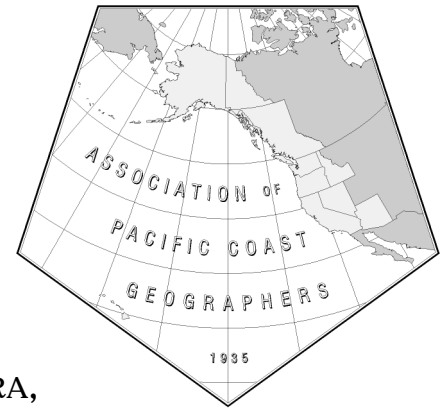


# PACIFICA

The Association of Pacific Coast Geographers Spring 2001



## HISTORY OF WATER IN SANTA BARBARA, CALIFORNIA

Hugo Loáiciga

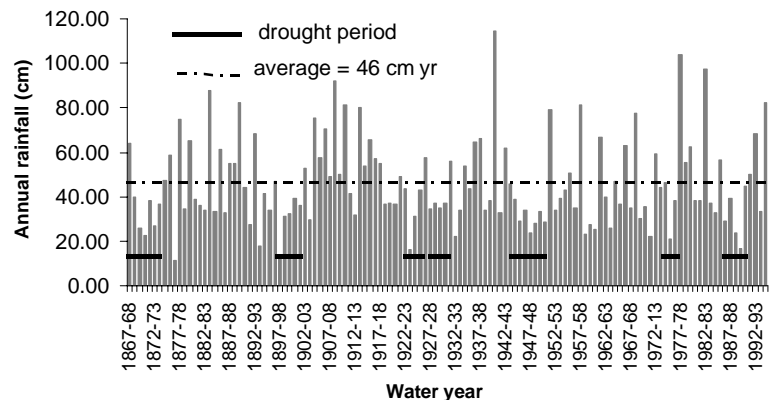
### Introduction

The Chumash Indians were the first humans to utilize the water resources of the California region that currently encompasses the City of Santa Barbara. Prior to the 1542 visit of the Santa Barbara coastline by Spaniard Juan Rodriguez Cabrillo, the Chumash had dwelt for thousands of years in central and southern California. The Chumash territory extended from the Pacific coast to the inter-montane valleys. Its southern end was Malibu (or Humaliwoo, "the surf sounds loud" in Chumash) in Los Angeles County. It extended northward to Morro Bay, a few kilometers north of Pismo or Pismu' ("tar" in Chumash) in San Luis Obispo County. A map (see map on page 10) of Chumash territory depicts the locations and names of its largest villages alongside contemporary towns. The Chumash relied on springs, creeks, and rivers as their water source for drinking, cooking, bathing, cleaning, building artifacts and preparing other materials. The inland Chumash were primarily hunter-gatherers, while coastal Chumash relied on fishing as well for their subsistence. In addition, these geographically distinct Chumash groups traded goods, but neither practiced agriculture.

Pre-colonial life in this region was, as it is today, subject to the vagaries of the climate. Occasional drought periods lasting several years are interspersed with wet winters, typically associated with El Niño. Even years of normal precipitation (about 46 cm/18.1" year in what is today downtown Santa Barbara) exhibit a seasonal drought cycle. Precipitation, essentially all as rainfall, falls almost entirely from November through April, the cool and wet season. Thereafter, commences a seasonal dry and warm period that

usually lasts through October. Thus, water flow in creeks and rivers is highly seasonal.

Many water sources dry up naturally during the summer and cease to flow for several years during multi-year droughts. This graph shows a time series of annual rainfall in Santa Barbara from water year 1867-68 (October 1, 1867, through September 30, 1868) to 1994-95. Drought periods are identified as sequences of four or more consecutive water years in which annual rainfall was less than the average annual of 46 cm year.



The graph depicts seven droughts in the last 130 years, or, on average, approximately one every twenty years. In view of the recurrent threat of drought, it is not surprising that the largest Chumash settlements correlated geographically with

(Continued on page 10)

### THIS ISSUE

- 1 FEATURE ARTICLE History of Santa Barbara Water** Water availability and usage is examined in this southern California city. *Hugo Loáiciga* observes these changes and surmises whether Santa Barbara has solved its water dilemma.
- 2 PRESIDENT'S MESSAGE** *Roger Pearson* outlines how the APCG can use the Internet to better serve our members and "get noticed."

- 3 ARCATA MEETING RECAP**  
*Stephen Cunha* recaps the 2000 annual meeting.
- 4-5 APCG ELECTIONS**
- 6-9 SANTA BARBARA MEETING ANNOUNCEMENTS**

### APCG ANNUAL MEETING SITES

- |      |   |
|------|---|
| 2001 | Santa Barbara, California - September 12-15 |
| 2002 | San Bernardino, California                  |
| 2003 | Portland, Oregon                            |

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**PRESIDENT'S MESSAGE**

*Roger Pearson, Institute of the North*

Getting Noticed! The importance of that message has been a recurring theme of Association of American Geographers presidents in recent years. It should also be a message that translates to organizations such as the Association of Pacific Coast Geographers. As an organization we need to be aware of what our members are doing, and we need to get out the information to a wide audience. After all, if people do not know about us, they can't join, benefit, and contribute to the Association.

The historic split between professional geographers and the National Geographic Society has shown us how publicity as well as organizational purpose, has created entirely different entities. NGS, of course, has addressed the public in general while the AAG and regional organizations such as the APCG have focused on a much smaller professional (and mostly academic—as we noted in the last message) audience.

This past February, I had the opportunity to tour the NGS Television studio. It has swallowed up what used to be part of the NGS Expedition Hall. NGS TV offers the latest in high-tech TV production. NGS TV was first broadcast internationally, and it now has expanded to the U.S. market. This is the latest effort by NGS to renew its outreach through new media.

A few years ago, I was made aware of the start of the NGS Web site. Even then, it was a rich site. Since that time, it has become even larger and more dramatic. It employs four people full time as well as contracting for additional services. NGS wants to be part of new and emerging types of media so that its message is not lost. The collapse of Encyclopedia Britannica and its morphing into a "dot.com" is an example of a company that was overwhelmed by the new media.

In addition to the NGS site, there is also Matt Rosenberg's popular "About.com" site: <http://geography.about.com/science/geography/>. Interestingly, in the URL, geography is a subset of "science." How many Geography Departments have fought a "war" on that account? And here we have it as a simply done deed!

During the past several months, I have taken "tours" of the various national and regional geography web sites in the U.S. Frankly, they are mostly "bare bones" sites and in a couple of cases, offering only information on recent regional meetings. Of course, the most outstanding of the regional web sites, without question, is that of the APCG. For that we must thank Bob Richardson for his considerable effort.

The main issue here is how can we as a regional organization increase our visibility and show how geography is of value in the Pacific Coast region?

As a starting point for discussion, I will be recommending to the Executive Council that the APCG create a new position, Webmaster, that would rescue the Secretary-Treasurer from the burden of maintaining a web site. What might the site include in addition to its already excellent features?

*(Continued on next page)*

## ANNOUNCEMENTS

One idea would be to provide an information resource on the geography of the Pacific Coast region. The national and regional professional geography web sites provide no information on regional geography. The About.com site provides something of a model here as does the NGS site. While I am on the topic of resources, to anyone who browses the Web, it is obvious that webcams are becoming increasingly numerous. Not all of those cameras are viewing items of geographic significance, but some of those that are and relate to the Pacific Coast region might provide interesting views worthy of our referencing. We might also have a page devoted to recent publications and news notes by APCG members. This type of "Members" news feature is already part of the AAG's Newsletter. I am sure that our members can offer other ideas that would make the web site increasingly valuable and interesting. I encourage your suggestions.

For those of you who wish to view the national and regional geography association web sites for the U.S., go to the AAG website: [www.aag.org](http://www.aag.org). For the Canadian national and regional sites, see: <http://www.uwindsor.ca/cag/cagindex.html>. Another site of comparative interest is that of the Royal Geographical Society (<http://www.rgs.org/>) which is offered in conjunction with the Institute of British Geographers.

Additional Note: I want to encourage all of our members to join us at the Santa Barbara meetings in September. The local arrangements committee has been working hard to provide us with an excellent program. And while you are thinking about the APCG, be sure to invite a colleague to join the Association. I would appreciate hearing your comments. I can be reached by email at [mapping@alaska.net](mailto:mapping@alaska.net).

