991 Conference/25th Annual Meeting in Ottawa and/or our 25th Anniversary Conference in Calgary in 1992. If you can assist us by providing current addresses for any of the individuals (get in touch with Norma for this list), please contact Norma Mousaw at the Cartographic and Architectural Archives Division, National Archives of Canada, 395 Wellington St., Ottawa, Ontario K1A 0N3 (613/943-1965; fax 613/995-4451). The Subcommittee is also beginning to collect photographs and other memorabilia related to ACMLA history that could be used to create collages, posters, displays and albums for the 1991 and 1992 Conferences. If you have anything to contribute, please send it to Beverly Chen, Chairperson, Anniversary and Special Events Subcommittee, 1991 ACMLA Conference, C/O Map Library, Geological Survey of Canada, 601 Booth Street, Room G70, Ottawa, Ontario K1A 0E8 (LDS 255 00G, IUTS/Pebuquill 255 00G); 613/995-4177; fax 613/996-9990. Please indicate if you would like the items returned to you or if you are willing to have them donated to the ACMLA Archives.

7. Is there an index to maps in UN documents?
Atlas of Lane County, Oregon
Director and cartographer, James E. Meacham
Includes bibliographical references and gazetteer.
LC 90-675112 ISBN 0-9626240-0-4
iv, 74 pgs., 28 x 43 cm., spiral bound. $17.95 + $2.00 s&h

Citizens of Lane County, Oregon, I congratulate you! I
hope you realize how fortunate you are to have the Atlas of
Lane County. In all of California, I can think of no similar
geographical work. How much better informed we would
all be if our students, public officials, and general public
had an equivalent atlas.

James Meacham notes in his Acknowledgment that “this
atlas is a cooperative product of Lane County, the Lane
Council of Governments, and the University of Oregon.”
He also lists many persons involved in its editing and
production; “Atlases are made by people,” he wrote.
Included, of course, are Peter Stark and Sue Trevitt-Clark,
WAML members. They are two of the principal resource
persons in Lane County, where they manage the University
of Oregon Map Library. Significant involvement by
Faculty and students of the Department of Geography, Uof
O, was acknowledged, as were individuals in Lane County,
Oregon State agencies, and the Lane County Council of
Governments. Printers, photographers, and graphic
designers rounded out the team effort, a truly community
project that is a model for us all.

This atlas is, although not so identified, the second edition
of the 1975 L-COG’s Lane County Atlas (Eugene, Oregon:
Lane Council of Governments, 1975). Meacham states
that “all of the topics were sent to experts for review and
comments.” Their input, I would expect, has influenced
the resulting differences between the 1975 and the 1990
ditions.

Since I know little about Lane County, I studied this atlas
in a mood of discovery. I am better informed now, but I am
also somewhat disappointed. It is definitely an improve-
ment over the L-COG’s Lane County Atlas. However,
some maps are successful and some don’t quite convey the
presumed message.

First, I examined the physical appearance of the new atlas.
The 1975 atlas format is retained: rectangular, 11” x 17”.
This edition is spiral bound and has twenty-eight pages
more. Its Gazetteer, which was not included in the earlier
dition, accounts for the difference. It is listed and defined
on thirty-four pages.

Six unattractive colors appear in the earlier edition, but
eleven crisp and stimulating colors render Atlas of Lane
County a most inviting visual product. The color register-
ation is very accurate. Each map is presented at 1:506,880.

The cover, about the same scale as the twenty principal
maps, is an Allan Cartography product. It is the only
physiographic map in the atlas that uses a full range of
colors to represent the County’s varied landscape. It is a
shaded-relief depiction, as are the Physiography, Precipita-
tion, and Population maps.

A buckram cover and sewn binding would have enhanced
its appearance, but publishers must consider the potential
market and a product’s sale price. Since the principal
market for this atlas is within Lane County, the addition of
five dollars for binding to the $17.95 would have probably
eliminated half the buyers. Hence, the more realistic
plastic spiral-binding was used. Librarians that project a
high use of the atlas will want to add their own buckram
binding, budgets permitting.

Typographical design is especially attractive in this edition.
The Apple Macintosh computer, and the Linotronic
Imageetter, provide a capability that was not possible in
1975—except by more expensive typesetting and produc-
tion methods.

Next, I address the content of the atlas. I have two
approaches here: as a librarian seeking information for an
inquiring patron; and, as a critic of the final product. One should always avoid nit-picking, if possible. In a critique however, the objective is to be of assistance — to those who produced the atlas, and to those who will use it as an exemplar in planning their own county atlas. So, please excuse what may sound like an overly critical review. I like the basic intent of this atlas. In spite of my mixed observations, I believe the Atlas of Lane County is a credit to its compilers, editors, and the Council of Governments.

