

EX-Ls

EX-PRESS

Volume 24 Number 4
Fall 2006

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The EX-Ls Board of Directors and members gratefully acknowledge the
Lawrence Berkeley National Laboratory Administration
for their continuing support.

President's Message
John Kadyk

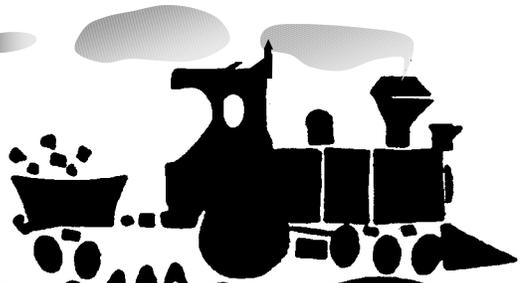
All good things come to an end, and it has been a good and interesting experience, and an enjoyable one, being the president of the EX-Ls for this past year. What made it so appealing was the interactions with Board members, Terry Powell, and the general membership. I want to thank all those with whom I have worked; they have been both supportive and friendly, and have invariably given very good advice. A new slate of officers will be presented to the membership at our next luncheon, and I feel very confident that the EX-Ls will be very well served by them.

We have had some very interesting presentations at our luncheons during the past year: Bob Stokstad relating his experiences at the South Pole as part of the Icecube experiment (February); Linda Maio, a Berkeley city councilwoman and a Lab retiree, who told how the Lab prepared her for public service; and Andy Sessler, former LBL director and accelerator physicist, commenting on his past experiences in accelerator technology and what the future may bring in that field, and we have one more to go (David Sunding; see the announcement on page 3).

The major event of the year, of course, is the 75th anniversary of the founding of the Lawrence Berkeley National Laboratory. We have already enjoyed the gala celebration on August 26, when the actual founding day, plus 75 years, was observed by Founders Day festivities all day at the Lab. There were exhibits, films (e.g., *King Kong*), performances, tours of Lab facilities, dance presentations, speeches, a barbeque lunch, historical displays, children's activities, and the dedication of a time capsule by Director Steve Chu. The EX-Ls were, of course, represented by EX-Ls volunteers, with an information table near the cafeteria, where brochures (designed by Janis Dairiki) describing the EX-Ls, and chocolate chip cookies (made by yours truly) were dispensed. We did sign up some new members that way, I think. Our luncheon on August 17 also emphasized the anniversary, having pre-talk presentations of old slides (and slides of old people) relating the Lab's history (courtesy of Janis). Founders Day was a big success, with more than 1000 present and past Lab employees, plus their friends and families, in attendance. There remains one more celebration: November 14, which will be an all-day Scientific Symposium (www.lbl.gov/Publications/75th/index.html) that will be held in the Bldg. 50 auditorium and is open to all without any registration fee (but you must register at web link above). There will also be an evening banquet (Gala Dinner), but this is by invitation only.

An issue mentioned in the last Newsletter was that the Berkeley City Council had been considering the designation of the Bevatron (Bldg. 51) as a "Landmark," which could have prevented removal of the Bevatron structure; the Lab wishes to use that space, and has opposed this landmark designation. Fortunately, the request by the Berkeley Landmark Preservation Commission was turned down; however, a memorial of some kind will be placed on the site and a historical display will be installed at a museum. [*The President's message continues on Page 8.*]

EX·LS Ex·press



2006 Fall Lunch

Date: Thursday, November 16, 2006

Where: Spenger's Fresh Fish Grotto
1919 Fourth St.
Berkeley

Time: No-host Bar: 11:30 AM
Lunch Served: 12:00 Noon

Speaker: David Sunding, UCB, Dept. of Agricultural and Resource Economics;
Director, Berkeley Center for Water Resource Management

Subject: California's Water Future

Menu: Bay Shrimp Louie Salad/1000 island dressing (with cup of chowder)
Shrimp Scatter (with dinner salad)
Flatiron Steak w/ mushroom demi-glaze (with dinner salad)

Cost: \$20 per person (PREPAID)

Reservations: Please make checks payable to EX-Ls. Send to
Vicky Jared
4849 John Muir Road
Martinez, CA 94553

**Spenger's management policy makes it absolutely imperative
that they receive reservations by November 13, 2006**

(Reservation slip on last page)

From our August Lunch

Reported by Janis Dairiki, EX-Ls First Vice President. Our speaker was Andy Sessler, theoretical accelerator physicist and former LBNL director, who presented “Comments on the Future of Particle Accelerators,” a special talk in honor of the 75th anniversary of the Lab.

Historical Development

Andy began with a few comments and highlights from a history talk entitled *75 Years of Particle Accelerators* that he gave at the Lab last month.

The first particle accelerators to study nuclear reactions were electrostatic devices such as John Cockcroft’s and Ernest Walton’s machine at the Cambridge Lab in 1931. Cyclotrons began with E.O. Lawrence’s invention in Berkeley in 1930. They have now evolved from Lawrence’s modest 27-inch cyclotron to the 59-foot TRIUMF, the world’s largest cyclotron, in Canada.

The first linear accelerator (or linac) was built by Luis Alvarez just after WWII, using old equipment from his radar studies; it was never used. Stanford developed the 2-mile long electron linear accelerator (SLAC), currently the world’s longest. A recent example of a modern linac is the Dual Axis Radiological Hydrodynamic Test Facility (DARHT) at Los Alamos. This device is devoted to examining nuclear weapons from two axes rather than just one and is an important part of the stockpile stewardship program.

One of the first betatrons¹ was a very large accelerator built in the early 1940s at the University of Illinois. Modern betatrons are suitcase sized, very compact and portable and commercially produced; they are used to produce x-rays to look for defects in steel beams, ship’s hulls, engine blocks, bridges, and other large, forged items.

The Bevatron was one of the first synchrotrons,² built in the early 1950s. A more recent evolution is Fermilab’s superconducting Tevatron. The 1950s also witnessed the development of the collider.³ These devices now create the highest energy particles. CERN’s Large Hadron Collider (LHC), at 28 km in circumference, will be the world’s largest particle accelerator when completed in 2007.

Looking back for the 75th anniversary, Andy summarized the LBL contributions to Accelerator Physics, including the cyclotron, Bevatron, HILAC, Bevalac, and the ALS.

Future Developments

High-energy physics was the driving force behind the development of accelerators for the first decades. There are now a great many uses of particle accelerators aside from high-energy physics experiments, and the applications are definitely the driving force. In speculating on the

future, Andy focused on the many uses of particle accelerators, some already “real” and some still in the “possibility” stage.

