

EX-Ls EX-PRESS

**Volume 22 Number 2
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Luncheon Reservations to Bud Larsh

Effective this month, please send your luncheon reservations to Bud Larsh at the Ex-Ls
Official address: PO Box 5280, Hercules CA 94547.

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

PRESIDENT'S MESSAGE

Sig Rogers

April has become a bad month for me. Especially April 1st - April Fools day. It's been that way ever since about 7 years ago when I visited an ophthalmologist to fix some floaters in my right eye. In the process, he decided to anesthetize my eye and managed to puncture my optic nerve rendering me permanently blind in that eye. Since then, I try not to do anything important or put myself at risk anytime during April, just to be sure things don't go wrong. This year, I seem to have denied the existence of any events in early April entirely. On Monday the 12th, as I was composing a reminder letter to the board for our upcoming Thursday meeting, I came to the shocking discovery that the meeting had come and gone without me during the previous week. Hence, I presume the April curse continues. However, our remarkably wonderful Shirley Ashley was there and took minutes for Secretary Eleanor Dahl who was having fun somewhere.

Some Meeting notes: Dave Stevens announced that this newsletter is in good shape due to the many comments about what people are doing, received in "notes from the tables" at the last luncheon. No volunteers have stepped up as of yet to help or replace Inge Henle as Activities Chair, so lunch checks should be mailed to Bud Larsh this month. Bob Fulton attended the CUCRA meeting on March 25th. His report is a bit further along in this newsletter. Bob Birge reported that the UC/Lab Committee consisting of Shelly Glaser, Randy Scott and Richard Takahashi, is continuing to discuss Ex-Ls participation the Retirement Center. In the meantime, LBL retirees make pretty good use of the Center (more than 1100 calls in the first 18 months).

Back to lighter things: Cindy and I spent nine great days in February and March on Oahu. Our daughter and her family left a week earlier for Maui and were to meet us at the Marriott's Ko Olina Resort on Sunday the 28th. I received a phone call from them that morning informing us they would be delayed because someone drove an SUV into the Maui terminal, jumped out, poured gasoline on the vehicle, and set it afire. It all happened about 20 feet from where they were standing with our grandkids. Fortunately they run quickly, and the airport fire sprinklers put out the fire. The FBI descended on the place and everything was shut down for about 8 hours. Later, authorities found the SUV's back seat was loaded with gasoline cans that hadn't exploded, which was pretty scary. Most people lost a travel day as all flights were cancelled and passengers diverted to the local armory. Orlando, our son-in-law, rented a car, drove around for awhile, then got back to the airport early where he was able to book first class tickets on the first flight out. They were the first people out of the airplane in Honolulu and were met by news crews from CNN, CBS, ABC, and the local Honolulu news station, all of whom interviewed them about the experience. The interviews continued to run locally in Honolulu for the next two days. It was quickly determined that SUV driver was not a terrorist in the Al Qaeda sense but, merely a "disturbed" person. The rest of the week was great – good weather, did some snorkeling and island touring, and ate a lot.

EX·LS Ex·press



2004 Spring Lunch

- Date:** Thursday, May 20, 2004
- Where:** Spenger's Fresh Fish Grotto
1919 Fourth St.
Berkeley
- Time:** No-host Bar: 11:30 AM
Lunch Served: 12:00 Noon
- Speaker:** Robert J. Full, UCB Department of Integrative Biology
- Subject:** Bipedal Cockroaches, Galloping Ghosts, and Gripping Geckos:
Bio-inspired Robots, Artificial Muscles, and Adhesives.
- Menu:** Bay Shrimp Louie Salad (with cup of chowder)
Parmesan Petrale Sole w/ Lemon Caper Butter (with dinner salad)
Flatiron Steak w/mushroom demi-glaze (with dinner salad)
- Cost:** \$18 per person (PREPAID)
- Reservations:** Payable to EX-Ls. Send to Bud Larsh
PO Box 5280
Hercules, CA 94547

Spenger's management policy makes it absolutely imperative
that they receive reservations by May 14, 2003

(Reservation slip on last page)

From our February lunch

Reported by Gene Binnall, EX-Ls First Vice-President: Our speaker for the February 19th Luncheon was Lutgard DeJonghe, UC Berkeley professor in the Department of Materials Science and Engineering, and a Faculty Senior Scientist at LBNL in the Materials Sciences Division. His topic was the “Energy Future, Hydrogen Economy, and Fuel Cells”.