Precipitation (pgs. 6-7) is a subject of critical importance to flood or drought sufferers. This subject, too, is one of Lane County’s most important physical aspects, so I expected this map would have been more sophisticated. One would expect, based on the importance of this subject, to find rainfall distribution in color-coded form, such as that used in the Atlas of Oregon (pg. 133)(Eugene, Oron. : University of Oregon Books, 1976). Instead we see large, medium, and small red dots for weather stations. Each symbol represents the type of information available from that station, as if that is what the user needs from a precipitation map. It is true, the isohyetal lines are displayed, but they are almost secondary in their visual impact. Also, the largest red dots represent weather stations that have “Records of Temperature and Precipitation.” I submit that the map should display data for precipitation only. The accompanying text provides an explanation of the stations and the number of years of data available for each station. Why emphasize this esoteric information on the map? the text is adequate!

Displayed beside the red dots are numbers, 1 through 21. These numbers are not explained by the map’s Legend. The explanation must be inferred from the text and table of Weather Stations. A simple addition to the Legend would have brought instant understanding that the numbers tie directly to the table on the preceding page.

There is an east-west line, labelled A—A’, which is used only on the Physiography and Precipitation maps. Its meaning is not explained on the Precipitation map Legend, nor the text. A search finds the explanation on the Physiography map: “Line A-A’ marks location of cross-section, shown on facing page.” This information should have been repeated on the Precipitation map and its accompanying text.

The Land Ownership map is somewhat of an improvement over the 1975 edition. Compared to the three categories shown in 1975, the 1990 edition breaks the data into six. Three of the six categories, Private Land [44.6%], Bureau of Land Management [9.8%], and United States Forest Service [44.4%], comprises 98.8% of the ownership. State Board of Forestry, U.S. Army Corp[s] of Engineers, and Other State Land are not specified as to percentages of the total. One category on the 1975 map was Major Timber Company, but it is entirely missing from this edition. The 1990 map, nevertheless, is an effective map.

A look at the Population map brings an instant understanding of where the greatest numbers of people live in Lane County. What one doesn’t learn is density or distribution within the urban centers or rural areas. It would be helpful to have inset of some urban areas (there are none in the atlas), with population distribution and/or density. Furthermore, this map implies that people reside only where symbols so indicate. Does it imply that most of the County is open for settlement? A careful reading of the text provides the fact that Lane County’s population in 1989 was 280,000. Only 189,000 persons are represented by the symbols on the map. What happened to the other 91,000?

Also, a symbol error is apparent on the Population map: of the six proportional circles used, 100,000 persons being the largest, 1,000 persons being the smallest, why include a medium circle (25,000 persons)? It is not used on the map!

By combining the information from Land Use and Manufacturing, I learned that Lane County’s “most common land use,” and the County’s largest “industry payroll,” is in the forest-products field. It is the number one source of income for 12,320 persons, sixty-two percent of the total industry-work-force. However, there are some unclear messages conveyed by the Manufacturing map: (1) The data cited in the text is for the County as a whole, yet the map depicts fifteen urban areas without percentages or other statistical data. (2) The text indicates that “in 1988, Lane County’s wage and salary employment [totalled] 109,700 persons.” The map and text convey information on only 20,980 persons; that’s only 19% of the workforce. Are there 88,720 unemployed? — Probably not! The compiler could broaden the map’s content and give a better picture of the economy of Lane County. Where are data on persons in human services? Education? Public safety? Retail sales?

The Historic Properties map, and especially the text, is successful. It conveys its information efficiently and accurately.

The map of Recreation Sites is a good idea. However, it fails to communicate any distinction between sites. There seem to be at least ten types of recreation sites: campgrounds, parks, ski areas, waysides, landings, picnic areas, rifle ranges, ferries, shores, and viewpoints. The map symbolizes a recreation site with a red dot and a number. In the accompanying text there are five lists. Each list
corresponds to the numbered sites on the map (grouped by Sub-Basin). The numbers repeat themselves, three sets of forty-seven sites, one of twenty-eight, and one of nineteen. They are not listed in alphabetical order within the list, nor are they classified as to type. No facilities at those sites are identified. Are all campgrounds for tents only? Do all sites have handicapped access? Is any designed for recreational-mobile home type vehicles? The text does provide a list of agencies, with addresses and phone numbers, from whom one could obtain more information. Nevertheless, I think it would have been fairly easy to enhance the information content of this map. Location and title of site are not enough!

The Health Care map is executed well and provides useful information. Its text page, used in conjunction with the next pair, Public Safety, supplies confidence that Lane County is organized to meet the needs of most residents. Thinking back to the Recreation Sites map — in the event of an emergency, I wonder if there is a telephone at any of the five recreation sites in the Waldo Lake area?

