

The Turquoise Trail: Chemical Analysis at BNL Supports Controversial Theory

About 1,200 years ago, did highly developed trade based mainly on turquoise exist between the American Southwest and Mesoamerica, which is now middle and southern Mexico?

"Yes!" states a controversial anthropological theory proposed by Garman Harbottle of BNL's Chemistry Department and Philip Weigand of the *Colegio de Michoacan*, Mexico, and the Museum of Northern Arizona in Flagstaff.

An essential part of the theory — that American Southwestern mines produced most of the turquoise that adorned Mesoamerica's abundant precious artifacts — has been substantiated by neutron-activation analyses in Harbottle's BNL laboratory.

"Conventional scholarship has long asserted that only a casual trading system existed between these regions," said Harbottle. "But, after 20 years' research, we concluded that, on the contrary, a formal system of contacts was in evidence from about 700 A.D. until at least the mid-1500s."

In their article "Turquoise in Pre-Columbian America" in the February 1992 issue of *Scientific American*, Harbottle and Weigand detail their research. The two had been collaborating since the 1970s when Weigand headed the Anthropology Department at the State University of New York at Stony Brook.

"Turquoise was so vital to the Mesoamericans — they used it for all their most precious religious artifacts and jewelry — that we believed they would have set up regular channels to obtain it, having only meager turquoise resources of their own," explained Harbottle. "And, their best source was likely to be the only large deposits in Northern America — in the American Southwest."

"To prove that turquoise was formally traded, we had to show that the Mesoamerican stone was mined in the Southwest," continued Harbottle. "We also needed significant social, cultural or religious links giving evidence of long-term contact between the two regions."

Crucial evidence came from Har-



Garman Harbottle examines a turquoise-bearing mineral before removing a sample for neutron-activation analysis in his Chemistry Department laboratory.

Photo by Roger Stoutenburgh.

bottle's work using the neutron-activation technique.

Chemical Fingerprints

This nondestructive method works by bombarding a sample with a beam of neutrons. Various radioisotopes are created of elements such as sodium, potassium, barium, manganese, iron, cobalt, arsenic and copper. These show up in a pattern unique to each sample to provide it with "fingerprints."

Generally, turquoise mines can be identified by certain definite quantities of these elements — each mine has its own fingerprints. Thus, a stone's neutron-activation pattern points to its origin by matching that of a known mine.

"Over the years, we analyzed more than 2,000 pieces of turquoise, about ten to 40 samples from each mine," said Harbottle. "Also, we examined nearly 100 artifacts from each of several major archaeological sites.

Eventually, we traced several dozen pieces found in Mexico to specific mines over 1,000 miles away in New Mexico, Arizona and Nevada."

Typical of the ways Mesoamericans used turquoise are: a magnificent 17-inch-long Aztec double-headed serpent made of wood inlaid with turquoise mosaic pieces called tesserae; a serpent mask, probably the one presented by Aztec emperor Montezuma II to Spanish explorer Hernando Cortés when he landed in Mexico in 1519; and a human skull inlaid with turquoise representing the god Tezcatlipoca, which was also a gift to Cortés.

"These three pieces are in the British Museum," said Harbottle. "When such pieces have been restored, a few minute tesserae are usually left over — we hope to obtain some of them. Although experts can often tell where turquoise comes from, they need a square centimeter or so. Neutron-activation can pick up the

Coming Up

Joseph Indusi, Associate Chairman of the Department of Nuclear Energy and head of its Technical Support Organization, will deliver the next Brookhaven Lecture. His talk on "Arms Control Verification" will begin at 4 p.m., on Wednesday, February 19, in Berkner Hall.

pattern of a microscopic sample."

Looking at even the smallest tesserae under a microscope shows how meticulously they were made. Their beveled edges fitted exactly together, hiding the glue that held them to the material that they were decorating.

"One interesting aspect was that some of the later tesserae, known to be made in Arizona around 1100, were also beveled," Harbottle observed. "Since this technique was quite unknown in this area, it was almost certainly learned from the Mesoamericans."

Supporting Evidence

The researchers considered the spread of the beveling technique a pivotal point in the case for systematic trading. Also, to show how

(continued on page 2)



This Mesoamerican turquoise mask formed on a human skull and presented by Montezuma II to Spanish explorer Hernando Cortés in 1519 is now in the British Museum.

RHIC's Environmental Impact Assessed in Two Documents

Two environmental documents related to BNL's Relativistic Heavy Ion Collider (RHIC) have been prepared by the U.S. Department of Energy (DOE) and are now available for review.

To provide a unique heavy-ion research facility for scientists throughout the world, RHIC will be built over the next six years. The 3.8-kilometer (2.5-mile)-in-circumference accelerator will use the tunnel and other facilities originally built for the ISABELLE/Colliding Beam Accelerator Project.

Remaining construction will include completing the tunnel, building three experimental halls with support facilities, paving the road, fabricating and installing superconducting magnets, rehabilitating existing berms, and adding plantings to control erosion and provide shade to the Peconic River.

The two documents and their findings are:

- The *Environmental Assessment*, which analyzes environmental impacts that might occur as a result of these actions and characterizes the operation of RHIC as "low hazard."
- The *Finding of No Significant Impact*, which determined that the proposed actions are not a major federal action that would significantly affect the quality of the human environment.

Interested employees may review the documents at the BNL Research Library, Bldg. 477. They are also available at: the Mastic-Moriches-Shirley Community Library, William Floyd Parkway, Shirley; Longwood Public Library, 800 Middle Country Road, Middle Island; and the Town of Brookhaven Public Information Office, 3233 Route 112, Bldg. 5, Medford.