We’ve got trouble - right here on earth - with a capital T, and that rhymes with P, and that stands for POWER. Oil reserves and oil production are issues of considerable concern. Production is currently approximately equal to the rate of consumption. At the current rate of consumption we have approximately 40 years before we deplete the known oil reserves. More oil is being discovered all the time, but this does not dramatically affect the total reserves. It has been predicted that we will achieve maximum oil production sometime in the next 10-20 years. Oil consumption in the United States today is about 20 million barrels per day, approximately equivalent to a container that would cover the Transamerica building. One way to choke down this consumption is to charge the real price of oil, which is approximately \$100 per barrel rather than the present \$30 per barrel, certainly an incentive for reduced consumption.

There is also the problem of carbon dioxide (CO₂) production, which is unavoidably connected to the use of fossil fuels. The U.S. produces approximately 20 tons of CO₂ per capita each year (with Texas having a comfortable lead in this particular race). Converting this to carbon amounts to 5.5 tons of solid carbon per U.S. person each year. Atmospheric CO₂ has increased dramatically since the beginning of the industrial revolution with even more rapid increases in recent decades. This of course leads into concerns over global warming and polar ice cap melting. Weather extremes will become more frequent. A carbon tax is being considered in Europe to combat this trend.

Is there a solution? Some people say that the “Hydrogen Economy” is the solution. Why hydrogen? It’s “abundant, one supposes, clean, efficient, etc. – provided that it’s inserted in the right technology”. This is where fuel cells come in, though not without some problems. Fuel cells are very efficient, they can run on hydrogen, and they eliminate pollution - provided that the hydrogen is not produced by fossil fuel. They produce electrical energy directly from a chemical reaction between, for example, hydrogen and oxygen with high theoretical efficiency.

For transportation (buses, automobiles, etc.), the favorite technology now is the Proton Exchange Membrane (PEM) fuel cell, whereas for stationary power, the Solid Oxide Fuel Cell (SOFC) is currently favored. The PEM fuel cell typically works at a lower operating temperature, but can only use pure hydrogen, while the solid oxide fuel cell, which works at a much higher temperature, can use a variety of fuels. For transportation we need to find a way to carry the hydrogen, and that is where we run into problems. Compressed hydrogen (2,800-5,000 psi) requires strong, possibly heavy, and expensive containers relative to the present liquid fuel tanks. Also, the volumetric energy density of hydrogen is much lower than that of alcohol (methanol and ethanol) or gasoline. Another problem with the PEM fuel cell is the cost of the necessary platinum catalyst. The platinum alone for an automobile fuel cell would cost about \$4,500. And that is just the start. Many people are looking for alternative catalysts, so far without success.

The total material cost for a 100 kilowatt automobile PEM fuel cell alone has been calculated to be about \$25,000, which has to compete with \$5,000 for a 100 kilowatt internal combustion engine. DeJonghe's conclusion, therefore, is that there is no possible way that PEM fuel cells can compete with internal combustion engines on the basis of cost alone regardless of environmental benefits. However, a Canadian company is looking at the possible use of PEM fuel cells in a hybrid vehicle.

And now on to solid oxide fuel cells (SOFC) – DeJonghe's main interest. He is currently doing research on thin film solid-oxide-fuel-cells, ceramic processing, and high temperature structural ceramics. Keep in mind that SOFCs operate at relatively high temperatures. The name "solid oxide fuel cell" refers to the solid oxide membrane used in this type of fuel cell. DeJonghe showed a photo of a commercial 250 kilowatt SOFC system that is about the size of a Corvette engine. The problem is that current costs are still ridiculously expensive (\$8K to \$20K / kW). Projected costs are perhaps below \$1,500 per kilowatt, which starts to become interesting for stationary use. A fuel cell cost of \$400 per kilowatt is really what is needed. He believes that cost reductions must come from new technical innovations.

So what is being done at LBNL? Three areas are under investigation: development of SOFC manufacturing techniques that are simple and low cost, reduction of operating temperatures from 1,000°C to 600-700°C, or maybe even lower, and development of new lower temperature electrodes that maintain high performance. In 1996, LBNL materials scientists had good results with a new thin-film fuel cell approach bringing the temperature down substantially below 1,000°C, reaching a new world record (about 700-800°C). The power density was an amazing 2 watts per cm². The push since that time has been to get to even lower operating temperatures, consequently enabling the use of less expensive materials. This includes changes in the SOFC architecture such as reducing the amount of expensive material (zirconium) used as support in the catalytic layer by replacing it with a lower cost metal support.

