



AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
PACIFIC DIVISION

NEWSLETTER

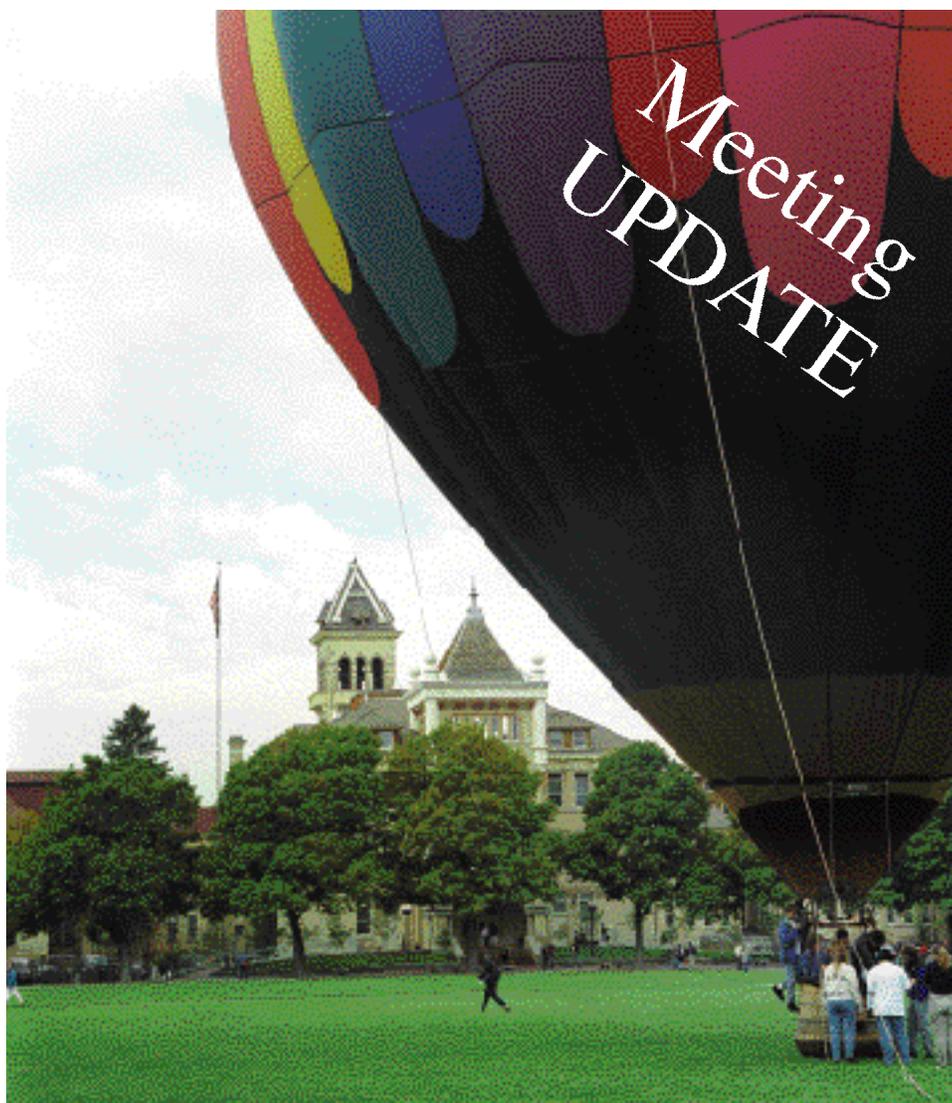
Number 43

April 1, 2004

85th ANNUAL MEETING OF THE PACIFIC DIVISION AT UTAH STATE UNIVERSITY

Logan, UT

June 13–17, 2004



Old Main Hall, Utah State University
(Photo courtesy USU Photographic Services)

<http://pacific.aaas.org>

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Old Main Hall, Utah State University
 (Photo courtesy USU Photographic Services)

2004 ANNUAL MEETING OF THE AAAS PACIFIC DIVISION

The AAAS Pacific Division and its affiliated societies and sections will hold their 85th annual meeting on the campus of Utah State University. The Division's Program and

Special Events Committee is making a special effort to design a program of exceptional scientific merit.

All scientists and graduate and undergraduate students are invited to present research papers of their research results either orally or as posters. All registrants for the meeting may attend the scientific sessions as well as participate in the many other activities. Some activities, notably field trips and selected workshops, require advance registration and payment of additional fees. Drs. Lynn Dudley, Department of Plants, Soils and Biometeorology, and Rhonda Miller, Department of Agricultural Systems Technology and Education at Utah State University, are co-chairs of this year's annual meeting.

This *Newsletter* contains a preliminary description of the scientific program, a call for papers, directions for preparation of abstracts, and information about early registration, housing, transportation, special events, and field trips.

The following societies and sections will sponsor sessions at the meeting. The names and addresses of session chairs are listed on page 20.

- Western Society of Crop Science
- Western Society of Soil Science
- Agriculture and Horticultural Sciences Section
- Anthropology and Archaeology Section
- Atmospheric and Oceanographic Sciences Section
- Biological Sciences Section
- Chemistry Section
- Computer and Information Sciences Section
- Earth Sciences Section
- Ecology and Environmental Sciences Section
- Education Section
- Engineering and Industrial Sciences Section
- Health Sciences Section
- History and Philosophy of Science Section
- Psychology Section
- Social, Economic and Political Sciences Section

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UTAH STATE UNIVERSITY AND VICINITY

Utah State University (USU) is located in Logan, at the southern end of the 60 mile long and 15 mile wide Cache Valley. Cache Valley is a true graben, in which the relatively level valley floor has dropped downward between a fault at the base of Wellsville Mountain to the west and the East Cache Fault and the prominent Bear River Range to the east. During the Pleistocene, the valley was submerged by an arm of Lake Bonneville, the ice-age predecessor to the Great Salt Lake. For a time, Lake Bonneville's outlet was north through the valley into Idaho. The University is constructed on the large, gravelly delta formed by the Logan River as it entered Lake Bonneville. The delta lies at the Provo level, and wave cut shorelines on the mountains behind the city mark the highest level of Lake Bonneville.

Located at 4,775 feet in elevation, Logan experiences an average high temperature of 79 degrees F during June. Extremes of heat or prolonged hot spells are uncommon. Humidity is low and summer nights are cool, averaging 46 degrees F in June.

The region is also known as "Bridgerland" in honor of the famous fur trapper, scout and guide, Jim Bridger. Bridger went to work for the Rocky Mountain Fur Company at the age of 20, trapping, exploring and guiding expeditions for 46 years. He is credited with the discovery of the Great Salt Lake, although he believed that it was the Pacific Ocean. During the winter of 1824-25 Bridger and the Fur Company were trapping in what was then known as the Willow Valley. Trapping in the valley was excellent that winter, and the bundles of furs were "cached," or hidden, until spring when they could be sent to eastern markets. Subsequently, the valley became known as the Cache Valley and it became a major

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NEW WORKSHOP FOR LOGAN MEETING!

A free computer workshop demonstrating Semantica, a new tool that improves student learning, is being offered. See page 12 for details. Advance registration is required.

EXECUTIVE DIRECTOR'S REPORT ON THE AAAS ANNUAL MEETING IN SEATTLE, WA

AAAS held its 173rd national meeting this past February in Seattle, WA, deep inside Pacific Division territory. It was a grand affair, with the expected selection of excellent technical sessions, socials, and a very large exhibit hall. Families from the community were invited to participate in special programs in the Exhibit Hall on Saturday and Sunday, which was a huge success. Many local residents (perhaps a thousand or two?) turned out and seemed to have a great time with many hands-on displays prepared for the event by the Pacific Science Center and the Institute for Systems Biology.

Did you know that the AAAS Board of Directors meets during the national meeting and that the Directors of the four AAAS Divisions report to the Board at that meeting? The special focus this year was on how the Divisions use the monetary allocations provided by AAAS. The Pacific Division in 2003 had income of about \$157,000. This included money from the national office, meeting receipts, and receipts from sales of publications. Of this income, about 29% was used to provide release time from the Executive Director's regular teaching duties at Southern Oregon University and also to pay for the Division's Executive Assistant in order to run the affairs of the Division. About 28% was used to pay for the annual meeting in San Francisco, about 14% was used for printing and mailing the two Newsletters and postcard, about 8% was used for Executive Committee and Council meeting expenses, about 12% was used for miscellaneous administrative and office expenses, and about 9% was saved to bolster our rainy-day reserves.

As the elected representative of the Pacific Division to the AAAS Council (elected in 2002 by the Pacific Division Executive Committee), I also attended the Council meeting, chaired by AAAS President Mary Ellen Avery, on Sunday. The Council meeting provides the national organization the opportunity to showcase important programs, as well as take up some business. Alan Leshner, AAAS Chief Executive Officer, reported on the state of AAAS during these economically turbulent times; Floyd Bloom, Chair of the AAAS Board of Directors, briefed us on activities related to restoration of the health care system; and Donald Kennedy, Editor-in-Chief of Science, reported on Science Magazine. Other briefings included EurekAlert, the climate for research in the post-9/11 world, Project 2061, and an update on R&D funding. The Council voted to ter-

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Two of the three mules cloned at the University of Idaho, in collaboration with researchers at Utah State University.

minate affiliation with two societies that failed to appoint representatives to at least one section in the past year. We also voted to form a committee to review the Fellows process, and voted approval of resolutions in favor of Servicing Mission 4 of the Hubble Space Telescope, endorsing the declaration of 2005 as the World Year of Physics, and concern over the Office of Management and Budget (OMB) proposed Peer Review Bulletin.

One of the highlights of the meeting was hearing the presentation by Korean scientists Woo Suk Hwang and Shin Yong Moon announcing the cloning of human embryos and describing the evidence indicating they had, indeed, accomplished such a feat. Another highlight was seeing the three cloned mules from the University of Idaho (see photo above) that spent the day Sunday in the Exhibit Hall. These three mules are the only cloned mules in existence, a recent accomplishment of collaboration between researchers at the University of Idaho and Utah State University. Note that one of the scientists in this project, Dr. Kenneth White (Utah State University), is organizing a symposium for our meeting, "*Nuclear Transfer Implications and Status*," in which "...current research developments in the area of somatic cell nuclear transplantation using animal cells to produce live offspring..." will be discussed. More information about this symposium may be found on page 16 of this *Newsletter*.

Another high point of the meeting was seeing Cornell Wells (San Francisco State University) present his poster, "Receptor-Ligand Interactions of Ecdysis-Triggering Hormone" during the student poster session. Cornell won the AAAS-Larus Award for Excellence at our San Francisco meeting this past June. The Larus

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SPOTLIGHT ON: WESTERN SOCIETY OF CROP SCIENCE

We are pleased to announce that after an absence of a few years, the Western Society of Soil Science will be joining the Pacific Division at our meeting in Logan. Following is a brief history of the WSCS for those who aren't familiar with the organization.

The Western Society of Crop Science is a regional branch of the American Society of Agronomy (ASA). The ASA recognizes four regional branches. However, it is only in the Western Branch that the crop and soil sciences have been split into the Western Society of Crop Science and the Western Society of Soil Science. The Western Society of Crop Science (WSCS) represents both the Western Branch of the Crop Science Society of America and the Crop Science Division of the Western Branch of the American Society of Agronomy. Historically, the WSCS is a successor to the Western Agronomic Workers (WAW), organized in 1912. The WAW was renamed the Western Section of the American Society of Agronomy in 1924. The Western Society of Crop Science was formally organized in 1954. For the next 24 years the WSCS and the Western Society of Soil Science (WSSS) remained independent. However, in 1978 the WSCS was ordained by the ASA as the Western Branch of the Crop Science Society of America, and the WSCS came under the umbrella of the American Society of Agronomy, where it remains today.

The primary thrust of the annual meetings of Western Society of Crop Science is to provide a forum for the exchange of agronomic research information. Many agronomists working at universities have served on split appointments. They have had various combinations of responsibility in research, resident teaching, and extension education. Thus, the scope of meetings has broadened to include time for Extension sessions and sessions on Agronomic Education as well as research reports.

Abstracts from the first WSCS meeting in 1954 through 2002 are available at <http://www.sarc.montana.edu/wscs>.



WESTERN SOCIETY OF CROP SCIENCE

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Cornell Wells with his poster at the AAAS meeting in Seattle.

Award pays all travel expenses for the winner to present their research at the next national AAAS meeting. Since presenting in San Francisco, Cornell graduated with his bachelor's degree from San Francisco State University and is being actively recruited by a number of top institutions such as the University of Washington. Cornell represented the Pacific Division well at this meeting and we wish him the best for the future.