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### APCG 2000

#### HUMBOLDT STATE UNIVERSITY, ARCATA, CA

Last September 13-17, Humboldt State University Geographers welcomed over 225 of our colleagues and friends to California's remote North Coast for the 63rd annual meeting of the APCG in Arcata. Everyone enjoyed four days of field trips, scholarship, socializing, and exploring Humboldt County in (mostly) bright fall sunshine.

The earliest arrivals gathered Wednesday evening for refreshments and an illustrated tour of the North Coast by Chris Haynes (HSU). His penetrating regional analysis included scenes from far reaches of the Trinity Alps, Klamath Mountains and Smith River. Joe Leeper (HSU) followed with an illustrated exposé of the region's three-county "Emerald Triangle." Old hands know this was not a talk about precious stones, but about another precious commodity—cannabis. Professor Leeper took us on an up-close and personal tour of the marijuana economy, from seed to smoke, showing scenes of clandestine fields, garages, and production rooms. In the words of one attendee, "Joe's talk started us off on a high."

Almost 80 people collected early the next morning on the Arcata Plaza to field trip into the landscape of chainsaws and

Julia Butterfly Hill (Headwaters Forest), led by Chris Haynes (HSU); or to search for Bigfoot and other natural history delights, led by Jim Wanket (UC Berkeley); or to kayak Stone Lagoon, guided by HSU Outdoor Adventures. In fine, liquid sunshine the Headwaters hikers experienced one byproduct of abundant rainfall and logging — mud! They reached the Scotia Mill just in time to witness a 1000-year-old redwood being transformed into patio furniture. The other groups experienced the majestic forests and waterways that make this area special, although there were no Bigfoot sightings.

Sessions were well attended and ranged all over the place, from "Border Landscapes" to "Bears, Beavers, and Bison," with some 77 papers and posters. Stephen Frenkel and Judy Walton as program chairs ensured that only a minimum number of abstracts were lost, and that Power Point worked most of the time. The program also included the first APCG "Student Map Competition," directed by Margaret Pearce (HSU).

No APCG would be complete without time to network, socialize, and gossip. There was ample time for all three during the steak and salmon BBQ on the lawn outside the Geography Department, where we watched a dramatic sunset over Humboldt Bay. The following evening we gathered in the historic Jacoby's Storehouse on the Plaza for a Presidents' Reception hosted by HSU President Alistair McCrone, AAG President Susan Cutter, APCG President Tina Kennedy, and California Geographical Society President Carol Cox. Even Arcata's Mayor Connie Stewart showed up to welcome the group to her green hamlet. Specially carved redwood bark chips made excellent drink tokens but didn't quite reconcile with the official drink tally (hmm—perhaps we should send them to Florida for a recount). The Annual APCG Women's Network Luncheon and the Chairs' Luncheon, hosted by Paul Blank (HSU), were well attended and enjoyed by all.

The Saturday evening social hour and banquet followed two days of paper and poster sessions. Just prior to the dinner bell, Professor Emeritus Ben Bennion (HSU) received a small token of appreciation from his colleagues for his 29 years of service and scholarship. President-elect Roger Pearson (Institute of the Pacific) masterfully MC'd the banquet. Mark Wilson and Margaret Pearce (both HSU) presented student awards. Donald F. Lynch (Univ. Alaska) relayed the profound insights of the Resolutions Committee in fine, laconic style. Finally, APCG President Tina Kennedy (NAU), whose timely bout with laryngitis silenced any complaints about the meeting, found her voice in time to share an impassioned presentation on the Sierra Nevada.

The meeting concluded Sunday morning with a family-style breakfast at the Samoa Cookhouse, the oldest logging company cookhouse still operating in the U.S. With great regret, the Humboldt Geographers said goodbye to our colleagues and friends from afar. We thank all those who traveled to our North Coast, and look forward to convening again next fall in Santa Barbara.

Respectfully Submitted,  
*Stephen F. Cunha*, Meeting Coordinator  
*Judy Walton & Stephen Frenkel*, Program Co-Chairs

## APCG 2000 ELECTIONS

Members whose dues are paid will soon be sent ballots, due back in early June. Check your mailing label on this issue of the *Pacifica* to see the status of your dues. If you have questions contact the Secretary/Treasurer.

**For President:** Nancy Wilkinson (unopposed)

**For Vice President:** Teresa Bulman and Terry Simmons (biographies below)

**For Secretary/Treasurer:** Robert Richardson (unopposed)

**For AAG Councillor:** Stuart Aitken and Judy Walton (biographies below)

### Teresa Bulman, V.P. Candidate

Professor, Department of Geography, Portland State University; B.A. Mount Holyoke College, MSFS/JD Georgetown University, M.A. University of Massachusetts, Amherst; Ph.D. University of California, Davis

#### **Service to Geography:**

Development of the APCG Women's Network Travel Fund program (1996-2000); Member, Executive Board and Finance Committee of the National Council for Geographic Education (2000-2002); Awards Committee, Women's Network of the APCG (2000); Director, Water Resources Specialty Group of the Association of American Geographers (1992 to 1995); Member, Nominating Committee of the APCG (1992-1993); Member, Student Awards Committee, APCG (1996-1997); Coordinator of the Women's Network of the APCG (1987-1996); Vice President, Oregon Section, American Water Resources Association (1990-1999); Charter member, Society of Women Geographers, Pacific Northwest Division (1996-1999); Committee member, Student Activities Committee, American Water Resources Association (1991-1999); Associate Editor for Social and Political Science of the *Water Resources Bulletin* of the American Water Resources Association (1995-1996); Member, Editorial Board of the *Yearbook of the APCG* (1993 to 1997)

#### **Professional Experience:**

Chair, Dept. of Geography, Portland State University (1999-present); Consultant, Land and Water Policy Center, University of Massachusetts, (1986); Coordinating Editor, *Atlas of Massachusetts Project*, Amherst, MA (1986-1987); Attorney, Coudert Brothers law firm, New York City and London, England (1978-1985); Fulbright-Hays, NSF, and National Geographic grants; editorial positions on *APCG Yearbook*, *Law and Policy in Int'l Business*, and *American Water Resources Assoc.*; extensive community outreach activities.

#### **Research Interests:**

Geography education, water resource management, climate policy

#### **Publications:**

*Books: From Mountain Top to Ocean: A Field Guide to the Nisqually River Watershed.* Portland State University Occa-

sional Paper #6 (with R. Hixon; in press); Rice G. and T. L. Bulman [in press], *Field Work in the Geography Curriculum: Filling the Rhetoric-Reality Gap* (National Council for Geographic Education). Numerous chapters and articles in *Pacific Northwest Geographical Perspectives*; *Regional Management of Metropolitan Floodplains*; National Geographic Society *Update*; *Education about Asia*; *Proceedings of the American Water Resources Association*; *Geographical Snapshots of North America*; *Yearbook of the APCG*; *Renewable Resources Journal* and others.

#### **Goals:**

- Maintaining and increasing membership continues to be an important task. Ideas to increase participation include: offering not only opportunities to present papers but useful workshops for students (grant writing, the academic interview process, networking, etc); workshops on teaching, web-based courses, etc. for faculty; workshops for secondary teachers who teach AP Geography or other geography courses.
- Creating a general "template" for organizing the annual meeting of APCG which might facilitate securing meeting sites and simplify the process for the hosts.
- Continue the development of scholarship funds for student APCG members.

### Terry Simmons, V.P. Candidate

I am a geographer, attorney, and environmental policy management consultant. Since 1970, I have attended most APCG annual meetings and have presented about two dozen papers. I hold an B.A. in Anthropology from U.C. Santa Cruz, a M.A. in Geography from Simon Fraser University, a Ph.D. in Geography from the University of Minnesota, and a J.D. from Boalt Hall School of Law, U.C. Berkeley.

#### **Service to Geography:**

I am the current Chair of the APCG Applied Geographers Committee and coordinator with John Passarello of Business, Industry and Government Geographers (BIGG). Previously, I served as co-chair of the APCG Program Committee (1999), a member of the APCG nominating committee (1986 and 1992), and a member of the APCG awards committee (1992). I served on the Executive Committee and was Secretary-Treasurer of the Western Division of the Canadian Association of Geographers (1980-1985).

