

Newsletter

Week of April 24, 2006

Vol. 7, No. 9

Inside this issue ...



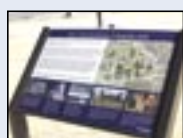
Scientists observe solitary vibrations in uranium

Los Alamos scientists, working with collaborators from around the world, recently observed experi-

mental evidence of solitary vibrations (solitons) in a solid..... Page 3

Historical panels placed north of the Otowi Building

Everyday we come to work, history surrounds us — infused in Laboratory facilities, woven throughout our organizational culture and in the landscape.Page 5



It's a celebration ... and you're invited

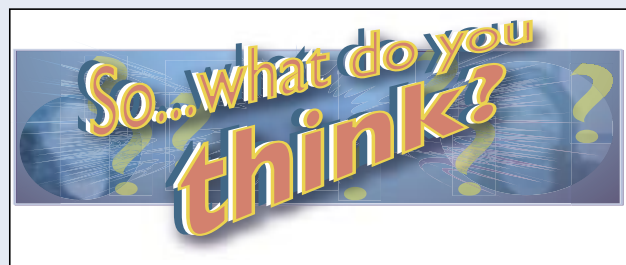
Break out your day planners and personal digital assistants. Mark down Saturday, May 20, as a day of celebration at the Laboratory. And plan to attend.....Page 7



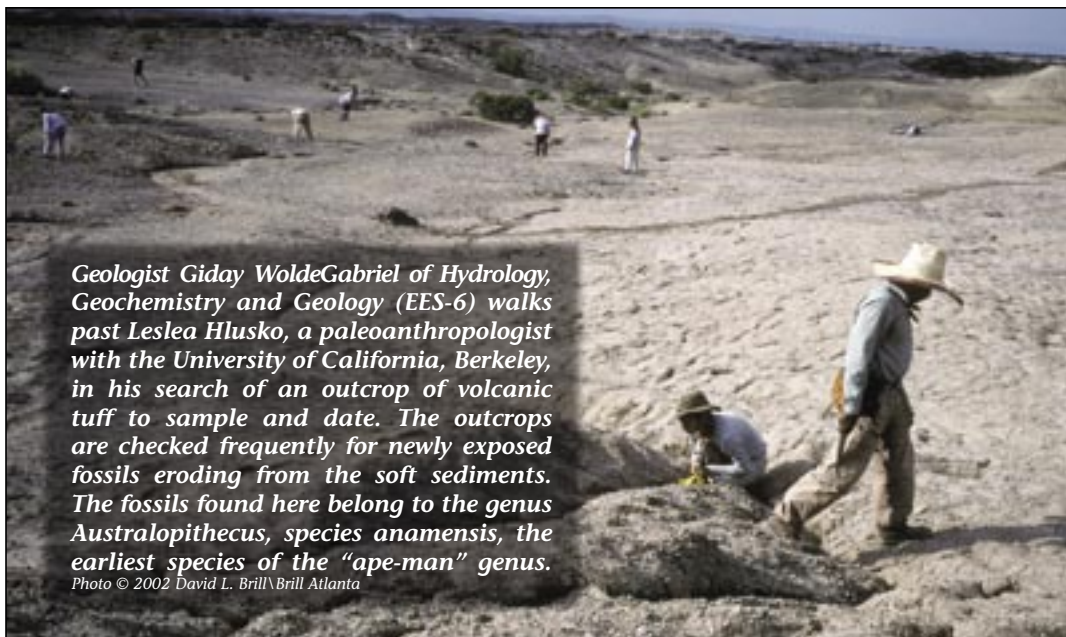
Pottery taps Maestas' creative energy

Many people often admire the creative works of others, become inspired and decide to try something new — only to let their newfound ambition dwindle due to lack of time or diminishing resolve. That's not the case

with Lucy Maestas of the Community Relations Office (CER-30).....Page 8



Earth Day is observed nationally on April 22. Activities scheduled at the Laboratory include a presentation on water conservation; a hike; the third annual Great Garbage Grab, during which employees pick up litter they spot around Laboratory grounds; and presentation of Pollution Prevention Awards. What do you personally do at work or at home to help preserve "mother earth" for future generations? Learn what your co-workers had to say on Page 6.



Geologist Giday WoldeGabriel of Hydrology, Geochemistry and Geology (EES-6) walks past Leslea Hlusko, a paleoanthropologist with the University of California, Berkeley, in his search of an outcrop of volcanic tuff to sample and date. The outcrops are checked frequently for newly exposed fossils eroding from the soft sediments. The fossils found here belong to the genus Australopithecus, species anamensis, the earliest species of the "ape-man" genus.
 Photo © 2002 David L. Brill/Brill Atlanta

Discovering patience in the red hills of Ethiopia

by Todd Hanson

For Giday WoldeGabriel patience is more than just a virtue, it is an inherent, and sometimes vexing, part of the scientific discovery process. WoldeGabriel of Hydrology, Geochemistry and Geology (EES-6) knows well the role that patience played in the latest successes of the Middle Awash Geological and paleoanthropological research project. These successes include new fossil finds in a well-characterized geological setting, representing the earliest examples of species of the genus *Australopithecus anamensis*.

A paper recently appeared in the scientific journal *Nature* describing the recovery of 4.1 million-year-old hominid fossils from Ethiopia.

Although the story of the Ethiopian finds and WoldeGabriel's role in uncovering some of humankind's oldest relatives goes back decades, this latest story begins in 2000 when members of the exploration team that he co-leads discover a few tantalizing fragments of *Australopithecus anamensis* at Asa Issie (which means "red hill" in the local Afar language). That year, unseasonably heavy rains, floods and deep mud prevented the team from fully exploring other sites within the study area. Instead, the team spent more time exploring the Asa Issie site and adjacent areas and discovered the *Au. Anamensis* remains. The Asa Issie fossil beds, along with another site for *Au. Anamensis*, are located in the Middle Awash study area of Ethiopia's Afar depression, about 140 miles northeast of Addis Ababa, Ethiopia's capital.