The Pacific Division sponsored a booth in the Exhibit Hall. Angie Christianson, Pacific Division Executive Assistant, staffed the booth and was able to inform



Angie Christianson, talking with meeting attendees about the Pacific Division.

many attendees about the Pacific Division and our activities. We offered a special "this-meeting-only" discount on early registration fees for those who registered during the national meeting and also held a drawing for a free registration from among those who signed up by the close of day on Sunday. Sandra Smith, a public school teacher from Quolcene, WA, was the lucky winner. Sandra has faithfully attended Pacific

Division meetings over the years as her teaching schedule has allowed. Congratulations, Sandra! We look forward to seeing you in Logan.

Among the many visitors to the Pacific Division booth were Larry and Linda Larsen and their son, Christopher. The Larsens have attended Pacific Division meetings for many years. We literally watched their

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rendezvous location for trappers. The first permanent settlement in the valley occurred in 1856 when seven families at Brigham Young's direction settled at what was first named Maughan's Fort and subsequently became the town of Wellsville.

Logan was founded in 1859. It was named by President John P. Wright after the Logan River, which ran by the early encampment, and also an Indian chief named Logan who had been kind to the settlers in the mid-west. The first buildings were two rows of log cabins with dirt floors and sod roofs, built facing each other after the pattern of Salt Lake City. The streets were wide enough for several wagons to pass each other at one time. The log cabins were replaced with native stone structures and finally structures of brick with wood framing. Although there were other settlements in the valley, Logan attracted the greatest number of settlers because of its location and abundant water supply. At the heart of the city is the Logan Latter-Day Saints Temple. Dedicated in 1877, it is the third oldest LDS temple in Utah and the structural and spiritual center of the valley. Downslope from the temple, in the Center Street neighborhood, are many historical homes constructed in the Queen Anne, Neoclassical, Prairie, and Spanish Revival styles.

With a population of over 45,000 in 2002, Logan is the commercial and cultural center of the Cache Valley. Downtown Logan has over 200 outlets, and the Cache Valley Mall features over 40 stores. Agriculture continues to dominate the basic economy, and the valley is known as the "garden spot of Utah." However, the city does have over 60 manufacturing industries. Culturally, Logan hosts the Summerfest Art Faire and Jazz Festival, Summer Theater, the Utah Festival Opera, and the Festival of the American West. The Nora Eccles Harrison Museum of Art on the Utah State University campus is a recognized center for 20th century sculpture, ceramics, painting, graphic arts, photography, and American Indian arts in the West.

Recreationally, the region has much to offer. The 40 mile Logan Canyon Scenic Byway provides breathtaking scenery alongside a rushing river. Geological markers, picnic spots and camping facilities are located throughout the canyon. Hiking and biking trails are well marked. Logan has several nearby golf courses. The Roland V. Jensen Living Historical Farm is 6.5 miles southwest of the University on Highway 89. Visitors travel back in time and can see how a farm of 1917 functioned, when farm work was done by horses. In Amalga, about 10 miles north of Logan, the Cache Valley Dairy Association operates one of the world's largest Swiss cheese



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The Larsen family. From left to right, Christopher, Linda, and Larry.

children grow up as each year they planned their family vacation to include our meeting. Recently, Larry has been serving as an at-large member of the Pacific Division Council and last year Linda was very helpful in preparing the food for breaks at the San Francisco meeting. Linda has already volunteered to help where needed with our up-coming meeting in Logan.

Roger Christianson
Executive Director

factories, producing 60,000 pounds of cheese each day. Visitors can take a self-guided tour and sample many varieties of cheese.

Utah State University was founded in 1888 as the Agricultural College of Utah in order to “give young men and women in Utah a liberal education.” The institution was subsequently known as the Utah State Agricultural College and, in 1957, was renamed Utah State University. In 1902 the landmark Old Main building, the oldest academic building in Utah in continual use, was completed. In 1983 portions of Old Main were destroyed by fire. The burned areas were subsequently restored and the rest of the building was renovated. R.O.T.C. came to the Agricultural College campus in 1918, with 450 men being trained by the end of World War I. In 1945, toward the end of World War II, a small group of German and Italian prisoners were housed on the Utah State Agricultural campus. The P.O.W. camp was decommissioned in the fall of 1946.

As a Carnegie Foundation Research I Institution, the University currently supports basic and applied research in a wide variety of areas. Total research expenditures in 2003 are

projected at 141 million dollars. USU was the first university in the nation to have student experiments aboard NASA space shuttle flights and has flown more shuttle experiments than any other university. University research has resulted in the start-up of over 40 high-technology companies in the Cache Valley. The University has a strong presence in the international arena, with research and education efforts in 23 countries.

In Fall 2003, the student body included 23,474 students, 70 percent of them coming from Utah and about 4.4 percent international students from 84 countries. About 10.7 percent of the student body is enrolled in the 47 doctoral and 102 master’s programs offered by the School of Graduate Studies. In 2003, the faculty approved 2,773 bachelor’s, 925 master’s and 59 doctorate degrees.

The 719 instructional faculty of Utah State University are organized into 41 academic departments within the seven colleges of Agriculture; Business; Education and Human Resources; Engineering; Humanities, Arts, and Social Sciences; Natural Resources; and Science. Extension County Agents are found in each of Utah’s 29 counties. Faculty members develop and deliver educational programs based on the needs of local communities.

The 400 acre main campus features stately academic buildings surrounded by carefully groomed landscaping. Old Main Hall is a state arboretum with trees and shrubs native to Utah. Another 7,000 acres located throughout the state are used for agricultural and other research. The University Libraries — Merrill Library, Science and Technology Library, and Quinney Natural Resources Library — house more than 1,400,000 volumes, 13,979 periodicals, 1,200,000 federal publications titles, 76,600 USGS topographic maps covering the entire U.S., 2,203,000 microform items, and other film and video resources.

REGISTRATION

All persons planning to attend the meeting should preregister using the form on page 27. Advance registration fees are \$60 for professionals, \$45 for retirees, and \$30 for students and spouses of registrants. K-12 and community college teachers are encouraged to attend the meeting for a reduced professional registration fee of \$45. Advance one-day preregistration is \$45. After May 21 higher registration fees will be charged: professional, \$80; K-12, community college teachers and retirees, \$60; and students and participating spouses, \$40. One-day registration is available on-site for \$60. If you attend more than one day, you must pay the full registration fee.

About field trips: Preregistration for all field trips is required because of limited seating in the vans and the need to inform some destinations of numbers of people arriving. To insure space, it is recommended that you register early.

At least one member of a family group requesting field trip reservations must be a paid meeting registrant.

Please send your Advance Registration Form and accompanying payment to **AAASPD Meetings, Southern Oregon University, Department of Biology, Ashland, OR 97520.**

ACCOMMODATIONS AND FOOD SERVICE

Residence Halls: Utah State University is offering an especially attractive rate for housing in their residence halls. For \$15/night double or \$25/night single you can keep your budget under control while taking advantage of all that the meeting, Logan, and the surrounding area have to offer.

The university residence halls consist of apartments with shared bathroom, living and dining areas and three bedrooms. Each bedroom has two single beds and can accommodate a maximum of two persons per room. If you rent an entire apartment (all three bedrooms), you will be the only one in the apartment. If you rent one bedroom (single or double), you (and your roommate if applicable) will not have the entire apartment to yourself. If you rent a shared room and do not specify a roommate, a roommate will be assigned to your bedroom. Please be aware that individual bedroom doors do not have locks. Bedding is provided (sheets, blanket, pillow, pillowcase). No maid service or towels are provided. Elevators, ice machines, air conditioning, extra pillows, and blankets are not available. Individual apartment phones are also not available. However, pay phones are within walking distance. **No smoking is allowed in the facilities, including the bedrooms.**

Residence Hall Registration: Register by 1) completing the form on page 26 of this *Newsletter* and sending it directly to USU Housing Services, or 2) calling USU Housing Services at 800-863-1085 or 435-797-0277, or 3) faxing the form on page 26 to 435-797-4035, or 4) going on-line to <http://joey.hfs.usu.edu/housing/index.cfm?fuseaction=lodginginfo> and clicking the appropriate links.

Residence Hall Check-in: Instructions for picking up room assignments will be mailed from USU Housing prior to the meeting.

University Inn: The University Inn is a full-fledged hotel operating on the University of Utah campus, in close proximity to all of our meeting rooms. Amenities include free covered parking, free Aggie Ice Cream token for every guest, 24 hour guest services, all rooms non-smoking, access to USU fitness facilities, swimming pools, and outdoor tennis courts, full-size iron and ironing board, hair dryer, in-room coffee and hot chocolate, computer data port, cable TV with movie channels, a study table or desk, and electronic key access. The Pacific Division has reserved a block of these rooms (both "Traditional" and "Handicapped") for meeting registrants at the rate of \$55/night single or double. Additional



Taggart Student Center (L) and University Inn (R).

persons are \$4 each. Almost all rooms have two queen beds. These are very nice rooms and won't last long, so be sure to make your reservation early! Please note that **all rooms are non-smoking. The University Inn will assess a \$199 cleaning fee to any lodging room that has been smoked in.**

University Inn Reservations: In order to reserve a room at the University Inn, you may either call 800-231-5634 or 435-797-0017, or visit their website at <http://www.usu.edu/~~univinn>. Be sure to identify yourself as part of the American Association for the Advancement of Science meeting, or by group number 15401.

University Inn Check-In: Check-in time begins at 3:00 p.m. and check-out time is no later than 12:00 p.m. If you arrive prior to 3:00 p.m., the University Inn staff will make every attempt to accommodate you. However, in the event that rooms are not available, arrangements will be made to store your luggage until your room is available.

On-Campus Dining: The Taggart Student Center offers a variety of dining opportunities. The HUB, located on the east end of the bottom floor of the Taggart Student Center, has eight dining choices and is open for breakfast, lunch, and dinner. Varieties include Taco Time, Pizza Hut, Teriyaki Stix, Hogi Yogi, Sunset Strips, the Grill, fresh gourmet coffee at Cafe Ibis, and Aggie Ice Cream. The QUICKSTOP is at the west end of the Taggart Student Center, bottom floor, and offers a quick pick-up for small grocery items, a snack, or fast meal. CAROUSEL SQUARE offers casual dining, with a choice of Mexican entrees, wraps, a sandwich bar, a salad bar, and the MAIN DISH, which features daily entree specials. The Carousel Square also has fresh pasta and daily vegetarian specials. It is located on the second floor of the Taggart Student Center. The SKYROOM, located on the fourth floor of the Taggart Student Center, offers a full menu of fresh, chef-prepared entrees on Monday, Wednesday, and Friday. On Tuesday and Thursday they offer an all-you-care-to-eat buffet.

There is also a variety of restaurants from fast food to elegant dining in the vicinity of the University campus and also a short distance away in downtown Logan.

Local off-campus accommodations: There are many hotels and motels in the Logan area. Nearby options include:

- **Alta Manor Suites**
45 East 500 North, Logan, UT
435-752-0808
- **Anniversary Inn Bed & Breakfast**
169 East Center St., Logan, UT
435-752-3443
- **Baugh Mansion**
164 West 100 North, Logan, UT
435-750-5860
- **Baugh Motel Best Western**
153 South Main Street, Logan, UT
435-752-5220 or 800-528-1234
- **Clint's Bed & Breakfast**
165 North State St., Richmond, UT
435-258-3768
- **Comfort Inn**
447 North Main St., Logan, UT
435-752-9141 or 800-424-6423
- **Crystal Inn**
853 South Hwy. 89/91, Logan, UT
435-752-0707
- **Days Inn**
364 South Main St., Logan, UT
435-753-5623
- **Logan House Inn**
168 North 100 East, Logan, UT
435-752-7727
- **Providence Inn Bed & Breakfast**
10 South Main St., Providence, UT
435-752-3432
- **Sherwood Hills Best Western**
Hwy. 89/91, Wellsville, UT
435-245-5054
- **Super 8 Motel**
865 South Main St., Logan, UT
435-753-8883
- **Western Inn Best Western**
250 North Main St., Logan, UT
435-752-5700

Please make your reservations for off-campus housing directly with the hotel/motel of your choice. Note that AAAS, Pacific Division, presents the above hotels and motels for information only, not as an endorsement for any specific commercial enterprise.

TRANSPORTATION AND CAMPUS PARKING

By Automobile: Utah State University is located 83 miles northeast of Salt Lake City and 20 miles south of the Utah-Idaho border. From Salt Lake City, drive north on I-5 past Ogden and Willard and take exit 364 to Logan via Hwy 89/91. Continue through the scenic Sardine Canyon. Hwy 89 becomes Main Street in Logan. Turn right on 400 North. Con-

tinue to 700 East and turn left. Continue up the hill, curving to the right. After going through the intersection at the top of the hill, the Parking Terrace will appear on the right. The University Inn and Taggart Student Union are behind the parking lot and adjacent to the Parking Terrace. To check in at the University Inn, turn right into the parking lot and proceed through the gate to the end of the lot.