#### **Professional Experience:**

I have practiced environmental, natural resource, water, land use, and business law in Reno since 1991. Recently, my law practice has expanded to include Internet law, electronic commerce, and alternative dispute resolution. I am admitted to practice law in California and Nevada, and before U.S. Court of Appeals for the Ninth Circuit. Also, I am a partner in an international natural resource planning consulting firm, and President of the Center for Global Policy Studies, a non-profit corporation, established to facilitate academic research.

I taught Geography at Simon Fraser University, Lakehead University, and three community colleges, and was an Adjunct Associate Research Professor, Division of Hydrologic Sciences,

## APCG 2000 ELECTIONS

Desert Research Institute, within the University of Nevada system. In addition to teaching and law, I have been a project planning engineer for B.C. Hydro and Power Authority, an Alaska Supreme Court staff member, and the president of an environmental consulting firm in Vancouver, Seattle, and Walnut Creek.

### **Professional Service:**

I am a member of the Washoe County District Board of Health's Air Pollution Control Hearing Board. Previously, I served as Chairman of the City of Reno Environmental Board, president of the Nevada World Trade Council, and a member of the British Columbia Forest Research Council among many roles. I was a primary planner and promoter of NGO activities for Habitat, the United Nations Environment Programme's first international conference on human settlements. Circa 1969-1976, fellow co-conspirators and I invented the modern international environmental non-governmental organization by founding the Greenpeace Foundation, the Sierra Club in Canada, and the Sierra Club's international program.

### **Research Interests:**

I am an intellectual omnivore. Research interests include cultural geography, economic development, environmental and natural resource policy, comparative Canada-U.S. studies, geography and law, and the social and spatial implications of cyberspace.

### **Publications:**

I have published in both the APCG Yearbook and *Pacifica*. In addition, I have written on natural resource policy, GIS and law, cultural geography, transboundary water resources, hydroelectric dams, high voltage transmission line planning, border behavior at Blaine, Washington, rural land use and agricultural land preservation, forestry, boundary law, landlord-tenant law and professional ethics in water law.

### **Goals:**

The APCG is an excellent professional organization. Its small, friendly, productive annual meetings are important places for our community of scholars to meet old friends and new colleagues, to compare notes, and to listen, learn, argue and share Geography. Building on recent success, notably the APCG Women's Network, we should recruit and foster more active participation from faculty and graduate students, and, particularly, from off-campus geographers. I will use my experience as a professional geographer employed off-campus and as the Chair of the APCG Applied Geographers Committee to reach out to our off-campus colleagues. I will use my personal experience living and teaching in British Columbia to renew Canadian participation in the APCG. We can improve the APCG's effectiveness by increasing its cooperative efforts with the AAG, CAG, CGS, NGS Geographic Alliances programs, WDCAG, corporations, government agencies, and individual geography departments. From Alaska to Arizona, the APCG has a vital role to promote Geography as a scholarly discipline, as fascinating subject matter, and as a profession. I would appreciate your support and your vote for Vice-President.

### **Stuart C. Aitken, AAG Councillor Candidate**

Professor of Geography at San Diego State University. His books include *Geographies of Young People: The Morally Contested Spaces of Identity* (Routledge, 2001), *Family Fantasies and Community Space* (Rutgers University Press, 1998), *Place, Space, Situation and Spectacle: A Geography of Film* (co-editor with Leo Zonn, Rowman and Littlefield, 1994) and *Putting Children in Their Place* (1994, Washington DC: Association of American Geographers). He has also published widely in academic journals including the *Annals of the AAG*, *Geographical Review*, *The Professional Geographer*, *Transactions of the IBG*, *CaGIS*, *Society and Space*, *The Journal of Geography and Environment and Planning A* as well as various edited book collections. His interests include film and media, critical social theory, qualitative methods, public participation GIS, children, families and communities. Stuart is past co-editor of *The Professional Geographer* and current North American editor of the new journal, *Children's Geographies*. He is past chair of the AAG's Urban Specialty Group and current co-chair of the Qualitative Methods Specialty Group.

### **Judy R. Walton, AAG Councillor Candidate**

Assistant Professor, Geography Department, Humboldt State University, Arcata, California. Syracuse University (Ph.D., Geography 1997); San Diego State University (M.A., Geography); University of California, San Diego (B.A., Political Science).

### **Service to Geography:**

APCG: member (1991-); *Yearbook* Editorial Board (1999-); Program Co-chair for 2000 meeting. AAG: member (1989-). Student director, Cultural Geography Specialty Group (1993-5).

### **Professional Experience:**

Joined Geography faculty at HSU in 1999. Immediately prior, I offered consulting on neighborhood planning and "green" building and design in Seattle. I have also taught high school social science and adult ESL in San Diego.

### **Research Interests:**

Urban land use, planning and design, sustainable cities, growth management, and downtown revitalization in small and large cities.

### **Publications:**

Author or coauthor of articles in the *Annals*, *Professional Geographer* and *Geographical Review*. Topics include philosophical thought in geography, re-imaging industrial cities, downtown revitalization, and theme town tourism.

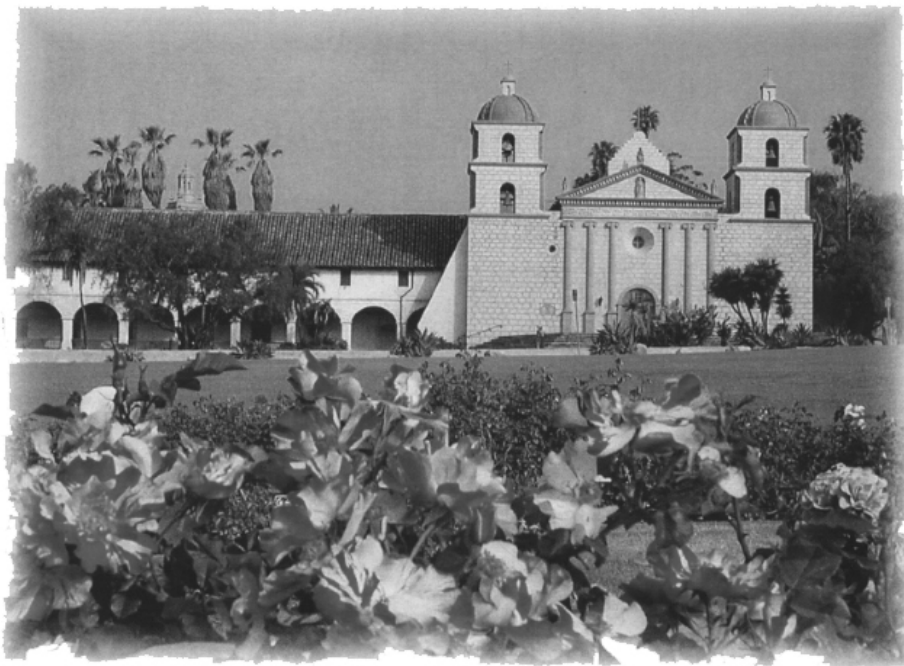


Thanks to River City Bank of Sacramento for providing all of our banking services and supplies at no cost for the past three and a half years.

Experience the Geography of  
America's Riviera

at

*APCG 2001*



**Santa Barbara, California**  
**September 12 - 15, 2001**

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Hosted by the University of California, Santa Barbara  
Department of Geography

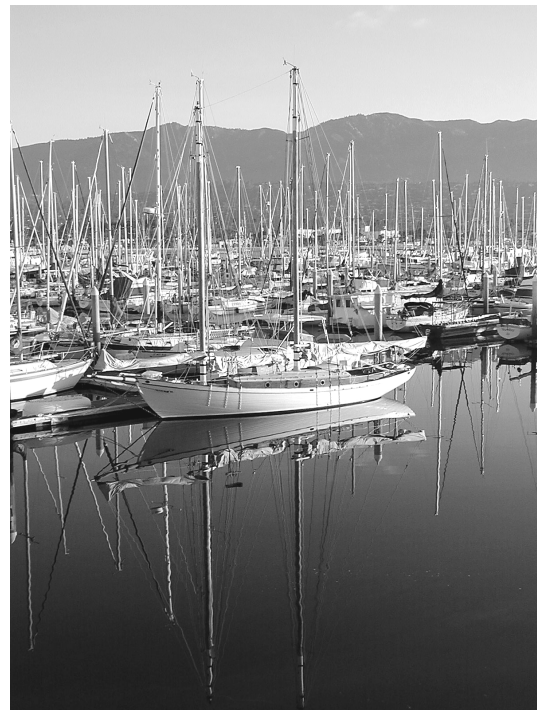
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**APCG 2001**  
**Santa Barbara, California**  
**September 12 - 15, 2001**

The latest APCG2001 conference information can be found at: <http://www.geog.ucsb.edu/~apcg2001>. Please see the web page for registration, abstract submission, lodging details, credit card payment, venue information, and maps.