The Geology map is new to this edition; it is a welcome addition. This map does not, however, offer answers to some vital questions: Are there any geologic hazards in Lane County? Do we have any earthquake fault zones? Are there other hazards of interest? Is there any area subject to flooding? Is there any air pollution in Lane County? The 1975 atlas has a Flood Hazard (map 3), and the map shows Domestic Water Supply Sources (map 14) with “potential for arsenic in ground water.” The Atlas of Oregon (Eugene, Or.: University of Oregon Books, 1976) identifies some environmental problems. Have they been mitigated or eliminated?

There is no map that depicts physiographic contours. The imprecise shaded-relief is a poor substitute, although it is visually pleasing for the cover. No spot elevations are indicated. The cross-section on the Physiography text-page depicts only one east-west cut across northern Lane County.

The two maps of Political Districts do clearly convey, except for the urbanized area of Eugene-Springfield, the boundaries of County and State districts. There is one unexplained symbol on the State Legislative Districts map: the dashed line shown in the legend is not explained. Does it relate to State Representative Districts 43 and 44, as shown in the legend? Does it relate to the Senatorial District 22, as numbered on the map? I’m confused!

The use of symbols on the Transportation map does not match the map’s legend. The symbol for “Non-Commercial Airport” is depicted incorrectly four times. There are five railroad lines within Lane County. The text doesn’t clarify the single undifferentiated symbol, “Railroad.” Are they all passenger lines? Which line is AMTRAK?

The Gazetteer is a new feature of this edition, and is most welcome. Names of populated places and geographical features are essential for the proper understanding of a County, and all residents, public safety officers, and librarians have a need for a competent gazetteer. It follows the USGS Geographic Names Information System format. Accompanying the Gazetteer are two maps, and two pages of text: USGS Map Index and the Gazetteer Index. The information conveyed by the text of the USGS Map Index pages is very important. It advises users that “a complete collection of these maps can be found at the University of Oregon Map Library....”

There is, however, one map too many here. I would have expected an effort to economize in the production of this atlas. The only new information conveyed by the Gazetteer Index map, is the coordinate notations for each 15-minutes of latitude and longitude. I suggest that these notations could have been combined on the USGS Map Index. In addition, the text should have emphasized that most of the nearly 3,000 names listed in the gazetteer are not on any map in this atlas. Finally, a small production oversight apparently deleted the geographic coordinates from the right-hand column on page sixty-five.

While we are tuning-in on names, I should note another problem. I presume the beautiful Allan Cartography cover map was derived from the USGS data base, whereas the atlas base map was derived from different data. For example, here are two names that appear inconsistent: [1] cover: Dorena Lake; gazetteer: Dorena Lake; maps: Dorena Reservoir [2] cover: Fern Ridge Lake; gazetteer: Fern Ridge Lake; maps: Fern Ridge Res. According to Mr. Meacham’s Acknowledgments, the “Oregon Department of Transportation provided most of the base map data.”

While the difference between a lake and a reservoir may not be important, consistency and accuracy in the conveyance of information are! This is an important matter. I hope that more consistency will be used in the next edition.

A final observation: A useful and inexpensive appendix should have been provided with the Atlas of Lane County. A film overlay, depicting, e.g., all populated places, could be slipped into a pocket at the rear. Used with the twenty maps, this overlay could provide users with an enhanced ability to interpret the special thematic data in relation to their own personal places of interest.

Stanley D. Stevens
Map Librarian
University of California, Santa Cruz, CA 95064
Aviators' Reference Map of the United States [Map].

AirTravelers' Reference Map of the United States [Map].
By Dean Bailey; designed and produced by Don Pirius and Gregory Chu at the Cartography Lab., Dept. of Geography, University of Minnesota. [Minneapolis] : Airmaps, c1989. OCLC: 21139297. $20.000 + $4.00 shipping. Color map, 54 x 81 cm., printed on kimura synthetic paper. 1:5,780,000. Lambert conformal conic projection.

The Aviators' and AirTravelers' maps of the United States are two deceptively simple, very useful graphics developed by the University of Minnesota Cartographic Lab. Both are shaded relief continental maps with Alaska and Hawaii inset. While they have that much in common, everything else about them is very different, reflecting a lot of common sense design thought.

The Aviators' version is the simpler, more utilitarian of the two. The primary color for the United States is tan, while gray-brown is used for adjacent Canada and Mexico. National Parks and Monuments are rendered in a subdued green, as is Adirondack Park, which takes up about a fifth of New York State. Gray is used for state names, boundaries and time zone limits. Lakes and rivers are blue, physical feature names are in brown along with the shaded relief, and place names are black. The place names used are those of the regional flight control centers, followed by their call letters and radio frequencies. At sheet bottom is the caveat: "NOTICE! This map is not to be used for preflight planning or in flight navigation." My sample of the map is laminated, but still foldable.