In conclusion, the first effects of limitations in the oil supply will probably start to show up seriously in 20 years, and almost certainly within 60 years. We need to develop new energy sources – solar, wind, etc., which is an extremely daunting task on a world scale. We need to get started right away. We need to ramp up programs in alternate energy, particularly carbon neutral, such as from biomass, or nuclear. Nuclear is currently ramping up again. As far as the hydrogen economy is concerned, there are really very serious technical hurdles, particularly for vehicle propulsion – hydrogen storage is very difficult. Since the PEM fuel cell relies on pure hydrogen for fuel, there are serious problems here and with the hydrogen economy. However, the solid oxide fuel cell is not restricted to hydrogen as a fuel.

In response to some of the questions from the audience: Yes! Yes! No! Maybe! Yes! (just kidding). Replacing a \$5K automobile engine with a fuel cell system costing \$25K will add about \$20K to the cost of automobile – this is a goal to strive for, but not yet attained. There are currently SOFCs that can be heated up to operating temperature in about 3 minutes.

For more details, go to <http://www.lbl.gov/Science-Articles/MSD-fuel-cells.html> For PEM fuel cell animation, go to: <http://www.humboldt.edu/~serc/animation.html>

Table Talk in February: Elmer Silva reminisced about working with Elmer Kelley and John Musinich on the 184" Cyclotron in 1964, and also about his (Kelley's) support of the Fire House. Andy DuBois regaled Mary and Bill Sander with his plans to join his daughter and her family on a trip to New Zealand and Australia, including a train trip across the great Central Desert. [They might want to pick up an old mystery story called *The Great Black Kanba*, which takes place on such a trip.]

On the other side of the world, Ann Kadyk and Katie Clevenger Buttner talked about a woman who swam in the arctic waters between Alaska and Siberia, and about Pam Flowers, who went across the arctic by dogsled. Meanwhile, John Kadyk, Jim Haley, and Geores Buttner were remembering the old days of nuclear testing in Nevada, including a proposal for a weapon that was never adopted: towing an unshielded hypercritical nuclear reactor behind a large attack airplane.

The Dahls relived their safari in East Africa (Tanzania and Kenya): cross-country (i.e., roadless) driving, tent camps, elephants by the hundred, wildebeests and zebras by the thousand. The Francks settled for reunions in the US: family in Maine and Jack's PT Boat buddies in Chicago. Other travelers include Shirley Ashley (to Prague in June), and the Ralphs (looking up dead relatives at the Mormon Library in Salt Lake City).

Sig and Cindy Rogers are becoming bi-coastal, with a new lakeside home in southern Virginia in the works. In the meantime, they are making do with Oahu and a cruise of Northern European Capitals. Winnie Baker spent the first week in January with Tom and Betty Lake (Tom retired from the Lab back in the 70s), and the last week in January with an old friend in Carpinteria, with simultaneous ocean and mountain views.

Al Amon thinks that granddaughters are good for keeping one busy. Several folks were glad of the opportunity to speak with Ed Pollack and his wife Suzie; it was his first visit in years. Tom Beales and Sally Stevens swapped stories about how to keep the cost of a wedding from bankrupting the family. When he's not planning weddings, Tom keeps busy helping his kids remodel their house and hunting wild mushrooms. Kay Bristol's only son was getting married in Little River just two days after the luncheon. [Too late to benefit from any of Tom's advice.]

Sam Vella says he's just trying to survive. Fred Perry goes duck hunting. Hans Krapf is still active in his own business, learned at the Lab: Pyrofusion (vacuum furnace brazing and heat-treating). Dick Burleigh (who spoke briefly during the luncheon of Elmer Kelley's early days at the Lab) has completed one steam engine (and "It's beautiful" says Lee Glasgow) and is starting on a new one. Elizabeth Ulrich (Carpentry Group under Doug Drummond in the 70s and early 80s) was visiting from Hawaii.

The Blackmans are moving to Prescott, Arizona in mid-March to be closer to their children. The Shigleys are among the Ex-Ls growing list of internationalists, with visits to Germany (December 2003) and Beijing (February, 2004). Jose Alonso also went to Germany, where he experienced the central European fascination with asparagus

(festivals and asparagus menus...he didn't see any asparagus ice cream but doesn't doubt its existence).

Mary Smits took part in the recent Backyard Suburban Bird Count; lots of Oregon Juncos and golden crowned sparrows, plus a few other odds and ends. (Robbie upheld his end by keeping the bird feeders clean and full.)