**Conference Setting:** The conference will be held at the Santa Barbara Radisson on Cabrillo Boulevard near the Santa Barbara waterfront and historic Stearn's Wharf. The Santa Barbara Radisson is an excellent conference facility near most the major tourist attractions and directly across the street from beautiful East Beach. The conference is being held near the end of the high tourist season, so there will be plenty of activities, night life, and attractions for the conference participants. Santa Barbara is a relatively small city by California standards, with just over 200,000 residents in the metropolitan area. The proximity to Los Angeles's tourist and entertainment industries has enhanced Santa Barbara's popularity as a retreat for tourists and natives tired of the big city congestion and smog.

The University of California, Santa Barbara Geography Department is hosting the conference this year, having last hosted the conference in 1978. Since that time, UCSB Geography has become synonymous with cutting-edge research in many subdisciplines including remote sensing, cartography, geographic information science, biogeography, earth systems science, cognitive and behavioral geography, oceanography, geostatistics, and transportation. The UCSB Department of Geography emphasizes three core areas of geographic inquiry: Earth Systems Science, Human-Environment Relations, and Mathematical Modeling and Computation. The UCSB Department of Geography leads UCSB Academic Departments in several research funding categories, with an average grant/award level of \$450,000 per full-time faculty member. Last year's total research awards to geography faculty totaled over \$11,000,000. The UCSB Geography Department benefits from a campus setting widely recognized for its beauty and unique location on the Pacific Ocean, 12 miles west of the Santa Barbara city center.



**Accommodations:** Santa Barbara is a premier tourist destination. The hotels in the area range between \$95 - \$280 per night during September. We will provide information about local hotels through our website, <http://www.geog.ucsb.edu/~apcg2001> as well as local hosting, roommate matching services, and hostel information for graduate students. September is still considered the high tourist season, so hotel and motel prices will be high and accommodations hard to find. The sooner reservations are made, the better. Prices are subject to change. Please check the website for the latest details.

The Santa Barbara Radisson (the conference venue) is able to provide us with a block of rooms at a discounted rate as follows:

Room costs: \$159 (+tax) for one bed, single or double occupancy  
\$165 (+tax) for two beds

Related charges: \$20 per each additional person, \$20 for a rollaway bed, \$40 ocean view surcharge.

The room block will sell out quickly, so prompt reservations are encouraged.

Contact information: Address: 1111 East Cabrillo Boulevard, Santa Barbara, CA 93103; Telephone: (805) 963-0744; Fax: (805) 962-0985; Reservations: (800) 333-3333; Hotel Email: [sbradisson@att.global.net](mailto:sbradisson@att.global.net)

Another convenient lodging option is the Cabrillo Inn. The Cabrillo Inn is one block from the Radisson Hotel, and is also near the beach and tourist areas. Several rooms are available at this time (April 2001) but they will certainly be booked due to the tourist crowds in September. The Cabrillo Inn will not set aside a room block as a policy, but they do offer an attractive discounted rate for attendees of UCSB-related conferences. The current pricing and contact information is:

Weekday rates: \$89 (+tax) single or double occupancy

Weekend rates: \$119 (+tax) single or double occupancy

Contact information: Address: 931 East Cabrillo Boulevard, Santa Barbara, CA 93103; Telephone: (805) 966-1641

**Travel:** Santa Barbara is located on Highway 101, approximately 90 minutes from Los Angeles International Airport. Many visitors choose to fly directly to the Santa Barbara Airport (code: SBA). The Santa Barbara Airport has regular, daily flights from many west coast cities, with convenient connecting flights through Los Angeles, San Francisco, Las Vegas, and Phoenix. Information about daily scheduled flights, the airport location, and local services can be obtained from the Airport's web page, <http://www.flysba.com/> Most major car rental companies have counter service at the Santa Barbara Airport. Amtrak has commuter

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**Santa Barbara, California**  
**September 12 – 15, 2001**

rail service to Santa Barbara, with a terminal approximately 12 blocks from the Radisson Hotel. Amtrak schedules and information can be found at <http://www.amtrak.com> The Santa Barbara Metropolitan Transit Division runs several convenient buses between the airport, UCSB campus, and the downtown conference and hotel locations. Maps and route schedules can be found at <http://www.sbmttd.gov/> As a rule of thumb, the easiest route to the conference venue from the Airport is to proceed to US Highway 101 from Fairview avenue and proceed southbound for approximately 12 miles to the left-hand Cabrillo exit. Take this exit, turning right onto Cabrillo boulevard and proceeding several blocks to the Radisson Hotel at 1111 Cabrillo Blvd. Taxi service is also available between the airport and conference venue. Check the conference web page for additional maps and directions.

**Weather:** The geographic coincidence of broad southern exposure, cold coastal currents, and a dominant coastal mountain range lead to extremely favorable weather conditions. September daytime temperatures range between 65° and 80° F, with nighttime temperatures between 50° and 60° F. Visitors are encouraged to bring sunscreen and a hat, as well as a light jacket for cooler nighttime weather. Precipitation is rare in September.

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### Tentative Schedule

For the most current schedule information, see the website:  
<http://www.geog.ucsb.edu/~apcg2001>

**Wednesday, September 12, 2001**

Registration, 5-9pm  
Reception, 6-7pm  
Plenary Session, 7-8:30pm

**Thursday, September 13**

Registration 7:30am – 3:00pm  
Field Trips, 8:30am – 5pm  
Banquet, 6:30 – 8pm, Santa Barbara Zoological Gardens

**Friday, September 14**

Executive Committee Breakfast, 7:30 – 8:30am  
Paper Session I, 8:30 – 10am  
Paper Session II, 10:30 - Noon  
Lunch – (also Women's Network Luncheon)  
Paper Session, III 1:30 – 3:00pm  
Presidential Plenary Session, 3:15 – 4:30pm  
    Address by The Honorable Walter J. Hickel, former  
    Secretary of the the U.S. Department of the Interior  
    and former Governor of Alaska.  
Poster session, 5:00 – 6:00pm  
Reception and Dinner (catered refreshments), 6:30 – 8:00pm

**Saturday, September 15**

Paper Session IV, 8:30 – 10:00am  
Paper Session V 10:30 - Noon

Lunch – (also Chair's Lunch)  
Paper Session VI, 1:30 – 3:00pm  
Geography Bowl 3:15 – 4:30pm  
Annual Business Meeting, 4:30 – 5:30pm  
Map Competition and Poster Display 3:00 – 6:00pm  
Annual Awards Banquet and Presidential Address, 7:00 – 9:00pm  
    Speaker: Dr. Roger W. Pearson, President, APCG

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### Call for Papers and Posters

**Deadline: June 1, 2001**

Please see our website for current details and changes. Abstracts can be submitted online at <http://www.geog.ucsb.edu/~apcg2001>

To present a paper or poster, submit a 100–250 word abstract by June 1, 2001. All presenters must be current APCG members. If you are not a current APCG member, your membership fee will be included in cost of registration.

**Preparing your abstract:** In the header of the abstract include the full name(s), affiliation(s), and e-mail address(es) of the presenter(s). Skip a line and type the title of the paper/poster. Skip a line and type the body of the abstract. The abstract should provide a descriptive summary of the paper or poster's content, including the topic, research question, methodology, findings, and conclusions. On the next line, include appropriate keywords. Skip a line and indicate if the submission is a paper or poster and if it is a student competition entry. If you are willing to chair a session, please indicate on a separate line.

**Special Organized Sessions:** If you wish to organize a special session, please have all abstracts e-mailed directly to you. Then, forward a single packet with all abstracts by June 1.