While basically similar, the AirTravelers' version of this map has a number of design features meant for an entirely different clientele. The most obvious is its overall tones of green hypsometric color scheme. Cities are in a contrasting, bright yellow, linked together by the red lines of the Interstate Highway system. There are many more places located on this edition of the map than on the Aviators' edition, and major places also have their airport's three letter abbreviations. In the crowded northeastern corridor, a number of red boxes supply the needed information.

On the verso, half of the AirTravelers' map is devoted to an air distance table for "20 geographically dispersed cities worldwide (very interesting idea), and a second larger one for "132 cities receiving scheduled air service." These are denoted on the map using a red airplane, placed to connote its location with respect to the city it serves. All of the planes seem to be north facing, instead of, say, being aligned with the main runway (in coastal California that is often east-west). Besides the distance tables, the verso also carries interesting facts and figures for each of the 50 states, a map quiz, and a listing of all proportions (parks, lakeshores, battlefields, seashores, etc.) included in the National Park System.

The visual clarity of these graphics is in singular contrast to the artlessness of the National Ocean Survey's "Flight Case Planning Chart" (US GPO Item # 0192-A-08; Class. # C 30.412/1/), where overprinting is now so dense as to obscure much sense of the cartography. In that context, the Airmaps' graphics confirm the value of redesigning certain kinds of maps periodically, to streamline information transfer. The Flight Case Planning Chart is an invaluable tool, but it could also be a much more efficient one as well.

In their own right, both of the Airmaps' graphics contribute to a welcome and refreshing design renaissance in American cartography. Can we look forward to this same base, and innovative rethinking being applied to other national themes? I certainly hope so.

Larry Cruse
Map Librarian
University of California
San Diego


There can be little doubt that maps are an underexploited resource in historical studies. Those maps that appear in history texts generally provide little more than background information about the relative location of places and events. Only rarely are historical maps used to gain insight into historical processes. In response to this state of affairs, David Buisseret at the Newberry Library, Chicago, organized summer workshops in the early 1980s designed to give historians a better understanding of how maps can be used in research and teaching. The success of the workshops prompted him to commission essays on the nature and use of various map types for historical research on the United States. This volume is the result.

The book begins with a wide-ranging and thoughtful introductory essay by J. B. Harley. He challenges histori-
ans not to see maps simply as factual statements about spatial realities, but instead to view them as socially constructed texts. He argues that maps are not objective statements; they are the products of individual, social, and technological contexts. Moreover, they shape peoples' images of the world around them. As such, they are documents that provide important insights into the evolution of human societies.

Harley's powerful introductory essay leads the reader to expect a book exploring the insights that maps can provide on America's past. Instead, the body of the book consists of twelve informational essays on different types of maps. The essays are written by geographers, map librarians, and historians. Each provides general background information on the type of map in question, a bibliography of sources where the maps can be found and where they have been discussed, and eight to ten annotated examples of the map type. The annotations provide general information about the maps and occasional commentary on the usefulness of the maps to historians.

The essays are arranged in a loose chronological fashion, beginning with European antecedents of New World maps and ending with aerial imagery. Along the way, the reader is exposed to discussion of a wide variety of map types including city maps and plans, township and range maps, nineteenth-century landscape views, civil war maps, fire insurance maps, topographic surveys, and twentieth-century highway maps. Although only occasionally do these essays expand on the themes set forth in the introduction, they provide a wealth of useful information. Essays by David Quinn on "Eighteenth-Century Large-Scale Maps," Gerald Dunetz on "Bird's-Eye Views of Towns and Cities," and Michael Conzen on "North American County Maps and Atlases" provide particularly interesting commentary on sources of great potential use to historians.

The examples that accompany each of the essays convey a good sense of the different kinds of maps associated with the general topics. Many are accompanied by useful explanatory diagrams. A few of the authors are explicit about the ways in which the maps might be used by historians. Most are content to describe what they see on the maps. Whatever the case, the care that has been taken in reproducing the maps and providing clear explanatory diagrams allow the reader to gain much from these examples.

Taken as a whole, the volume is a useful reference source for anyone interested in knowing about the range of cartographic sources that provide insight into America's past. It also provides interesting commentary on the history of American maps, and it is handsomely produced. Despite occasional references to the themes raised by Harley in the introduction, however, the book does not offer great insight into the ways in which maps reflect and shape society. Instead, the book provides an attractive and informative review of the sources that might be used to construct such analyses.