By Air: Logan is not served by a commercial carrier. However, Salt Lake City is served by major airlines. Car rentals are available at the airport. Cache Valley Limousine Airport Service offers shuttle service from the airport to Logan. As of December 16, 2003, the cost of the limousine service for one person was \$44 one-way or \$78 round trip. For two persons traveling together the cost was \$59 one-way and \$98 round-trip, and for three persons traveling together the cost was \$74 one-way and \$118 round-trip, a significant per-person savings over the single person rate. The trip takes about 1.5 hours. Reservations should be made at least a day in advance by calling 800-658-8526 or 435-563-6400.

**UNITED AIRLINES SPECIAL
MEETING OFFER**

Save up to 15% on airfare for travel on United to Salt Lake City between June 10 and June 22, 2004. Your or your travel agent call UAL's Meeting Plus Reservation Center at **800-521-4041**, 8:00 a.m. to 10:00 p.m. E.T., 7 days a week. Refer to **Meeting ID Number 523AD**. Call at least 30 days in advance for best discounts.

Parking: Validation parking for the Parking Terrace will be provided to registrants staying in the University Inn. Registrants staying in the University Residence Halls will be given complementary passes for the adjacent parking lot, about a five minute walk to the Eccles Science Center. Others will need to secure a parking permit upon registration. The current fee is \$5/day

REGISTRATION CENTER

The Registration Center will be set up in the lobby of the Eccles Science Center (see campus map, p. 31). It will be



Front entrance to the Eccles Science Center, location of the meeting Registration Center.

open at 2 p.m. on Sunday and 8 a.m. on Monday through Wednesday, and remain open daily until 5 p.m. except Wednesday, when it will close at 2 p.m.

MEETING ROOMS

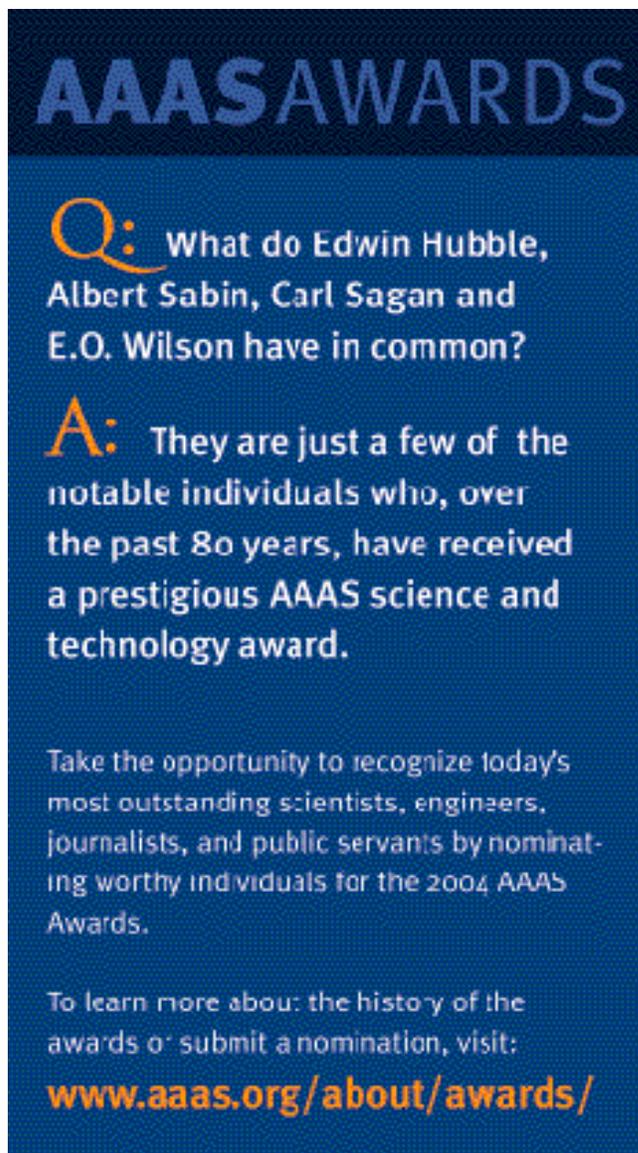
This year's technical sessions will meet in the new Eccles Science Center, the Taggart Student Union and the University Inn. Meeting rooms will be equipped with a 35 mm slide projector, an overhead projector, and a standard computer projector. Speakers requiring other specialized equipment must make their requests when they submit their abstracts. Specialized equipment, such as VHS/TV, will be provided if available. If rental costs are incurred for specialized equipment, payment will be the responsibility of the requestor. A Speaker's Preview Room, with projection equipment, will be open during the meeting. The meeting rooms and times of presentations will be published in the "Program with Abstracts" issue of the *Proceedings* (vol. 23, part 1), which will be given to those who have registered for the meetings. Speakers will receive final confirmation of the time and place of their presentation via e-mail two weeks prior to the meeting.

POSTER SESSIONS

Posters will be assigned a display space of 40" X 60" (1 m X 1.5 m). If you need more space, please contact the Division office by e-mail: aaaspd@sou.edu or telephone: 541-552-6869 to discuss your needs *no later than May 11, 2004*. *By action of the Pacific Division Council in order to assure fairness, all student posters must fit within the assigned display space of 40" X 60" to be eligible for student Awards of Excellence. A request for extra space will disqualify a student from the award competition.*

Posters will be grouped by discipline and subject matter. Each presenter will be given at least two hours for poster display, although more time will likely be available. Presenters should set up their posters no less than 15 minutes before the beginning of their presentation session and are expected to be available to discuss their work during the time their poster is on display. Posters should remain in place until the close of the session, and be removed within 15 minutes of that time. Student posters will be judged for awards of excellence. Students must be present during the judging of posters.

With the permission of Dr. Carol Waite Conner and the Geological Society of America, the Pacific Division has reprinted Dr. Conner's article, "The Poster Session: A Guide for Preparation." It can be found on the Division's website, <http://pacific.aaas.org>. From the 85th Annual Meeting home page, click on **Poster Preparation** (listed in the left-hand column).



AAAS AWARDS

Q: What do Edwin Hubble, Albert Sabin, Carl Sagan and E.O. Wilson have in common?

A: They are just a few of the notable individuals who, over the past 80 years, have received a prestigious AAAS science and technology award.

Take the opportunity to recognize today's most outstanding scientists, engineers, journalists, and public servants by nominating worthy individuals for the 2004 AAAS Awards.

To learn more about the history of the awards or submit a nomination, visit:
www.aaas.org/about/awards/

SPECIAL EVENTS

Sunday Evening Welcome Wagon and Cracker Barrel Mixer, hosted by the Pacific Division and its affiliated societies and sections. All registrants and their families are invited to enjoy the conviviality of this social on June 13 from 8:00 to 10:00 p.m. A selection of soft drinks, chips and pretzels, and good conversation will be available.

Monday Evening President's Reception. Utah State University President *Kermit L. Hall* will welcome conferees at an informal hosted reception from 8:00 to 9:30 p.m. All participants and their families are invited to enjoy this relaxed occasion. Nonregistered family members are welcome, but must be accompanied by a registrant. Please wear your registration badge.

Tuesday Evening Reception, Banquet, and Announcement of the Winners of the Student Awards for Excellence. The no-host Divisional Dinner will be held Tuesday evening beginning at 6:00 p.m. at the Bullen Center, 43 South Main Street in Logan. The cost is \$25 per person and you must sign up in advance (please see Advance Registration Form, p. 27). Students who are in competition for an Award of Excellence are invited to attend as guests of the Division. If you are a student in this category, be sure to indicate on the Advance Registration Form that you are attending the banquet by checking the appropriate entree selection. If nothing is checked, it is assumed that you are not attending the banquet. Dinner will be preceded by a no-host cocktail reception. Wine, beer and a variety of soft drinks will be available, starting about 6:00 p.m. Following dinner, Division representatives will announce the names of student winners of awards of excellence and also winners of the Division's Laurence M. Klauber Award for Excellence (unrestricted), Geraldine K. Lindsay Award for Excellence in the Natural Sciences, J. Thomas Dutro, Jr. Award for Excellence in the Geosciences, Rita W. Peterson Award for Excellence in Science Education, the President's Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and the AAAS–Robert I. Larus Travel Award, which provides for travel and other expenses for the awardee to attend the 2005 annual meeting of AAAS in Washington, D.C., February 17 - 22, in order to present his/her winning presentation as a poster.

The Klauber, Lindsay, Dutro, Presidents', Best Poster, Peterson, and AAAS–Larus awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science. Eligible students must: (1) register for the meeting, (2) present the paper or poster, and (3) be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audiovisual aids and/or handouts (if used). The evaluation forms (oral and poster) are posted on the Division's website.

All are invited and encouraged to attend these annual events.

Business Meeting of the Council of the Pacific Division. The Council of the AAAS, Pacific Division will hold its annual breakfast and business meeting at 7:00 a.m. on Wednesday, June 16. The Council will elect officers, discuss programs for the 2005 and 2006 annual meetings, and transact such other business as is required by the Division's By-Laws.

Trivia Question. This interesting table was recently observed on the USU campus. It is reported to have had, in the past, a profound significance to "Aggie" students. The names of everyone who correctly describes this significance will be placed into a hat with one



lucky winner's name being drawn. The winner will receive a free and postpaid Pacific Division publication of his or her choice....UPDATE! There was no winner of the trivia question this year. Those of you attending the meeting in Logan are encouraged to find this table (it's in a very visible, large, grassy location) and get a feel for what life on campus was like in the early twentieth century. Perhaps you'll also have the urge to stand on it in the full moon and....

PUBLIC LECTURES

Sunday, June 13, 7:00 p.m. "Using Ecological Insight to Promote Drug Discovery and Conservation in Tropical Forests," *Dr. Phyllis Coley* (Department of Biology, University of Utah, 257 S 1400 EAST, Salt Lake City, UT 84112).

Monday, June 14, 7:00 p.m. Annual Presidential Lecture, *Dr. William B.N. Berry* (Department of Earth and Planetary Sciences, 307 McCone Hall, University of California, Berkeley, CA 94720-4767), President of the Pacific Division.

Additional lectures:

"Cerebral Laterality and Cerebral Dominance: Fact or Fiction?" *Fred C.C. Peng* (Neurological Institute, Department of Neurosurgery, Veterans General Hospital–Taipai, Taipei, Taiwan 11217).

"Command Strategies of the 9-11 Terrorist Attack on the World Trade Towers," *Henry Oman* (Consulting Engineer, 19221 Normandy Park Drive SW, Seattle, WA 98166).

"Paleoastronomy–The Sun Through An Ice Core Looking Glass," *Aden B. Meinel* and *Marjorie P. Meinel* (Department of Astronomy and the Optical Sciences Center, University of Arizona, Tucson, AZ, ret. and Jet Propulsion Laboratory, Observational Systems Division, California Institute of Technology, Pasadena, CA, ret.).

FIELD TRIPS

All field trips are open to meeting registrants and their families. Due to limited space, advance registration is required for all trips. Reservation and payment of field trip fee(s) are included on the Advance Registration Form (page 27).

A full refund will be granted if a trip is cancelled by the Division. If a registrant cancels via e-mail or written notification postmarked by May 24, 2004, a refund will be issued, less a \$10 processing fee. If paid by credit card, an additional 3% will be deducted from the amount being refunded. Refund requests beyond this date will be granted only if another individual purchases the ticket(s), and is also subject to the above fees. Please note that missing a field trip is not sufficient justification for a refund, since we will have purchased the food and other materials, if any, and reserved a spot for you in the vehicle.

All field trips depart from the parking lot in front of the University Inn (next to the parking structure--see map on page

31). Plan on arriving a few minutes early. It's always a good idea to bring along a day pack and extra water, especially if the weather is warm. Please dress according to the weather and bring a hat and sun screen. Depending on the activities of the field trip, you may want to include a pair of binoculars and/or other items.

If you are going on one of the Sunday field trips, Pacific Division staff will be providing drivers with lists of participants so you do not need to worry about picking up your registration packet in advance. Registration will stay open until at least 5:00 p.m. on Sunday, perhaps a bit later to allow field trippers the opportunity to pick up their registration packets once they return. Otherwise, registration will be open at 8:00 a.m. on Monday.

The following field trips are planned:

(1) Sunday, June 13: 9:00 a.m. – 4:00 p.m. Preston Valley Trail. Departs from the parking lot in front of the University Inn at 9:00 a.m. Led by Mary Barkworth and Michael Piep (Department of Biology and Intermountain Herbarium, Utah State University), the Preston Valley Trail has probably more plant species per linear foot than any other trail near to Utah State University that is open in mid-June. It is narrow and winds up the north side of the ridge separating Green Canyon from Logan Canyon. We shall take it slowly, and possibly break into two groups – one continuing to the ridge and the other stopping lower down. The trail starts at about 5,900 feet in elevation in a shady maple area, winds to open slopes with mountain mahogany, then around and around to Douglas fir, breaking out at the top to a wonderful view over both canyons at an elevation of about 8,100 feet. The views are superb all the way up so those who decide not to go to the top will still have a great day. Bring a day pack for lunch and water. Birders will want to bring binoculars. Don't forget to dress for the weather and bring a hat and sunscreen. Includes transportation, field guide and a sack lunch. Cost: \$20.