At first, in the 1970s, accelerators built for high-energy physics were used parasitically, but soon machines were built specifically for the application of synchrotron radiation.⁴ There are more than 50 synchrotron radiation facilities in the world so this application is very real. In the US there are machines at Brookhaven (NSLS), Argonne (APS), SLAC (SPEAR and the LCLS), and at LBNL (ALS). Protein and material structures are among the topics studied in detail with synchrotron radiation at these facilities. Third generation facilities have been built at Grenoble and in Japan and there are plans for a facility in Jordan (Sesame Project), which will be open to scientists from all countries. Fourth generation facilities, i.e., Free Electron Lasers, are now being built at DESY in Germany and at Stanford. These machines promise intense coherent radiation. A team at LBNL has proposed the LUX facility (a linac-based, ultrafast x-ray source), but has been told (strongly) to stop work as it might lead to a project (which, of course, would cost money!).

The Spallation⁵ Neutron Source (SNS), a joint effort of LBNL, BNL, LANL, J-Lab, and Oak Ridge has recently begun operating at Oak Ridge. A similar facility is under construction in Japan, with advanced plans in China and plans (moving very slowly) in Europe.

The International Linear Collider (ILC) would be the next facility of choice for high-energy physicists (after completion of the LHC at CERN). A cost estimate is due at the end of the year (clearly in the few billion dollar range) and the earliest it could be operating would be in the 2020 timeframe. This is a worldwide effort; however, a major report has strongly requested that the US bid for locating the ILC in this country.

The Rare Isotope Accelerator (RIA) and Facility for Antiproton and Ion Research (FAIR) would provide the ability to accelerate radioactive species. Up until now, most work has been done by accelerating stable beams and noting their interactions. Radioactive beams would open up a whole new world we haven't been able to reach yet. Plans for RIA are currently on hold in the US, even though such a machine is the highest priority for new construction in the Nuclear Science Long Range Plan. (JMD note: there is now a new committee looking at a scaled-back version of RIA.) Meanwhile, Germany is moving ahead with FAIR which will provide high-intensity beams of both stable and unstable heavy nuclei.

Since the solar neutrino “problem” has now been solved by observing neutrino oscillations (switching from one type of neutrino to another), neutrino experiments have shifted to measuring neutrino properties. Intense beams of neutrinos (super beams) are desired and several different avenues of accelerators and detectors are being explored, including neutrino factories and muon colliders (both involving the same technology).

Work began in 1974 on accelerators for heavy ion fusion with two different approaches. In Europe researchers are using RF linacs and accumulating rings to achieve high intensity, while in

the US, induction linacs are being pursued to start with high intensity. Both approaches should work for energy production, but both are funded only at a very low level.

The use of Proton Drivers for Power Reactors is an interesting idea but it is not being pursued at present. The idea is to have a sub-critical nuclear power reactor (hence very safe) and drive the reactor into criticality with neutrons produced by protons, for example, in a spallation source. Also, there is the possibility of turning thorium into fissionable material in such a reactor (which is especially interesting in India where they have a lot of thorium, but no uranium). Another thing you could do with such a reactor is to burn up long-lived fission products in spent nuclear fuel.

Another way to burn up long-lived fission products is to use a breeder reactor. Such reactors are actively being studied in Japan, Russia, and Europe. There is a small amount of activity in the US and, perhaps now, with the Global Nuclear Energy Partnership, there will be more.

The first use of accelerators for cancer therapy was the successful treatment by the Lawrences of their mother. Neutron therapy was begun in Berkeley in the 1930's – a very sad story as all the patients later died. Siemens and Varian then built linacs for x-rays in the late 1930's. Hadron therapy was suggested by Bob Wilson in 1946 and pioneered in Berkeley and Harvard. There are now 5 facilities in the US, which use proton therapy and more to come. Heavy ion therapy is even better than proton therapy (more specific energy deposition) and was developed at the Bevalac in the 70's. The first dedicated heavy-ion facility was built in Japan. There are currently none in the US, but more are being built in Japan and some in Europe. Most cancer patients, however, are still treated by x-rays. Modern commercial systems produce x-rays with a high-energy electron beam and have very precise controls for the positioning of the patient.

The idea of using a plasma (and lasers) as an accelerating mechanism was proposed in 1979. Since, then, there has been a great deal of activity at, for example, UCLA, LBNL, and the Rutherford-Appleton Lab. High gradient and major acceleration have been achieved.

In conclusion, Andy remarked that it is very likely that the development of particle accelerators will continue, producing devices not only for physics, but also for an ever-increasing set of applications enriching our everyday lives.

Glossary (with thanks to Wikipedia)

1. A betatron is an electron accelerator originally developed by Donald Kerst at the University of Illinois in 1940. It acts like a transformer with a torus-shaped vacuum tube as its secondary coil. An alternating current in the primary coils accelerates electrons in the vacuum around a circular path. The name "betatron" (a reference to the beta particle, an electron) was chosen in a departmental contest. Other names proposed were rheotron, inductron, and even Ausserordentlichhochgeschwindigkeitselektronen-

entwickelndenschwerarbeitsbeigollitron, German for "extraordinarily high-speed electron generator, hard work by golly-tron."

2. A synchrotron is a particular type of circular particle accelerator in which the magnetic field (to direct the particles so they circulate) and the electric field (to accelerate the particles) are carefully synchronized with the traveling particle beam. Synchrotrons were developed to study high-energy particle physics, but are now mostly used for producing high intensity x-ray beams for applied use.

3. A collider is a type of a particle accelerator with two opposite beams of the particles. The two beams of particles are accelerated and the beams are directed against each other, so that the particles collide. Colliders may either be ring accelerators or linear accelerators.

4. Synchrotron radiation is electromagnetic radiation generated by the acceleration of ultrarelativistic (i.e., moving near the speed of light) electrons through magnetic fields. The radiation can range from infrared, optical, and ultraviolet to x-rays. In the beginning, storage rings were built for particle physics and synchrotron radiation was used in a "parasitic mode". As the application of synchrotron radiation became more widespread by an ever-growing broad scientific community, devices that enhanced the intensity of synchrotron radiation were built into existing rings. Third-generation synchrotron radiation sources were conceived and optimized from the outset to produce bright x-rays.

5. Nuclear spallation is a process in which accelerated protons strike a heavy metal target, such as mercury or tantalum, to produce a beam of neutrons; 20 to 30 neutrons are expelled after each impact. Although this is a far more expensive way of producing neutron beams than by a chain reaction of nuclear fission in a nuclear reactor, it has the advantage that the beam can be pulsed with relative ease.