Doorprize winners were Jose Alonso (Courvoisier [there was no asparagus]), Kay Lucas (Bailey's), and Warren Faust (Chocolate Cherries).

Editor's Note

We're trying something new this issue: Instead of running from table to table at February's lunch, Shirley Ashley provided each table with the wherewithal to record anything that might be of interest to the membership. The results of the experiment are presented above as *Table Talk*. If February's results turn out to be typical, it will be a great success (*and* make life easier for Shirley). Another New Thing we're trying is *Letters*. (Don Krieger didn't know he was starting something when he sent a note along to Bud with his membership renewal.) If you have anything you'd like to say to the membership, send it along. If it's not scurrilous, obscene, or a blatant sales pitch, we'll print it. Also, Erith Ehrer reports that she can no longer tolerate the lousy proofreading provided by yours truly (three(!) clues were omitted from last month's puzzle); accordingly, barring a groundswell of protest, there will be no more crosswords in the Ex-Press. Articles or ideas for articles may be submitted via e-mail (david_stevens@comcast.net or stevens@lmi.net) or snail-mail to Dave Stevens, 1107 Amador Ave, Berkeley, CA 94707, or even telephone (510-524-2904). Thanks—

dfs

Letters...

From Don Krieger: Although I haven't been able to attend any of the luncheons, I haven't lost interest in the Ex-Ls. Since retiring from LBNL I have been very active in the music business with all the bands (including my own and the UC Alumni Big Band). However I hope to make one of the luncheons this year....

CUCRA Trip Report Bob Fulton

A meeting of the Council of University of California Retiree Associations was held at UCLA on March 25, 2004, and attended by your fearless CUCRA representative, Bob Fulton. The meeting started with a report from John Fox of the Office of the President, Human Resources, on a process the OP is undertaking to improve the record keeping and increase the investment options in the 403(b) and Defined Contribution Plans. As a matter of interest, John pointed out that at the end of 2003, UC participants have \$1.9 billion in investments in Fidelity Investments and Calvert Group mutual funds, while they have \$7.5 billion in the six UC-managed funds.

Mark Esteban, OP Human Resources then explained what we know about the new changes in Medicare. It was a very short talk, as Mark told us that "we don't know anything yet, because the

implementing regulations have not been written. But there is a 300 page “summary” of the 1100 page new law. He feels that the final drug coverage will not cause the University to take it. A lot of factors will go into that decision, including the formulary (what drugs are covered).

Another interesting point for those of us who may be working in our retirement is that Medicare is not the primary provider of health care for people who are employed. So Medicare has begun to go after employers for its expenses that should have been covered under the employer’s health coverage. I’m not clear on what happens when an employer doesn’t provide any coverage. For more information on Medicare and the new changes, there are two web sites: www.medicarerights.org and www.medicare.gov.

Stan Kowalski of OP tried to bring us up to date on the situation with the laboratory contracts, but again he could say very little because there’s no information yet. The Request for Proposals is due from the Department of Energy soon. The Office of President wants to bid, but the Regents have not made a decision. He indicated that both LLNL and LANL have had discussions with possible corporate partners. The current thought seems to be that LBNL is not as serious a candidate for a new contractor as the other labs.

If the LBNL contract did go to a different organization, we retirees are not completely out of the woods. Active employees would, of course, go with the new contractor, but retirees could stay in the University system, or their retirement assets could be transferred to the new contractor. And then there is the question of health benefits. Presently they are lumped together with the active employees and funded in the existing DOE contract. So many questions, so few answers.

Luncheon Logistics

You may think the our luncheons just happen: Not so. We continue to need help with registration. This is an opportunity to make sure you greet all your friends as they arrive. This need not be a lifetime commitment: If we can develop a cadre of folks willing to help, nobody would have to work more than once a year. If you are interested, just show up a little early and volunteer. (No experience necessary; a ready smile is the most important qualification for the job.)

Improved access to the Ex-Ls website

You can now reach the Ex-Ls website through two routes on the A-Z Listing on LBNL’s home page: at the A-Z page, click on E; the Ex-L link is near the bottom of the list, or click on R and look for “Retirement Group: Ex-Ls Homepage”). You can also connect directly through www.lbl.gov/ex-L-express. Check it out.

Looking For A New Hobby? - Try Stamp Collecting Anton Acker

A sage once remarked that you are never too old to have a happy childhood. And for us retired-LBLers, now is an excellent time to renew or pursue an interest in some childhood hobby that brought us satisfaction back then.