**Where to send abstracts:** Send abstracts via e-mail to [apcg2001@geog.ucsb.edu](mailto:apcg2001@geog.ucsb.edu) with a subject "Paper Submission, APCG2001". Abstracts can also be submitted online at <http://www.geog.ucsb.edu/~apcg2001/papers/>

If you do not have access to e-mail, send the abstract on a PC-compatible disk to:  
APCG2001 - PAPERS  
c/o Xiaohang Liu  
Department of Geography  
University of California  
Santa Barbara, CA 93106

Label the disk with the file name and word processing program used. Also, enclose a paper copy of the abstract.

For further information about papers and posters, contact the conference organizing committee at [apcg2001@geog.ucsb.edu](mailto:apcg2001@geog.ucsb.edu) or browse the conference web site, <http://www.geog.ucsb.edu/~apcg2001>



**APCG 2001**  
*Santa Barbara, California*  
*September 12 – 15, 2001*

**Conference Registration Form**

(Field trip/Meal pricing and availability subject to change. Before registering, please download the latest registration form from our website: <http://www.geog.ucsb.edu/~apcg2001/> )

Name \_\_\_\_\_

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_ Email \_\_\_\_\_

**Conference Registration Fee**

	Before 7/1	After 7/1
Regular APCG Member	\$60 _____	\$80 _____
Regular Non-Member (includes membership)	\$80 _____	\$100 _____
Student APCG Member	\$30 _____	\$40 _____
Student Non-Member (includes membership)	\$40 _____	\$50 _____
Accompanying Family Member	\$20 _____	\$20 _____

**Field Trips**

(All field trips include lunch, see web page for details and fitness requirements where applicable)

Walking the Riviera: A Scenic and Historic View of Santa Barbara	\$30 _____
Santa Ynez Valley Oak Woodlands and Wineries	\$40 _____
Channel Islands National Marine Sanctuary: Truth Aquatics Charter Boat Trip (limit: 45)	\$55 _____
A Tour of Santa Barbara's Water History	\$25 _____
A Hiking Tour of the Santa Ynez Mountains	\$20 _____
Santa Barbara Coastal Wetlands Ecology	\$15 _____

**Meals**

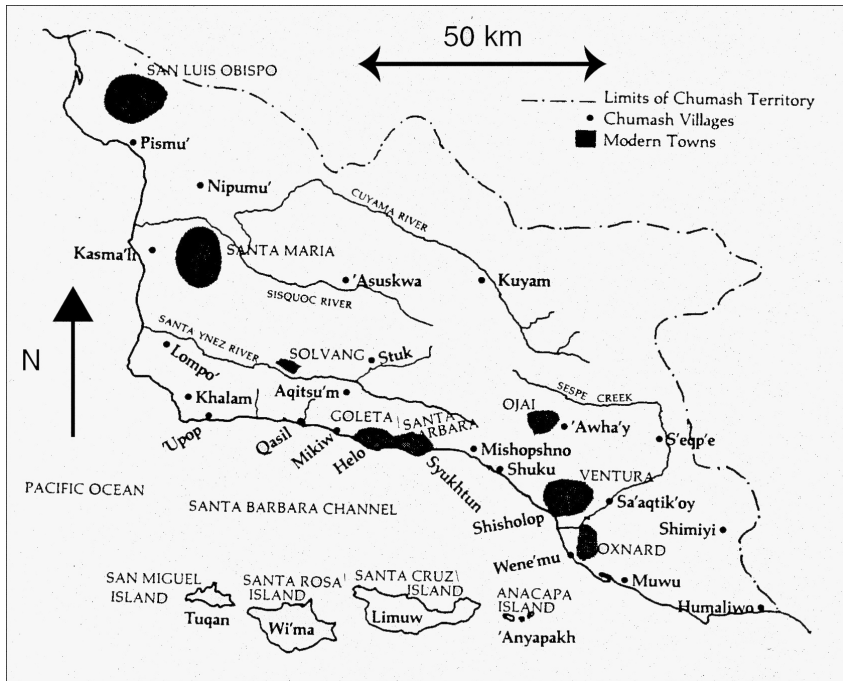
Thursday Night Dinner (Santa Barbara Zoological Gardens)	\$18 _____
Friday Box Lunch (sandwich, chips, soda, fruit)	\$6 _____
Friday Night Reception (catered)	\$12 _____
Saturday Box Lunch (sandwich, chips, soda, fruit)	\$6 _____
Annual Awards Banquet and Presidential Address	\$25 _____

**TOTAL** \_\_\_\_\_

There will be a \$10 service charge for refunds through September 1; no refunds after September 1. Make checks payable to APCG 2001. If registering by mail, send this form and payment to:

APCG2001 Registration  
 Department of Geography, University of California, Santa Barbara  
 Santa Barbara, CA 93106

FEATURE ARTICLE (Continued from page 1)



The waterscape along Santa Barbara County's south coast has changed dramatically since the settlement of Santa Barbara in 1782 by Captain José Francisco Ortega and the dedication of the Santa Barbara Mission in 1786 by Father Fermín Francisco de Lasuén. Today, Santa Barbara and neighboring towns house nearly a quarter of a million people. This is not an impressive number when compared with the millions who inhabit the Los Angeles basin, but it is a large population when considering the scarce local fresh-water resources available to support it. The local resources were adequate to support the Chumash inhabitants preceding the European conquest, but fall short of today's needs.

**Santa Barbara Water in the 19<sup>th</sup> Century**

The genesis of the City of Santa Barbara began with the dedication of the 10<sup>th</sup> California mission in 1786. When completed in 1820, the compound included a chapel, living quarters, stables, plots to grow crops, and corrals for cattle and other animals. Indians came to the Mission from the surrounding environs, while others lived within

the location of reliable water. That pattern of human placement is still true today in the inland regions of Santa Barbara County, where major cities are located along the Santa Maria and Santa Ynez rivers. In the southern coastal region of Santa Barbara County, where Santa Barbara and neighboring towns (Goleta, Carpinteria, Montecito, Summerland) lie, there are no large perennial streams. Nevertheless, the birthplace of cities such as Santa Barbara was tied to small but vital streams such as Mission Creek.

During the Chumash era there were numerous springs on the south facing slopes of the Santa Ynez Mountains that, combined with creek flow, could sustain enclaves of a few hundred people in the coastal region. Precipitation on the mountain tops infiltrated into fractured bedrock aquifers that discharged through springs along the foothills and sustained the summer baseflow in several creeks found in Santa Barbara County's south coast. Carpinteria, Cold Springs, Mission, San Antonio, San Ysidro, San Jose, and San Roque are some of the largest creeks in this region.

The Chumash most certainly engaged in primitive water development by enhancing the discharge zone of springs through excavation and ponding. They created small dams by piling rocks along stream beds. It is also probable that they dug shallow wells in the drier inner valleys, such as along the Cuyama River where the Kuyam ("to rest, to wait") village was located. One must realize that in pre-colonial times—in the absence of ground-water wells, irrigation, drainage, and diversion structures and with lands covered with drought-adapted vegetation—water tables were higher than they are today. This provided easier access to ground water and helped supplement waterflow in streams during dry periods.

the mission quarters. The Mission was the center of social activity in the Santa Barbara south coast in the colonial period. The earliest census in Santa Barbara dates from 1788, and it reported 200 whites and about 4000 Indians living in the area. Water was an essential element to support the population concentration in and around the growing village. The first colonial-era waterworks in this region were undertaken to provide the Mission and Presidio with the water they needed. That water came from hand-dug wells, springs, and from Mission Creek, where rudimentary dams were built to pond water and divert it via gravity flumes to small storage reservoirs near the places of water use. Indian Dam, completed in 1807 for the Mission, rose 4.6 meters (15 ft.) above the bed of Mission Creek about one and one-half miles upstream from the Mission (see inserted map). It was made of masonry and backed up water for about 91 meters (300 ft.) (Eckman, 1967). Based on reconnaissance studies of the area, the author estimates a storage capacity of about 13,000 cubic meters. Ruins of the dams and stone flumes that conveyed the water to the Mission can still be seen in Mission Creek and its tributary Rattlesnake Creek.