Luncheon Attendees:

| | | |
|------------------------|-------------------------|------------------------|
| Jose Alonso | Janice & Ned Dairiki | Robert & Barbara |
| John Ainsworth | Sybil Donn | Kaufmann & guests |
| Bob Avery | Doug Drummond | Rodger & Linda Burch |
| Bill Baker | Andy DuBois | Bud Larsh |
| Dick Baker | Bob Fulton | Branko Leskovar |
| Winnie Baker | Abe & Marjorie | Ed Lofgren |
| Geroge Barbero | Glicksman | Ken Lou |
| Josephine Barrera | Norman Goldstein | Katherine Lucas |
| Roy Benedict | Jim Haley | Josephine & Edward |
| Gene & Myrna Binnall | Ingeborg Henle | Lundberg |
| Bob & Elizabeth Birge | Winnie Heppler | Donald & Bertha Miller |
| Igor Blake | Roger & Lois Hughes | Ken Mirk |
| Edgardo Browne & guest | Vicky & Richard Jared & | Nancy & Vic Montoya |
| Bernard Harvey | guest Phyllis Burritt | Mack & Ann Morgan |
| Dick Burleigh | Nylan Jeung | Bob Mortiboy & guest |
| Geores & Katie Buttner | John & Ann Kadyk | Harold Wilson |
| Janice Button-Shafer & | Joe Katz | Charles Ogden |
| John Shafer | | Barrie Pardoe |
| Per & Eleanor Dahl | | Conway Peterson |

Terry Powell & guest
Martin Jara
Don Prestella
Ellie & Gwen Ralph
Ed Reioux
Stephanie Roth
Brenda Shank

Claire Shigley & guest
Rayne Merrywood
Elmer & Myrtle Silva
Robbie & Mary Smits
Dave & Sally Stevens
Hugh & June Stoddart
Suzanne Stroh & guest
Kevin Yates

Dick Wolgast
Gordon Wozniak
Gertrude Young
Jon Zbasnik
Allan Zalkin
Speaker Andy Sessler

President's Message (continued from Page 2)

One other big news item is the current search for an alternative luncheon site. Vicky Jared is the chairperson of a small group of Board members (Vicky, Janis, Bud, and myself) to explore potential new venues, and even to try out the food (not on the EX-Ls expense account). There may be some discussion of this at our next luncheon. Thus far we have identified a few locations that seem suitable for the size of our group, have facilities for a luncheon speaker, good food quality and variety, and are similar in price to Spenger's. More information will be forthcoming.

I think we have all enjoyed the many contributions to the EX-Ls Express Newsletter from people in our group who have made interesting and unusual trips. One of these current articles is the conclusion of the series by Geores Buttner-Clevenger of our group, who ran across the U.S. at age 69, and as of last May 2 had run 690 miles in 6900 minutes (rounded off). For his continuing saga see the last few Newsletters and the final episode in this Newsletter. We also can enjoy reading about the trip to Turkey by Janis and Ned Dairiki, which included a total solar eclipse; this is also a several part series, which concludes in this issue.

In addition to such interesting articles, the Newsletter provides an excellent way to keep informed generally about our group events and activities, as we are well aware. Credit is due to Dave Stevens, our Newsletter editor for doing a great job in putting all the articles and news together and getting it to us on time – a very non-trivial undertaking. I know that this is a very demanding and time-consuming job. There are several others on our Board not in the presidential sequence who devote considerable time and effort and skill towards making this organization run smoothly (see our Website under *Organization Officers* for all names and mugshots). Just as for the job of editor, there are other tasks that are generously undertaken, most often by the same persons year after year: treasurer (Bud Larsh), secretary (Eleanor and Per Dahl), webmaster and email custodian (Dick Baker), representative to CUCRA (Bob Fulton and Tom Beales), liaison to the UC Retirement Center (Gene Binnall). It has come to our attention that some of these talented people might like to “retire” and give someone else an opportunity to serve: a point that must in all fairness be considered.

The new roster of EX-Ls members has been produced by Bud, and is included with the mailing of this Newsletter. There is also a movement afoot to try to have a formal reception for LBNL retirees, perhaps every one or two years, but this concept is still just in the formative stages. Stay tuned.

Well, it will soon be time to turn over the gavel to our next president, and just as Gene Binnall expressed his fondness for that small wood implement one year ago, I also feel somewhat attached to it. It has been sitting on my dresser for the past year, except for its four outings a year, when it exerts its power to start or end our luncheon activities. A change of scenery for it should be a good thing.

Editor's Note

We seem to be on a run of rather large issues of the ExPress...I doubt that we can keep this up, but if you can submit it, I can edit it. Note that we have a special luncheon choice this month: Shrimp Scatter. As always, articles or ideas for articles are welcome; the deadline for each issue is ten days after the preceding Board meeting (a full year's schedule is listed on the back cover). You can contact me at david_stevens@comcast.net, at 1107 Amador Ave, Berkeley 94707, or 510-524-2904. // dfs

AROHE Conference October 13-15, Tempe, Arizona Janis Dairiki

AROHE is the Association of Retirement Organizations in Higher Education; I attended their third biennial conference as the representative of the EX-Ls. This is a young association, and is clearly evolving quite rapidly. There were about 100 attendees from ~50 institutions. I was the only representative from a National Laboratory. It was a most productive conference in terms of learning what other retiree organizations are doing and acquiring some ideas that might be useful to the EX-Ls. I have a folder full of newsletters and brochures from many of these organizations.

One eye-opener was the broad spectrum of organizations at the various institutions; some have exclusively retired faculty (emeriti) organizations, some have staff and faculty retiree organizations, some have a Retirement or Emeriti Center with physical space and staff on campus, some (such as UCB and USC) have all three types of organizations, while others are just forming. Some were formed in a top-down fashion, i.e., formed with the encouragement of the president's or chancellor's office (deemed the most desirable since space and financial resources were more readily available); others were formed bottom-up by retirees and are struggling to maintain programs and resources.

AROHE has put together a Start-up Kit with much valuable information regarding initiating and maintaining retiree organizations. Clearly, the concept of meaningful retiree organizations at institutions of higher learning is a growing phenomenon. Shelley Glazer, Director of the UCB Retirement Center is the new President of AROHE and was chair of the conference. She brings a lot of energy and years of experience to the group.

A few highlights of the conference were:

- The keynote talk by Gene Cohen, Director of the Center on Aging, Health and Humanities at George Washington University. He is also a Professor of Psychiatry and

the author of *The Mature Mind* (2000). He discussed recent research that supports the most current thinking about aging which focuses on the real potential of later life.

- A presentation by Barbara Perry, Vice President of Marketing of Emeriti Retirement Health Solutions, a nonprofit, tax-exempt organization, which grew out of a healthcare study supported by the Andrew W. Mellon Foundation. Launched in July 2005, the company is a first-of-its kind approach in the design and prefunding of retiree health care plans for the academic community (very like personal tax-free medical savings accounts, replacing conventional health insurance). It now has 45 members and more than 200 other institutions have expressed interest in the program. I suspect we may well hear more about this. They actually negotiated an ~10% decrease in health care costs for 2007 with Aetna, their health care provider.
- Talking to the other delegates. I brought back new ideas to help improve our visibility at LBNL and to provide better communication among our members

Symposium, Dinner to Culminate 75th Anniversary Activities

The year-long celebration of Berkeley Lab's 75 years of science and service will end with a bang – an all-day scientific symposium in the Building 50 Auditorium, and a gala anniversary dinner that will feature Energy Secretary Samuel Bodman as keynote speaker. They will both happen on Tuesday, Nov. 14.