One such hobby that can be a source of challenge and satisfaction is stamp-collecting. This is one of the few hobbies that brings young and old, rich and poor, and multi-ethnic diverse individuals together. It can be a private hobby or a public quest. It can encompass the study of art, history, and politics. It is a hobby that is whatever you choose to make it. And for those of us looking for a way to connect with our younger offspring, stamp-collecting bridges the generation gap. It is a perfect way to fascinate, educate, and challenge young grandchildren.

To help you decide if this hobby may appeal to you, consider these points:

Focus: Collectors have many choices. Some collect only U.S. stamps (because of their easy availability). Others collect specific country or region stamps. And still others are very specialized, collecting topical stamps such as those about birds, art, plants, commemorative history, personalities.

Basic Cost: To get started, it is common to buy a stamp album to mount and keep your collection organized and secure. This album can be of your choosing. You can use a simple \$3-binder or one of the specially designed collection-albums from the Mystic Stamp Co. Their 2-volume Worldwide Voyager costs \$50, has 1000 pages and will hold 25,000 different world stamps. Their 2-volume U.S. stamp-album has 1000 pages and costs \$52. This U.S. album-set is particularly interesting because more than 4000 U.S.-issue stamps are illustrated, so that as you collect stamps, you just mount them over the illustration. And of course, there are numerous accessories and supplies out there, too.

Stamps: There are both new- and used-stamp collectors. [In this context, "new" means "uncancelled".] For some new-stamp collectors, the hobby is a very expensive investment. For example, a rare unused U.S. stamp, the 24-cent 1918 "Inverted" Curtiss Jenny Air Mail [the airplane was inadvertently printed upside-down on a small fraction of the stamps] stamp retails for \$160,000. At the other end of the new-price spectrum is the 1-cent stamp available at your local post office. Cancelled stamps, by and large, sell for pennies, unless they are very rare. Most collectors collect a mix of new and used stamps.

Where to get stamps: A recent Bay Area Sunday paper had an ad for "500 World Stamps \$2." To find out the current asking prices (new or used) of all world stamps, go to your local library and ask to see their multi-volume "Scott's Stamp Catalog." This catalog shows illustrations of every stamp ever printed and its current nominal market value. This arms you for stamp shows where dealers deal and bargains are to be found.

If you have an interest in stamp-collecting as a hobby, investment, or estate gift for your favorite grandchild; check out these leads:

1. Look at the Scott's Catalog at your local library.
2. Request a "FREE complimentary copy" of the 2004 Mystic U.S. Stamp catalog from Mystic Stamp Co., 9700 Mill Street, Camden NJ 13316-9111. This 125-page catalog has a lot of valuable information and collecting tips in it. (Note: they may include some

stamps for you "on approval;" be sure to return them in the prepaid envelope if you do not want to buy them.)

3. Contact the East Bay Stamp Collectors Club (Harold Boyer 510-526-9277) and attend one of their semi-monthly meetings. There are also clubs in Napa, Vallejo, Fremont, Sunnyvale, and many other towns. (A list of other Bay Area stamp clubs may be found at the end of this note.)

4. Attend the upcoming WESTPEX Stamp Show, May 7-9, in Burlingame, where collectors and dealers from around the world meet. 3 days, \$3, kids free. There are special kids and novice areas. HINT: look for the smaller local dealers that have boxes of individual stamps, like A & D Stamps (ask Jim or Sue for their local stamp-show schedule). The small dealers carry cancelled stamps and miscellaneous bargain stamps.

Here are some websites to visit:

www.WESTPEX.com
www.MysticStamp.com
www.KenmoreStamp.com
www.Linns.com

Now that you have retired, you have time to start living: Why not consider stamp collecting as hobby?

Other Bay Area Clubs:

Alameda Stamp Club, P.O.Box 1152, Alameda, CA 94501
California Collectors (SF), P.O.Box 210453, SF, CA 94121
Fremont Stamp Club, P.O.Box 1061, Fremont, CA 94538
San Leandro Stamp Club, P.O.Box 633, San Leandro, CA 94577
Vallejo Stamp Club, P.O.Box 121, Vallejo, CA 94590
Sunnyvale Stamp Club, P.O.Box 2909, Sunnyvale, CA 94088

Trip Reports

Journey from the West – Part 3: Xi'an + 3 Aspects of Japan

Dave Stevens

(Being the last in our series of reports on our brief encounter with the "Silk Road".)