(2) Sunday, June 13: 8:00 a.m. - 5:00 p.m. History of local Indians, Mountain Men and early Mormon Settlements. Departs from the parking lot in front of the University Inn at 8:00 a.m. Ross Peterson, Professor of History and Director of the Intermountain Center for Regional Studies will lead this trip, which heads up through Logan Canyon to Bear Lake, with a brief stop at the lake for raspberry shakes. We will then travel north along Bear Lake before turning south over the Wasatch Mountains into Cache Valley to the site of the Bear River Massacre. Includes transportation via vans and box lunch. The raspberry shakes are on your own. Cost: \$35.

(3) Sunday, June 13: 9:00 a.m. - 4:00 p.m. Idaho Museum of Natural History. This trip departs from the parking lot in front of the University Inn at 9:00 a.m. This trip will follow the Lake Bonneville channel north to the Idaho Museum of Natural History. Includes transportation via vans, entry fee to the museum, and box lunch. Cost: \$35.

(4) Wednesday, June 16: 9:00 a.m. - 5:00 p.m. Wasatch Formation. Sponsored by the Western Society of Soil Science and led by Dr. Janis Boettinger (Department of Plants, Soils, and Biometeorology at USU). This field trip departs from the parking lot in front of the University Inn at 9:00 a.m, travelling up Logan Canyon to view glaciation in the Wasatch Formation, forest soils, glacial moraines, and ancient tropical soils. Includes transportation via vans and box lunch. Cost: \$25.

(5) Thursday, June 17, 8:00 a.m.–Saturday, June 19, 5:00 p.m. Yellowstone National Park. Led by J. Thomas Dutro, Jr., retired from the U.S. Geological Survey and National Museum of Natural History (Smithsonian), will lead this trip. We depart Logan Thursday morning at 8:00 a.m. from in front of the University Inn, travelling into Yellowstone National Park through the west entrance at West Yellowstone, Montana. Both nights will be spent at Old Faithful Inn.

AAAS AWARDS

- AAAS Philip Hauge Abelson Prize
- AAAS Award for International Scientific Cooperation
- AAAS Award for Public Understanding of Science and Technology
- AAAS Mentor Awards
- Newcomb Cleveland Prize, supported by Affymetrix
- AAAS Scientific Freedom and Responsibility Award
- AAAS Science Journalism Awards

Take the opportunity to recognize today's most outstanding scientists, engineers, journalists, and public servants by nominating worthy individuals for the 2004 AAAS Awards.

To learn more about the history of the awards or submit a nomination, visit:

www.aaas.org/about/awards/



Thursday afternoon and Friday we will tour the two main loops of Yellowstone, observing the many hot springs and other signs of volcanic activity. Saturday morning we will depart Yellowstone, again through the west entrance, and return to Logan by late afternoon after a detour to Craters of the Moon National

Monument. Includes two nights lodging at Old Faithful Inn, transportation via charter tour bus, written materials, and lunches. Other meals and items of personal nature are the responsibility of participants. Cost: \$275 per person, double occupancy only. Minimum 18; maximum 25 participants. If you are traveling alone, we will make every attempt to match you with another single participant of the appropriate gender. If we are unable to match you, we will refund the entire amount you paid for the trip.

INSTRUCTIONS FOR SUBMITTING PAPERS

Members of AAAS and its affiliated societies, students, teachers, and other scientists are encouraged to participate in the annual meeting and to present papers. Those wishing to present a paper at one of the sessions should send a title and abstract (see page 24) to the program coordinator of the society or section at which you would like to present the paper (see page 20 for names and addresses). Abstracts may be submitted electronically as attachments via e-mail or by regular mail. If submitting by mail, it will be helpful if the abstract is submitted on disc, preferably using Microsoft Word, to accompany the paper copy. Abstracts should also be copied to the Division's meetings office, again either electronically as an e-mail attachment, to aaaspd@sou.edu, or to the postal address: AAAS, Pacific Division, Southern Oregon University, Department of Biology, Ashland, OR 97520.

STUDENT AWARDS FOR EXCELLENCE

The AAAS, Pacific Division offers each affiliated society and section participating in the annual meeting the opportunity to recognize outstanding student participants through the presentation of awards of excellence and cash prizes of \$175 for first place and \$100 for second place. Societies often supplement these awards with their own cash prizes.

In 2004, seven Division-wide awards are available: Laurence M. Klauber Award for Excellence (unrestricted); Geraldine K. Lindsay Award for Excellence in the Natural Sciences; J. Thomas Dutro, Jr. Award for Excellence in the Geosciences; Presidents' Award for Excellence (unrestricted); Rita W. Peterson Award for Excellence in Science Education;

Best Poster Award (for posters only but otherwise unrestricted); and the AAAS Robert I. Larus Travel Award, which provides travel and other expenses for the awardee to attend the 2005 annual meeting of AAAS in Washington, D.C., February 17 - 22, 2005, for the purpose of presenting their paper as a poster.

The Klauber, Lindsay, Dutro, Presidents', Peterson, Best Poster, and Larus awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science. To be eligible, a student must register for the meeting, present the paper or poster, and be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audiovisual aids and/or handouts (if used). The evaluation forms for both oral and poster presentations are posted on the Division's website. Students who register for the meeting and present papers are invited to be the Division's guests at the Division Banquet Tuesday evening, June 15. Festivities that evening include the presentation of student awards. Please refer to instructions for signing up for the banquet in advance under "Tuesday Evening Banquet...." near the top of the left column on page 10.

TECHNICAL SESSIONS

Days, times, and room assignments for technical sessions will be posted to the Pacific Division website, <http://pacific.aaas.org>, as they become available. Always check the website for the most up-to-date meeting information.

EDUCATION WORKSHOP

Enhancing Active Learning Through Knowledge Construction using the Semantic Networking Program, *Semantica* Education 3.0.3.

Monday, 14 June, 10 a.m. - 12:00 p.m.

repeated again at

Wednesday, 16 June, 1:00 p.m. - 3:00 p.m.

Cost: no cost

Organized by *Kathleen M. Fisher* (Center for Research in Mathematics and Science Education, San Diego State University, 6475 Alvarado Road, Suite 206, San Diego, CA 92120; E-mail: kfisher@sciences.sdsu.edu).

Note: preregistration for the workshop is necessary (see page 28) to assure a spot due to limitations on the number of participants for each workshop. If you didn't preregister and would like to attend one of the workshops, check at the Registration Desk to ascertain whether or not vacancies exist. It is expected that each participant in this workshop is registered for the meeting. Please wear your name badge to the session.

Semantic Research, Inc. is pleased to announce a workshop designed to help registrants become familiar with a unique knowledge structuring tool, *Semantica* Education 3.0.3. *Semantica* is a *groundbreaking*, cross-platform thinking tool for students and teachers. Based on 30 years of research on how humans store information in long-term memory, *Semantica* enables experts and learners alike to easily capture what they know and create interactive, multi-dimensional structures of knowledge that promote retention, recall, and transfer of knowledge.

Research has shown that when students actively construct their knowledge with a scaffolding tool such as *Semantica*, they necessarily shift from habits of rote learning to meaningful understanding, with active engagement being more effective than fact memorization for deep, sustained conceptual understanding. Hake showed in a large trial of over six thousand students that an interactive-engagement curriculum resulted in an average gain of *almost two standard deviations above traditional methods* [1]. A recent publication by Bencher [2] reports that *learning gains have doubled* when using an active learning approach compared with the same course taught in a traditional lecture/recitation method in the introductory physics classes at MIT. Numerous exploratory research studies with semantic networking suggest that students who construct their knowledge with this tool may learn twice as much as those who don't [3].

Workshop participants will work on PCs with a tutorial to familiarize them with its features. Although the workshop will be held in a PC laboratory, the Mac interface is similar, so Mac users are encouraged to attend as well. To attain the greatest benefit from the workshop, it is suggested you bring along an outline from a course you teach in order to have a ready source of material to enter into your semantic network. All participants who complete the workshop will receive a free, fully functional copy of *Semantica* 3.0.3.

1. Hake, R.R. (1998). "Interactive-engagement vs traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses," Am. J. Phys. 66: 64-74; on-line as ref. 24 at <http://www.physics.indiana.edu/~hake>
2. Belcher, J.W. (2003), "Improving Student Understanding with TEAL" [TEAL = Technology Enhanced Active Learning], Vol. XVI No. 2 October/November 2003 The MIT Faculty Newsletter: <http://web.mit.edu/fnl>
3. Fisher, K. M. (In Preparation). Summary of research on learning with semantic networks. To be distributed at the workshop.

SYMPOSIA

The following symposia are planned for the annual meeting. Although most symposia are organized around invited papers, organizers often will consider adding one or more contributed papers if they are relevant to their programs. Should you wish to participate in one of these symposia, contact the symposium organizer. Should you wish to present a paper in one of the contributed paper sessions, refer to pages 20 and 24 of this *Newsletter*. Check the Division's website,

Library Book Packs

\$90 postpaid
(a \$292 value!)

U.S. and Canada only...others please

contact us for additional shipping cost.

Have library access to all of the AAAS, Pacific Division books that are currently in print. Give this order form to your librarian and request that they place the order today! Or fill it out yourself to augment your personal library. For only \$90 postpaid, your library (or you) will receive one copy of each of the following:

- Agroecosystems and the Environment: Source, Control, and Remediation of Potentially Toxic Trace Element Oxyanions (cloth, 1998)
- San Francisco Bay: The Ecosystem (cloth, 1996)
- San Francisco Bay: Use and Protection (paper, 1982)
- Genecology and Ecogeographic Races (cloth, 1995)
- Cracking Rocks and Defending Democracy: The Life and Times of Kirtley Fletcher Mather, 1888-1978 (cloth, 1994)
- Dietary Factors and Birth Defects (paper, 1993)
- Crater Lake: An Ecosystem Study (cloth, 1990)
- Late Cenozoic History of the Pacific Northwest (cloth, 1985)
- Patterns of Evolution in Galapagos Organisms (cloth, 1983)
- Frontiers of Geological Exploration of Western North America (paper, 1982)

WHILE QUANTITIES LAST!!

Tables of Contents posted at pacific.aaas.org

Yes! Please send us a Library Book Pack.

Attention: _____

Institution _____

Address _____

City, State and Zip _____

Please make check out to **AAAS Pacific Division**, in the amount of \$90.

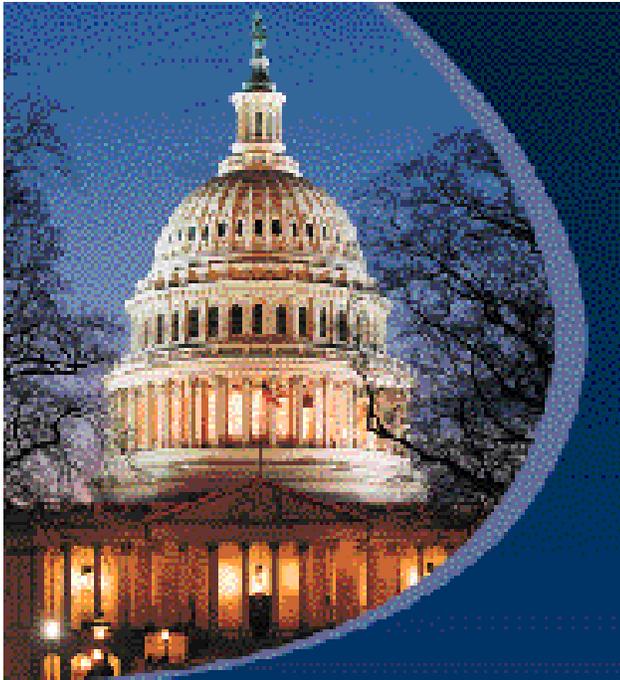
Credit cards, call 541-552-6869.

The books will be shipped as soon as payment is received.

Questions? Phone 541-552-6869 or e-mail aaaspd@sou.edu

Mail To:

AAAS Pacific Division • Department of Biology,
Southern Oregon University • Ashland, OR 97520



29TH ANNUAL AAAS Forum on Science and Technology Policy

22-23 APRIL 2004 • WASHINGTON, DC

The Forum provides a setting in which federal and industrial policy-makers and members of the scientific, engineering, and academic communities can participate in an open discussion of issues relating to science and technology policy.

The Forum occurs after the release of the President's budget but before final congressional action, thus allowing for the timely exchange of information about the budget and the consequences of various policy issues involving science and technology.