Lab employees, retirees and guests will be able to either attend or watch the symposium program, featuring a series of 30-minute talks by some of the lab's most distinguished scientists. Seats in the auditorium will be limited and offered soon on a pre-registration basis, but anyone can view the proceedings live in either the Building 66 Auditorium or Perseverance Hall in the cafeteria.

One of the symposium highlights will be a panel discussion by current Director Steve Chu and former Directors Andy Sessler and Charles Shank, all reflecting upon the past achievements and future challenges of the Laboratory. Other guest speakers include energy efficiency pioneer Art Rosenfeld, Nobelist Don Glaser, science historian John Heilbron, and Fermilab Director Pier Oddone. A full agenda, along with details on how to register for an all-day seat in the 50 Auditorium, can be found at this web site: <http://www.lbl.gov/Conferences/75th/index.html>

The dinner will be an invitation-only affair, due to space constraints, and will be held at the Claremont Hotel following the symposium. Bodman and most of his federal DOE laboratory directors, who will be meeting on the Hill the next day, will be in attendance.

Founders Day, August 26, 2006
Janis Dairiki

More than 1,000 employees, retirees and their families and friends showed up at the Lab on Saturday, August 26, for the 75th anniversary Founders Day celebration. Attendees enjoyed music, tours, kids' activities, and tasty barbecue while catching up with co-workers and friends. A very nice photo spread and story on Founders Day appeared in the Sept. 15 issue of The View.

The EX-Ls shared an information table at the event with the UCB Retirement Center and the Friends of Science. A lot of retirees stopped by and, hopefully, we'll see some new EX-Ls members as a result. We distributed our freshly minted brochures and copies of the Summer 2006 Newsletter, along with John and Ann's freshly baked cookies. The cookies were definitely a draw! Andre Porter and two student assistants, Kay Chan and Razika Hussein, received a lot of interest in the UCB Retirement Center activities and definitely added new people to their mailing list. Many Friends of Science also stopped by, attracted by Terry's informational posters and literature. [If you would like a copy of the "newly minted brochure", please contact Janis directly (525-9563, jmdairiki@lbl.gov). ed]

I would like to thank all who contributed to making the day a success. This includes EX-Ls members who helped staff the table: Suzanne Stroh, John Kadyk, and Per and Eleanor Dahl; Terry Powell who was there all day for both the EX-Ls and the Friends of Science; and Andre Porter and his assistants.

Trip Reports
I: Sixty-nine at Sixty-nine
Geores Buttner-Clevenger
Preface

You will remember that we last heard from Geores shortly after Easter, in Checotah, OK.

Progress Report VIII - Prepared May, 29, 2006

Belmond, IA: 69 miles to go. Ten more 6.9 mile runs. Reconsidering finish time of run. Ahead of schedule by 2.1 miles. New plan is to arrive at Albert Lea, nine (9) after six (6) PM, on Friday, June 2nd.

Progress Report IX - June, 9, 2006

69 Chronicles 6: 2&3

June 2nd: From Iowa's northernmost rest stop on Interstate 35, drove Van Liah, via Road S28, to State Line Road, A14; then turned west to Emmons at the Minnesota border. Turned north again, this time on U. S. Highway 69, and found a parking spot at mile 2.5. Looked safe enough, it was off the highway part way down a remote dirt road and left ample room for any, seemingly unlikely, traffic. It was also 9.5 miles from Albert Lea, Minnesota, the end of the 1132 mile run

(1132 is also the runner's house number by the way). Bicycle Blu was still in Iowa, two miles south of the border.

Ran south back through Emmons. Just across the Minnesota/Iowa border, was stopped by a concerned couple who informed the runner that he was running in the wrong direction. Supposed to be heading for Albert Lea, not the South Pole.

Found Blu, the 81st morning in a row, unharmed, right where he was left the night before. Gave him a promise that he would not have to be left all alone overnight any more, then pedaled out of Iowa and on past Liah's locale to mile five, then ran back to her. Her remote road found her in company with a dump truck and miscellaneous gravel spreading equipment. It was regrading-the-road day, at least the parts of the road that Liah was not occupying.

The next parking spot found looked even more ideal, just off 69, an old, overgrown road with a "ROAD CLOSED" sign across it, and under a nice shady grove of trees to boot, a rare find indeed. Shut off the engine and heard another one. A dusty sedan pulled up along side with a big brawny farmer in the driver's seat. "D'you park here so that you can dump your damn trash out all over the damn place?" "No sir! Just running up Highway 69 to Albert Lea from the Gulf of Mexico." The verbal exchange which followed that statement resulted in a new friendship.

Blu's final, final, (he got locked there twice) lock-up was at mile post number 11 (mile 12 is in Albert Lea). Then ran back five miles to Liah. The farmer waved from his John Deere. On the way into town picked up Blu and deposited him on Liah's bike rack. It was the first time the whole team was joined together since March 13th and it was the first time Blu's wheels were off the ground for 1131 miles. The plan was to switch roles so that the runner would run into Albert Lea instead of out of Albert Lea at the prescribed time of nine after six. Till then, Blu had always traveled north, the runner south, as witnessed by the concerned couple.

Had some time to kill before nine after six came along, and, as usual, was hungry. Found a T/A Truck Stop in town near I-35 and indulged in a great buffet lunch with two kinds of fish cooked to a T, tender little red potatoes, and a colorful salad bar. On the fourth or fifth helping of fish (about the time some chewing began), Brandon, of a local TV station interrupted the pig-out to discuss a live broadcast at the finish line. Arrangements were made, nine after six fit in perfectly for the six-o'clock news broadcast.

After a promise made by Tammy the waitress that the runner could return for desert, drove Liah to the intersection at the official end of U. S. Highway 69 and parked at an abandoned Wal*Mart. Peter, the narrator for the Six-o'clock News was already there and watches were calibrated. Pedaled Blu the 1.4 miles back to mile-marker 11 and locked him to the post again. Had a difficult time with patience waiting until 5:55PM to start running. As it was, bursting with energy, ran way too fast, arriving almost two-minutes early! Did a short live broadcast with Peter, then a longer recorded interview. Joseph of the Tribune was also there and will write a longer article for the Sunday edition than the one he did for that morning's publication. Picked up Blu for the last time and returned to the restaurant at T/A, where Tammy purchased the last

slice of blueberry pie that was in the display case and handed it to the runner like it was a trophy. Tried not to look at the buffet table as the pie was being swallowed.

STATS; 1,132.2 miles; 164.1 - 6.9 mile-runs in 82 days; ran 11,309 minutes, or 9.99 minutes per mile, or 69 minutes per 6.9-mile run.