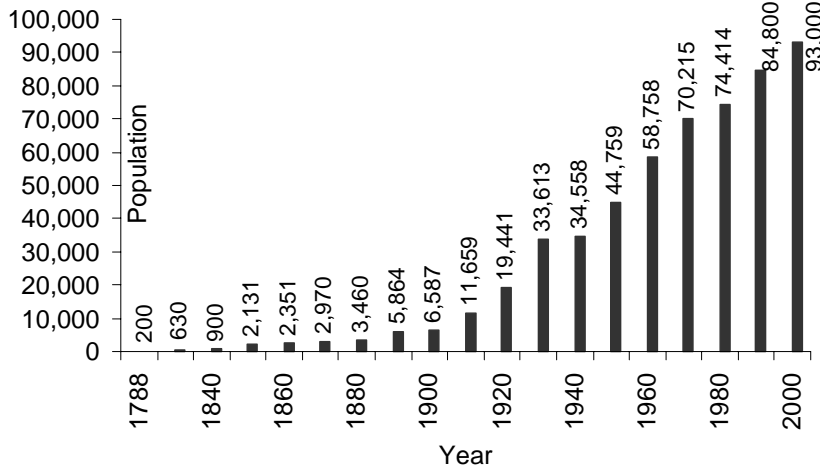
Water use is, and was in the 19<sup>th</sup> century, a function of population and economic activity. The 19<sup>th</sup> century economy was largely agrarian; large ranches engulfed Santa Barbara with cattle ranching the primary land use. As far as population was concerned, information is sketchy until 1850 when it was included in the decennial U.S. census. The following graph depicts population data for Santa Barbara from 1778 to 2000 and exhibits a typical "S" shape (or logistic) growth pattern.

Since early population figures counted only "white" people, 18<sup>th</sup> and early 19<sup>th</sup> century figures under represent the total population living in Santa Barbara. It is estimated that by

## FEATURE ARTICLE

1920 the Chumash population had dwindled to 30 percent of the approximately 4,000 that were present in 1788.

Ynez River at the Gibraltar site. The map below depicts the Santa Ynez River basin and its modern-day water storage facilities including the Gibraltar Reservoir.



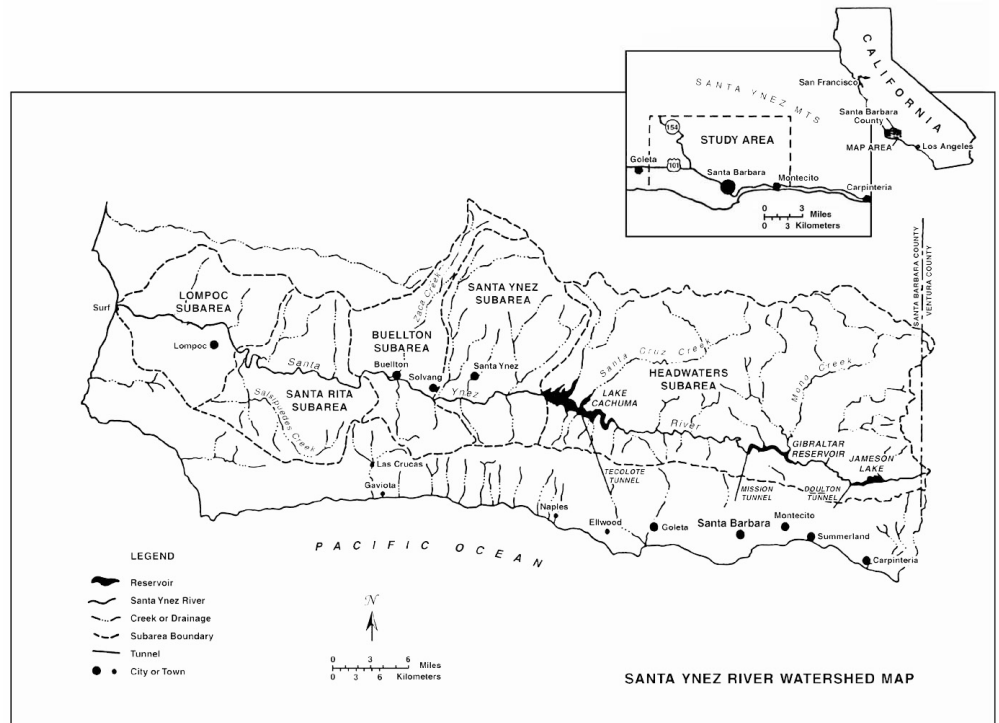
Despite the population undercounts, the population reached 6,587 in Santa Barbara in 1900 and mounted pressure on local water sources. This was exacerbated by recurrent dry periods in the second half of the 19<sup>th</sup> century in an area that did not possess inter-annual water storage facilities. Life at the time was heavily permeated with the pioneer spirit. Local government was incipient and weak. Santa Barbara's water supply was in the hands of private water dealers and investors who created the Mission and De la Guerra water companies in 1872 and 1887, respectively. Incidentally, around 1872, 3.785 cubic meters of water (a standard counting unit at the time, equal to 1000 gallons) sold for fifty cents (Eckman, 1967). A merger of the Mission and De la Guerra water companies in 1889 created the Santa Barbara Water Company, which became a major actor in Santa Barbara's waterscape until 1911 when it sold its assets and water rights to the City of Santa Barbara.

By the late 1800s it became clear that local government and public resources had to be involved in developing more secure water supplies for Santa Barbara. City Engineer George F. Wright reported to the City Council, in 1889 that the local water supplies were not sufficient to meet future water use and that inter-basin water imports from the neighboring Santa Ynez River were the solution to the City's water problems. This visionary opinion was confirmed by Lippincott (1905) in a study which, among other things, recommended that a storage and diversion reservoir be constructed in the Santa

**Water-Supply Reservoirs of the 20<sup>th</sup> Century**  
 Since 1900 there have been endless efforts to achieve "reliable" water supplies for Santa Barbara. The target, however, keeps moving due to changes in water use and access to water sources. An important step was achieved in 1912 with the completion of Mission Tunnel, a 5,962-meters (3.7 miles) long excavation under the Santa Ynez Mountains. The tunnel would eventually bring water, by gravity, from Gibraltar Reservoir to Santa Barbara. Gibraltar Reservoir, the first along the Santa Ynez River, came to fruition in 1920. It rose 53.3 meters (175 ft.) above bedrock and 45.7 meters (150 ft.) above the river's channel and has a full-capacity impoundment of 17.9 million cubic meters.

The impoundment of the Santa Ynez River raised the concerns of downstream communities that saw their riparian water rights threatened by Santa Barbara's diversions at Gibraltar Dam. In particular, the City of Lompoc, near the estuary of the Santa Ynez River, continues its legal battle against upstream water diversions to this date.

In 1928 the Montecito Water District, the public water purveyor of Montecito, completed its Juncal Dam, located upstream from Gibraltar Reservoir. Jameson Lake, impounded by Juncal Dam, had an original capacity of 9 million cubic meters. The construction of Juncal Dam netted Santa Barbara 370,000 cubic meters of water per annum in perpetuity from



## FEATURE ARTICLE

the Montecito Water District, a consequence of a pact between the neighboring communities. Additional water supplies were developed as a result of the drought of the late 1920s and early 1930s, which forced Santa Barbara to construct several deep emergency ground-water wells.

By 1945, brush fires and erosion had silted Gibraltar Reservoir and reduced its storage capacity to about 9.2 million cubic meters. In 25 years, the reservoir's capacity had been nearly halved and Santa Barbara was again vulnerable to water shortages. The situation was compounded by a punishing drought in the second half of the 1940s. Early 1948 saw the first water rationing ordinance enacted in Santa Barbara. The raising of Gibraltar Dam to restore its impounding capacity to 17.9 million cubic meters was authorized in 1948 and completed in 1949. Although reassuring, the raising of Gibraltar Dam did not change the fact that an empty dam is of little use. There was growing consensus among water purveyors of the region (Carpinteria Water District, City of Santa Barbara, Goleta Water District, La Cumbre Water Company, Montecito Water District) and in the Santa Ynez Valley (the Santa Ynez River Water District) that a cooperative effort was needed to build a reservoir in the Santa Ynez River downstream of Gibraltar Dam with multi-year carryover capacity. Hydrologic studies of the Santa Ynez River's streamflow had established a reservoir capacity on the order of 259 million cubic meters. The U.S. Bureau of Reclamation would join the reservoir construction project for financial reasons and because part of the planned reservoir—to be named Cachuma Lake—was located on federal land.