For more information, please visit:
www.aaas.org/forum

pacific.aaas.org, for the latest information on symposia and other program events.

Please remember, at this time the listings below are tentative and subject to change. If you plan to attend the meeting largely for one symposium or technical session, check the Division's website for updates to the program or phone the Division's meeting office at 541-552-6869 to confirm the status of the session(s) before committing travel funds. As additional symposia are added to the program, they will be posted on the website and will appear in the Spring Newsletter.

(1) Agricultural Genomics: Who, What, and Why.

Organized by Dr. Kamal A. Rashid (Associate Director, Education and Development, Biotechnology and Genomics Research Center Research, Utah State University, Logan, UT 84322; E-mail: krashid@cc.usu.edu; Web Site: www.usu.edu/biotech). This symposium, sponsored by the USU Biotechnology and Genomics Research Center, focuses on the recent advances in agricultural genomics for plants, animals and microbes. The symposium addresses the impact and new developments for agricultural sciences. Presentations and discussions will focus on utilization of functional genomics, proteomics and bioinformatics data, and how to turn such data into applicable knowledge and industrial products. Several distinguished speakers will address symposium participants.

(2) Return of the Wolf to the West. Organized by Dr. Robert Schmidt (Utah State University, Logan, UT 84322; E-mail: Rschmidt@cc.usu.edu).

(3) Future Climate Change: Implications for Western

Environments. Organized by Dr. Fred Wagner (Utah State University, Logan, UT 84322; E-mail: fwagner@cc.usu.edu). This symposium will have speakers in three sequential groups: (1) evidence that the globe, and western North America, began to warm and experience increased precipitation during the 20th century as predicted by the general circulation models for the 21st century; (2) evidence that the warming is being induced by increasing levels of greenhouse gases, especially CO₂; and (3) evidence of environmental effects that began appearing in the West during the 20th century. Speakers will come from western universities and public agencies.

Speakers:

Frederick H. Wagner (Ecology Center, Utah State University, Logan, UT), "Introduction. Rocky Mountain/Great Basin Climate-change Assessment."

David S. Chapman and *Robert N. Harris* (Department of Geology and Geophysics, University of Utah, Salt Lake City, UT), "Surface Warming in the Northern Hemisphere Inferred from Borehole Temperatures."

David L Naftz (U.S. Geological Survey, Salt Lake City, UT), *Kirk A. Miller* (U.S. Geological Survey, Cheyenne, WY),

and Liz Oswald (U.S.D.A. Forest Service, Lander, WY), "Ice-core and Stream-flow Evidence of Rapid Climate Change at High-altitude Areas, Wind River Range, Wyoming."

Stephen T. Gray and *Lisa Graumlich* (Big Sky Institute, Montana State University, Bozeman, MT), "Reconciling Natural, Multi-decadal Climate Variability and Predictions of Anthropogenic Climate Change in the Western U.S."

Caspar Amman (National Center for Atmosphere Research, Boulder, CO)

Vincent B. Wickwar, *Joshua P. Herron*, and *Troy A. Wynn* (Department of Physics, Utah State University, Logan, UT), "Climate-change Implications of U.S.U. Lidar Observations of the Mesosphere."

Benjamin D. Santer (Program for Climate Model Diagnosis and Intercomparison, Lawrence Livermore National Laboratory, Livermore, CA), "Changes in Tropopause Height: A New Fingerprint of Human Effects on Climate."

Philip Mote, *Alan Hamlet*, *Dennis Lettenmaier* (Climate Impacts Group, University of Washington, Seattle, WA) and *Martyn Clark* (Center for Science and Technology Policy Research, University of Colorado, Boulder, CO), "Variability and Trends in Mountain Snowpacks in Western North America."

Daniel B. Fagre (U.S.G.S. Northern Rocky Mountain Science Center, Glacier National Park, MT), "Variability and Trends in Alpine Glaciers."

Jessica Lundquist (Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA), "Variability and Trends in Spring Runoff in Western United States."

Jesse A. Logan (Rocky Mountain Research Station, U.S.D.A. Forest Service, Logan, UT) and *James A. Powell* (Department of Mathematics and Statistics, Utah State University, Logan, UT), "Ecological Consequences of Forest-insect Disturbance Regimes Altered by Climate Change."

John H. Matthews (Department of Integrative Biology, University of Texas, Austin, TX), "Observed Impacts of Climate Change on Natural Systems in the United States."

Gunter Weller (Cooperative Institute for Arctic Research, University of Alaska, Fairbanks, AK), "Impacts of Climate Change in the Arctic."

Thomas M. L. Wigley (National Center for Atmospheric Research, Boulder, CO), "Policies to Combat Global Warming."

(4) Water-wise Landscaping. Organized by Dr. Roger Kjeldgren (Utah State University, Logan, UT 84322; E-mail: rkjel@mendel.usu.edu).

(5) Electromagnetic Techniques in Soil Science. Organized by Drs. Lynn Dudley (Dept. Plants, Soils & Biometeorology, Utah State University, Logan, UT 84322-4820; E-mail: ldud@mendel.usu.edu) and Paul McDaniel (University of Idaho, Ag Sci 242, Moscow, ID 83844-2339). The success of time domain reflectometry (TDR) sparked interest in a variety of other electromagnetic methods of investigating soil

2005 PACIFIC DIVISION ANNUAL MEETING AT SOUTHERN OREGON UNIVERSITY

Southern Oregon University is located in Ashland, OR, about 14 miles north of the California border on I-5. It is conveniently located within 12 hours or so driving time from every metropolitan area on the west coast. Ashland is perhaps best known as the home of the Oregon Shakespeare Festival, with many other theater and musical groups (such as the Britt Music Festival in Jacksonville) close-by. Additionally, Ashland is situated in a very interesting biogeographical area. Located at the south end of the Rogue Valley, where the Cascade and Siskiyou Ranges meet, visitors will have access to a large variety of intriguing ecosystems, such as those associated with serpentine soils, dormant volcanoes and old lava flows, and the recently created Cascade-Siskiyou National Monument.

Ideas and proposals for the Ashland meeting may be forwarded to the Pacific Division office, which is also in Ashland. See page 23 of this *Newsletter* for the Call for Symposia and Workshops. Address proposals to: AAAS, Pacific Division, Southern Oregon University, Ashland, OR 97520, or e-mail: aaaspd@sou.edu.

water, salinity, geometry and interfacial properties. Methods such as impedance, ground penetrating radar and electromagnetic induction are being used to determine soil properties with a minimum disturbance. Moreover, some of these techniques have potential applications to mapping soil properties on field or larger scales. This seminar will bring together researchers using a variety of electromagnetic methods to report on the state of the science.

(6) NSF ADVANCE: Examining a Leaky Pipeline: Research on the Academic Careers of Women in Science and Engineering. Organized by Dr. Ronda Callister (Department of Management and Human Resources, Utah State University Logan, UT 84322-3555; E-mail: callister@b202.usu.edu). National Science Foundation (NSF) statistics show women leaving science and engineering careers at much higher rates than men. They also show that the percentage of women at full professor rank has not changed in the last two decades, despite dramatically increasing percentages of women getting Ph.D.s in these fields (new Ph.D.s in Biology, for example, are now approximately 50% women).

Questions about why this is happening prompted NSF to develop its Advance program. Two rounds of Advance awards have been made. Four (tentatively) of these institutions will be discussing their programs of research to address these questions.

Speakers:

Sara Benitez and Idalia Ramos (University of Puerto Rico - Humacao), "Examining the Leaky Pipeline in Puerto Rico." This presentation examines why there are so many women science undergraduates at University of Puerto Rico-Humacao and why these rates of participation are not represented in the faculty.

Ronda Callister (Utah State University), "Gender Differences in the Quality of Work Life in Science Departments." Approximately 300 out of 400 faculty members in science and engineering departments responded to surveys about their perceptions of the quality of work life in their department. This data will be examined for gender differences. Previous research suggests that women will perceive a more difficult work environment especially in those fields where the percentage of women is very low.

Maria del C. Cruz, Myrna Ayala and Idalia Ramos (University of Puerto Rico-Humacao).

Barbara Silver (University of Rhode Island), "Changing the Culture at the University of Rhode Island: Assessing Readiness for Change." The ADVANCE program at URI involves a strong recruitment component, faculty development and support programs, all of which are well underway. Preliminary assessments of climate conditions and intervention strategies will be reviewed. These have been developed using two change models, the Transtheoretical Model for Change and Appreciative Inquiry, both of which will be discussed.

(7) Nuclear Transfer Implications and Status. Organized by Dr. Kenneth White (Utah State University, Logan, UT 84322; E-mail: kwhite@cc.usu.edu). This symposium will provide an update of the current research developments in the area of somatic cell nuclear transplantation using animal cells to produce live offspring. Presentations will focus on application and efficiencies of the process to various species, developmental implications and gene expression profiles of nuclear transfer embryos and the relation to somatic cell nuclear reprogramming efficiencies.

(8) Snake and Colorado Rivers: Rights and Restoration. Organized by Drs. Jack Schmidt, Joel Pederson and Joanna Enter-Wada (Utah State University, Logan, UT, 84322).

(9) Emerging Diseases of Significance in the West. Organized by Drs. Robert Sidwell and John Morrey (Institute for Antiviral Research, Utah State University, Logan, UT 84322; E-mail rsidwell@cc.usu.edu). This symposium will

consider those viral diseases which appear to be increasing as threats to human and animal populations in the west. Epidemiological evidence will be considered, and research directions for the control of these diseases will be reviewed.



Speakers:

Robert Rolfs (State Epidemiologist, Utah State Health Department, Salt Lake City, UT), "Emerging diseases of importance to western populations." (tentative title)

Clell Bagley (Professor and Extension Specialist, Extension Services, Utah State University, Logan, UT), "Emerging diseases of importance to livestock and other animals."

Richard Douglass (Professor of Biology, Montana Tech of the University of Montana, Butte, MT), "Hantavirus: A Significant Threat?"

John Morrey (Professor of Virology, Institute for Antiviral Research, Utah State University, Logan, UT), "West Nile Virus and Mad Cow Disease: Current Research Directions."

Dale Barnard (Associate Professor of Virology, Institute for Antiviral Research, Utah State University, Logan, UT), "SARS: What is being done about it?"

(10) Colorado Plateaux to Great Basin—A Natural Laboratory From Grade School to Grad School. Organized by Drs. C. Frederick Lohrengel II, Robert L. Eves, Mark R. Colberg (Department of Geology, Southern Utah University, Cedar City, UT 84720; E-mail: lohrengel@suu.edu) and Ronald M. Martin (Department of Biology, Southern Utah University, Cedar City, UT 84720; E-mail: martin@suu.edu). The Colorado Plateaux and Great Basin are occupied by, or surrounded by, a large number of educational institutions that work with all ages of "students," Grade School through Grad School and beyond. This is an open symposium to allow everyone interested an opportunity to share the sorts of activities they are carrying out in these spectacular regions of western North America.

Speakers:

Harold Ornes (College of Science, Southern Utah University, Cedar City, Utah), "A Cooperative University-Middle School Ecosystem Field Experience Along the Colorado Plateaux-Great Basin Transition of Southern Utah."

M.R. Colberg, R.L. Eves, and C.F. Lohrengel II (Division of Geosciences, Southern Utah University, Cedar City, Utah), "Recruiting Quality Majors: New York High School Students Experience the Geology of Southern Utah."

G. Pollock and D. Cantu, (Bryce Canyon Natural History Association, Bryce Canyon, UT, 84717) and *R.L. Eves, J.E. Bowns, and R.L. Martin*, (Southern Utah University, 351 West Center Street, Cedar City, UT, 84720), "Natural History of the Colorado Plateaux and Basin and Range: A K-12—National Park Cooperating Association - University Partnership."

(11) Strategies to Accommodate Dual Career Couples in Academic Science and Engineering Departments. Organized by Dr. Kim Sullivan (Department of Biology, Utah State University, Logan UT 84322-5305; E-mail:

From AAAS Headquarters.....Bob Hirshon on *Science Update*

Listeners to public radio have long enjoyed top-notch science reporting from veteran correspondents, like Richard Harris and Joe Palca. And commercial radio listeners similarly enjoy the thoughtful analysis and timely science reports of Rush Limbaugh and Howard Stern.

Like you, we at AAAS HQ in Washington noticed a little disconnect here. Commercial radio is not exactly known for its science reporting. Even the 24-hour all-news stations rarely have staff science correspondents.

Also, despite what many scientists and academicians believe, commercial radio dominates the airwaves. According to a report by the Corporation for Public Broadcasting, public radio listening constitutes just four percent of all radio listening. The rest is commercial—everything from Rush Limbaugh and Howard Stern to local commuter reports carried live from traffic choppers.