June 3rd; 6AM: Still 69, barely. In order to accomplish the feat of running across every single even-numbered interstate highway from 10 to 90, needed to run, from the end of U. S. 69, another 6.3-miles (round trip) to Interstate 90, bringing the total mileage to 1,138.5 miles, which is exactly 165 - 6.9-mile runs (the odds against that happening are 69-to-1). Except for a bird, no one was there to see it happen. In a desperate need to tell someone about it, went to the only gas station at the junction of State Highway 13 and Interstate 90 and told the attendant and put him to sleep. On the run back to Liah and Blu, told a couple who were out having their brisk Saturday-morning walk about it while they were backing up saying, "It was nice talking to you."

Will never, never, never, ever, though. forget that awesome look of total amazement on that bird's face!

U. S. Highway 69 Run, Dispatch N (for "END")

Running Stats Summary:

Miles run from Port Arthur Texas to Albert Lea Minnesota; 1,132.2, or 164.1 runs averaging 6.9 miles each.

Running time; 11,309 minutes, or 69 minutes per run. Approx. 20% using default timing of 10-minute miles.

Overall pace: 10 minutes per mile.

Days run; 82, two runs per day averaging 6.9 miles each.

Longest single non-stop run; 8.1 miles, due to a miscalculation of Bicycle Blu's locality.

Longest timed 6.9 mile run; 78 minutes due to headwind and elevation gain.

Shortest timed 6.9-mile run: 66 minutes 10 seconds on April 20.

Longest errant run; 3 miles, due to running south into a strong wind with head down 1.5 miles past Blu's locale.

Scariest run and bike pedal: Kansas River Bridge. This 3/4-mile bridge had a 16-inch space between heavy traffic blowing by and a three foot high wall for protection from being knocked off into the Kansas River, far, far, below.

Extra run: 6.3 mile round trip on Highway 13 from the end of Highway 69 to, and through, the underpass at Interstate 90 and back. Enabled crossing of every even-numbered Interstate Highway in the U. S. from I-10 to I-90.

Bicycle Blu's Summary

Miles pedaled on Highway 69: 1,132.2. Plus a few extra miles to, and/or from, Liah's parking spots.

Pedaling time: approximately 140 hours, which averaged about 75% of running time.

Breakdowns: none. Just before this run, Blu had a \$150 reconditioning job done from wear and tear on Route 66.

Flat tire repairs: none. Rear tire went totally flat overnight once in Kansas and just pumped up.

Red tags: one. On May 6, at mile post 119 in Kansas, Blu was officially notified to move within 48 hours or be towed!

Accidents: two. May 6, an eventful day for Blu since he had already been discovered red-tagged that morning and then an hour later told by police officer #8 that he should get off the freeway for his own safety. The accident occurred during the PM run when his front wheel went as far as the axle down through a street grating that was spaced wider than the width of his tire. He recovered from that incident much faster than his pedaler. Not so from the second accident though, which was a fatality to his rear wheel and probably to the Nebraska deer as well. She didn't quite make it across Interstate 80 in front of him. When the team travels as a unit, Blu is mounted at the front of Liah. It was on the way home so the mishap did not effect the run. It was also the third, and last, mishap for the team.

Police reports concerning Blu: three (known) times the police were called on Blu while locked up overnight in places where no bike has ever been locked up before, followed then by a neighborhood search for a possible prowler.

Nights that Blu spent all alone without complaining about it: 81.

Best and Worst Summary:

Best drivers: truckers, excluding dump. Worst drivers: youngsters, followed by RV'ers and trailer or boat towers.

Best cities to run through; Ames, and Ankeny, Iowa. That's "through" not to or from! Pedestrian friendly, lots of walkways and bike paths. And Commerce, Oklahoma, where the Feds, once upon a time, tried unsuccessfully to ambush Bonnie and Clyde. Commerce has nice wide paved shoulders from the Grand Rental Station to the north city limit sign. Worst cities to run through: still terrible Tyler, where there should be a law against walking because it's a lot more hazardous to your health these days than smoking pot ever was, and also Lufkin Texas, where half the runner's body got stuck down in a storm drain after dodging a Dodge and slipping in a wet gutter (mishap #1).

Lufkin does, though, have the best pizza/buffet: It's Mazzini's, where not only the pizza is the best, maybe in the whole country, but the rest of the buffet was also an extremely delightful experience to the ravenous runner. The worst pizza, maybe in the whole wide world, can be found at a Shell Gas-and-Hard Frisbee Station in Alto, Texas.

Best state highway conditions for running and biking; Texas, with nice wide paved shoulders, at least between towns. Worst is easily Iowa, with deplorable shoulders from bottom to top unless you're a horsy. They were usually wide enough, but gravelly and very loose and rough, the small stuff often being flung up by the drafts of trucks and pelting the runner. The worst stretch of highway though, to run, or bike, or walk, or park, or just stand on, is between Savanna and

McAlester, Oklahoma. Heavy duty and speedy traffic at home here, most of it trucks. Trucks do not do anywhere near 55 in OK. Has zero road shoulders and zero chance of survival without a whole flock of alert guardians hovering overhead. A degree in mental deficiency is required to run, or especially bike, on this part of H69.

Best convenience stores: Bells, Texas, where the County Commissioner, David Whitlock; the Tax Assessor, John Ramsey; and the town Mayor, all came by to meet the runner, have a photo session, and wish him luck, with the mayor donating \$20 to the campaign. As well, the proprietress invited the runner to take account of supplies in Liah and restock from the store's shelves. John later emailed Ken Studer, a reporter for the Herald Democrat. Ken was able to find the runner in action the next day for an interview. The other store was, "kandy's korner," in Quapaw, Oklahoma, where Liah got stuck in the mud a mile north of town and proprietor Gregg Martin, Kandy's mate, made a bunch of phone calls till he found someone to pull her free and then informed them that he would pay the bill.

Best libraries visited: Bullard, Emory, Kountze, and Whitewright, Texas; McAlester and Muskogee, Oklahoma; Baxter Springs, Kansas; and Ames and Osceola, Iowa These libraries were not only cooperative and helpful, they also were a good source of angelic power; as were newspaper reporters, Ashley Sanders, Dee Dixon, Hina Alam, Coshandra Dillard, Caroline Hill, Elizabeth Ridenour, Shelly Baugh, Barbara Proffitt, Angie Borgedalen, and Patty Bouldin. Worst libraries visited: Durant, Texas, where \$40 is required to gain access to one of their empty chairs in front of one of their six idle computers; and Cameron Missouri, where they limit computer use to 15 minutes to bearded aliens from other planets running through their town.

Best radio station: still KMOO, in Mineola, Texas. . . A day after being a guest on Kenny Smith's KMOO Radio Show the runner experienced a very strange phenomenon. Early that morning, approaching a pasture, a herd of cows out in the middle of it, took notice of the red road runner. They all, all at once, came running to the closest fence to get a closer look. It was strange because cows always have run the other way. As the runner got adjacent, they looked at each other, then back at the runner, then they began to run alongside, jockeying for the closest position. And they did so for about a quarter-mile, until another fence stopped them. Did they hear the radio broadcast? After that experience, every single cow seen later, out of KMOO's broadcasting range, resumed the practice of vaMOOSing.