In 1949, voters in Santa Barbara County's South Coast and Santa Ynez Valley approved inter-agency agreements for the construction of Bradbury Dam to create Cachuma Lake with a storage capacity of 253 million cubic meters. A feature of this water storage and inter-basin diversion program was the Tecolote Tunnel, a gravity tunnel to convey water from Cachuma Lake to a modern drinking-water treatment plant (Corona del Mar). The water was then distributed westward by a 42 km (26 miles) buried pipe named the South Coast Conduit to the project-member communities.

Bradbury Dam and the South Coast Conduit were completed in 1953, and Tecolote Tunnel in 1956. In addition, Santa Barbara built its own modern drinking water treatment plant (the Cater Treatment Plant) in 1964 which treats water from Gibraltar Reservoir and Mission Tunnel. The most important water-supply infrastructure for Santa Barbara and other surrounding communities had been achieved, yet the struggle for a reliable water supply did not end.

### ***State Water Project and Ocean Desalination***

While Santa Barbara struggled with water shortages, the State of California was facing similar problems. In the mid 1950s, California embarked on the construction of the State Water Project (SWP), a complex network of reservoirs (the largest ones found in northern California), diversion and conveyance structures, and pumping stations that move water from the water-rich Sacramento and San Joaquin basins to other less endowed areas, including Southern California.

The SWP allocated a target water delivery of some 55.5 million cubic meters per year to Santa Barbara County, of which Santa Barbara was entitled to 3.7 million cubic meters. Yet, at that time, the construction of Cachuma Lake had brought a sense of self-sufficiency to the region. Therefore, the disbursement of funds to construct the conveyance structures needed to bring water from the SWP's distribution network to Santa Barbara was deemed unnecessary and was not pursued. By the early 1970s, a strong anti-growth coalition had emerged in Santa Barbara. The anti-growth group understood that the precarious balance between water use and local water supplies (i.e., the Santa Ynez river and ground water) was a powerful political tool to slow down urban sprawl. Opponents argued that water was being used as an artifice to hinder growth thus producing exorbitant real-state prices, choking economic development, and causing a quality of life decline for the financially disadvantaged. They saw SWP imports as the most practical way out of the conundrum. Nevertheless, the anti-growth forces prevailed in their quest to depend only on existing local water sources until the 1987-1992 drought.

Although not the longest nor driest drought on record, this drought hit at a time when the population that depended on the Santa Ynez River had reached levels never before seen. By mid 1990, the Gibraltar and Jameson reservoirs had dried up, and Cachuma lake was on its last water reserves. Ground-water wells were tapped heavily and their production declined considerably. Santa Barbara faced the possibility of running out of water. Water pricing went from the century-old flat-rate system to a increasing-block rate structure aimed at discouraging water use beyond the satisfaction of basic needs. In October 1990, 3.785 cubic meters of water sold for \$3,600 in Santa Barbara, a far cry from the fifty cents paid in 1872!

The last six months of 1990 and the winter months of 1991 saw developments that had been held back for almost thirty years. In 1991, Santa Barbarans approved the construction of a \$35 million sea-water desalination plant with a maximum annual treatment capacity of 12.3 million cubic meters. At the same time, Santa Barbara County voters passed a ballot authorizing the expenditure of half a billion dollars to build the conveyance facilities needed to import the County's SWP water allocation. The calls of the anti-growth group for spending restraint and to develop a larger desalination plant that could satisfy water use from local and flexible sources were drowned in a sea of anti-drought anguish.

The Santa Barbara waterscape made another quantum leap. The water-transport facilities to import SWP water were finalized in 1998. Although the desalination plant was completed in mid 1992, it was never used because the reservoirs filled up and the drought had officially ended in winter 1992. Eventually, the desalination plant's filtering membranes were sold and other land-based, replaceable, infrastructure was removed and stored. However, the sea-water intake line and pump, as well as the pipelines that connect desalinated water to the City's water-distribution network remain in place, ready to be activated on short notice (six months) when the next drought strikes.

*(Continued on next page)*

**Conclusion**

New challenges have arisen regarding the operation of Cachuma Lake. The listing of the steelhead trout as an endangered species has introduced a new set of minimum-flow requirements downstream of Cachuma Lake. Other endangered species, such as the red-legged frog and the least-bell vireo (a bird), pose limitations to the diversion of tributary streams and to the raising of dams.

It is relevant to ask whether Santa Barbara has solved its water-supply problems. It has in spite of new ecological challenges and siltation reducing the capacities of Gibraltar and Cachuma to 8.6 and 234 million cubic meters, respectively. Part of the answer to drought weathering lies in skillful management of reservoirs, SWP water, and ground water.

Ground-water sources pose unique challenges because the Santa Barbara aquifer is of limited extent and yield, and it is threatened by sea-water intrusion. These limitations led to the current ground-water management plan whereby ground water is a "back up" or emergency supply to be used during droughts only. In normal and above-average rainfall years, water supply is met by surface waters while ground-water wells are rested and the aquifer is allowed to recharge. During drought years, Santa Barbara's long-term water supply plan (City of Santa Barbara, 1994) calls for the pumping of up to 5.5 million cubic meters per year, but studies have shown that the aquifer yield may not be sustained above 2.5 million cubic meters under drought conditions (Loáiciga and Leipnik, 2000). Thus, ground water plays a limited role in the water-supply picture of Santa Barbara during long drought periods.

In the final analysis, however, the key to emergency and long-term water needs rests on the ability to tap virtually unlimited sea water resources by desalination plants. Although the cost of water is higher, this is the likely water-supply solution for all the big urban coastal centers of Southern California .

**Acknowledgments**

The author was assisted by Chris Keith, Luke Hamlin, and Jennifer La Cava in the gathering of historical information and the compilation of cartographic information. The author received partial support from the California Water Resources Center and the United States Geological Survey to conduct this research.

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Loáiciga, H.A and Leipnik, R.B. 2000. Closed-form solution for coastal aquifer management. *Journal of Water Resources Planning and Management*. 126(1), 30-35.

Hugo Loáiciga is Professor of Geography at UCSB. He also serves as the Santa Barbara Water Commissioner. He can be reached at hugo@geog.ucsb.edu

**Applied Geographers**

Geography's genius is simultaneously scholarly and worldly. Clarence Glacken wrote *Traces on the Rhodian Shore*; some of his students record traces on the beach in countless local planning documents. Other geographers help United Nations Secretary General Kofi Annan see the world in new ways. (Read Kofi Annan's recent speech to the AAG at <http://www.aag.org/News/Kofi.html>.) Unlike many disciplines, APCG meetings need not be confined to colorless classrooms or convention floors; field trips come naturally. Your Applied Geographers Committee plans at least two sessions at the Santa Barbara annual meeting. We invite suggestions and participation from applied geographers, based both on and off campus.

The APCG Applied Geographers Committee with its Business, Industry and Government Geographers (BIGG) network welcome local leaders, from Alaska to Arizona, to recruit applied geographers and to organize local professional activities. Please e-mail me at [terry@environment-lawyer.com](mailto:terry@environment-lawyer.com).

Terry Simmons

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**Editor's Notes**

*The Association is saddened by the death of Carole Richardson, the wife of our Secretary/Treasurer Bob Richardson. Bob, you are in our thoughts and prayers, and you hold our constant love and admiration. Let us know if we can help you in any way.*

In the last *Pacifica* issue, I made a request for members to submit the name of a restaurant that they would like to bring to the attention of other geographers. So far, about a dozen establishments have been e-mailed to me. With the exception of one lone restaurant in Southern California, all the submitted places of fine (and not so fine) dining are located in the northern half of the golden state. Certainly, other corners of this American West have epicurean treats. Perhaps you wish to pass along the location of the world's best peach pie or an ethnic eatery that is somewhat distinctive. The restaurant can serve breakfast, lunch, or dinner. It can also be a bakery, coffee house, snack-shop, or just about any joint that servers food. Please, however, confine your selection to the APCG service area (see logo on page 1). The submitted restaurants will be featured in an upcoming *Pacifica* issue.

Please provide as much of the following information as possible:

- Name of the establishment
- Address (location)
- Type of food
- History of the establishment (optional)
- Why you believe geographers would enjoy the restaurant
- Suggestions on what to order

Please either e-mail ([schmandt@toto.csustan.edu](mailto:schmandt@toto.csustan.edu)), fax (209.667.3324), or mail (Dept. of Geography, CSU Stanislaus, 801 W. Monte Vista, Turlock, CA 95382) your submission. Multiple entries are accepted.