In an effort to bring some science reporting to this large audience, in January of 1988 the AAAS started the *Science Update* radio show, a 90-second news feature. Since then, *Science Update* has broadcast well over 3000 shows, heard by millions of listeners coast-to-coast. The show has won numerous awards, including a 2003 WorldMedal at the International Radio Festival of New York, and two 2003 Crystal Communicator Awards of Excellence. *Science Update* is featured on the popular early morning news magazine *America in the Morning*, heard on 400 stations, and heard daily on an additional 50 stations. The shows are also available at the website www.scienceupdate.com.

Science Update costs about \$120,000 per year to run, and most of this is covered by the AAAS. The show is also supported by advertising revenue, thanks to the efforts of the Radio America Media Group in New York City. Unfortunately, over the past two years, ad revenues are down. They now support just 20% of the annual operating budget.

Since ad revenues are largely the result of audience size, we are currently trying to boost listenership. We could attempt this through the time-honored commercial radio method of stunts and pranks, like flagpole sitting or dressing up in outlandish costumes and attending high-visibility venues. But this seems, somehow, a little out of keeping with our style, and might be viewed unfavorably by the AAAS Board. Besides, show host Bob Hirshon is allergic to feathers.

Therefore, we're focusing on adding new stations, especially in Top 100 markets. One way to add stations is for us to send them demos, and call them repeatedly. Which we are doing. Stations are even more responsive if their listeners call or write. So if you like *Science Update*, and want to have it added to the lineup of your favorite commercial station, please write or call their Station Manager or Programming Director. They can get information about the show, including a demo CD, by calling Murray Walsh Radio Programming, toll free, at 1-800-729-6499.

Despite being a commercial radio personality, Bob Hirshon has no affinity for either flagpoles or chicken suits. "I'm afraid of heights," say Hirshon. "And allergic to feathers." Hirshon is urging consideration of other means to boost the profile of his radio show.

Some Pacific Division Talk/News stations in Top 100 Markets. (Markets in order of size; talk stations in order of size within market; some large markets, like Portland, weren't listed)

Adding even ONE of these stations would make a big difference.

Los Angeles KFI-AM KABC-AM KLSX-FM KNX-AM KFWB-AM KRLA-AM	San Diego KOGO-AM KFMB-AM KFI-AM KCBQ-AM KNX-AM	Salt Lake City KSL-AM KNRS-AM KALL-AM Las Vegas KXNT-AM KDWN-AM KSFN-AM KNUU-AM	KCBS-AM Bakersfield, CA KERN-AM KGET-AM KNZR-AM KWRU-AM KGEO-AM KMJ-AM	KUGN-AM KZTU-AM Palm Springs, CA KPSI-AM KNWZ-AM KESQ-AM KGAM-AM KNWQ-AM	Merced, CA KMJ-AM KYOS-AM Yakima, WA KIT-AM
San Francisco KGO-AM KCBS-AM KSFO-AM KNEW-AM	San Jose: KLIV (others the same as SF)	Honolulu KHVH-AM KHNR-AM Fresno KMJ-AM KMPH-FM	Ventura, CA KVTA-AM KLSX-AM (the rest are same as LA)	San Louis Obispo KPRL-AM KVEC-AM KGLW-AM KUHL-AM KXTK-AM	Santa Barbara, CA KTMS KEYT-AM KNX-AM Tri Cities, WA KONA-AM KTCR-AM
		Montery/Salina KION-AM KSCO-AM	Reno, NV KKOH-AM KBZZ-AM Eugene, OR KPNW-AM	Anchorage, AK KENI-AM KFQD-AM KTZN-AM	Ashland, OR KMED-AM KCMX-AM

yejunco@biology.usu.edu). Partner accommodation is a significant recruitment and retention issue for colleges and universities. National Science Foundation data indicate that 55% of women scientists and 32% of male scientists are married to another scientist. The challenges of recruiting and retaining dual career couples in the science and engineering fields is particularly difficult for colleges and universities located outside of major metropolitan areas where the college or university is often the only higher education institution in the area and the major employer. We will present innovative university programs on partner accommodation. Following the presentations will be a workshop to discuss best practices and to develop a white paper.

Speakers:

- Idalia Ramos* (University of Puerto Rico)
- Lisa Frehill* (New Mexico State University)
- Penny Kukuk* (University of Montana)
- Pat Hyer* (Virginia Tech)
- Barbara Silver* (University of Rhode Island)
- Kim Sullivan and Chris Hailey* (Utah State University)

NEW NEW NEW NEW

(12) Lords of the Rings: Dendrochronology Yesterday, Today and Tomorrow. Organized by Donald J. McGraw (Associate Provost, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110-2492; E-mail: mcgraw@sandiego.edu). Dendrochronology, or tree ring dating, achieved maturity as a science (or 'group of sciences' comparable, say, to oceanography) during the 20th century. This series of talks includes a mix of both the history of and modern applied aspects of this science. Specific topics will include discussions about the founder of the field, archaeological applications (both North American and Asian), astronomy connec-

tions, consideration of early pioneers and their efforts, stable isotopes in tree rings, climatological features, and the future of dendrochronology.

Speakers:

Steven W. Leavitt (Laboratory of Tree Ring Research, 105 W. Stadium, Bldg. #58, University of Arizona, Tucson, AZ 85721), "Tree Ring Isotope Rhythms: Climate and Dating from the Bands." Seasonal stable isotope analysis (C, O, H) of tree rings from around the world reveals patterns of changing composition that can be linked to seasonal climate variation. The regularity of these patterns also provide the basis for dating when the species do not have regular identifiable ring boundaries, such as in tropical and subtropical environments

Donald J. McGraw (Associate Provost, University of San Diego, 5998 Alcalá Park, San Diego, CA 9210-2492), "The Role of Bristlecone Pine in the Calibration of the Radiocarbon Dating Technique." Research is under way on the role played by the Bristlecone Pine in the calibration of the radiocarbon dating technique. In the early stages of a book manuscript in preparation, Edmund Schulman, discoverer of the great age of these pines, is given consideration as are the events associated with this signal discovery. Schulman's role in dendrochronology will be touched upon in this preliminary presentation of a larger project.

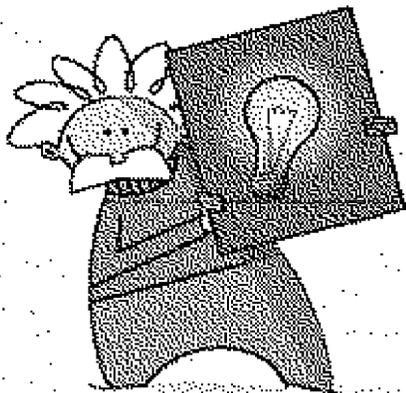
Stephen E. Nash (Head of Collections, Department of Anthropology, The Field Museum, 1400 S. Lake Shore Drive, Chicago IL 60605). Presentation 1: "The Growth, Development and Application of North American Tree Ring Dating." Tree ring dating emerged to provide accurate, reliable dates at a time when North American archaeologists had no absolute dating techniques available to frame their analyses. This presentation examines the growth, development, and application of North American tree ring dating when it was the only reliable chronometric yardstick.

Presentation 2: "Recent Contributions to the Tree Ring Method, Theory and Data, and Suggestions for Future Research." The pace of worldwide archaeological tree ring research has accelerated in the last two decades, and significant contributions have recently been made in archaeological chronology and chronometry, paleoenvironmental reconstruction, and the study of human behavior in both the Old and New Worlds. This paper reviews a sample of recent contributions to tree ring method, theory, and data, and makes some suggestions for future lines of research.

John S. Roden (Department of Biology, Southern Oregon University, 1250 Siskiyou Blvd., Ashland,

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OR 97520), "What can the stable oxygen isotopic composition in tree ring cellulose tell us about the past?" Oxygen isotopes in wood come from water and vary seasonally as well as annually. They may provide proxy information about water sources, relative humidity and climate cycles. Observations and models that describe the variation in tree ring stable oxygen isotopic composition will be presented.

Irina P. Panyushkina (Laboratory of Tree Ring Research, University of Arizona, Tucson, Arizona 85721), "Toward a Dendrochronology to Better Understand Central Asian Archaeology." The presentation describes ongoing efforts to infer climate from tree rings preserved in Iron Age archaeological sites using a long-term proxy record of summer temperature from growth rings of living and dead larch trees in the Altai Mountains, Russia. The potential of dendrochronology for enhancing understanding of the Central Asian nomads is evident in the climatic reconstruction and absolute dating of archaeological sequences in the Altai from 900 BC to the present, and the grand strategy is to illuminate timing of events in Central Asian archaeology as was done for U.S. Southwestern archaeology 70 years ago.

George Webb (Department of History, Tennessee Technological University, Cookeville, Tennessee 38505). Presentation 1: "Contributions of A.E. Douglass to Astronomy, the Development of Dendrochronology and the Institutional Growth of Science in the American Southwest." The place of A. E. Douglass in the history of science rests jointly on his work in astronomy and his development of dendrochronology. The two fields were, in fact, connected in Douglass' work throughout his long career. This brief biographical sketch of Douglass examines his contributions to astronomy, dendrochronology, and the institutional growth of science in the American Southwest.

Presentation 2: "Douglass' "Cycle Problem" and the Scientific Community's Reception of the New Science of Dendrochronology." One of the persistent themes in Douglass' efforts to establish a convincing link between the tree ring record and climatic phenomena was the "cyclic" nature of his data. Not only did this quest guide his research, but it also involved him in several clashes with scientists who questioned both his data and his focus on "cycles." An examination of the "cycle problem" in Douglass' work reveals much about Douglass' method of "doing" science and the scientific community's reception of his new science.

NEW NEW NEW NEW

(14) Improving Learning in Large Lecture Science Classes. Organized by Kathleen M. Fisher (Department of Biology and Director, Center for Research in Mathematics and Science Education, San Diego State University, San Diego, CA 92120-5013; E-mail: kfisher@sciences.sdsu.edu). Two vignettes will be presented to demonstrate different strategies for engaging students in deep-level processing of complex science ideas, using sophisticated yet simple-to-use personal

response software developed by one of the presenters, Dr. Sharon Lightner. The presenters will be the "teachers" and the audience will be the "students". All participants will be assigned code names to maintain confidentiality. Following the vignettes, presenters will reflect on their use of this and other personal response device software in actual classrooms and on their use of engagement strategies with students, highlighting issues and benefits. Participants are invited to continue discussing relevant issues with the presenters over lunch (on your own) after the program ends.

Speakers:

Sharon Lightner (College of Business Administration, San Diego State University, San Diego, CA 92120). Dr. Lightner has won many teaching awards, including several for teaching a synchronous course by video simultaneously to students in Europe, Asia and the US. Her newest innovation is an easy-to-use but sophisticated response system that runs on Pocket PCs that she has used with classes of about 40 students.

Minou Spradley (Department of Biology, San Diego City College, San Diego, CA 92101). Dr. Spradley teaches general biology and physiology and has used ConcepTests and other interactive strategies along with the McGraw-Hill student response system in large lectures.

Jeanne Weidner (Department of Biology, San Diego State University, San Diego, CA 92120). Dr. Weidner, trained in neurobiology education, has developed an interactive lecture/laboratory course for prospective teachers and frequently uses ConcepTests (which are also promoted by a well-known physics professor, Mazur at Harvard).

Kathy Williams (Department of Biology, San Diego State University, San Diego, CA 92120). A leader in interactive teaching in large classes, Dr. Williams has used frequent Evidence-based tests in her ecology course to increase student interest, attendance, and performance.

Additional ideas for symposia are always welcome but time is of the essence. As soon as possible, potential organizers should submit to the chair of the section in which the symposium will be presented (see list on page 20) a title, brief description of the symposium, and a list of potential speakers and/or titles of presentations. Once approved, the symposium information will be added to the Division's website. At this time we are also considering ideas for the 2005 annual meeting in Ashland, Oregon. See the "Call for Workshops and Symposia" on p. 23.

CONTRIBUTED PAPERS

Those wishing to submit papers for presentation at a contributed paper session should refer to the "Call for Papers" form, page 24 in this *Newsletter*, or download instructions from the Division's website (pacific.aaas.org). Send the title and abstract (see page 24) to the program coordinator of the

society or section at which you would like to present the paper (see page 20 for addresses) and copy the mailing to the Division's Meetings Office at aaaspd@sou.edu. Abstracts should be submitted electronically as attachments via e-mail. If you are unable to do this, you may submit your abstract via regular mail. If submitting by mail, it is helpful if it is sent as a text file (Microsoft Word preferred) on either diskette or CD-ROM, as well as a paper copy. If submitting your abstract by regular mail, address the Division copy to AAAS, Pacific Division Meeting Office, Southern Oregon University, Department of Biology, Ashland, OR 97520.