Alexander B. Murphy
Department of Geography
University of Oregon
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David Buisseret, historian and aerial photographer, became director of the Hermon Dunlap Smith Center for the History of Cartography at the Newberry Library in 1980. Finding that Chicago had long been a center of commercial aerial photography, he decided to draw from the collection, take additional pictures, and produce a book about "those aspects of Illinois history that can profitably be illustrated and interpreted from the air" (xviii). Tom Willcockson drew explanatory maps and helped with the selection of maps, photographs, and prints reproduced in this unusual book. The thematic organization of material, clarity of Buisseret's prose, and impact of the aerial photographs combine to make Historic Illinois From the Air a tour de force.

The first half of the book deals with the lay of the land, Indian and French residents, and the progress of English-speaking settlers until the 1840s. An impressive satellite image of the state helps introduce readers to topography, drainage, flora and fauna as of 8000 B.C. when the Indians arrived. Aerial photos of their mounds and the survival of their trails in Chicago's main streets will hook readers on Buisseret's perspective long before they view aerial evidence of French long-lots or American townships which surveyors began imposing on the Illinois Territory in 1804. There are lucid picture essays on modes of land and water transport, group settlements like Morris Birkebeck's English Prairie, and the rationale for such towns as New Salem, Peoria, Alton, and Galena. The authors underscore the direction of settlement by tracing the northward migration of the capital from Kaskaskia in 1818 to Vandalia on the National Road and finally in 1839 to Springfield.

Enter Chicago in chapter six when it is a scraggly outpost, so unpromising that one member of the government survey thought it "doubtful that even the Indians will reside here much longer" (page 82). Completion of a canal linking the
Chicago and Illinois Rivers — and thus Lake Michigan and the Mississippi River — made the settlement a hot spot for development. Railroad building commenced there, and the east-west trunklines soon turned Chicago into a manufacturing and commercial center tied to eastern markets. Subsequent chapters pay tribute to the “brash energy and inventiveness of the Chicagoleans” (pages 136-137) as they expanded their economic base, spawned new residential communities within and outside city limits, and poured money into cultural institutions. Aerial photographs of the railroad yards, working-class neighborhoods, suburban Riverside, Northwestern and University of Chicago campuses, and the Chicago lakefront do indeed bring fresh perspective to a familiar story. Equally valuable are Buisseret’s sensitive readings of two well-known bird’s-eye-views of the city, one in 1850 before the railroads, the other in 1898 “when the center was no longer industrial and was not yet overrun by the automobile” (page 169).

Refusing to let Chicago dominate the book, the authors add a final chapter on statewide development of highways, airports, waterways, suburban sprawl, and surviving small towns. The last aerial photo is of the state capitol, correctly identified as the background where “the ladies of the metropolis and of the farmland meet and clash and trade off in ways that are not always beneficial for either” (page 218). On a happier note, readers will understand that Illinois was half-prairie, half-woodland with 2,500 people in 1800; today it has nearly twelve million residents (four-fifths of them urban), yet four-fifths of the land is used for farming and sheep-raising.

Historic Illinois From the Air offers rich new insights for geographers, economists, historians, and planners. It should inspire similar studies of other states or perhaps regions of the country.

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Accolades, which followed the publication of the first volume of The Historical Atlas of Canada, should also follow the publication of Volume III, Addressing the Twentieth Century, 1891-1961. The design, cartography, printing, binding, writing, and editing of this, the second of three volumes to be published, are superbly executed.

The atlas is well organized to show the development of the transformation of Canadian economy and society from 1891 until 1961. The census years of 1891 and 1961 arbitrarily frame the period. The first four of the sixty-six plates of the atlas provide a late Nineteenth Century baseline of Canadian land use, territorial evolution, economic growth, and population composition and character. The next thirty-five plates are concerned with the emergence of a modern, unified Canada until 1929. The last twenty-seven focus on the Great Depression, World War II and its immediate aftermath. To emphasize the great geographical diversity and urban concentration of Canadians, one quarter of the atlas plates are devoted to regional perspectives and another eighth to aspects of major Canadian cities.

The organization of The Historical Atlas of Canada immediately conveys a strong image of its overall theme. Simply compare the first and last plates to get an idea of the extent of the transformation of Canada in the Twentieth Century and then glance at the other plates and you will get a clear picture of the diverse factors underlying its transformation. But beyond this immediate and simple clarity lies a richly detailed array of data, the depth of which emerges only after careful study. Each plate shows painstaking research, thoughtful organization, and meticulous editing.

Cartographer Geoffrey Mathews has designed and executed exceptionally beautiful plates which fully support the rich information assembled by the many authors. He has brought visual unity to extraordinarily diverse data. His already well-deserved reputation as one of today's best cartographers should be further enhanced by this work.