Michael Schmandt

**Student Awards and Travel Grants**

To encourage papers and posters by students at our annual meeting and recognize and reward meritorious student scholarship, the Association annually presents several awards. The awards are: 1) President's Award for an Outstanding Paper by a Ph.D. Student; 2) President's Award for an Outstanding Paper by an M.A. or M.S. Student; 3) President's Award for an Outstanding Paper by an Undergraduate; 4) Harry and Shirely Bailey Award for an Outstanding Paper by a Ph.D. Student; 5) Tom McKnight and Joan Clemons Award for an Outstanding Student Paper; and 6) President's Award for an Outstanding Student Poster Presentation. Each award is \$100. To be eligible, a presenter must be an APCG member, submit a short abstract to the Program Chair *Xiaohang Liu* (see page 8 for information), submit a 3-5 page extended abstract to *William Preston* (see directory on page 2 for address), and present the paper or poster at the annual meeting. The APCG Awards Committee evaluates both the extended abstract and the presentation. The extended abstract submission deadline is August 15, 2001.

The Association also offers 10 travel grants of \$100 each to students who present papers and posters at the annual meeting. Because there may be more applicants than grants, recipients are selected by a random lottery. To be eligible, a student must be an APCG member and present a paper or poster at the annual meeting. Presenters will be notified of their grant before the meeting, and awarded the grant at the banquet in Arcata. The deadline for applications is August 1, 2001.

To obtain applications for travel grants and presentation awards first contact your departmental office or *William Preston*, Chair, APCG Awards Committee (address on page 2).

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**In Memory - John Harper**

John Harper taught 28 years at Humboldt State University. He was an active Sierra Club member who truly loved two places: high mountains, especially the Sierras and Hawaii. He offered fourteen different course preparations at HSU. He basically planned and led the first fall APCG meetings; in other words, he was the first to meet the challenge offered by Dave Lantis. He later ran for Vice President of APCG and was defeated by one vote by the nefarious Bill Loy. He was an active scholar whose main publication was on Mineral King. Feared by students for his hard but fair exams, he aged gracefully. Shortly after he FERPED, he was struck by a very virulent Parkinson's Disease.

The department honored his memory as a colleague, as a scholar and as a teacher by renaming our department seminar room the Dr. John L. Harper Room. It features some of his memorabilia such as his hiking boots; landscape scenes from the high Sierras and Hawaii; and copies of his writings.

*Joe Leeper*

**APCG Women's Network**

**An Invitation to All Members of the APCG**

The Women's Network invites all members of the APCG to nominate an outstanding female undergraduate or graduate student to attend the Annual Meeting of the Association of Pacific Coast Geographers in Santa Barbara, California, September 12 - 15, 2001.

The Network will give recipients \$200 towards registration fees, a one year membership to the APCG, and travel costs associated with the meetings. It is not necessary that the student give a paper, rather the monetary award provides an opportunity for a student to gain experience from attending a major regional meeting. This initiative is funded through contributions to the Women's Network of the APCG. Up to ten grants will be offered.

The Women's Network will be having a no-host luncheon (location and time TBA) at which time the award recipients will be asked to speak about their interests and goals and how the Network might assist them in reaching those goals.

Nominations must be postmarked by June 1, 2001. Nominations should consist of a brief paragraph outlining the student's interests and abilities in geography. Please ask your student nominee to provide the Women's Network with a one-page statement detailing why they want to attend the meeting and their current interests and goals in the field of geography.

We will notify the recipients in July. Awardees must provide receipts in order to receive their award. Therefore, nominated students should keep all receipts associated with meeting registration, APCG membership, and travel.

Nominations by APCG members and student statements should be sent to: Dolly Freidel, Department of Geography, Sonoma State University, 1801 East Cotati Ave., Rohnert Park, CA 94928.

Questions about the travel grant or the Women's Network can be sent to Jennifer Helzer: [jennifer.helzer@sonoma.edu](mailto:jennifer.helzer@sonoma.edu).

*Editor's Note: I apologize to the Women's Network for inadvertently leaving out the call for Trussell scholarship applications in the Fall 2000 issue. The Women's Network sent out postcards to all members earlier this year to correct this omission.*

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**Nominations for Outstanding Service Award**

The APCG acknowledges those members who have supported and enhanced the organization over the years through a variety of activities. The Awards Committee would like to receive your nominations for the 2000 meeting in Arcata. If you would like to nominate someone, submit the name and a short narrative about the person's contributions along with your name and communication addresses to *William Preston*, Chair, APCG Awards Committee (address on page 2).

## MEMBERS

Welcome to the following 20 new members who joined between 12/1/00 and 3/16/01.

Carrie Caldwell  
Jolyn Dietz Eichner  
Katherine Frohmborg  
Cynthia Gourley  
Bonnie C. Hallman  
Brent C. Hedquist  
Donna Houston  
Anna Lieberman  
Lawrence J. McLaughlin  
Melanie Paquin  
Cathy D. Pearson  
Kevin Romig  
Jasper Rubin  
Michael J. Schindler  
Yifei Sun  
Samantha Teplitzky  
Eugene Turner  
Richard A. Webster  
Susan K. Wood  
Christopher Zumwalt

Many thanks to the following Contributing Members from 2000 and 2001. The money they contribute more than equals the amount we give in Student Travel Awards. Of the 519 members who have renewed or joined for 2001 as of 3/9/00, 15% are Contributing members; their dues make up 25% of the total received.

James P. Allen  
Gary I. Anderson  
Brigham Arnold  
Daniel D. Arreola

Louise Aschmann  
Charles F. Bennett  
James D. Blick  
Janet Brewster  
James E. Brooks  
Elizabeth K. Burns  
Chris Carterette  
John A. Carthew  
Lisa Chaddock  
Bobbé Z. Christopherson  
Robert W. Christopherson  
Audrey Clarke  
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Santa Barbara Mission after the 1925 earthquake. Image from the Santa Barbara Earthquake History Web Page ([http://www.crystal.ucsb.edu/ics/sb\\_eqs/](http://www.crystal.ucsb.edu/ics/sb_eqs/)). Image scanned from the *Bulletin of the Seismological Society of America*, v. 15, Dec., 1925.

## ABOUT THE APCG

Founded in 1935 by a gathering of geographers including graduate students and faculty from universities, normal schools and junior colleges, and a few from government and industry, the Association of Pacific Coast Geographers has a long and rich history promoting geographical education, research, and knowledge. Members gather at the annual meetings for social and intellectual interaction. They receive the annual *Yearbook*, first published in 1935, that includes abstracts of papers from the meetings and a number of full-length peer-reviewed articles. Members also receive the bi-annual newsletter *Pacifica*, first published in Fall 1994. Since 1952 the APCG has also been the Pacific Coast Regional Division of the Association of American Geographers, serving AK, AZ, CA, HI, ID, NV, OR, WA, BC, and YT.

## MEMBERSHIP

Questions about membership should be directed to Bob Richardson at the address below, or phone (916) 278-6410, fax (916) 278-7584, or e-mail [apcg@csus.edu](mailto:apcg@csus.edu). Visit our web site at [www.csus.edu/apcg/index.html](http://www.csus.edu/apcg/index.html) for lots of information about the organization and for a new member application form.

APCG member dues, although raised for 2001, remain modest: Regular \$20; Joint (2 people at same address) \$23; Student and

Retired \$10; Contributing \$25 or more (any contribution over \$20 is tax deductible). Joint members receive only one copy of *Pacifica* and one *Yearbook*.

Dues are paid for the calendar year. Unless you indicate otherwise, checks dated before November 1 will be credited to the current year, while those dated after November 1 will be credited to the next year. Only current year members receive the *Yearbook*. Current members will be sent a membership renewal notice near the end of the calendar year.

## CORRECT ADDRESS?

Most mailings to members are done using the APCG's Non-Profit authorization. Non-Profit mail is not forwarded, so to be sure you receive your copies of *Pacifica* and the *Yearbook* it is critical that you provide new address information to the Association.

**PACIFICA** is a publication of the Association of Pacific Coast Geographers, a regional division of the Association of American Geographers. The newsletter appears two times a year in fall and spring. The deadline for submission of announcements and reports for the Spring issue is March 1 and for the Fall issue is October 20. For further information contact Michael Schmandt at [schmandt@toto.csustan.edu](mailto:schmandt@toto.csustan.edu) or phone (209) 667-3557.

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