Do not forget, *the deadline for submitting titles and abstracts is April 26, 2004*. If a title comes in after this date, it may not make it into the program. Also, be aware that the abstract you submit will be published as written. It will not be edited. If it contains errors, they will appear as submitted. Use your word processor's spell checker. And remember, keep the length of your abstract within the limits stated in the directions for preparation of abstracts (page 24). Use 10-point Times (or variation) font (no exotic fonts, please!) for your abstract. An abstract submitted in a smaller type size will be reformatted to 10 point. Lastly, if yours is a student presentation, oral or poster, please state clearly that it is such so that it will be included in the judging competition.

PACIFIC DIVISION AFFILIATED SOCIETIES AND SECTIONS ACCEPTING CONTRIBUTED PAPERS FOR PRESENTATION AT THE MEETINGS

Western Society of Crop Science. Program Coordinator: Lee Panella, USDA ARS, NCGRP, National Center for Genetic Resources Preservation, 1111 Centre Ave., Fort Collins, CO 80521-4500. Phone: 970-495-3294; e-mail: lpabella@lamar.colostate.edu.

Western Society of Soil Science. Program Coordinator: Paul Grossl, Dept. Plants, Soils & Biometeorology, Utah State University, Logan, UT 84322-4820. Phone: 435-797-0411; e-mail: grossl@cc.usu.edu.

Agriculture and Horticultural Science. Section Chair and Program Coordinator: Dr. Rhonda L. Miller, Dept. of Agricultural Systems Technology and Education, Utah State University, Logan, UT 84322-2300. Phone: 435-797-3772; e-mail: rlmiller@cc.usu.edu.

Anthropology and Archaeology. Section Chair and Program Coordinator: Dr. Walter Carl Hartwig, Division of Basic Medical Sciences, Touro University College of Osteopathic Medicine, Mare Island, CA 94592. Phone: 707-638-5238; e-mail: whartwig@touro.edu.

Atmospheric and Oceanographic Sciences. Section Chair and Program Organizer: Dr. John J. Carroll, Atmospheric Sciences Section, Dept. of Land, Air and Water Resources, University of California, Davis, CA 95616. Phone: 530-752-3245; e-mail: jjcarroll@ucdavis.edu.

Biological Sciences. Section Chair and Program Coordinator: Dr. A. Michelle Wood, Dept. of Biology, University of Oregon, Eugene, OR 97403. Phone: 541-346-0454; e-mail: miche@darkwing.uoregon.edu.

Chemistry. Section Chair and Program Organizer: Dr. Owen M. McDougal, Department of Chemistry, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6407; e-mail: mcdougao@sou.edu.

Computer and Information Sciences. Section Chair and Program Organizer: Dr. Alan E. Leviton, Dept. of Herpetology, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. Phone: 415-752-1554; e-mail: alevito@calacademy.org.

Earth Sciences. Section Chair and Program Organizer: Dr. J. Thomas Dutro, Jr., U.S. Geological Survey (E-308), National Museum of Natural History, Washington, DC 20560-0137. Phone: 202-343-3222; e-mail: dutro.tom@nmnh.si.edu.

Ecology and Environmental Sciences. Section Chair and Program Organizer: Dr. Michael Parker, Department of Biology, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6796; e-mail: parker@sou.edu.

Education. Section Chair and Program Organizer: Dr. Kathleen M. Fisher, Center for Mathematics and Science Education, 6475 Alvarado Road, Suite 206, San Diego State University, San Diego, CA 92120. Phone: 619-594-4453; e-mail: kfisher@sciences.sdsu.edu.

Engineering and Industrial Sciences. Section Chair and Program Organizer: Mr. Henry Oman (Boeing Company, ret.), 19221 Normandy Park Drive SW, Seattle, WA 98166. Phone: 206-878-4458; e-mail: homan@ieee.org.

Health Sciences. Section Chair & Program Organizer: Dr. Carl Maida, UCLA Dentistry-Public Health, University of California, P.O. Box 951668, 63-023 CHS, Los Angeles, CA 90095-1668. Phone: 805-492-5613; e-mail: cmaida@ucla.edu.

History and Philosophy of Science. Section Chair and Program Organizer: Dr. Donald McGraw, Associate Provost, University of San Diego, San Diego, CA 92110-2492. Phone: 619-260-4553; e-mail: mcgraw@SanDiego.edu.

Psychology. Section Chair & Program Organizer: Dr. J. Ken Nishita, California State University, Monterey Bay, 100 Campus Center, Seaside, CA 93955-8001. Phone: 831-582-3563; e-mail: ken_nishita@csumb.edu.

Social, Economic and Political Sciences. Section Chair and Program Organizer: Dr. Mark Aldrich, Dept. of Economics, Smith College, Northampton, MA 01063. Phone: 413-585-3603; e-mail: maldrich@smith.edu.



Qs & AAAs

Questions and Answers.

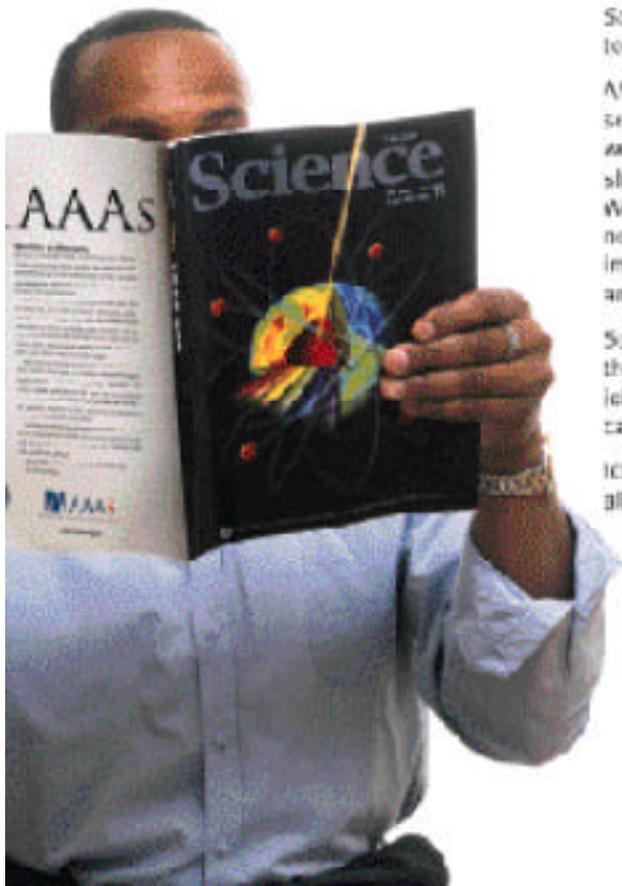
We live in a demanding world, a world of questions. Science is being asked to help deliver answers more quickly than ever before. Keeping up to date with the latest scientific news and developments is ever more critical at this time in order to succeed. The question is how.

Science magazine, published by AAAS, gives you an inside track to a world of scientific information, understanding, and knowledge. Every week, our members read about astounding discoveries inside the pages of Science and are kept up to the minute with privileged access to the latest research via Science OnLine. By becoming a member of AAAS, you too can gain access to this world of scientific insight.

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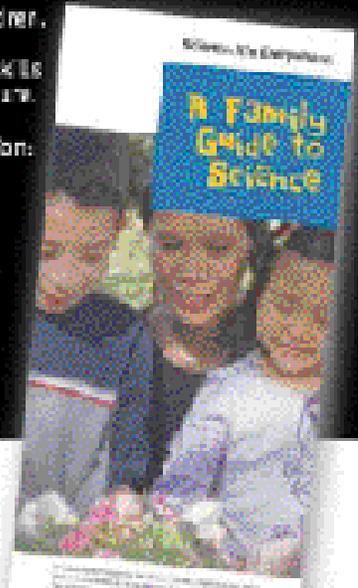
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A message from the Partnership for Science Education, a program of the American Association for the Advancement of Science. This initiative is funded by the National Science Foundation.



AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE





American Association for the Advancement of Science Pacific Division

*86th Annual Meeting
Southern Oregon University
Ashland, OR
June 12–16, 2005*

Call for Workshop and Symposium Proposals

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting by developing workshops and/or symposia. Persons wishing to develop a workshop and/or symposium for the 2005 Ashland meeting should e-mail the title, description and other required information (see instructions below) to the program organizer of the appropriate society or section (see page 20 of this *Newsletter*) and also the Pacific Division office, aaaspd@sou.edu. The deadline for submission is **October 15, 2004**, although late submissions will be considered.

Questions? Contact Dr. Roger Christianson, Executive Director, AAAS Pacific Division, Southern Oregon University, Department of Biology, Ashland, OR 97520. Phone: 541-552-6747; e-mail: rchristi@sou.edu.

Workshops generally are 1/2- or full-day and may or may not accompany a symposium. If special facilities and/or equipment are required, be sure to identify what you need as completely as possible in your submission (see Line 8 below). If a cost is incurred, it will be passed along to participants as a workshop fee.

Symposia may be 1/2- or full-day or longer. Individual presentations are usually scheduled with more time than for contributed papers (30 minutes rather than 20 minutes) but the actual scheduling depends on the needs of the symposium and may be longer or shorter, even a mixture. Please contact Dr. Christianson to discuss your specific needs. When preparing your submission, please indicate which presenters are confirmed (see Line 8 below). If you do not yet have a list of presenters, you may submit a list of potential presentation topics. Please keep in mind that we need as much information as possible early on in order to adequately publicize the symposium.

Format your submission as follows:

Line 1: Organizer's name.

Line 2: Organizer's full mailing address, including academic/professional affiliation, telephone number and e-mail address.

Line 3: Co-organizer (if any).

Line 4: Co-organizer's full mailing address, including academic/professional affiliation, telephone number and e-mail address.

Line 5: Is this a Workshop or a Symposium?

Line 6: Number of 1/2-day (roughly three hours, depending on the needs of the program) sessions needed.

Line 7: Title of proposed program.

Line 8: If a symposium, list the name of each (proposed) speaker, including academic/professional affiliation, telephone number and e-mail address for each. Topic titles are optional at this time and will be requested later, along with an abstract for each presentation (see Call for Papers, page 24).

If a workshop, indicate facilities and/or special equipment required and number of participants that can be accommodated.

Line 9: Brief description of proposed program (please limit to 250 words).



American Association for the Advancement of Science Pacific Division

*85th Annual Meeting
Utah State University, Logan, UT
June 13–17, 2004*

Call for Papers and Abstracts

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting and present papers and/or posters. Persons wishing to present a paper or poster at one of the sessions should e-mail the title, abstract and other required information (see instructions below) to the chair of the appropriate society or section (see page 20) and also the Pacific Division office, aaaspd@sou.edu. The deadline for submission is April 26, 2004. Students must identify themselves so that judges will be able to evaluate their presentations for awards of excellence.

Please format your submission as follows:

Line 1: Your name

Line 2: Your telephone number and e-mail address

Line 3: Name of presenter (if different from above)

Line 4: Presenter's telephone number and e-mail address

Line 5: Society, section or program to which you are submitting your presentation

Line 6: Is the presentation oral or a poster?

Line 7: Special equipment needs (other than 35mm, overhead, and computer projectors)

Line 8: Is the presenter a student?

Line 9: Paper title in title case and italics (i.e. *Paper Title in Title Case*)

Author(s) name(s) in **ALL CAPS AND BOLD**

Full address(es), including institution, mailing address, city, state and zip code.

Line 10: Leave blank

Line 11: Text of abstract. Limit: 250 words.

Example of properly formatted abstract submission (lines 9-11)

Advanced Knowledge Acquisition in Elementary Biology. **KATHLEEN M. FISHER and STACY GOMES** (Center for Research in Mathematics and Science Education, San Diego State University, San Diego, CA 92120).

Advanced knowledge acquisition differs in important ways from introductory learning. Advanced knowledge acquisition refers to learning a content area beyond the introductory stage but before extensive experience and practice (Spiro, Coulson, Feltoich, and Anderson, 1988). At this stage, knowledge must be reasonably correct and active rather than inert. The goals of learning shift from knowledge reproduction to knowledge use. Advanced students need to become more comfortable with learning in different ways, more adaptive in using and applying knowledge, and more inclined to spontaneously restructure their knowledge. These advanced students are preparing themselves to leave school and enter practice in the workplace. They need to attain a deeper understanding of content material; reason with it; and apply it flexibly in diverse contents (Spiro, et al, 1988, p 375). They need to shift from being passive receivers of information to active organizers and users of their knowledge. In teaching biology to prospective elementary school teachers in their senior undergraduate year, we use a variety of strategies to achieve these ends, including: 1. stimulating curiosity and eliciting prior knowledge; 2. prompting students to build runnable mental models through prediction and interpretation; 3. promoting conceptual change by prompting 3a) cognitive disequilibrium and 3b) knowledge elaboration and by presenting 3c) ill-structured cases and 3d) knowledge construction activities; 4. promoting students' active learning; 5. providing scaffolding and support for student knowledge construction; 6. diagnosing and remediating underdeveloped cognitive and metacognitive skills; 7. prompting students to identify central ideas; 8. prompting students to integrate ideas; 9. avoiding oversimplification and overregulation; 10. prompting students to construct multiple representations; 11. building confidence and teamwork; and 12. evaluation for meaningful understanding. Two aspects which will be emphasized here are the use of SemNet[™] software to help students develop the skills and habits of meaningful knowledge organization and the use of two tiered multiple choice questions to assess conceptual understanding.