Working with local Afars, the semi-nomadic pastoralists who inhabit the harsh Middle Awash desert environment, WoldeGabriel and his international team of scientists returned to the site repeatedly over the next few years to accurately determine the geological context and paleoenvironmental conditions and to look for additional fossils exposed by erosion following the seasonal heavy rains. Each trip revealed a little more about the nature of *Australopithecus anamensis*. As late as December 2005, the team recovered several teeth and a jaw fragment of *Au. Anamensis* from Asa Issie. These finds, along with hundreds of other vertebrate fossils from the site, served as the basis for the latest *Nature* paper. With hominid fossils samples stretching across six million years, the Ethiopian Afar region, and the Middle Awash study area in particular, has yielded the Earth's earliest and longest record of human evolution.

According to WoldeGabriel, "an abundance of monkeys, kudus (an East African antelope with spirally-twisted horns), and other mammals, along with petrified wood found both at Aramis and Asa Issie, have indicated that a closed, wooded habitat type persisted over a long period in this part of the Afar region and was favored by early hominids between 4 and 6 million years ago." This observation is corroborated by stable isotope results of paleosols (fossil soils) analysis.

In all, hundreds of mammalian fossils have been recovered at Asa Issie. Many of the larger fossils were badly broken and carnivores chewed many of the bones prior to burial and fossilization. The 30 Asa Issie hominid fossils recovered are mostly teeth and are believed to represent at least eight different individuals. The fossils are anatomically intermediate between the earlier hominid species, *Ardipithecus*

continued on Page 2


NewsLetter

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Emergency kit for the vehicle

A person can pack a toolbox with the best gadgets that money can buy, but they will do no good if they are in the garage at home when a car breaks down on a desolate road. A roadside emergency kit is the one item that every vehicle should have, yet most of us never carry any of the basic items to help get back on the road quickly and safely.

Emergency kits are commercially available, but one can easily be put together. Keep these tools and materials in your vehicle emergency kit at all times.

- Clean and lint-free rags
- Spare parts, such as spark plugs, air filters, rotors or other minor parts
- Spare tire
- Lug wrench
- Jumper cables
- Snow and ice equipment
- Flashlights and reflectors
- First-aid kit
- Hand cleaner
- Gloves
- Tools, such as a couple of screwdrivers, standard-size combination wrenches, an adjustable wrench, and a can of penetrating oil
- Cellular phone
- Miscellaneous stuff, such as a roll of duct tape, roll of electrician's tape, sharp knife, tire inflator, tire pressure gauge, quart of oil, gallon of antifreeze and a blanket.

Before using the kit in an emergency situation, take some time to familiarize yourself with the items and learn how to use them properly. Also, remember that the most important item is your own good judgment — stopping to change a tire in the high-speed lane is only an accident waiting to happen.

Unfortunately, there isn't "one tool for all roadside emergency needs." But with a little planning and a little trunk space, an emergency roadside kit can often save the day.



Governor briefed on transition to new Lab operations management contract

Governor Bill Richardson and Laboratory Director Bob Kuckuck met at University House recently to discuss the Laboratory's transition to the new operations management contract. Also at the meeting were John Mitchell, Los Alamos National Security, LLC deputy director, Rich Marquez, associate director for administration (ADA), the Lab's transition manager, and Tom Gioconda, LANS transition team leader. Los Alamos National Security, LLC assumes operations of the Lab from the University of California on June 1. Photo by LeRoy N. Sanchez

Discovering patience ...

continued from Page 1

ramidus, and the later species *Australopithecus afarensis*, two other species discovered in the Middle Awash study area. Dating to slightly more than four million years ago, the hominid fossils represent unambiguous evidence for human evolution.

Even after the Asa Issie finds were collected and cataloged, WoldeGabriel and his team had to wait years to precisely determine if the fossils were truly as ancient as they appeared. The team used the single crystal, argon-argon laser heating method to date carefully selected samples of volcanic layer immediately below the fossil-containing beds at Asa Issie. Combined with measurements on the magnetic polarity of the sediments, the age of 4.1 million years was determined and then confirmed by biochronological analysis of associated vertebrate fossils.

WoldeGabriel was responsible for conducting chemical analysis of the major constituents of the glass shards found in volcanic ashes that occur above and below the fossils. Professor William Hart of Miami University in Oxford, Ohio then measured the trace elements in the volcanic glass as a separate validation test. The combined results allowed the investigators to correlate



Giday WoldeGabriel

the Asa Issie tuffs with samples of volcanic ash known from elsewhere in the Middle Awash and other fossil sites in eastern Africa. The National Science Foundation funded the research in Ethiopia and the Institute of Geophysics and Planetary Physics (IGPP) at Los Alamos supported WoldeGabriel's geological research.

From the data, WoldeGabriel and his colleagues have ventured to make two hypotheses. The first hypothesis puts *Australopithecus* as evolving directly and rapidly from *Ardipithecus ramidus* between 4.4 and 4.1 million years ago. The second hypothesis interprets *Ardipithecus ramidus* as a relict species that existed contemporaneously with its descendant *Australopithecus*. However, based on the fact that *Ardipithecus* and *Australopithecus* have never been found together in the same stratum, validating the second hypothesis will require additional fossil evidence. Like so many inquiries in science, finding the answer will require much more work, and more than a little bit of patience.



The Middle Awash sample of *Australopithecus anamensis* fossil hominids includes teeth, from the upper jaws, hand and foot bones, vertebral fragments, a thigh bone and fragments of skull and mandible. Shown here are the teeth from the upper jaw, from left: third molar, second molar, first molar, fourth premolar, third premolar and canine. Photo © 2005 Tim D. White\Brill Atlanta

Los Alamos National Laboratory NewsLetter

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Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission.

Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing energy, environment, infrastructure and biological security problems.



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Bioscience and the Laboratory

by Tom Bowles, chief science officer

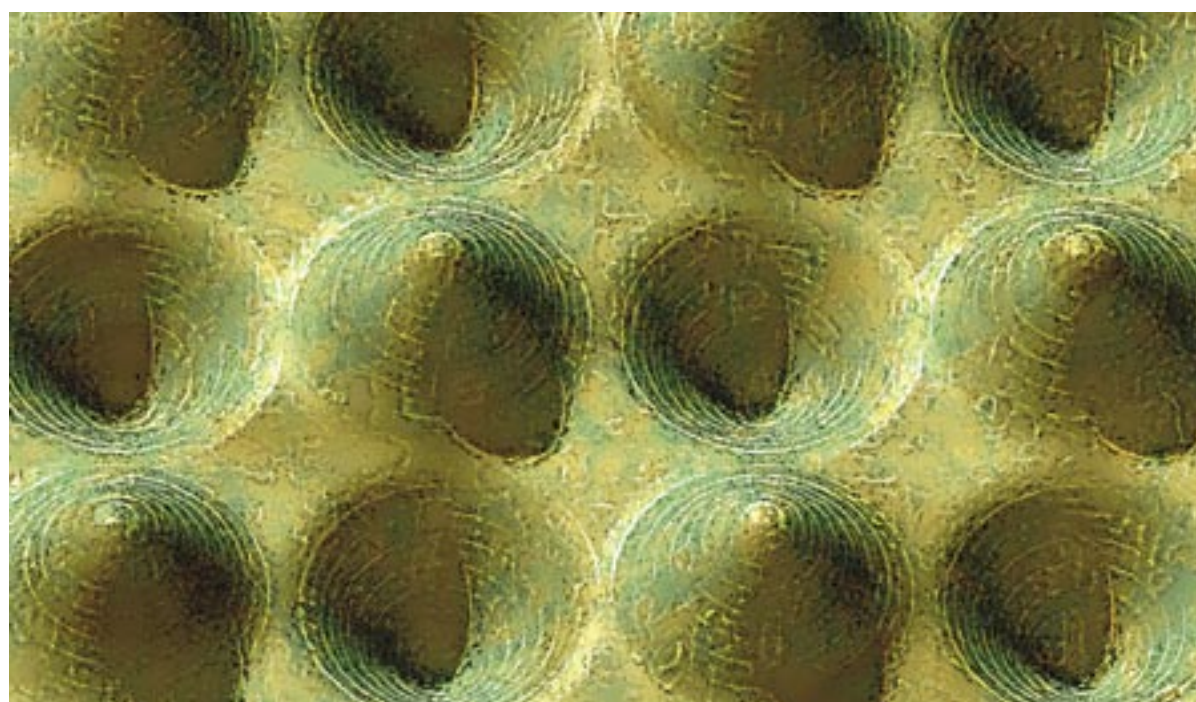


Bioscience had its origins at Los Alamos in studying effects of radiation on cells. From that single-purpose start, bioscience has grown to include a wide range of research at the Lab. We developed technology in flow cytometry that was

central to mapping the human genome. We are leaders in computational biology, stable isotope studies of molecular structure and functions, neutron scattering to study the structure of large biological molecules, studies of protein folding using ultra-fast lasers and magnetoencephalography to study brain activity. We have developed new approaches to understanding pathogens that attack humans, animals and plants and are developing therapeutics against harmful viruses and bacteria. We also study biological applications for the environment and in meeting our energy needs.

The reason the Laboratory is involved in so many bioscience activities is that we are responding to national needs. Our primary thrust is to deal with existing and potential biothreats. While we don't know exactly what an engineered biothreat may be, we can prepare for such an eventuality by working on naturally occurring biothreats. Thus, we do R&D on pathogens that affect grapes, citrus and almonds, in addition to anthrax studies. We house the world database for HIV at the Lab and are working to develop effective treatments for the rapidly mutating AIDS virus. All of this prepares us to deal quickly and effectively with an engineered biothreat if one should appear.

The Laboratory has been investing in the future of bioscience. We are supporting bringing a BSL-3 laboratory on line that will allow us to safely work with additional classes of infectious agents. We are providing support for program development in new initiatives, including avian influenza, the Genomes to Life national initiative and computational biology. We also have established the Health and Human Resources office that assists our scientific staff in preparing proposals to funding agencies, such as the National Institutes of Health. We are doing this because we believe bioscience will play an increasingly important role in meeting national needs. And of course, it represents very challenging science. What could be a better mix?



Scientists observe solitary vibrations in uranium

by Todd Hanson

Los Alamos scientists, working with collaborators from around the world, recently observed experimental evidence of solitary vibrations (solitons) in a solid. First observed as localized waves on the surface of water more than a century ago, the concept of solitons in solids was only theorized as possible two decades ago. The results of their discovery of random localized vibrations in a 3-D solid will add new knowledge to the field of solid-state physics and could have implications for other areas of science and technology.

In research described in a March issue of Physical Review Letters, Los Alamos scientist Michael Manley of Metallurgy (MST-6) and his colleagues from Oak Ridge and Argonne national laboratories and the Institute for Transuranium Elements in Karlsruhe, Germany, describe their use of X-ray and neutron scattering experiments to identify random localized vibrations, called lattice solitons, in uranium crystals at high temperatures, possibly caused by strong electron-phonon interactions.

According to Manley, "these results are really exciting on several levels. Although the idea of a localized energy wave goes back to the late 1800s when solitons were first observed, by the 1980s new theories proposed the possibility of seeing them in discrete solids. Scientists have been looking for localized vibrations in atomic structures ever since. No one ever imagined that they would play such an important role in the physical properties of uranium metal, so this was quite a surprise."

