

Geography Connection

University of Utah Department of Geography

Volume 4, Issue 1 ❖ Spring 2002

Letter from the Chair



Dr. Tom Kontuly



Greetings to you from the University of Utah! The 2001-2002 school year was exciting in Salt Lake City, Utah due to the Olympics, but we quickly returned to our normal routine in March.

Our faculty really worked hard this year. Not only do they teach a normal course load, they also serve on departmental, college, university, and national committees. We are lucky to have such an active and involved group of instructors. Professor George Hepner serves as President of ASPRS, the American Society for Photogrammetry and Remote Sensing, during 2001-2002 year as well as Director of the University of Utah Southwest Center for Environmental Research and Policy (SCERP), a consortium of five U.S. and four Mexican universities financially supported by the U.S. Environmental Protection Agency. Professor Harvey Miller serves as North American Editor for the International Journal of Geographical Information Science. He is also serving as our Director of Graduate Studies. Assistant Professor Thomas Cova successfully completed his third year formal review and is serving as Director of the Certificate Program in Geographic Information Science. Assistant Professor Richard Forster also successfully completed his third year formal review; he was successful in obtaining funding from NASA to bring Dr. Andrew Ford, a post doctoral fellow, to our department. Dr. Ford hails from the United Kingdom and is studying the movement of ice in the Antarctic ice sheet. He is also working with Professor Ron Bruhn of the Department of Geology, University of Utah, on the interplay between the tectonics and glaciology of southeastern Alaska. Professor Philip Emmi is busy managing the Urban Planning Program. Professor Donald Currey has been busy in the field. He took a group of students on a two week field excursion during the Olympic / Spring break. Assistant Professor Katrina Moser was nominated for a University Superior Teaching Award, and works in her Environmental Change Observatory (ECO) Lab. She was

also an invited keynote speaker at the NSF Arctic System Science (ARCSS) Ocean-Atmospheric-Ice Interactions (OAI) meeting in Salt Lake City. Professor Chung-Myun Lee is on sabbatical leave working in Korea and China as this letter goes to press. He is finishing writing a book on Korean migration to Japan, and plans to retire in December 2002. As many of you already know, Professor Merrill Ridd has been on phased retirement, and will retire from the Department of Geography in June 2003. Professor / Lecturer Spike Hampson serves as Undergraduate Advisor and Chair of the departmental Undergraduate Committee. Dr. Hampson won a grant from the International Faculty Professional Development Grants Committee and was able to attend a Faculty Development Seminar during 2001. I am putting the finishing touches on a Special Issue of the Dutch journal of Economic and Social Geography. This Special Issue on Differential Urbanization will appear in January 2003. The Department is trying to put together a database of former students. **Current undergraduate and graduate students would like to know what graduates of our program are doing and we would like to hear from you!** Please e-mail Susan at vanroos@geog.utah.edu with your name, graduation date, degree and what you are currently doing.

Sincerely, Tom Kontuly

Dr. Chung-Myun Lee: Excellence in International Teaching and Research

The Geography Department is pleased to announce the acknowledgement, by the College of Behavioral Science (CSBS), of Dr. Lee and his important contributions to the internationalization of the University of Utah. An international leader in the field of Geography, Professor Lee's academic experience brings great perspective to the College and University. He has been on the faculty of universities in Kuala Lumpur, Malaysia; California; Tokyo and Kyoto; he was a Fulbright scholar in Korea. He has also been a guest lecturer many times in countries around the world including China, Korea, Japan and Poland. Congratulations Dr. Lee, the University of Utah is honored to count Professor Chung-Myun Lee among our most outstanding faculty.

Exciting Research in the Great Basin

The 2001 field expedition season turned out to be both very exciting and productive for Don Currey (professor). A number of high temporal-resolution data collected from the Bonneville basin and other localities in Great Basin have been keeping Don extremely busy for the last several months. One thing is for sure – he is revealing a series of very detailed pictures of how Lake Bonneville/Great Salt Lake responded to major climate changes that have occurred since the late Pleistocene.