The Historical Atlas of Canada is thus excellent when judged by many standards. It is well organized; it is immediately accessible; it is richly detailed; and it is beautifully presented. However, I can convey the excitement of using this volume only by describing several of my favorite plates. I am particularly pleased with Marvin McInnis's maps, especially with the two maps that frame the atlas—Canada in 1891 (plate 1) and Canada in 1961 (plate 66). The first captures the spirit of Canada's population at the turn of the century—fragmented, agricultural, but showing signs of industrialization and urbanization in Central Canada. The last contains an isodemographic map, which shows how Canada had become urban by 1961, and a graphical representation of national income by industrial type for each of the nation's economic regions. I also liked Donald Cartwright and Murdo McPherson's plate labeled Population Composition (plate 4), which contains maps of the
geographic distributions of dominant and minority ethnic groups as well as graphs of the division of population into its rural/urban/metropolitan components.

Of the regional and urban plates, I found the maps and graphics entitled *The Peopling of the Prairies* (plate 17), *Land Development in Edmonton* (plate 20), *Sea and Livelihood in Atlantic Canada* (plate 23), and *Metropolitan Toronto* (plate 60) to be both beautiful and filled with interesting data. The ethnic composition and the progress of prairie settlement couldn't be more clearly presented than on the maps prepared by William Carlyle and John Lehr of early Twentieth Century Edmonton. These maps are models that might well be emulated by atlases devoted strictly to urban areas as also might Deryck Holdsworth's maps showing post-war changes in metropolitan Toronto. Those plates capture the spirit of change experienced during two critical periods of urban settlement in modern Canada. The maps of Atlantic Canada shown on Plate 23 are so beautifully executed that I would enjoy having them framed and hung on my wall.

Several other plates were delights or surprises. For example the plate labeled *Financial Institutions* (plate 9) dramatically displays the emerging dominance of Toronto and Montreal as the control centers of the Canadian economy. And Plates 42 and 43 provoke sympathy for those hundreds of Canadians, who during the Great Depression, were the recipients of various relief efforts.

I was least impressed with the two plates labeled *The Working World* (plate 37) and *The Changing Work Force* (plate 61) and with the three which dealt with unionization and strikes. Surely, three out of sixty-six plates disproportionately emphasize the place of labor disputes in Canadian history. As a geographer, I find these five plates and the one on university education less interesting because they are largely non-cartographic. Even the graphics are less good. For example in Plate 61, half the graphs, which represent the division of labor by provinces, emphasize 1911, the other half, 1961. The only obvious reason for doing so is the symmetry of the plate.

Minor improvements might be made to Plate 4 where the explanation of the meaning of ethnic origins—the principal subject of the plate—is to be found only in small type in an inconspicuous place. On Plate 3 titled, *Economic Growth*, the colors used for the types of commodity production differ from those used in the block diagrams; and the order on the legend to the industrial sector diagrams of Plate 66 is the reverse of that on the diagrams themselves. But with the exception of these relatively minor items, *Volume III of The Historical Atlas of Canada* is stunning and should be ranked as the outstanding atlas of the year.

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Department of Geography  
University of Oregon  
Eugene, Oregon 97403

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One color map 107 x 84 cm. with broadside (text) 49 x 64 cm. Scale: 1:3,500,000. $20.00. OCLC: 22723206.

This unique and valuable historical map of the northwest coast of North America depicts the world's "last temperate coast" to be explored by Europeans. Herbert K. Beals, Principal Researcher with the Oregon Historical Society since 1986, has painstakingly drawn the routes of ten eighteenth century maritime explorers onto a base map that covers the northeastern Pacific Ocean from Point Conception in California, to the Gulf of Alaska, and about 34 degrees to 62 degrees north latitude. The ocean is shown in a dark gray to better highlight the colored sailing tracks of the explorers, while land areas appear in a contrasting light gray. Significant coastal features are named. The routes of the voyagers are differentiated from each other by the use of colored dots and triangles of a uniform size. The triangles are critical as they show the direction of travel of the expeditions. Individual expeditions are named together with the year of the voyage, "Vancouver-Broughton 1792" for instance, in the open ocean (western) portion of the map.

On the right side of the map are ten small inset maps roughly showing the same area as the main map, where the author has extracted and plotted each individual voyage for easy reference and clarification. On the left side of the map are five insets, again covering the same area as the main map, which display the increasing geographical knowledge gained over time of the intricate Northwest coastline. On the first inset map "1542-1700" the coastline above 45 degrees latitude is overcast in a shadowy gray, while only the California coast (except for San Francisco Bay) is illuminated in sunny yellow. Shadow meets light either abruptly or softly. Abrupt edges between the two colors are meant to indicate well-charted coastal areas, while the softer edges show a less precise knowledge of the high seas. The dramatic recession of gray area from 1700 to 1795, especially from 1750 to 1775, marks the intense competition between France, Spain, and England to lay
firm claims to the area.