Xi'an was sort of a "swing" city for us in China in the sense that it has elements of both the silk route and the "traditional" portions of the trip ("traditional" here does not mean echoing past arts, customs, and practices so much as conforming to my preconceptions of China, especially in ethnicity and population density). Under the name of Chang An it was both an early capital of China (perhaps the first; it is far more centrally located than Beijing) and the eastern terminus of all the several routes that constituted the "silk road". These tracks were conduits for tribute and military action as well for commerce, and so they carried not only silk and spices and gold, but also fine horses from the north and west destined for the imperial court and the imperial armies that sought to preserve and extend China's borders.

Modern Xi'an abounds in reminders of the early Middle Kingdom (that being the literal translation of China's name for China), a few of which we visited, generally giving each one less time than it deserved. One of the most visible, and at times the most irritating, is the Chang An city wall, which still encircles the center of Xi'an, causing constant vehicular traffic congestion as the city's seven million inhabitants try to pass through the insufficiently numerous portals on their daily journeys between the city center and its outskirts. ("Encircles" is, of course, not the *mot juste*, because the wall is not circular but rectangular.) The small portion of it I saw is as wide as the Great Wall (though not as high), and it served the same purpose (to keep the barbarians out). Besides the wall and its great main gates, Xi'an retains the two standard monumental buildings of an ancient Chinese city, if the city maps in the Judge Dee novels of Charles van Gulik are to be trusted: the Bell Tower and the Drum Tower. (They were often near twins, and they served as watchtower, garrison, fire alarm, town clock, and assembly signal.) The Bell Tower occupies the center of the old city, at the intersection of East, South, West, and North Streets.

The most famous of Xi'an's reminders of past glories is the terracotta army, intended to protect the spirit of the Qin emperor Shi Huang. It seems unlikely that it was successful in this, for the army was destroyed and the site looted and burned shortly after its completion. I had been under the impression that much of the army had been found intact, but this is not the case. The standing army we see now is the result of painstaking reconstruction that has been in progress for several decades now, with much left yet to do. Besides the army, Xi'an (why the apostrophe? to ensure that the name is pronounced as two distinct syllables: "SHE-ON", not "sheen" or "shon") has a number of sites worthy of the visitor's time and attention. Two of the more interesting are the Small Wild Goose Pagoda and the Great Mosque.

Even though Xi'an is not a Muslim city, in the sense that the desert cities we visited are, it has a significant Muslim population whose life centers around the Great Mosque. The Great Mosque is rather un-mosque-like in appearance; it has no minaret, its inner gates are reminiscent of the Temple of Heaven in Beijing, and its buildings with their curved tile roofs look more like a Buddhist temple than a mosque, but where a temple would have placed animal or mythic guardians at the gate the mosque has installed natural stones of interesting colors and shapes. (Muslims evidently observe the Second Commandment more rigorously than Protestants do.) The way to the mosque is a colorful alley bazaar that would not have surprised Marco Polo in its noise, color, or content. (We would undoubtedly have lingered long there had it not been that the alley was eaved with sloping plastic sheets to keep the rain off the merchandise, directing it onto the heads of the passing pedestrians instead.)

The Small Wild Goose Pagoda (there is also a Big Wild Goose that is shorter but wider) is associated with a temple possessed of the oldest trees in Xi'an (black locusts planted in the 6th century) and an interesting folk-art market. Apparently the local farmers spend the winter painting—the favorite medium appears to be poster paint on kraft paper—allegorical scenes and slices of daily life; they bring the results in to Small Wild Goose for sale. The pagoda itself has thirteen stories; we are told that there were originally fifteen, but an earthquake cracked the building from top to bottom and knocked off the top two stories...and then a couple of hundred

years later another earthquake mended the crack. (The building has since been reinforced with concrete.)

The weather in Xi'an was a distinct change from our western adventures: rain every day, all day, occasionally heavy. The Yellow River was well within its main channel when we crossed on the way into town; it was overflowing the main channel when we left, wishing that we had had time to see more of Xi'an and to walk the city walls.

We departed from our China tourmates in Narita—a city that is known to western travellers only as the site for Japan's major international airport—where we were to hook up with a goodwill trip to Sakai, Japan. Berkeley and Sakai have been sister cities for more than 35 years. One of the continuing activities between the two cities has been a series of goodwill visits involving students of various ages, scouts, teachers, marathon runners, and people who just like to travel. Our brief stay in Narita City was a fitting prelude to a trip where we were to skip the major tourist cities (most of the group had been to Japan several times before, so we spent only one day in Kyoto and skipped Tokyo entirely). But before our four-day homestay (the homestay is the highlight of a sister-city goodwill trip) in Sakai we managed to see three castles, two of Japan's major Japanese tourist destinations (Nikko/Chuzenji and Kenrokuen Garden in Kanazawa), a preserved post town, two reconstructed villages, and assorted shrines and temples, none of which (other than those in Nikko) are particularly well-known outside of Japan. What follows is some impressions of three aspects of Japan as “experienced” on that trip.