But, how does he do that? His research focuses on understanding geomorphic features formed in lake-edge (fluviolacustrine or littoral lacustrine) environments. Such geomorphic features include deltas, barrier beaches, spits, and tombolos, all of which are quite visible at various localities in the

Bonneville Basin. How important are they? (1) Because they form along shores of a lake, through knowing their surface elevations, you can tell where the level of lake was at the time of their formation. (2) They contain stratigraphic information, which may enable you to reconstruct the past depositional events. This is essential because these events are primarily controlled by hydrologic and hydrodynamic conditions of the lake at a particular time. (3) Datable materials are often, but not always, found in those features to provide chronological controls to some of depositional events. In addition to these three, other aspects of lake-edge geomorphic features (e.g., size) help you infer changes in basin-wide water budget and hydrodynamics of the lake. The most important point here is that what initiates or controls such hydrologic changes in your lake are changes in climate.

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Don Currey with students at Panamint Valley, Cal., over Olympic break.



Tracking the onset of Sea-Ice Snowmelt with Rick Forster

How do you know when and how Arctic snow starts melting in spring? Well, ask Rick Forster (Assistant professor). Almost certainly, he would tell you to use "passive- and active-microwave remote sensing." But, why microwave?

There are two major advantages of using microwave remote sensing. When you want to track changes taking places in the Arctic snow cover on a daily basis, you can not rely on space-borne visible and near-infrared sensors because of cloud cover typical in the Arctic spring (they can not get through cloud cover). Microwave satellite-based sensors, on the other hand, can make measurements through cloud cover. Furthermore, microwave sensors happen to be very sensitive to the presence of even small amounts of "liquid water" in snow pack or on the surface of sea-ice. So, theoretically, you can monitor how melting begins and progresses in the Arctic

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George Hepner Elected President of the ASPRS: The Image and Geospatial Information Society

It has been another busy and rewarding year for George Hepner! Dr. Hepner's academic life slowed appreciably when he stepped down as graduate advisor last year. But since then he has employed both his professional and technical expertise and has taken on a leadership role with ASPRS as President. ASPRS: The Image and Geospatial Information Society, founded in 1934, is the leading professional-scientific society in the field of photogrammetric engineering and remote sensing. His new responsibilities not only include the day to day involvement in the society affairs, but his participation and involvement also include opportunities, through ASPRS, to have input in Congress, as well as national and international agencies, regarding important issues within the society. Some of you might be wondering, what does the scope and interest of the

society include? Besides the core technologies of photogrammetry, remote sensing, and geographic information(GIS), ASPRS is also committed to the integration of supporting technologies, including cartography, spatial positioning, image processing and geographic information systems. The Society is also committed to advancing professional practice through its professional certification program, continuing education and workshops, as well as publications. Dr. Hepner has served as vice president and president of the ASPRS Intermountain Region, as well as the Intermountain Regional national director and a member of the Strategic Planning Committee. He is active in the GIS Division as a reviewer and contributor to PE&RS. Congratulations Dr. Hepner on your new endeavor! If you are interested in a student membership check out the

ASPRS website at <http://www.asprs.org.html>.

Other activities Dr. Hepner and his co-workers have been involved with most recently are:

Director, University of Utah, Southwest Center for Environmental Research and Policy - Consortium of 5 U.S. and 4 Mexican Universities, supported by U.S. EPA., 1999-2001. This consortium is funded at \$2.5million/year, approximately \$500,000 going to the U of U.