Only voyages of exploration and discovery are charted on the map. Even though commercial ventures did lead to significant geographical discoveries, such as Robert Gray's discovery and entry into the Columbia River in 1792, to map these tracts, along with voyages of exploration would have overtaxed the map's ability to be read and understood.

A separate "broadside" accompanies the map and describes in lucid text the ten individual voyages shown on the map. Unfortunately, no bibliography or list of sources consulted is included.

Even with the elimination of the sailing tracks of commercial voyages, the map still appears cluttered, especially along the coast of Vancouver Island. Tracks are not simplified, but are quite literally drawn. In 1778, for instance, Captain James Cook, sailing east, encountered bad weather off the coast of Oregon and was blown south and west before turning north to Vancouver Island and Alaska. Cook's track as drawn on the map shows this loop quite well. As Cook's back-tracking lies well off shore, his loop is easily understood. But, moving closer to shore, individual tracks, which often entail similar loops, are more difficult to separate, thus making the ten inset maps on the right of the main map nearly essential in understanding the routes of the explorers.

The ten explorer's sailing tracks are printed in eight colors, which poses some problems. The Cook-Clerke course of 1778 shares the color green with the Alcalá-Valdés's 1792 track, and purple is used for both La Pérouse-Langle's (1786) and Malaspina-Bustamante's (1719) expedition. While the routes using the same colors are fairly well separated, they do come together near the coast of Washington and British Columbia causing some separation problems. It would seem that two more colors would not have been all that difficult to achieve, but extra color costs extra money. Perhaps by screening the bright red used for the Vancouver-Broughton expedition down to a rust red, another color could have been created. The overall impression of the map as communicated by the dominant colors of yellow and gray make it appear drab and uninteresting.

A map's content and meaning does not always leap from the paper it is printed on. Some maps take time to decipher before the care and scholarship that has been invested in them is recognized. This is not a simple map of an easily portrayed subject. With study, one would agree that Beals and the Oregon Historical Society have produced an exceptionally well researched map of northwest exploration, one that has been needed for a long time. It should be purchased by every map library concerned with exploration and discovery of the northwest.

Peter L. Stark
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CORRECTION


Author Kravath presents the essential intellectual background to Columbus's voyage to the "East Indies" in an effort to demonstrate the plausibility of the explorer's belief that one could reach Asia much faster by sailing West. To fulfill his purpose the author explores ancient traditions of metrology, or the science of measurements, and early Greek views and estimates of the size and shape of the earth. This is followed by an investigation of the writings of Medieval and pre-Columbian cosmographers. The author then studies the cosmography of Toscanelli and Martin Behaim, contemporaries of Columbus, before his discussion of the Columbian revolution in cosmography. Valuable appendices on European discoveries and exploration in the Americas through the year A.D. 1504 and one on the early history of the Spanish League are included. The work is profusely illustrated with diagrams, maps, portraits, and charts. A timely purchase for research libraries. This title is available from Landmark Enterprises, 160502 Fort Sutter Station, Sacramento, CA 95816.


Ralph Ehrenberg, Assistant Chief of the Geography and Map Division of the Library of Congress and Chair of the U.S. Board on Geographic Names send a package of material marking the Centennial of the Board to the Review Editor. The package included three news releases announcing the 100th birthday of the Board, a BGN leaflet describing the agency’s mission and activities, and three publications: The United States Board on Geographic Names, compiled by Richard R. Randall, 1990, 11 pages; 1890-1990: A Century of Service: United States Board on Geographic Names, by Meredith F. Burrell (U.S. Forest Service, Miscellaneous Publication #1484) 1990, 10 pages; and the title leading off this paragraph which is clearly the most substantial and the most interesting to map librarians.

Geographic Names & the Federal Government is a bibliography of gazetteers and other documents relating to place names issued by the federal government. Section 1 lists general BGN publications during its entire 100 year history including decision lists, policy statements, and gazetteers. Section 2 provides citations to BGN foreign gazetteers issued since 1943 and section 3 catalogs other place name publications of selected federal agencies. Section 3 lists, for instance, the many gazetteers published in the U.S. Geological Survey Bulletin series principally authored by Henry Garnett. A Library of Congress classification number is provided for each citation. Access to the bibliography is provided through three indexes, author, title, and place name. This is an exceptionally useful title and should be in every map library, especially since this and the other BGN titles listed here are available free upon application from the Geography and Map Division, The Library of Congress, Washington, D.C. 20540.