Castles. Of the three we saw, two (Matsumoto and Hikone) are original, one (Nagahama) reconstructed. Hikone and Nagahama are typical white castles, Matsumoto a black castle. Castles in Japan have white plaster walls and black wood or metal protective sheathing. In most castles, the former predominates, and so they appear white; in a few, the latter lends the castle a black aspect. (Matsumoto was known as “Black Crow Castle”; Lafcadio Hearn referred to Matsue, another black castle as a “malevolent squatting toad.”) Japanese castles (or their keeps) are quite different in appearance from the sheer-walled round or rectangular keeps in English or European castles: They are many-layered confections, each layer, with two exceptions, topped with a frosting of Orientally-curved tile roof. One exception is the main entrance, which is often topped by a moustache-shaped “Chinese arch”; the other is the very highest layer, which is a long flat ridgepole bearing Chinese Tang Dynasty horns that have transmogrified into sounding fish or dolphins. Many still have moats remaining (on other trips we've seen at least two where the moats are essentially all that remains), and the lower foundation walls are mortarless constructions of huge stones set into a curve that appears to have been inspired by Fuji itself. On the inside, all is bare wood, polished by generations of shoeless walkers, with access between floors being provided by a single, steep, easily defensible wooden stairway.

Historical villages. These are either preserved or reconstructed. If “preserved”, they have continued to be living towns, even as they were forgotten in the thrust of technological progress and then rediscovered—and subsequently frozen in time—by the tourist industry. Many cities have nuclei or districts that qualify as preserved villages (the old commercial district of Takayama is an example); there are also whole villages, such as the post towns along the Nakasendo Road. The Nakasendo Road was an inland alternative to the more well-known

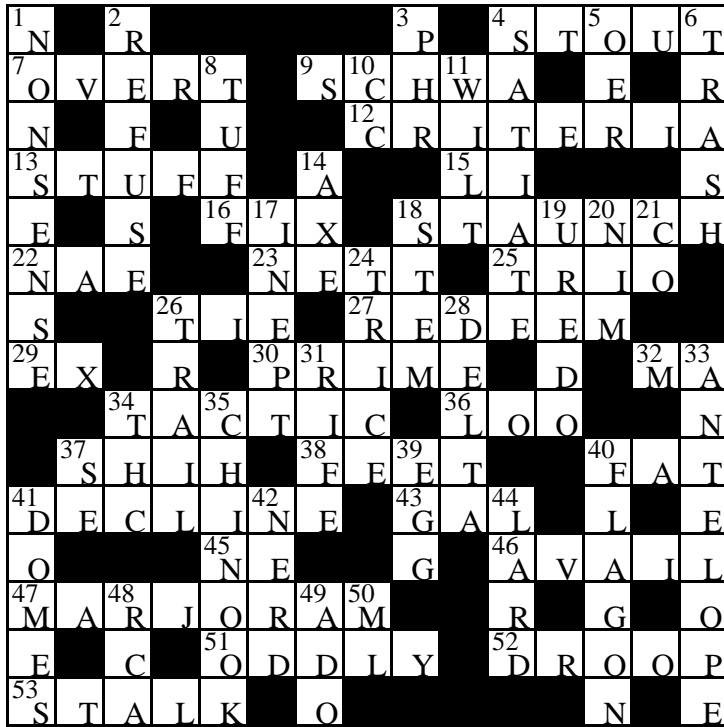
Tokaido road for the required ceremonial visits from Edo (Tokyo) to Kyoto. Because of the terrain, it had more stations than the Tokaido (69 to 53), and was never immortalized by Hiroshige. Several of the stations have been preserved as *juku*, or “post towns”. The one we visited (Narai) has a single long, narrow main street with side alleys. There is no sidewalk: The wooden houses—former inns, now restaurants and gift shops—are two stories tall with a shop or workshop on the bottom and living quarters on top, and are built up to the street edge. One edge of the street contains a channel with running water diverted from the nearby stream, and there are public fountains every hundred yards or so. These towns appear old, but the life is clearly modern. Some of the reconstructed villages, by contrast, are like Colonial Williamsburg or Turkey Run Farm in the US, where the residents try to live the life of the past. In Japan, the buildings in these villages are either faithful reconstructions of real period buildings or actual period buildings that have been moved from their original site. None are as fully developed as Williamsburg, but they provide interesting glimpses into past farming practices, crafts, and, occasionally, superstitions. At least one of the reconstructed villages, Shirakawago, is in some sense both preserved and reconstructed, inasmuch as it was moved to prevent its historic traditional quasi-alpine architecture (very tall houses with steeply pitched thatched roofs) from being drowned by an artificial lake.