U.S. Dept. of Transportation, "Research on the use of Geospatial Technologies in Transportation Related Hazards and Disaster Assessment", Principal Investigator, \$631,713 (2000-2004). Co-

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Faculty Affairs

Philip Emmi (Professor) is the Director of the Urban Planning Program and teaches Urban Dynamics, System Dynamics and Environmental Policy, Planning Theory/Ethics and Metro Regional Planning. His research interests include Urban Planning, System Dynamics, Urban Dynamics and Interaction between Landuse and Transportation. He recently received funding to study the Systems Dynamics of Utah Welfare Reform and Decision Support Models for Environmental Systems at the USA-Mexico border.

Katrina Moser (Assistant Professor) is the Director of the Environmental Change Observatory (ECO). She teaches courses on Life on Earth through Time, Global Change and Mountain West Events and the Graduate Seminar on Climate Change. Katrina is interested in paleolimnology, reconstructing past events from fossils and geochemical signals preserved in lake sediments. She recently received funding to study the High Resolution Time-Series of California Climate over the last 12,000 years: Testing the influence of the North Atlantic and North Pacific.

Tom Cova (Assistant Professor) focuses his research on Emergency Management, Transportation and GIS. He currently teaches courses in GIS and Spatial Algorithms and Economic Geography. Tom chaired the GIS Student Paper Competition for the AAG 2002 that was held recently in Los Angeles.

George Hepner (Professor) is the President of the American Society for Photogrammetry and Remote Sensing (ASPRS). His research interests include Remote Sensing and GIS. He has received research funding from the U. S. Dept. of Transportation for a research on the use of Geospatial Technologies in Transportation Related Hazards and Disaster Assessment; U. S. Environmental Protection Agency to perform GIS analysis on the Tijuana River Watershed; NASA for a study on the Enhancement of Capabilities in Hyperspectral and Radar Remote Sensing for Environmental Assessment and Monitoring and for the Southwest Center for Environmental Research and Policy-Consortium. He teaches courses in Quantitative Methods, GIS and Spatial Modeling.

Arthur "Spike" Hampson (Professor/Lecturer) is the Advisor for Undergraduate Studies and teaches courses in regional, human and political geography. He attended a two week seminar in Istanbul, Turkey in June 2001 for the purpose of becoming more familiar with the main social, economic, environmental and political issues confronting the country. Spike is traveling to Jamaica in May 2002 to present a paper on Caribbean Migration at the annual meeting of the International Society for the Comparative Study of Civilizations. He spent a month in southern China during the Olympic break in February 2002.

Harvey Miller (Associate Professor) is the Director of Graduate Studies. He currently teaches courses in Geography of Cyberspace, Advanced GIS I, Geocomputation and Seminar in GIS and Transportation. His research interests include Geographic

Information Systems for Transportation (GIS-T), Geographic Information Science, Time Geography and Activity Theory and Spatial Analysis and Geocomputation. Harvey recently received funding from the U.S. Department of Transportation for the National Consortia for Remote Sensing in Transportation. He has published two books on GIS for Transportation and Geographic Data Mining and Knowledge Discovery. In addition, Harvey is the North American Editor of the International Journal of Geographical Information Science.

Don Currey (Professor) studies Quaternary environments of the Great Basin, specifically Lake Bonneville. For the last two summers, Don has enjoyed being on the teaching staff of the University of Utah Archaeology Field School in Utah and California. Don continues his work on a NSF project on Utah Geoantiquities Heritage Areas as well as a second NSF project on Lake Bonneville hydrodynamics.

Trevor Davis (Assistant Professor/Lecturer) is the Director of the GIS Professional Education Program. He is interested in web-based instruction, spatial data uncertainty and GIS/GPS/RS integration.

Rick Forster (Assistant Professor) is currently using remote sensing to study changes in the spatial and temporal extent of snow and ice as they relate to climate change. He recently received funding to study the St. Elias Mountains of Alaska using SAR (Synthetic Aperture Radar).