Scottish scientist John Scott Russell first described the soliton in August 1834 after observing the phenomenon on the surface of water in Scotland's Union canal. In the late 1980s, scientists theorized that solitons might exist in solids and molecules, calling them intrinsic localized modes or discrete breathers, but had no physical evidence of their existence.

Although the discovery will have immediate implications for uranium science and the field of solid-state physics, the potential applications of this discovery in other fields are yet to be seen. They might include new explanations of the roles that localized vibrations may play in breaking chemical bonds in biological processes. The new knowledge might also provide the scientific underpinnings for the development of future devices that exploit localized energy waves.

In addition to Manley, the collaboration included Heather Volz, Jason Lashley, Larry Hults and Jim Smith, all of MST-6; Mohana Yethiraj from Oak Ridge National Laboratory; Harald Sinn and Ahmet Alatas from Argonne National Laboratory; and Gerry Lander from Institute for Transuranium Elements in Karlsruhe, Germany.

Where no Enterprise officer has gone before Takei visits Los Alamos Neutron Science Center

Actor and writer George Takei, left, known to legions of Star Trek fans as Capt. Hikaru Sulu, the helmsman of the U.S.S. Enterprise, listens as Alan Hurd of the Lujan Center at the Los Alamos Neutron Science Center (LANSCE) shows him a neutron scattering sample. Takei took a tour of LANSCE at Technical Area 53 and also visited the Bradbury Science Museum on April 15. Takei told LANSCE employees he was honored to be able to visit the Laboratory and is impressed with the depth and breadth of science that is conducted at the Laboratory. Takei was in Los Alamos for a Star Trek Extravaganza weekend, which included screenings at Mesa Public Library of several of the original Star Trek television shows, a concert at the Duane Smith Auditorium, a book signing and autograph sessions. Takei also spoke about his experiences as a cast member on Star Trek at a public talk in Fuller Lodge in downtown Los Alamos. The Star Trek Extravaganza weekend celebrated the 40th anniversary of the creation of Star Trek. Photo

by Leilani Conradson, Lujan Center (LANSCE-LC)



Los Alamos Transition Project information

Editor's Note: Rich Marquez, leader of the Transition Team, writes a weekly column on the transition project that is posted to the Transition Web site at transition.lanl.gov. The following is from his last two messages.

Progress continues

April 11 — Five transition teams of Laboratory and Los Alamos National Security, LLC personnel continue to make significant progress in the "Places" phase of transition. Walk-downs of more than 5 million square feet of Laboratory facilities were completed [April 7], exceeding the LANS walk-down goal of 3.5 million square feet.

Laboratory and Los Alamos Site Office management [were] briefed about the overall results of the walk-downs for actions and recommendations to consider.

The "People" phase of the transition continues with a number of actions and activities of note.

Open-microphone benefits sessions

The election of LANS and University of California benefits continues to be of keen interest to employees. Lab employees can attend the final in a series of "open-microphone" benefits question-and-answer sessions Wednesday [April 26]. Personnel from UC/the Laboratory and LANS will be available at the sessions to answer employee questions from 11 a.m. to 1 p.m. in the Physics Building Auditorium.

UC benefits reps available

UC benefits representatives will be at the Laboratory for individual Retirement Election Meetings this week [April 25 through 28]. For information about how to sign up for one-on-one meetings, see the April 10 Daily Newsbulletin [http://www.lanl.gov/news/index.php?fuseaction=nb.story&story_id=8198&nb_date=2006-04-10].

Employment offer packages

LANS [recently] sent Employment Offer Packages to several hundred student employees. Those with questions about the packages can contact the LANS Transition Hotline at 1-888-505-9292.

LANS reports that to date nearly 1,200 employees have returned their offer packages. It is important to remember the May 15 return deadline as you consider your choices. LANS has provided four return options:

- 1) In person in the basement lobby of the Otowi Building in Technical Area-3;
- 2) A drop box in the basement lobby of the Otowi Building in TA-3;
- 3) To LANL Mail Stop T009
- 4) By the U.S. Postal Service to:
Los Alamos National Security, LLC
c/o Los Alamos National Laboratory
TA-3, SM4200, Mail Stop T009v
Los Alamos, NM 87545
Attention: LANS Human Resources

Employees who select the mail options must ensure that they provide enough time for the employment package to arrive at LANS by the May 15 deadline.

With everything going on, this can be an overwhelming time for Laboratory employees. Please remember to work safely and to look out for the well-being and safety of your fellow employees as well. If you notice unsafe activities, you are authorized to stop work or you should notify your manager immediately. By working as a team, we can ensure successes throughout the final days of transition.



A time for review

April 18 — Laboratory employees have accomplished much during the past year in mission, business and operations activities, as well as during this transition period. These accomplishments are worth capturing for the purposes of reviewing employees' performance as part of the closeout of the University of California management and operations contract on May 31. Therefore, in the interests of fairness to employees, [Laboratory] Director Bob Kuckuck is asking all UC/Lab employees to participate in an interim performance review that will serve as important input to a Performance and Salary Management assessment that Los Alamos National Security, LLC, will conduct later this summer when the Laboratory's 12-month performance cycle concludes.

This interim performance review will provide [UC] employees the opportunity to be assessed by their current manager who has been working with them for 10 months of our last 12-month review period. After the May 31 closeout, organizations will change, personnel assignments will change and employees may retire or leave the Laboratory. The interim assessment process, as described in a memo from the director [located at http://int.lanl.gov/memos/2006/04/LANL_EMP132.PDF online], requires employees and managers to complete self-assessments and performance summaries prior to the May 31 contract closeout.