This attractive and bilingual atlas of Mazatlan contains eleven sectional maps of the city which are overlaid with grid lines and numbers. These are keyed to the district and street indexes that follow the maps. An additional index arranges street names under each district. Abbreviations and Spanish terms used in the atlas are defined in an appendix. City plans of Mazatlan are generally difficult to find and, when one appears as well executed, designed, and indexed as this one, map
libraries with any interest in Mexico should acquire it. Perhaps because this atlas was privately produced and published, it has not appeared in the usual places map librarians look to find new maps and atlas citations — but no more. It is available from TWC Publishing Company, P.O. Box 3266, Duluth, Minnesota 55803 3266. Thomas W. Chamberlin, editor and publisher of the Mazatlan Atlas, has been a geography professor emeritus at the University of Minnesota, Duluth since 1982.

*Photo Map of Santa Fe* [Map]. Taos, New Mexico: Blair Press, c1990. Sepia aerial photograph with color overprinting, 40 x 64 cm., folded to 32 x 10 cm. No price provided. Scale: ca. 1:3,000.

A geography professor recently returned from a vacation in New Mexico and donated to the University of Oregon Map Library three maps published by Blair Press of Taos. The three maps include the one cited above and others for the city of Taos and Taos Ski Valley. The maps are actually color aerial photographs (Taos and Taos Ski Valley being oblique views) with cartographic embellishments drawn onto the photograph. The map of Santa Fe identifies historic, parking, and public places with three different colors and names streets in the downtown area. Businesses are identified with labels of a particular color, for example, hotels and motel names are printed in green; retail/shopping establishments in orange. A directory of services can be found on the verso of the map. The interesting and highly functional design features of these maps make them attractive and of value to a map collection. The maps were obtained free of charge on site. Inquiries should be made to Blair Press, P.O. Box 826, Taos, New Mexico, 87571. Phone: (505)758-1748.


Discovered in the unindexed cartographic archives of the United States Military Academy at West Point Library, this first post-civil war edition of Warren's landmark map is not listed in the cartobibliographies of either Wheat or Phillips and is the only one to show, in hand-drawn boundaries and notations, the military departments of the West as they were prior to the Reconstruction period. The original map as found in the Library had been cut into 10 sections and mounted on cloth. Reproductions of the sections have been placed in a printed folder together with a 56 page text, written by Lewis M. Buttery and introduced by Frank N. Schubert of the U.S. Army Corps of Engineers Office of History. The southwestern portions of the map segments were pieced together, enlarged by a factor of 1.28 X, cut into 17, 8.5 x 11 inch sections, and included in the portfolio. The complete portfolio has been called by Frank Schubert, "a useful contribution to our understanding of the history of the American west and its maps." While Buttery has done a great service to researchers by reproducing this and eight other significant historical maps of the southwest, there is a limit to the quality of reproduction afforded by xerography. On Buttery's map reproductions many of the finer details are lost in the process of duplication, even on the 17 enlarged pages of the southwestern section of the original map. As a result, large portions are simply not readable. If the 1867 Warren map is as important a source as Buttery says it is (and I believe him), then it deserves to be presented as a quality reproduction. No amount of well written and researched text can replace map readability. Information on this map and other map reproductions write Lewis M. Buttery, Old Maps of the Southwest, 407 West First Street, Lampasas, Texas 76550.

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**Bench Marks**

Linda Carlson Sharp, OCLC, Dublin, Ohio

...and Harry Raymond Condry announced their marriage in Columbus, Ohio, on November 30, 1990.
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FROM THE EDITOR

In this issue, we have the concluding portion of Carlos Hagen's article on life in libraryland; it was to have appeared in the last issue - Carlos valiantly had it faxed to me -

which is how I found out that my library's scanner definitely does NOT like to scan fax transmissions - so if you have anything long to send me, please, PLEASE don't fax it!

- and then we ran out of space (since it was important that ALL of the cataloging workforms used at Stanford's Earth Science Library be included in the issue). I had also intended having a note to that effect in the IB, but this once I didn't get my last-minute additions/corrections to Stan in time. If part one of Carlos' article is any clue, part two will excite comment. I welcome letters to the Editor, in case you'd like to respond to some of Carlos' thoughts.

It seems lately that very nearly everything I see of interest is either on computers, cataloging, a combination of computers and cataloging (I call it "access" usually - non-librarians find the latter to be a more glamorous phrase), or on pre-1900 maps. Which I am sure says at least as much about my interests as it says about what's going on the map library world today!

By the way - if anyone would like to send me depository-matters news, I'd be more than happy to include it in the IB.

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