Thomas Kontuly (Professor) is the Chair of the Department of Geography. His research is centered on regional urban change in Europe and the importance of employment change in explaining human mitigation in developed countries. He has worked on large projects such as Evaluation of the Impact of a Computerized Immunization Registry on Immunization Services and Patient Flow in a Private Pediatric Clinic in Utah. He has recently presented papers at domestic conferences including: the Immunization Registry Conference in Atlanta, Georgia, the National Immunization Registry Conference, Little Rock, Arkansas, as well as the annual meeting of the Association of American Geographers, New York, NY (with B. Dearden), and the annual meeting of the Population Association of America, Washington, DC (with B. Dearden). His recent works include, 2001-2002 Guest Editor- Forthcoming Special Issue (2003/1) of *Tijdschrift voor Economische en Sociale Geografie* (Journal of Economic and Social Geography)- entitled "Empirical Testing of the Differential Urbanization Model in Developed and Less Developed Countries".

Chung-Myun Lee (Professor) is interested in human migration, specifically Korean Migration into Ancient Japan during the 4th to 9th centuries and Korean migration into the Intermountain Western United States (1900-1930). In December 2000, Chung-Myun received a letter and medal from the President of Korea honoring him for his academic and community service.

Adjunct Professors and Associate Instructors

Ralph Becker, JD teaches our Public Lands and Environment Policy class. He is an attorney as well as co-owner and co-founder of the planning, environmental assessment, public involvement, permitting, conflict resolution, government affairs and policy analysis consulting firm of Bear West Company in Salt Lake City.

Robert Farrington, M.S. teaches Urban and Environmental Planning Issues.

Anthony P. Guay, teaches our GPS/GIS class. He is Vice Chair at the Utah Chapter Sierra Club.

William L. Harrison, Ph.D. teaches our Snow and Avalanche course. Bill spends his summers in Quebec, Canada and winters here in Utah where he is the Director at the Center for Snow Science at Alta Resort.

Hal Johnson, M.S. teaches our Community Planning Workshop course. He currently works for Utah Transit Authority as an engineering and construction.

Elliott Lips, M.S. teaches the Colorado Plateau Field Seminar and Natural Hazards course.

Fred May, Ph.D. teaches Utah/U.S. Quakes and Floods, Modern Natural Disasters and Natural Hazards. He is the Interagency Team Coordinator for the Utah Division of Comprehensive Emergency Management (CEM) which is a technical team that responds to disasters.

Steven McCutchen, B.S. instructs our Planning Methods course. He is a Principal and Director of Land Planning at Blake McCutchen Design.

Beth Dudley-Murphy, Ph.D. teaches our on-line and correspondence course in World Regional Geography. Beth is a scientist who works for the Energy & Geoscience Institute in Research Park.

Pamela Perlich, Ph.D. instructs our Regional Planning Analysis course. Pam is a Senior Research Economist for the Bureau of Economic and Business Research here at the University of Utah.

Toby Ross, Ph.D. teaches our City Dollars class. He is the City Manager for Park City and sites Park City as his hometown.

Sumner Swaner, B.S. teaches Grafik Teknix in Design. Sumner is a licensed landscape architect in the state of Utah and also a certified member of the American Institute of Certified Planners.

W. Paul Thompson, JD teaches Planning Administration & Law.

Graduate Students Research a Multitude of Interests

Angira Baruah (Ph.D.) is from India. She is interested in remote sensing. Angira has presented papers and participated in workshops for National Institute of Rural Development in Hyderabad, India.

Amy Bloom (Ph.D.) is from Illinois. After completing a Master's Amy decided to continue at Utah to receive her Ph.D. Her research revolves around paleolimnology and climate change. Amy teaches geography 1000 and enjoys the Wilderness of Utah.

Nancy Carruthers (Master's) is a transplant from Maine. Nancy is the Teaching Assistant for Geography 3963. She is most interested in quaternary studies and paleoclimates. Nancy is well known as a gourmet chef, at geography potlucks her dishes go fast.