Future Meetings

AAAS National Meetings

2005 Washington, D.C., February 17-21
2006 St. Louis, MO, February 16-20
2007 San Francisco, CA, February 15-19
2008 Boston, MA, February 14-18

Pacific Division Annual Meetings

2005 Ashland, OR, June 12-16
2006 San Diego, CA, June (tentative)

Southwest and Rocky Mountain Division Annual Meeting

2004 Denver, CO, April 7-10



"Synergy"
by Gary Price

A sculpture on the Utah State University campus.

CALL FOR NOMINATIONS

2005 John P. McGovern Award Lecture in the Behavioral Sciences

This award enables attendees of the AAAS Annual Meeting to hear about the work of distinguished behavioral scientists from around the world. The recipient is selected by a committee of behavioral scientists on behalf of the AAAS Annual Meeting Program Committee.

Nominations of prominent behavioral scientists for this award should include summarized biographical information or a resume, a letter stating the nominee's scientific accomplishments, why he/she should be considered for the award and at least one additional letter of support.

The individual selected will be announced in the fall of 2004 and will present the award lecture at the 2005 AAAS Annual Meeting in Washington, DC, 17-21 February. The award includes meeting registration, travel expenses, a medal and an honorarium.

MAIL NOMINATIONS TO:
McGovern Award Lecture
AAAS Meetings Office
1200 New York Avenue, NW
Washington, DC 20005

FOR MORE INFORMATION:
Phone: (202) 326-6736 • E-mail: jperle@aaas.org

Completed nominations must be
received at AAAS by
2 July 2004



**AAAS Pacific Division Meeting—June 13 - 17, 2004
Utah State University Residence Halls Application**

Name _____ Male Female
 Arrival Date _____ Departure Date _____
 Roommate's Name _____ Male Female Spouse
 Mailing Address (Home) _____
 City _____ State _____ Zip _____
 Phone (Day) _____ (Night) _____

Lodging application must be sent for EACH person.		
LODGING OPTIONS	FEE	TOTAL
Double Occupancy	\$15/night	\$ _____
Single Occupancy	\$25/night	\$ _____
Total Amount Enclosed:		\$ _____

Four Ways To Register

1. Complete the registration form and return it to the address below with full payment by enclosing a check payable to Utah State University or credit card billing information.
2. Call USU Housing Services at 800-863-1085 or 435-797-0277. They will register you with Visa, American Express, MasterCard or Discover.
3. Fax your registration form with your credit card number. The 24-hour fax number is 435-797-4035.
4. Go on-line to <http://joey.hfs.usu.edu/housing/index.cfm?fuseaction=lodginginfo> and follow the appropriate links to the on-line reservation form.

Method of Payment (Full payment is required)

Check (payable to Utah State University)

Credit Card (circle one)

Visa
 AmEx
 MasterCard
 Discover

Name _____

Number _____

Exp. Date _____

Signature _____

Cardholder Phone Number _____

Cancellation/Refund Policy

All cancellations must be made in writing to the address listed below. Cancellation must be made at least 10 (ten) days prior to the first night of lodging to receive a full refund. No refunds will be given to individuals cancelling during the 7 days prior to first night's lodging reservation.

The university residence halls consist of apartments with shared bathroom, living and dining areas and three bedrooms. Each bedroom has two single beds and can accommodate a maximum of two persons per room. If you rent an entire apartment (all three bedrooms) you will be the only one in the apartment. If you rent one bedroom (single or double) you (and your roommate if applicable) will not have the entire apartment to yourself. If you rent a shared room and do not specify a roommate, a roommate will be assigned to your bedroom. Please be aware that individual bedroom doors do not have locks. Bedding is provided (sheets, blanket, pillow, pillowcase). No maid service or towels are provided. Elevators, ice machines, air conditioning, extra pillows, and blankets are not available. Individual apartment phones are also not available. However, pay phones are within walking distance.

I have read and understand the cancellation policy. Registrations will not be processed unless this box has been checked and form signed.

Signature _____ Date _____

FOR OFFICE USE ONLY	
Batch Date _____	Initials _____
Participant No. _____	Date pmt. Rec'd. _____
Order No. _____	Check <input type="checkbox"/> business # _____
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AAAS PACIFIC DIVISION 85th ANNUAL MEETING

Utah State University

Logan, UT

June 13-17, 2004

ADVANCE REGISTRATION FORM

FOR EARLY REGISTRATION, FIELD TRIPS, AND OTHER SPECIAL EVENTS

*Note: Do not send this form to Utah State University
Address it to: AAAS Pacific Division, Southern Oregon University
Department of Biology, Ashland, OR 97520.*

Name: _____

Mailing Address: _____

City, State, Zip: _____

E-mail: _____ Day Phone: _____

Institution/Company, (for your name tag—if none, city & state will be used): _____

AAAS member: Yes No Affiliated Society Membership: _____

Do you plan to present a paper or poster? Yes No
If so, in which affiliated society or PD section or program? _____

REGISTRATION FEES: *Check all that apply.*

Full Meeting:

	Received by May 21	Received after May 21	
Professional	<input type="checkbox"/> \$60	<input type="checkbox"/> \$80	
Teacher K-14	<input type="checkbox"/> \$45	<input type="checkbox"/> \$60	
Student	<input type="checkbox"/> \$30	<input type="checkbox"/> \$40	
Spouse	<input type="checkbox"/> \$30	<input type="checkbox"/> \$40	→ Name, City, State (for name tag): _____
Retired	<input type="checkbox"/> \$45	<input type="checkbox"/> \$60	_____

One-day

Professional \$45 \$60 → Select day: Mon. Tues. Wed.

DIVISION BANQUET (June 15, Tuesday): The Division banquet will be held at the Bullen Center, located near the USU campus. Tickets must be purchased in advance. Please mark your choice of entree below. The program will include, among other things, the presentation of Student Awards of Excellence. Students who are in competition for an Award of Excellence are invited to attend the banquet as guests of the Division and do not have to pay. If you are a student presenter who is planning to attend the banquet, please indicate so below by marking your choice of entree.

please mark your choice of entree

_____ tickets @ \$25 each = \$ _____ _____ # vegetarian _____ # sirloin tip _____ # herb crusted salmon

student presenter ticket @ no charge _____ # vegetarian _____ # sirloin tip _____ # herb crusted salmon

SEE REVERSE FOR FIELD TRIPS AND SUMMARY

DEADLINE:
30 April 2004

Call for Symposia

2005 AAAS Annual Meeting

Q: Where can I present my research or showcase new ideas so that it is seen by world-renowned scientists and researchers?

A: Propose a symposium for the AAAS Annual Meeting, 17–21 February 2005, Washington DC.



The AAAS Annual Meeting attracts a diverse audience from all scientific disciplines and from the industrial, academic, non-profit and policy communities. The meeting also is attended by more than 1,000 press reporters, including most of the world's major news outlets.

In order to accommodate the tremendous variety of subjects proposed for the Annual Meeting, and due to time and space constraints, panels in the symposia are stringently managed. The Program Committee is particularly interested in sessions that highlight the interdisciplinary strengths of AAAS, or that address one of the identified themes for the 2005 Annual Meeting. Successful proposals are characterized by interesting topics that are thoughtfully developed and include capable and articulate presenters who are representative of the diversity of science and society.



All proposals will be peer-reviewed. The deadline for proposal submission is Friday, 30 April, 2004. Decisions will be announced in July.

For more information on submitting a proposal, please visit:
www.aaasmeeting.org





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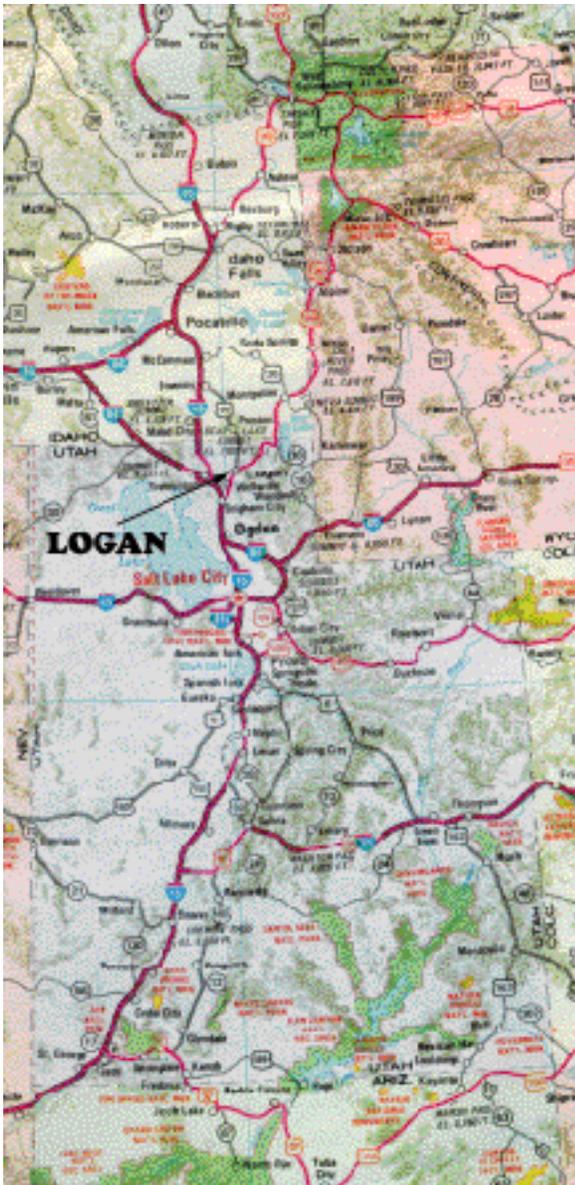
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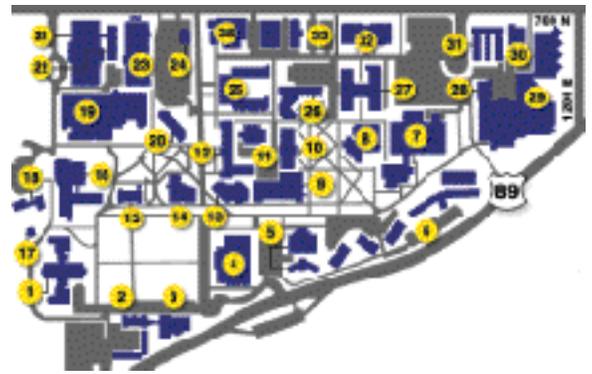
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Map of Utah and surrounding area. Logan is north of Salt Lake City and marked with a large arrow.



Map of Utah State University South Campus. Meeting buildings are bolded in the key.

Key:

1. Old Main
2. English Building
3. Family Life Building
4. Merrill Library
5. Business Building
6. Residence Halls - South
7. Engineering Building
8. SER Building
9. SciTech Library
10. Computer Center
11. Biotechnology Building
12. Agricultural Science
13. Eccles Conf. Center
14. Geology Building
15. Animal Science
- 16. Widtsoe Hall and Maeser Lab**
17. Media Relations
18. Alumni Center
- 19. Taggart Student Center**
- 20. University Inn**
21. Nelson Fieldhouse
22. Military Science
- 23. Parking/Visitor Services**
24. The Barn
25. Biology Building
26. Natural Resources
27. Technology Building
28. Art Museum
29. Fine Arts Center
30. UR Graphics Building
31. Forage and Range Lab
32. Industrial Science
33. Communicative Disorders
35. Veterinary Science

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SYMPOSIA

- Nuclear Transfer Implications and Status
- Future Climate Change: Implications for Western Environments
- Return of the Wolf to the West
- Emerging Diseases of Significance in the West
- Lords of the Rings: Dendrochronology Yesterday, Today and Tomorrow ****NEW****
- Agricultural Genomics: Who, What, and Why
- Improving Learning in Large Lecture Science Classes ****NEW****
- Water-wise Landscaping
- Electromagnetic Techniques in Soil Science
- Examining a Leaky Pipeline: Research on the Academic Careers of Women in Science and Engineering
- Colorado Plateaux to Great Basin--A Natural Laboratory From Grade School to Grad School
- Strategies to Accommodate Dual Career Couples in Academic Science and Engineering Departments

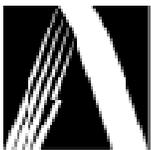
FIELD TRIPS

- Preston Valley Trail Hike
- History of local Indians, Mountain Men and early Mormon Settlements
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