Festivals. Our visits to Sakai have coincided with their annual *matsuri*, or city festival. The main feature of Sakai’s festival, as with many others, is a huge parade, lasting several hours and involving thousands of people of all ages, marching, dancing, riding bicycles (or unicycles), playing musical instruments, dragging or driving floats (some ancient, some constructed for the event), and carrying “portable” shrines, each of which may require 60 men of uniform height to keep the shrine level. Many of these festivals celebrate historical events; in Sakai’s case, it is the advent of the Portuguese (if you read the book *Shogun* you will remember that it was knowledge gained from a Portuguese navigational book that enabled Blackthorne to reach Japan), who brought, among other things, firearms to Japan. (So there are Portuguese ships and samurai firing squads in the parade, as well as gymnastic teams and civic leaders and beauty queens.) According to the Sakai version, they admired the guns, and one of the Portuguese said if you give me a wife I’ll show you how to make guns, and they did and he did, and Sakai became a supplier of guns to the warring factions of the 15th and 16th centuries. There are also flower festivals, especially involving chrysanthemums. The largest of these is at Hirakata, one of the towns in the Kyoto-Nara-Osaka megalopolis. Each year they mount a stationary pageant containing several scenes in which the characters are clothed in garments of chrysanthemums. There are also many examples of giant chrysanthemums, chrysanthemum sprays, and bonsaied chrysanthemums....But you really should go to see all this for yourself

Luncheon Reservations to Bud Larsh

Effective this month, please send your luncheon reservations to Bud Larsh at the Ex-Ls Official address: PO Box 5280, Hercules CA 94547.

Solution to Ex-L 5: Indefinite



The reference to the definition is given for each asterisked clue. The missing clues were victims of clumsy formatting. For the sake of completeness, they are:

- 19: Use tonic for hives. (5)
- 39: Incite beggar to drop broken bar. (3)
- 50: The number 1050 is amply even.

[anag] = anagram

[hom] = homophone

[rev] = reversed

(...) indicates letters to be omitted

+ = concatenate

Down

1*: [6D] no + NS + esnes[rev]

2*: [41A] *second definition*

3. p + hr

4. [say she ate][hom]

5. Reo[rev]

6*: [2D] T + rash

8. tough[hom]

10. cc = ml

11*: [52A] *second definition*

Across

4*. [40A] St. + out

7. (c)overt

9. ch *in* was{anag}

12. rite *in* Cair(o)[anag]

13*. [1D] s + tuff

15. li(ma)

16. f + IX

18*. [4A] [Hun + cats][anag]

22. a *in* NE

23. net + t

25. (Pa)trio(t)

26. 2 *meanings*

27. rede + me[rev]

29. 2 *meanings*

30. (e)mpire[anag]

32. 2 *meanings*

34. tact + IC

36. 2 *meanings*

37. h + his[anag] [*Shih Tzu*]

38. Fee + t

40*. [41D] fa(s)t

41*. [11D] [Lend + ice][anag]

43. GA + l

45. n(a)e

46. Ava + IL

14. (t)axe(s)

17. (s)pinet[anag]

18*. [18A] Mets[rev]

19. ure + do

20. min(nie)[rev]

21. co(t)

24. t + rice

26*. [53A] (man)tra I l(earned)

28. dealt[anag]

31. rif(l)e

33. ante + lope

34. t+h+c

35. chino + OK

37. se(a)

39. (b)egg(ar)

40. go *in* flan

41. domes(tic)

42. r *in* Ned

44*. [13A] lar + d

48. r + ca

49. 2 *meanings* [*Ado Annie in Oklahoma*]

50. (a)m(p)l(y)

Across (continued)

47. major[anag] + ram

51. [odd lee][hom]

52*. [26D] Dr + Oop [*Alley Oop* comic strip]

53*. [18D] S + talk

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I plan to attend the EX-Ls luncheon \$18 PREPAID

I will bring ___guest(s). Name(s) of guest(s): _____

Menu Choice(s): Beef Fish Salad

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

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