Cody T. Christensen (Master's) is from the metropolis of Tremonton, Utah. He now calls the Salt Lake Valley home and works for a transportation consulting firm. Logically enough his research is based on transportation and light rail development.

Andrea Dion (Ph.D.) hails from Troy, New Hampshire. Her thesis entitled

"Geoantiquities in the Urban Landscape: Developing Concepts and Methods for Geoconservation in the Wasatch Front" keeps her busy.

Joo-Yup Han (Ph.D.) is from the Republic of Korea. Joo-Yup is constantly challenged by the cold-dry winters in Salt Lake, he recently discovered chap-stick and is quite thrilled. Geomorphology and GIS academically challenge Joo-Yup

Jan Husdal (Ph.D.) is Norwegian by birth but has traveled the world since. Jan studies GIS in transportation and emergency management. Jan worked for a Norwegian TV station during the Olympics, and now is a household name in Norway.

Terry Kenney (Master's) is primarily interested in fluvial geomorphology. Originally from Illinois, Terry also works at the local USGS office. While not immersed in geomorphology he enjoys fly fishing and skiing in the Wasatch.

Lora Koenig (Master's) is from Eugene, OR and has grown weary of Utah's plentiful sunshine. Lora's research uses remote sensing to study depth hoar formation on the North Slope of Alaska. She also likes to ski and hike in the local mountains.

Phoebe B. McNeally (Ph.D.) hails from Maine. Phoebe uses GIS to study avalanche stability. Her research interests as well as her hobbies lead her to ski and enjoy the mountains around Salt Lake City. Phoebe is the director of the DIGIT lab.

Shizuo Nishizawa (Master's) has called North America home for the past decade. Shizuo is the charter member of the Bonneville Assault Force which tirelessly searches for the holy grail of quaternary studies in the Great Basin west of Salt Lake City.

Greg Smith (Master's) is a local Utahn. Greg's research is based on flash flood potential and analysis. He is also interested in GIS and remote sensing and applying these tools for water supply forecasting.

Joel Siderius (Master's) ironically enough moved to Utah to be a professional brewer. He now can be found in the Geography department pondering two very profound themes; what do geographers do, and deciphering Utah's arcane liquor laws.

Adam Sobek (Master's) considers himself from Billings, Mt. Adam is the TA for 3140/5140 and his research is GIS based. This fall Adam became a father for the first time, and his son, Cedar Paul, periodically is present at geography functions.

Rich Warnick (Master's) is producing for his thesis requirements "A Digital Atlas of Utah Wilderness." Rich also works for the Forest Service remote sensing laboratory in Salt Lake. When not studying the wilderness he enjoys recreating in the outdoors.

John Watson (Master's) is from central Montana. John in the geographic realm, is interested in remote sensing and climate change. He keeps himself busy by teaching World Regional Geography, and fighting wildfires in the summer

Sac News

The Department of Geography's Student Advisory Committee (SAC) is involved in planning social and academic events. For the academic year of 2001-2002 SAC has been chaired by Joel Siderius. Joel has been supported by his loyal lieutenant John Watson. Also helping out have been Angira and Lora Koenig.

SAC organized colloquia have been an unprecedented success this year. So many people have been interested in presenting colloquia that SAC has had to schedule two presentations per session. As the department expands and grows more vibrant colloquia have become a valuable time when Utah students can socialize and refocus on their particular tasks hand. Dr. Hardy Pundt from University of Muenster, Germany began the colloquia series in September and the momentum has carried through the Olympics and into late spring.

The Annual Geography Awareness Open House (planned during national Geography Awareness Week in mid-November) was a thrilling time to be a geography student. The energy was tremendous as students, geography professionals, and faculty perused each others work. The Open House is becoming a great networking tool as aspiring undergraduates and graduate students can mingle with people out there in the "real world"

The SAC always extends an invitation to alumni and other interested parties to present at colloquium. If interested please contact Joel Siderius at joel.siderius@geog.utah.edu. Additionally, the SAC is looking to further develop contact between alumni and current students to construct a better community for networking.