Laboratory managers were briefed about the interim review during an all-manager meeting. Those with questions about this process should contact their line manager or their organization's Human Resources (HR) Division generalist. Please take the time in the next few weeks to complete your self-assessments or performance summaries by the required deadlines in order to give all employees the benefit of a

final review under the UC contract and their current leadership.

With everything going on at the Laboratory right now, it's easy to feel overwhelmed or engaged in a process where power to affect change seems elusive. Those feelings sometimes manifest themselves in frayed tempers or general incivility toward our fellow workers. Please remember that hostility and abusive behavior are always inappropriate in any workplace or community. Those who may be feeling overly stressed should avail themselves of Laboratory resources, such as the Employee

Assistance Program and the Ombuds Office. The Laboratory's Transition Web site includes information about these resources and others for employees.

Progress in the "Processes" phase of transition continues. Worth mentioning under this phase is that due to "Blue Sheeting" requirements and scheduling, the Laboratory will no longer initiate new or revised policies or procedures that would become effective prior to June 1 unless on an absolute emergency basis. As mentioned, LANS plans to have all policies and procedures posted for employee review by May 22. This review will enable employees to understand and properly inquire about amended work requirements after the June 1 changeover.

The LANS and UC/Laboratory transition Web sites' FAQs have been updated with numerous new entries covering a variety of topics. In addition, UC has updated its Decision Guide for LANL Employees [http://transition-int.lanl.gov/docs/UC_LANL_Guide_19_Revise.pdf] and its benefits Slide Presentation [http://transition-int.lanl.gov/docs/Final_Posting_Version_Apr_10.pdf] to reflect recent decisions regarding CAP distributions and the issue of lump-sum cashout and retiree health insurance. With the May 15 deadline for return of LANS employment-offer packages quickly approaching, I encourage you to continue to take the time to consult the Transition Web site and the LANS Transition Hotline (1-888-505-9292) for the latest, most complete official information on transition.

With just over a month left in the transition process, we must continue to stay mission-focused while ensuring that we perform our work safely and securely. Please remember that no part of LANS transition or UC closeout activities is so important that it trumps safety or security. Employees who have concerns about safety or security are encouraged to stop work or contact their line management immediately.

On-line resources for information about the Laboratory's contract transition



transition.lanl.gov



lansllc.com/index.html



www.doeal.gov/LASO

Employees, public can glimpse the past

Historical panels placed north of the Otowi Building

by Hildi T. Kelsey

Everyday we come to work, history surrounds us — infused in Laboratory facilities, woven throughout our organizational culture and in the landscape.

Lab employees are aware of the role Los Alamos played in the creation of the first atomic bomb and the resulting end to World War II. But, there is much about the Lab and the community some employees don't know. Thanks to the strategic placement of six "history of Los Alamos" interpretive displays between the Otowi Building at Technical Area 3 and the Los Alamos Research Park, that is all about to change.

The 2-by-3-foot panels contain information about the evolution of TA-3, early hunter-gatherers and settlers on the Pajarito Plateau, Manhattan Project facts, Cold War weapons development and the Lab's current national security mission.

"They are more like interpretive signs. The panels contain text and photos similar to what you would see at Bandelier [National Monument]," said Ellen McGehee, a historical archaeologist in Ecology (ENV-ECO) who was instrumental in providing basic chronological help and photos for the project.

Panels include

- 1) TA-3 Evolving Landscape
- 2) Ancestral Pueblo Peoples AD 600-1600
- 3) Homestead Period AD 1887-1942
- 4) Manhattan Project 1942-1946
- 5) Cold War 1946-1991
- 6) Los Alamos 1991 and Beyond.

The panels were erected by the flagpoles near the Otowi Building because it is a high traffic location and not subject to future demolition. Each sign was reviewed for accuracy and approved by the appropriate, related group or organization. For example, the Tribal Relations team in the Government Relations Office (CER-1) evaluated the pueblo peoples' display, while the Homesteaders Association looked over the homestead period panel. Acting Deputy Laboratory Director Don Cobb gave final consent for the presentation of all the signs.

According to McGehee, the historical panels serve multifunctional purposes:



Cartoon by Josh Smith of the Chemistry (C) Division



Katherine Slick, left, director of the New Mexico Historic Preservation Division, looks on as Ellen McGehee, center, a Laboratory historical archaeologist with Ecology (ENV-ECO) points out the features of one of six newly installed history panels located on the east side of the Otowi Building at Technical Area 3. Looking on is Jonah Stanford, far right, with Crocker Associates, a Laboratory contractor providing preservation consultation for the Laboratory's historic V-Site preservation effort at Technical Area 16. The six panels contain text and photos detailing the changing history of the Laboratory and the Pajarito Plateau from the Pueblo Period (AD 600-1600) to today.



This panel provides historical text and photos detailing the evolving landscape of Technical Area 3 from the Manhattan Project era on. Photos by Ed Vigil

inform the public and employees regarding Los Alamos' history and extensive role in significant world events; meet State Historical Preservation Office compliance requirements related to tearing down buildings in TA-3 (such as the current Administration Building); and implement a solution to suggestions from the Department of Energy proposing the Lab do a better job educating the public in terms of the Lab's past and current functions.

"We are a government facility, bound by federal regulations. In order to comply with the National Historic Preservation Act, the Lab is required to document the past and architecture of historic buildings before they are torn down. The end result of the process is getting this historical information out to the general public," said McGehee. "With all the new construction at TA-3 and the upcoming demolition of [the Administration Building], it seemed to make sense to coordinate efforts. So, we decided to do a chronology."

But, compliance with regulations was not the only driver behind the interpretive panel project. "Compliance is important, but part of my job is to create an environment where employees can be successful,

which includes reminders of their legacy," said Randy Parks, an architect from Strategic Development (SSMO-SD) spearheading the endeavor. "To some extent we are working in a living museum. Classy reminders of that are pretty appropriate."