Best tavern: Millie's Place in Kiowa, Oklahoma, where, after an enjoyable evening visiting with Millie and her friend Rejeani, drove Liah south out of town in the dark to find safe parking for the night. Spotted a clearing just off 69 and turned in, so to speak. Woke at 4AM and started cooking a pot of Runner's Oatmeal and brewing coffee. Ate the oatmeal then took a nap afterward with the coffee on low to slowly perk. Woke up with the morning light and discovered the clearing that Liah had been parked in was actually somebody's driveway. In the ensuing rush to get things in order for travel the hot, yes HOT, coffee, came down in a shockingly painful gush on the bare right foot, scalding it red and changing the color of a goodly portion of Liah's pretty green carpet to pretty brown. In a desperate attempt at home remedy, contrary to later

good advice, applied cooking oil to the cooked part of the foot and it felt better once it was through being touched. The two-inch water blister - that some say was caused by the cooking oil - came later - like just at the start of that morning's run. Just then there appeared to be a truck coming from the inside of the gate, so immediately drove off without having secured things properly, causing a little more chaos in the cozy little home on wheels. A glance back with the glasses on showed the truck to be a cow.

Best police officer : #12, of the twenty-one encountered on the run, and the fifth in Kansas on the seventh day in that state. . . On May 4th, just south of Overland Park, got checked up on by the sweetest, most caring and concerned police officer, ever. It had been a very cold day to be outdoors exposed in running attire until she came along. After a nice congenial, toasty conversation, she even offered the runner a ride to his bicycle, whereupon she was accused of being a siren by her seductive attempt at swaying the runner into cheating. Those dimples got even deeper with that knowing wide grin on her face as she expressed one last good luck wish and disappeared into her warm and cozy squad car. The worst police officer, #5, Eufaula, Oklahoma, where there are lots of cops. [This encounter was reported in depth in Progress Report III, in the July ExPress. Ed]

Eufaula is home to the best Mex though: It's called Taco Mayo. They'll make whatever you want, the way you want it, with a smile and without a gouge. Police go back and forth a lot between here and the McDonalds Restaurant next door. The average weight of the average Eufaulan observed by the runner is about 350# and growing.

The best Wal*Mart parking lot for a good night's sleep is still the one in Fort Scott, Kansas. It has an area far from a lot of traffic near a lot of trees, which supply plenty of morning birdsongs. The worst Wal*Mart resting spot has been taken over from the one in Jacksonville, Texas (where sleep is achieved by ignoring the boom-boxes driving by), by the one on the west side of Tyler, where they power-mow the grass at 3AM.

The best truck stop is the BP at the Interstate 35, mile-54 exit in Cameron Missouri, where they have a grade A buffet, upbeat comradeship, and free showers for all of the 69-year-olds who are running U. S. Highway 69. The worst truck stop is a so-called "Love's" in Chouteau, Oklahoma (store #295 at 4564 W. 590), where highway 69 runners pay seven bucks for a shower, then their vans get kicked out of the parking lot by the not-so-angelic managerette before their socks are dry.

The best Jack in the Box, is, of course, in Jacksonville, Texas (right next door to the previous worst Wal*Mart parking lot to get a rest in before being beat out by the one in Tyler), where the runner plugged Hal Jr. into one of their AC outlets one morning, purchased a superior \$1 breakfast burrito, and waited for the Jacksonville Daily Progress to hit the newsstand while writing Highway 69 Chronicles and sipping coffee from a thermos - for three hours. No one paid any heed - except for the manager, who chatted about the run for awhile with the squatter and

parted with a good luck wish, which was put into use later when crossing the Kansas River Bridge.

The best Dairy Queens are in Wells and, Rusk, Texas. Got a pleasant surprise at Wells on the first visit - a wireless internet connection – stayed till closing time at ten, then drove north out of town a short distance to a truck pull-off area and cuddled up in the sleeping bag till seven. Woke to fantastic sunshine, cold air, but fantastic sunshine. Good day coming up! Back quickly to DQ for more Internet - not open till ten - maybe day not so good. Then out the front door pops a little angel and says, “Come on in if you like.” Good day all over again! DQ in Rusk: no wireless connection, but at least an AC outlet and plenty of attention. Four teenage employees, led by Christina and Selena, were very excited about meeting the Highway 69 runner. Soon their boyfriends showed up as well and there was inspiration spilling out all over the place. Didn’t get much work done, but might have accomplished something anyway. Who knows? Left a signed copy of the Lufkin article and photo for them to share - or fight over.

Dogs: Unlike Route 66, where the runner experienced 56 dog attacks while running through the Ozarks, most of the dogs on this run were friendly and a great diversion from the tough task at hand. The best one, although not by a lot, was the one-dog welcoming committee in Alba, Texas. This dog kept the runner company for a mile-and-a-half and expressed a high degree of disappointment when Liah took over. The worst dog attacked the runner a little south of the junction with Interstate 20. It was a good day for attacks, as the runner’s left shoulder had already had a close encounter from behind on the AM run by a 60MPH house. The encounter with the I-20 dog was a close one mainly because of forgetting about the pair of installed earplugs. Heard barking, but it sounded far away, and thus ignored. The barking turned out to be a warning by three other dogs, who were obviously very concerned about the runner’s safety. The fourth dog, the closest dog, wasn’t barking - he was salivating. Saw him just in time to give a quick glance up and down 69 and dart across. Doggie did not follow. Then a shameful, evil thing happened. From across the highway, someone taunted the enraged animal, trying to provoke it out onto the asphalt. There was one more close encounter that day, the one between that big hound and that big rig!

The best newspaper interview was conducted by Brian Anthony Hernandez for the Des Moines Register. Brian, on his day off yet, met the runner on site and ran alongside for three miles while asking questions and taking notes. After which, he had to run back to his car. Guess that running ten-minute-miles is no big deal to some young newspaper reporters. One of the things Brian asked about was how often was the runner able to find shower facilities. The answer was as often as possible but not often enough. At that point it had been six days since the last one. Unfortunately, Brian was given shower data without the sponge bath data, which was every day that there wasn’t a shower. Just ask officer #8 - who paid a surprise visit to the bathing runner in Kansas. Consequently, the next newspaper interview, this one for the Albert Lea Tribune by Joseph Marks, a cordial and sensitive young man who had read Brian’s account, was conducted in part from across the two lane highway.