The Mysterious Death Valley "Sliding Stones".

Staff Stuff

Success is partly dependent upon support. The support from the Geography Department staff has kept the department running smoothly day after day. They have proven to be an immense aid to faculty, students, and alumni. We would like to extend our gratitude towards the staff for their hard work and dedication in support of the Geography Department. We feel it appropriate to dedicate a few lines to individually recognize each member of the staff.

Spend a few moments with Susan VanRoosendaal (Administrative Assistant) and you will first hear about Maggie, her wonderful dog, and then her family. Susan enjoys walks with her husband, Mike, and Maggie, the amazing boxer dog. Susan's youngest child graduated from high school last May giving both Susan and Mike the fleeting hope of finally having the house to themselves. Strangely their kids seem to not want to leave; perhaps they to recognize the order Susan can bring into people's lives. Susan appreciates the opportunities that her job allows to make new friends.

Somehow Lisa Clayton (Executive Secretary) got an office at the end of the hallway away from traffic and bothersome students. She seems to miss those bothersome students and often gravitates to the front desk to help out. The 2002 Olympics initially instilled Lisa with a little apprehension, however as the Olympics progressed, she and her family took advantage of and enjoyed many of the Olympic activities in downtown Salt Lake City. Lisa tends to stay busy. In addition to the time spent at work and with her family, Lisa occasionally finds time to do scrap booking, painting, ceramics, roller blading, swim-

ming, water skiing, and just relaxing on a beach at a lake. Lisa seems to enjoy working with students and cherishes the friendships she has made over the years with those she has met at work.

Melissa Warner (Administrative Assistant for DIGIT) has long had an interest in music and can be found in local clubs and coffee shops displaying her wonderful musical talent. Using both voice and instrument, Melissa will entertain all who would listen. If you are lucky, you may even see her perform with her band at a concert. Melissa enjoys spending time with geographers and has established friendships with many people she has come into contact with through her job. Melissa has commented that every day something exciting happens in the DIGIT lab and encourages those in the area to stop by the DIGIT Office (OSH 211) and talk about it.

Angela Burton (Secretary) has finished her undergraduate degree at the University of Utah and works full-time seeing to the needs of both students and faculty. It is her pleasant demeanor you are likely to first encounter as you enter the Geography Office. Hang around with Angela and you are likely to see her engrossed in a good book. When she can get away from her job, Angela likes to go hiking, play volleyball, and make "crafty" things. Her volleyball expertise has landed her a part-time job coaching club and high school volleyball. Some of the aspects of Angela's job which she enjoys the most are the people she works with and the great stories about other places she gets to hear.

Alumni News

Kelly Boardman completed her M.S. degree in Geography at the University of Utah in July of 2000, her undergraduate degree is a B.A. in Urban Studies and Planning, from the University of California, San Diego. Currently she is working at a local Salt Lake geotechnical engineering and environmental consulting firm as an Environmental Specialist. Her work there primarily focuses on water resource management issues, watershed research, nonpoint source water pollution, environmental impacts of land use, computer modeling of surface water with GIS, Total maximum Daily Loads (TDML) development, and field support to the USGS WATERSHED spreadsheet model.

Matt Peters ('96) is currently working for the Automated Geographic Reference Center (AGRC) handling the State Geographic Information Database. Matt's work largely centers around promoting the use of GIS in rural counties and long-range planning and implementation of new GIS technologies. Although involved in a variety of GIS projects, Matt finds himself in the field a significant amount of the time.

Annje Bohn (00) She is currently working as a GIS Analyst for Boise Cascade Corporations' Washington Region. Her work focuses on resource analysis such as sediment delivery to streams, and the development and administration of the management information system that tracks approximately 500,00 acres of lands owned by BCC in Northeast and Central Washington state.