In addition, both McGehee and Parks suggested that the history panels at TA-3 are only the beginning elements in a series of proposed historical and educational projects. The team hopes to have additional panels in the future in more secure areas, such as TA-22, where historical activities include early 20th century homesteading and World War II weapons research and assembly.

Octavio Ramos and Jim Cruz of Communications Arts and Services (IM-1); John Isaacson of Environmental Services (ENV-ES); John Rhoades, director of the Bradbury Science Museum; Alan Carr of Information Records and Media Services (IM-9); and Kirt Anderson of Site Planning and Project Initiation (SSMO-SPPI) contributed to the development of the historical display project. In addition, staff from Ecology (ENV-ECO), the Bradbury Science Museum and personnel from KSL Services assisted in the effort.

So... what do you think?

Q: Earth Day is observed nationally on April 22. Activities scheduled at the Laboratory include a presentation on water conservation; a hike; the third annual Great Garbage Grab, during which employees pick up litter they spot around Laboratory grounds; and presentation of Pollution Prevention Awards.

What do you personally do at work or at home to help preserve "mother earth" for future generations?



Santiago Parra of Stockpile Complex Modeling and Analysis (D-2)

We recycle our newspapers, cans and bottles. The part I like best, though, are the rain barrels we use in Santa Fe to capture rain-water to water our flowers and plants. As a result, my water bills are very low because of the rain barrels.



Reanna Terrazas of the Chief Science Office (CSO)

In our area we have bins labeled for cans, bottles, white paper, etc. Having these visible helps in preserving what [resources] we can. Because I have been practicing this at work, I have established a can and bottle recycling bin in my own home. I'm doing my part as best as I can.



Wanda Dunlop of Network Engineering (CCN-5)

I am an active recycler. In fact, at work I have two recycle bins. And at home I recycle papers, glass, aluminum and magazines. And I also take all my old stuff that still is useful to the thrift store where it can be sold and re-used.



Ardyth Simmons of Environmental Characterization and Remediation (ENV-ECR)

Yes, I definitely recycle and I try to compost as much as I can. I also try to ride my bike as often as I can. When I talk about recycling I'm talking about more than just paper and glass, I also recycle clothing, books etc. so that they can be re-used and repurposed.



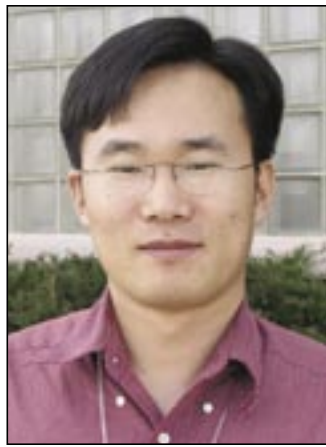
Buck Thompson of the Director's Office (DIR)

I do the obvious things, like keep the thermostat down, turn off lights and try not to keep the doors open for too long during the winter. I also recycle, including taking excess items to Casa Mesita. And when I am walking around Technical Area 3, if I see some trash on the ground, I take the time to pick it up and dispose of it properly.

PEOPLE



Hur receives 2006 Outstanding Young Researcher Award



Namjung Hur

Namjung Hur of Condensed Matter and Thermal Physics (MST-10) is the recipient of the 2006 Outstanding Young Researcher Award by the Association of Korean Physicists in America. Hur, a postdoctoral research fellow, was recognized for his study on

the interplay between ferro-electricity and magnetism in multiferroic materials, and for becoming a leader in the field of multi-ferromagnetic and magneto-electric effects.

The AKPA recognizes and promotes excellence in research of young Korean physicists working for universities and institutions in the United States. The Outstanding Young Researcher Award is awarded annually to young Korean researchers who have made significant contributions to research of significant impact in their field of physics. Winners are awarded \$1,500 and membership to the AKPA.

"It is a great honor for me to be selected to receive the OYRA award because the award is given to only one person among many young Korean physicists actively working in many fields," said Hur. "I hope

I will have a chance to contribute to the Korean physicist community and encourage younger physicists in the future."

APKA was established in 1979 to create connections between Korean scientists in America and to promote scientific research in physics.

Hur has a bachelor's in astronomy and a master's in physics from Seoul National University and his doctorate in physics from Rutgers University. He joined the Laboratory in 2005.

National Security Sciences Building receives prestigious award

The Laboratory's new National Security Sciences Building earned first place in the category of "Design Build" as part of Southwest Contractor magazine's "Best of 2005" competition.

The NSSB Project was judged on the following categories:

- design
- construction
- innovation
- contribution to the industry and
- overall excellence.

"This project is the epitome of the beneficial nature of design build delivery," said one judge.

The \$97 million National Security Sciences Building anchors the north edge of a master-planned green space that resembles a university campus at Los Alamos' Technical Area 3.

The seven-story, 275,000-square-foot

continued on Page 7

In Memoriam

Walter McCracken

Laboratory retiree Walter McCracken died Feb. 8. He was 92.

McCracken joined the Laboratory in 1948 as an architectural designer. He retired in 1985 as a senior designer in the former Engineering (ENG) Division.

He is survived by his son Kim McCracken of Cincinnati, Ohio; daughter Pamela Coffeen of Ajo, Ariz.; and numerous grand children and great grandchildren.

Voncille Monica Armijo

Laboratory retiree Voncille Monica Armijo died Feb. 25. She was 84.

Armijo came to the Laboratory in January 1954 as a counting technician in the former Field Testing (J) Division. At the time of retirement in 1986, Armijo worked in the former Isotope and Nuclear Chemistry (INC) Division.

Armijo is survived by her daughter, Marina Ellison of El Paso, Texas; sisters Sue Gardner of Montgomery, Ala., and Judy Killough of Rutledge, Ala.; five grandchildren and eight great-grandchildren.