Summary at Mile 1,132.2

It actually was quite a surprise to have anyone from the Albert Lea Tribune show up, as the editor had been notified two weeks prior and there was no response from him at all. Seems the Tribune editor kept the news of the runner's arrival pretty much a secret till the last minute, as there were no city officials at the finish line, no fireworks or sirens or cannons went off, there was no police escort, no jet planes flew overhead breaking the sound barrier at nine after six, and no key to the city awarded. (Nothing like a little quixotic fantasy, eh.) So, in the end, after being treated so regally in almost every community except the last one, REALITY won out. Came suddenly back to the status of just another old runner in the way - or so some editors and passersby may think. REALITY is also hearing that word "inspiration" repeated so sincerely many, many times over by so many performance enhancing people—people who are thinking a little harder about their health and physical condition now, and sharing those thoughts. Fit people don't need to spend all day thinking about their illnesses, or fight windmills at the doctor's office either. Fit people want a fit environment so that they can enjoy their good health into their ripe old ages. To that effect, this run has made a difference. That difference is what's paramount, not keys to a city. That's how the old earth and this old runner feel about it anyway.

Trip Reports

II: Turkey, part 2: Ankara to Istanbul with Elderhostel

Being the post-eclipse adventures of Janis & Ned Dairiki (and others)

Six of us arrived by plane in Ankara and then careened through the city in two taxis in tandem headed for our hotel; our luggage in the small taxi trunks held in with bungee cords. Drivers and pedestrians are very aggressive in this city so just getting to the hotel was an adventure!

Kemal Atatürk moved the Turkish capital from Istanbul to Ankara in 1923. Originally called Angora, Ankara once flourished on the trade of the fine, soft hair of Angora goats. Today its prime concern is government – a city of ministries, embassies, universities, medical centers and some light industry. It is growing rapidly and the surrounding suburbs are filled with country folk who have moved here in search of work and a better life.

The most interesting part of Ankara is poking about in what is the old city, the citadel, which took shape in the 9th century AD. So with our one free afternoon we headed there. We were the subjects of much interest on the subway; apparently most visitors do not travel in this fashion. Within the citadel local people still live as in a traditional Turkish village, carrying jugs of water up the steep hill. We weren't the first tourists to make our way here, though, as the local ladies all had their wares on display. We found a charming place called And Evi for lunch with a good view over the city; we discovered later that Lonely Planet recommends it as maybe the nicest cafe in Ankara.

We joined our Elderhostel group back at the hotel in time for dinner. Since part of any Elderhostel trip is an educational component, the next morning started with two interesting

lectures -- on both the ancient and modern history of Turkey. We then visited the Museum of Anatolian Civilizations to see the objects and history discussed in the lectures. This museum houses the best artifacts from major excavations throughout the country and is a must for anyone interested in Turkey's ancient past. Turkey's history is astonishingly long, reaching from the Paleolithic period (three million years ago until 8000 BC), followed by waves of invaders washing through from both East and West until the Ottoman conquest of 1453.

The other major attraction in Ankara is Atatürk's mausoleum, Anit Kabir, a large impressive site. As you approach the tomb there are two small towers and a walkway guarded by paired lions, Hittite symbols of power and strength, leading to a massive courtyard used for many state and military parades.

Travel through the country was by bus starting with Hattusa, ~100 km east of Ankara, the ancient capital of the Hittite Empire (~1900 – 1000 BC) and nearby Yazilikaya, a religious sanctuary with very fine rock carvings. Both sites are designated UNESCO World Heritage sites. Hattusa was once an impressive city defended by stone walls more than 6 km around. Now the ruins consist mostly of reconstructed foundations, walls and a few rock carvings, but one can get a good feel for what it must have been like.

Then on to Cappadocia, once the heart of the Hittite Empire, later an independent kingdom, then a vast Roman province. Cappadocia's landscape consists of soft volcanic tuff that has eroded over millennia into amazing shapes. The end result is huge stone mushrooms and fairy chimneys, soft ridges and deep valleys, pocketed with numerous ancient cave dwellings. For sheer mystery and fascination, you can hardly beat the underground cities of Cappadocia. During the Roman and Byzantine times, in the 4th to 11th centuries AD, these underground cities became a refuge for early Christians. There are ~200 churches and chapels carved in the rocks around the village of Göreme. The painted frescoes in the churches, dating from 1200 AD, are still impressive!

Further south, Konya is famous for its shrine of the great Mevlana (Rumi), one of the world's great mystic philosophers, and for its whirling dervishes. The building, visible from afar with its fluted dome of turquoise tiles, is one of Turkey's splendid sights. The day we visited happened to be a "free admission" day, so it was very crowded, as it is a very holy place for Muslims. We had watched a dervish worship ceremony, or sema, the previous evening in an old caravanserai in Cappadocia. From this central region of Anatolia we traveled south to Antalya, an all day ride over the Taurus mountains to the Mediterranean coast. Antalya is a major port city, the center of a fast developing resort industry, as well as the location of major historic sites, described in part I when we were there for the solar eclipse.

After visiting the Antalya region and its excellent museum, we traveled northwest to Pamukkale, again crossing the Taurus mountains, but at a lower elevation where there were lush green fields, blooming fruit trees and fields of wildflowers. Pamukkale is famous for its gleaming-white calcium formations (travertine pools) and its warm water. The Romans built a large spa city, Hierapolis, above the pools to take advantage of the water's curative powers. We thought the

ruins of Hierapolis, which spread over a broad area, were more interesting than the travertines; the ruins brilliantly evoke life in the early centuries of the modern era. It was here that the mix of pagan, Roman, Jewish and early Christian elements evolved into a distinctly Anatolian whole. A spectacular Roman Theatre, capable of seating more than 12,000 is located on a very steep hill. The wide valley and snow-covered mountains in the distance serve as an impressive backdrop to the stage. North of the city is an extraordinary necropolis (cemetery), extending a few kilometers, with many striking and large tombs in all shapes and sizes. In ancient times Hierapolis was a place where the sick came for a miracle cure, but the size of the necropolis suggests the local healers had only mixed success.

Afrodisias is one of Turkey's finest archaeological sites. It is somewhat isolated and, probably for that reason, much of it still survives, The Temple of Aphrodite was completely rebuilt when it was converted into a basilica (~500 AD), making it hard to imagine how it must have been in the earlier years when orgies in celebration of Aphrodite were held there. The 270-m long stadium is one of the best preserved in the classical world.

The next 3 nights were spent in Kusadasi on the Aegean. The main reason to come here was to visit Ephesus, the best-preserved classical city in the eastern Mediterranean. Ephesus under the Greeks was a great trading city and port. However, as happened to many port cities, the harbor silted up and the old city is now several km from the sea. During Roman times (2nd century AD), it was a city of 250,000 people. Successive emperors vied with one another to beautify the city and it drew immigrants from all over the empire. It must have been fabulous with hot and cold running water in the terrace houses of the rich. It is still imposing, well worth a visit. The Library of Celsus is impressive; built as part of a complex, architectural sleight of hand was used to make it look bigger than it actually is. Along the main street, the Sacred Way, from the theatre to the library, one can see the water and sewage systems beneath the marbled street and the ruts made by wheeled vehicles. The Fountain of Trajan (emperor 98-117 AD) depicts him with his foot on the world – and the world is round! Ephesus also had a sizable Christian community. St. John supposedly settled here with the Virgin Mary. The house where they are purported to have lived is above the town and now is a chapel and tourist site.