Joe Borgione ('95) presented us with a colloquium this year. Currently, Joe works for the Division of Information Technology where he is the Senior Staff GIS Analyst. Joe works a myriad of projects including quality growth in Utah and is a training Coordinator—developing and delivering training materials. Joe sites amateur astronomy as a hobby, calling it “a natural extension to geography”.

Bert Granberg ('00) is the project manager for the Utah Automated Geographic Reference Center (AGRC) for the past year since giving up the reins at the DIGIT lab. Among other things, Bert is concentrating on internet map applications and SDE/Oracle database implementations for the statewide GIS database. Nearly ubiquitous to Utah geographers, Bert enjoys skiing, hiking, biking and traveling during his free time.

Kathie Orell ('99) is working for FEMA-region II where she is a Project Impact Specialist for the region of New York, New Jersey, Puerto Rico and the Virgin Islands. Kathie resides in Manhattan “...and yes, New York is that expensive and crowded and I love it!”

Ryan Pietramali ('00) is the Project Impact Coordinator for Salt Lake City, a position he obtained through the Hazards Center program. In the process, Ryan worked on an internship at the Utah Division of Comprehensive Emergency Management.

Graduate Student in the Spotlight

Lynne Baumgrass has successfully defended her dissertation, "Initiation of Snowmelt on the North Slope of Alaska as Observed with Spaceborne Passive Microwave Data" in February of 2002. She has been working with Professor Rich Forster under a three years NASA Earth Systems Science Fellowship. Lynne presented her dissertation results at a poster session during the American Geophysical Union Conference in San Francisco in December '01.

Lynne has already moved on and now finds herself in Pasadena, CA. She is currently working for Northrup Grumman Aerospace. Her current project is working on atmospheric microwave remote sensing analysis for lower and upper atmospheric temperatures and humidity profiles in support of the new SSMIS sensor that is to be launched by the Air Force later this year. Once the satellite is spaceborne, she will be validating the meteorological data against air-plane-mounted sensors, and measurements from radiosondes. The SSMIS data will be used by the military and the Weather Channel for weather forecasts.

Department of Geography Scholarships 2001 – 2002

Lewon Scholarship
Maria Windham

Continuing Scholarship
Joseph Moore
Kristen Hoschouer
Rhonda Lewis
Robert Bunkall

National Geographic Internship
(January 2002 – May 2002)
Kristen Hoschouer

Gifts to the Department 2001 – 2002

Thank you for all of the generous donations made to the Geography Department this year. Many have given of their time and money in support of Geography. Some of those supporters are the following:

Youngsinn Sohn
Wayne H. Johnson
Albert Voegeli
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Scott D. Woodbury
Donald R. Currey
David G. Clark
Michael J. D'Angelo
Melvin J. Haman
Karl C. & Dorothy Dean
Hal R. Johnson
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Craig Cina
Richard Company
James F. Petersen
Robert E. Costello, Jr.
Roger M. McCoy
Newell K. & LaVon J. Roberts

Exciting Research... continued from page 2

Over the years, it has become increasingly clear that a lake as big as Lake Bonneville is very sensitive to climactic disturbances. Because the Bonneville Basin is hydrologically closed, any change in the lake surface elevation can be considered as the manifestation of lake's direct and rapid response to regional or even hemispheric climate shifts. As the presence of beach ridges formed during mid-1980s testifies, even Great Salt Lake can leave the distinct signature of a severe El Niño event. Similarly, some of the great changes in the level of Lake Bonneville are very likely to be correlated with global changes in climate (e.g., polar ice-rafted debris accumulation events in the North Atlantic). Studying lake-edge geomorphic features thus can lead to significantly improving understanding of paleoclimate changes at different spatial and temporal scales.

Now back to some of the news from Don's 2001 field expeditions:

- (1) A number of previously unknown geomorphic features/shorelines from both Lake Bonneville and Great Salt Lake have been identified and extensively surveyed. This also means that there must have been more climate perturbations in the region than previously thought.
- (2) A couple of localities contain stratigraphic records with annual resolution

Department Alumni We Want to Hear from You!