Clarence "Max" Fowler

Laboratory retiree Clarence "Max" Fowler died Feb. 27. He was 87.

A senior fellow at the Lab, Fowler worked in Shock and Detonation Physics (DX-9).

A veteran of the U.S. Navy, Fowler joined the Laboratory as a technical staff member in August 1957 in the former GMX Division. He originally came to Los Alamos and worked on a limited term basis between 1952 and 1956.

At the Lab, Fowler was a central figure in developing and applying explosive-driven flux compression devices. Over the years he and his colleagues utilized this technique to generate energy sources to power a number of different plasma producing devices, lasers, imploding foils, e-beam accelerators, rail guns and as high magnetic field generators to study properties of material in megagauss fields, including high-temperature superconductors.

Fowler was named a Laboratory Fellow in 1982 and retired as a Fellow in August 1996. He returned as an associate fellow two years later in Hydrodynamics (DX-3).

Fowler earned a bachelor's degree in chemical engineering from the University of Illinois and master's and doctoral degrees in physics from the University of Michigan. He was a Fellow of the American Physical Society.

He is survived by his wife, Janet; daughter Mary Janet, of Charlottesville, Va.; brother Bert of Sudbury, Mass.; sister Marianna of Bardolph, Ill.; and two nieces.



April employee service anniversaries

35 years

David Garcia, N-2
Robert Kelley, ISR-IT
Nicholas King, P-23
Thomas Zaugg, LANSCE-ABS

30 years

Jo Boor, CFO-SYS
Ubaldo Gallegos, NMT-1
F. Joseph Hauser, ESA-EDE
Nelson Montoya, FM-NMT
Randall Rowan, ESA-WOI
A. Daniel Talley, HSR-4
Michael Trujillo, CER-30
Ronnie Vigil, FM-NWISENV

25 years

Carlos Chacon, CER-30
Dona Crump, SUP-3
Michael Demaria, ESA-WOI
Barbara Devolder, X-1-SEC6
Harry Egdorf, IM-8
Cipriano Gomez, NMT-4
Edward Guillen, HSR-1
Cynthia Little, ISR-3
Danny Lujan, NMT-15
Charles Quick Jr., C-ADI
Donald Rej, SSR
Gabriella Rodriguez, S-4

Amarjit Sahota, HR-OEOD
Moises Zamora Jr., SUP-4
Hans Ziock, EES-6

20 years

Thomas Claytor, ESA-AET
Albert Crespín, SUP-2
Ida Ruth Dupre, LC-LM
Michael Ebinger, EES-2
Belinda Edwards, HR-WP-WEM
Kathleen Fillmore, PM-4
Elaine Gallegos, NMT-5
Kenneth Gallegos, FM-DX-ESA
Judy Hamilton, CCN-1
Omar Juveland, CER-30
Christopher Leibman, C-CSE
Bruce Meyer, LANSCE-ABS
Roger Roberts II, X-4-SEC5
Linda Thompson, B-5
Steve Vigil, NMT-16
Kristie Whitaker, S-6

15 years

Martin Aguilera, PM-DS
Mary Barr, D-2
Terrance Connors, ENG-PSE
Christine Gonzales, HSR-12
Steven Hanson, NWIS-TA-50
David Holmes, TT

Joanne Irwin, FM-TR
Sheila Tyler, Molony, IM-1
John Mott, TT
Michael Murillo, T-15
Michael Saladen, ENV-WQH
John Sullivan, ISR-1

10 years

Kellie Art, SR-OPS
Nathan Burnside, DX-1
Nicole Gaedecke, IM-2
James Gore, IM-3
Michelle Marquez, IM-8
Curtis Novak, ISR-3
William Perry, DX-2
Raeanna Sharp-Geiger, SR-OPS
Ann Sherrard, ESA-MEE
Melissa Trujillo, SSMO-SMFP

5 years

Paul Blumberg, NMT-2
Joe Bonner, DX-1
Diana Brown, NMT-9
Ellen Cerreta, MST-8
Leonires Chavez, DX-1
Lucy Chavez, SUP-5
Anatoly Efimov, MST-CINT
Patricia Gallagher, ENV-SWRC
Lawrence Garcia, C-AAC
Mark Gonzales, PM-IP

Perry Gray, D-6
John Grondalski, X-1-SEC6
Charles Guenther, NMT-DO
Jeff Gurule, CCN-4
Todd Jankowski, ESA-AET
Stephen Joyce, C-PCS
Kai Kadau, T-14
Manuel L'Esperance, EMR
Steve Linger, D-4
Anna Llobet Megias, LANSCE-LC
Alex Maestas, NMT-2
Lisa Martinez, DX-1
Jeri Naranjo, FIRE
Patricia Nelson, SSMO-SMFP
Kevin Norbash, C-AAC
Benjamin Poff, LANSCE-TMS
Richard Roybal, NMT-DO
John Roybal, SUP-OPS
Rebecca Stevens, N-4
John Swadener, MST-CINT
Thomas Venhaus, ESA-TSE
Wendy Warde, NMT-9
Przemyslaw Wozniak, ISR-1

Adelaida Valdez, a 5-year employee in MST-7, was inadvertently left off the March service anniversaries in the March 27 issue of the NewsLetter.



National Security Sciences Building ...

continued from Page 6

facility will house the administrative suite for the Laboratory director along with work space for hundreds of scientists. The NSSB will provide office and research space for theoretical and applied physics, computational sciences and administration space for support of the stockpile stewardship mission. The NSSB is scheduled to open next month (see related story at left).

The building design features an open, collaborative-rich environment for researchers that also will meet strict security requirements for physical access, secure communication, electronic security, acoustical isolation and a robust infrastructure.

"The design and function of this structure is intended to make a signature statement worthy of the Laboratory's important mission and has permanently changed the skyline of Los Alamos National Laboratory," said Keith Orr of Deployed Services (PM-DS), project director.