In the nearby Selcuk is a fine museum. Many statues and household items from the terrace houses of Ephesus are housed there. We also visited a farmers' market there. The vegetable displays were works of art – the skinniest asparagus we've ever seen and the biggest fresh peas. In the middle of town are storks nesting on the old columns of the aqueduct.

Kusadasi is mainly a stop for cruise ships. But it was fun to watch merchants sitting at sidewalk tables playing backgammon and drinking tea—both national pastimes. And, like everywhere we went in Turkey, we saw cats; friendly and well fed (but not fat).

Our last historic stop on the Aegean was Troy, or what is left of it. The ruins of ancient Troy may not be as breathtaking as those of Ephesus, but for anyone who has read Homer's Iliad, it's hardly surprising that Troy is a World Heritage site. It is a hard site to understand because

excavations have revealed nine ancient cities, built one on top of another going back to 3000 BC. Most archaeologists believe it was Troy VI (1700-1250 BC) that was involved in the Trojan War with the Greeks. Remnants of the various cities are visible and signboards help interpret what you're seeing.

Then to Canakkale on the Dardanelles, in preparation for an early ferry crossing in the morning. With the ferry we left Asiatic Turkey behind us and were then on the European side – Gallipoli and Istanbul!

Gallipoli is a slender peninsula forming the northwestern side of the Dardanelles. For ages it has been the key to Istanbul and the eastern lands beyond: the navy that could break through the straits had a good chance of capturing the capital of the Eastern European world. Many have tried; most, including the mighty Allied fleet mustered by Winston Churchill in WWI, failed. The Gallipoli campaign ended with the withdrawal of the Allied forces after nine months of intense combat resulting in more than a half million casualties. Atatürk's performance at Gallipoli made him a folk hero and paved the way for his rise to leadership. There are 31 war cemeteries on this beautiful peninsula, much of which is designated as a national park.

Then it was on to Istanbul, one of the world's great cities encompassing centuries of history. To really explore it would take weeks – and we had 2 days!

Aya Sofya is Istanbul's most famous monument. Emperor Justinian (527-65) built it as part of his effort to assure the greatness of the Roman Empire. It was completed in 537 and, for a thousand years, it was the greatest church in Christendom and the largest enclosed space in the world. The magnificent main dome is an architectural wonder; it is supported by 40 massive ribs, constructed of special hollow bricks resting on huge pillars concealed in the interior walls. It is all the more impressive when you remember that this was done at a time when barbarian migrations dominated most of Europe! When the Turks conquered Istanbul in 1453, Mehmet the Conqueror had the Aya Sofya converted to a mosque and, since Islamic tradition forbids the depiction of human beings, the precious iconic golden mosaics were carefully covered over. Centuries later (1935) when Atatürk proclaimed Aya Sofya a museum, the mosaics were uncovered to reveal their original glory. We also noted the Viking graffiti (?) or runes (?) on one of the columns on the second floor, dating from the 9th century. Those guys got around!

Some say that the Blue Mosque, just down the square, was built as a counterpoint to the Aya Sofya. Certainly its exterior is impressive, with its curves, six minarets and the biggest courtyard of all the Ottoman mosques. The interior is conceived on a similarly grand scale with the tens of thousands of blue tiles that give the building its unofficial name. However, the Blue Mosque, constructed between 1606 and 1616, more than a millennium after Sofya, is not as daring; four huge 'elephant's feet' pillars hold up the dome, a less elegant but sturdier solution to the problem of support.

One treads on layer upon layer of history in Istanbul: in the palace-like underground Basilica Cistern, where the ghostly columns reflected in the water are as Roman as the Colosseum; in the

lavish treasures and harem of Topkapi palace; in the 3,500-year-old Egyptian obelisk from the Temple of Karnak in Luxor, placed in the center of the Greek-style Hippodrome by a Byzantine emperor in the 4th century.

Both our guide and Lonely Planet strongly recommended a visit to Rüstem Pasa Camii (Mosque), which is an absolute gem. Built in 1560 by the great architect Sinan for the son-in-law and advisor to Süleyman the Magnificent, it is a showpiece of the best Ottoman architecture and tile work, albeit on a small scale. The panels of Iznik tiles are exquisite and the preponderance of tiles was Rüstem Pasa's way of signaling his wealth and influence to the world, Iznik tiles being particularly expensive and desirable.

And no trip to Istanbul is complete without visiting the Grand Bazaar with its 4000 shops. It is a tourist trap *par excellence*, to be sure, but it is also an excellent place to observe the locals and the flourishing business deals. We also enjoyed the Spice Bazaar, with its wonderful aromas and colorful and well-groomed piles of spices. We were pleased to see one stall with bins of hard cat food and then noticed 3 alert cats sitting next to a meat market.

We had one extra day in the city after the Elderhostel trip and we made the most of it. In addition to the impressive Basilica Cistern and the Rüstem Pasa Mosque, we enjoyed a ferry ride on the Bosphorus which is a major thoroughfare in Istanbul. The shores are lined with well-preserved Ottoman-era wooden houses. In the 17th, 18th and 19th centuries, the Ottoman aristocracy and foreign ambassadors would retire to these palatial residences, when the heat and fear of disease increased in the warm months. We had a fleeting glimpse of the Black Sea and then stopped at one of the famous fish restaurants in Sariyer on the European shore. After probably the most exciting city bus ride of our lives (and I swear the driver must go through a clutch a week), we arrived back in the city proper.

We ended the day with a long walk, across the Galata Bridge which spans the Golden Horn, and up the boulevard, Istiklal Caddesi, formerly the Grande Rue de Pera, home to the city's smartest shops and several large embassies and churches. This was *the* place to be seen in European Istanbul until the early part of the 20th century. All this changed after independence, as the glamorous shops and restaurants closed and the grand buildings became dilapidated. Fortunately, the new millennium has brought about a restoration and rebirth and the boulevard is once again thronged with crowds – both locals and tourists, especially young people. We stopped at the gloriously restored Patisserie Markiz for Turkish coffee and fantastic cakes. Later, back at our hotel, the charming Armada, we had a final beer in the pub and then packed for an early morning departure home.

This was an incredible trip, with wonderful companions. But there is so much more to see and do – more wonderful food to try and history to explore. And we didn't visit the eastern part of the country. We just got a sense of the geography and the lay of the land, the food, and the people. We'll be going back!

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Menu Choice(s): Beef __ Shrimp Scatter __ Salad __

Please make check payable to EX-Ls Total Enclosed: _____

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Calendar of Board Meetings & Luncheons

L: November 16, 2006
B: January 11, 2007 L: February 15, 2007
B: April 12, 2007 L: May 17, 2007
B: July 12, 2007 L: August 16, 2007
B: October 11, 2007 L: November 15, 2007

Board meetings take place in the LBNL cafeteria at 3:45 on the dates mentioned; we welcome attendance by interested members.

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