The primary purpose of this newsletter is to inform our alumni about recent developments in the Department and what individual faculty members have been doing over the past year. In return, let us know what you are up to—your latest career changes, research topics, any personal news or suggestions. You can send a letter or a postcard to:

Geography Department
260 South Central Drive, Room 270
Salt Lake City, Utah 84112.

Phone(801) 581-8218
Fax(801) 581-8219

Also, we have a web page for the department and you can access it through: <http://www.geog.utah.edu>

(potentially) or with seasonal storm event signatures. This means that they could be interpreted like tree rings!

(3) A hydrograph of Lake Bonneville (still not released for public) has been greatly refined.

One of the most fascinating aspects of new findings to Don is that almost all changes in Lake Bonneville and Great Salt Lake appear to have occurred very abruptly. Because of this, when plotted on the hydrograph, a profile of lake level appears spiky instead of gradually sloping. What does this imply for the future of Great Salt Lake? Well, we may hear the answer from Don in the near future. So, stay tuned.

George Hepner Elected... continued from page 2

investigators are H. Miller, R. Forster and T. Cova.

U.S. Environmental Protection Agency. "Transborder Watershed Research Program-Tijuana River", Investigator, \$29,451 (1998-1999), \$50,000 (1999-2000). Project designated as a - NSDI "Smart Growth Local Demonstration Project."

Tracking the onset of Sea-Ice... continued from page 2
spring through detecting the presence of liquid water.

In the three-year NASA project in which Rick was involved, he and his co-workers analyzed the data obtained by the NASA Scatterometer (NSCAT) (operated from August 1996 to June 1997). With high spatial resolution of 8 km and temporal resolution of 1 day, astonishingly detailed images of spatial and temporal progression of Arctic sea-ice melt in the spring of 1997 were revealed. In the period studied, the most extensive part of melting occurred rather quickly, in a matter of 10 days. If such spatial and temporal patterns of snowmelt onset are monitored for multiple years, it is possible to examine if there is any indication of an early arrival of Arctic spring.

With his interest in ice, snow, and climate change still going very strong, Rick has been working hard analyzing the glacier dynamics and mass flux of Antarctic ice streams and comparing the sensitivity of the West Siberian Lowland to past and present climate. Of course, he uses remote sensing technique for these. Can you tell which wavelength sensor he likes to use now?

GEO DATA

By taking a full advantage of the 2002 Winter Olympic break, Geography 5963/6963 "Geoscience Seminar Desert Southwest" (previously know as the Death Valley field trip) was successfully completed in this early February. Led by Don Currey and Elliot Lips, the class traveled across Great Basin, Colorado Plateau, Mohave Desert, and Sonoran Desert for 13 days to witness amazing assemblages of geographic, geological, biological, archeological/historical, and social manifestation in each of these distinctive regions. Since the Death Valley National Park was visited in the last four days of the trip, here are some of the interesting facts about Death Valley:

- ▲ Average annual precipitation at Furnace Crèek over the last 50 years: *1.66 inches*
- ▲ The highest temperature ever recorded (in the U.S.): *134°F (July 10, 1913)*
- ▲ The maximum relief between the lowest and highest points: *11,331 feet, Badwater is at 282 feet below sea level while Telescope Peak in the Panamint Range is at 11,049 feet above sea level.*
- ▲ The valley floor is tilted east. This is one of the major reasons why alluvial fans on the west side are huge, whereas those on the east side are much smaller.
- ▲ Unrelated to Death Valley, but an interesting fact: the largest county in the U.S. – *San Bernardino County, California.*





Geography Connection

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www.geog.utah.edu

While your are logged on, check out the following geography web sites:

- www.nationalgeographic.com
- www.census.gov
- www.nasa.gov
- www.usgs.gov
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