One of the more unique features of this project is a 600-seat auditorium that can alternate from secure to non-secure agendas. Two lobbies and two entry points permit access from outside the security fence or solely from inside the security boundary.

The south side of the building fronting on the green space takes advantage of the sloped grade and incorporates an outdoor lecture area.

While designed as a centerpiece to the revitalization of 50-year-old TA-3, the materials chosen and the construction methods utilized for the NSSB are tried-and-true solutions with long-term durability and maintenance-free life spans, said Janet Lacy, project manager for Chavez-Grievés Consulting Engineers Inc., design lead and structural engineers. The major exterior materials are pre-cast concrete wall panels, composite metal panels, and [a] curtain wall glazing system. The design goal was to provide a facility with low or no maintenance requirements that resulted in long-term durability, weather tightness and value, said Lacy.

While the size of the building and available footprint dictated an unusually tall solution in an otherwise completely low-rise area, the tower is softened by a facade that steps up to the seven-story height. Additionally, to commemorate the events of Sept. 11, 2001, a piece of the Pentagon that was damaged during the attack is being dedicated as a memorial at the front entry to the building.

"We seized every opportunity to support the personality of Los Alamos citizens, who place a premium on exercise, natural daylight and the environment," Orr added. The stairwells have glazing and upgraded finishes, and the plaza provides an opportunity to work and relax outside in the high mountain environment. The grassy amphitheater to the south will permit forums or lectures to be conducted outdoors.

It's a celebration ... and you're invited

Break out your day planners and personal digital assistants. Mark down Saturday, May 20, as a day of celebration at the Laboratory. And plan to attend.

"Celebrating an Era with Pride and Honor," the Laboratory will host employees and their families and friends, retirees, elected officials and other invited guests to a day of exhibits, entertainment, food and fun as it celebrates the

University of California's 63 years of service to the nation as manager of the Laboratory. The event is from 9:30 a.m. to 3 p.m.

The highlight of the celebration is the dedication of the new National Security Sciences Building at Technical Area 3, which will include a ribbon-cutting ceremony, tours of the facility and the unveiling in the NSSB courtyard of a piece from the Pentagon building that was damaged during the Sept. 11, 2001 terrorist attack to commemorate those who lost their lives.

A voluntary pre-registration will be held for employees to obtain free food tickets for themselves and their guests.

Watch for more details in the online Daily Newsbulletin (<http://www.lanl.gov/news/index.php?fuseaction=nb.main>) about the pre-registration and the event.



Pottery taps Maestas' creative energy



Lucy Maestas

by Hildi T. Kelsey

Have you ever attended an art show or crafts fair, viewed an exceptionally interesting sculpture, painting or decorative ornament and said, "Wow, I would really like to try that?" Or, "Gee, maybe I should take up a new hobby?"

Many people often admire the creative works of others, become inspired and decide to try something new — only to let their newfound ambition dwindle due to lack of time or diminishing resolve. That's not the case with Lucy Maestas of the Community Relations Office (CER-30). Two years ago, she set out to learn the complex skill of creating pottery. Today, although modest about her work, she still is "fired-up" about building upon her evolving skills as a potter by learning new techniques, seeking out fresh muses and invoking this simple motto: "practice, practice, practice."

"Pottery was something I always wanted to do — one of the goals I set in the back of my mind," said Maestas. "I looked for the appropriate classes for a long period of time. I finally found what I was looking for at Northern New Mexico College. I am completely dedicated to my Tuesday night class, and my instructor at the college is absolutely the best. She is the chair of the fine arts department and a phenomenal potter and mentor."

Maestas said that her pottery takes shape both at the college during class and at home in her hobby workspace.

"When I pick up the clay, I have a plan. For instance, I have decided whether I am going to build a piece out of the slab or coil method, or sit at the [pottery] wheel," she said. "I get ideas from other things I see. I keep a notebook of images and shapes that I like and try to emulate what the real craftsmen and professionals have done."

She added, "I sit at the wheel and talk to the clay. You want to pot when you are inspired — motivation is important."

But, Maestas concedes that sometimes "she plans her work one way and it goes another." In fact, she is not wedded to one particular style. "I want to learn it all," she said.

For Maestas, each project offers a different degree of satisfaction. "It is about learning the pottery skill — knowing construction techniques, gathering supplies, getting organized and knowing whether your glaze is going to work," she explained. "Mastering the wheel is very important — it is difficult and I want to do it well. I really enjoy the whole process — there is satisfaction in taking a mound of clay and turning it into something [with which] you can work."

Creating pottery is not as easy as it looks, according to Maestas. "I think that is what surprised me most in learning the skill. You really have to work at it and pay attention to the steps. You cannot go from A to C without going through B because your piece will show it," she said.

Over the years she has enjoyed dabbling in various genres and styles. An example of her work, a hand-thrown, glazed, candy-filled clay bowl swirled with a collaboration of earth tones — tans, beiges and browns — sits in her office on the center of a table as a simple reminder of her thriving talent.

Maestas also sold a few clay bowls and a "kitty cat" icon last fall at the Española Valley Community Art Festival. But she said her favorite piece is a clay black bear sculpture — because it has "a little bit of attitude to it." Maestas was surprised and thrilled when she recently won her first "First Place" ribbon at a local art show.

For Maestas, her efforts at the pottery wheel yield more than just the final product. She has found that pursuing her interest also is a great way to relax.

"I worked in the Director's Office three and a half years, and it could be stressful at times," she said. "My pottery was a way of losing the issues of the day. I was so focused on learning the skill. I think it is important to find a passion that takes you away from your work."

In fact, Maestas enjoys anytime she "can get a couple of hours to throw clay."

"The uninterrupted time is really special ... I can get into the clay all the way up to my elbows," joked Maestas.