BWIS Meeting

In 1989, Sharon Smith exchanged her normal activities as a research oceanographer in BNL's Department of Applied Science (DAS) for a year as a program manager at the National Science Foundation in Washington, D.C.

Smith will describe her year in the nation's Capital and the impact it has had on her career in a talk entitled "Reflections on a Washington Year." It will be presented at the next Brookhaven Women in Science (BWIS) meeting, on Wednesday, February 12, at 5:15 p.m. in the North Room of the Brookhaven Center.

With a 1975 Ph.D. from Duke University, Smith joined the DAS staff in 1978. Upon her return from her year in Washington, she was appointed Deputy Division Head of DAS's Oceanographic and Atmospheric Sciences Division. Last fall, she was named Division Head, and she is the first woman to achieve these posts within DAS.

An informal dinner with the speaker in the North Room will follow the presentation. Those who wish to stay can purchase food and beverages from the Tap Room.

Express Mail Due By 4:15 p.m.

As a result of the automation of the U.S. Postal Service (USPS), letters and packets set by its Express Mail next-day delivery service are now being scanned into the USPS computer system. This enables better tracking of Express Mail from drop-off to delivery.

Effective immediately, however, Express Mail leaving the on-site Upton Post Office in Bldg. 179 must be dropped off there between the hours of 8:30 a.m. and 4:15 p.m. — not 4:45 p.m. as in the past.

Moving up the time will enable the Upton Post Office to complete its Express Mail service on time and to telecommunicate all its computerized records to the USPS Long Island Division in Melville, from where the Express Mail and other mail-tracking information is forwarded to post offices across the country.

Black History Month Profile

April Donegain Is Woman of the Year

Administrative Assistant April Donegain, Fiscal Division, has been named a Woman of the Year by the Brookhaven Business and Professional Women's Club (BPW) of Patchogue.

She accepted the award in the form of a plaque at a dinner in her honor on January 28.

Donegain is one of the club's two Women of the Year. The other is Elaine McKibbin, who recently retired as the first woman supervisor of the Waste Management Department of Brookhaven Town.

Donegain was cited by the local BPW "for her exceptional qualities of leadership and integrity, and her distinguished achievements for the betterment of her community."

The Patchogue BPW selected Donegain for serving as housemother and role model to the 26 New York City high school students that she has taken into her home for the summers since 1987. These ninth and tenth graders were participants in the inner city outreach of the Lab's annual Minority High School Summer Apprentice Program (MHSSAP) administered by the Office of Educational Programs (OEP).

"Aside from the births of my three children, this award is the highlight of my life," commented Donegain.

At the dinner as well, she received a commendation from U.S. Congressman George Hochbrueckner; a citation from the New York State Assembly; a certificate of appreciation from the Brookhaven Town Board; and flowers from the congregation of the Grace AME Zion Church of Patchogue, where Donegain taught Sunday school.

Following the presentations, Ronald Manning, now Manager of the Staff Services Division, who supervised Donegain when she first came to work in BNL's Physics Department in 1974, recalled her as one who "helped and encouraged young people to have a focus in life."

Her supervisor since 1987, BNL's Fiscal Officer Mark Israel, praised Donegain as "competent and caring, someone who tries to nurture those in need of assistance."

Praises for both Women of the Year were also spoken by Renée Flack of OEP, who runs MHSSAP with their help. While Donegain takes in the city kids who cannot commute daily, McKibbin allowed MHSSAP students to take field trips to the landfill waste-management facilities while they were learning about the environment.

Said Flack, "By the end of each summer, some of my students get in trouble with their parents — because they'd rather go on living at April's house than go home."

Explains Donegain, "I love working with children, but I am strict with my own three kids and the summer students because I want them to be responsible for themselves and respectful toward other people. Too many kids are confused these days because they are growing up by themselves, without adult supervision and guidance. Morals and values start in the home — and, if kids are set straight there, they don't need to look for answers in the streets and in drugs."

Donegain's work "helping today's youth, tomorrow's



Roger Stouenburgh

April Donegain

future," according to local BPW President Pauline Dixon, of BNL's Reactor Division, has also been evidenced by her work since 1981 as a founding member of the Lab's Afro-American Culture Club (AACC).

In serving the club in various positions for more than ten years, Donegain, among other accomplishments: established the AACC's \$1,000 annual Dwight C. Brown Memorial Scholarship for graduating high school seniors; chaired its annual children's talent show; assisted with the children's computer classes in Bellport organized by the Lab's Office of Equal Opportunity (OEO); represented the AACC's interests on the first committee concerned with establishing BNL's Child Development Center; and helped organize the Career-Awareness Day, which the OEO held at Brookhaven last fall for over 300 Long Island female and minority high school students.

Donegain concludes, "Girls and boys require different reassurances, and African-American youth need special encouragement, but all children need to be told to stay in school, finish their education first because all the diversions will still be there when they get out. Then, they need to know that, if they work hard in school and are patient with themselves, their dreams can really come true in the not too distant future — and it is worth the wait."

— Marsha Belford

Hospitality News

Please come and bring the children to the following Hospitality Committee activities:

- **Informal Welcome Get-Togethers** — Held on the second and fourth Tuesdays of every month, from 10 a.m. to noon, in the lounge of the Recreation Building, to let newcomers to the Lab meet other on-site residents, and share coffee and conversation.
- **Parent-Toddler Group** — Meets every Wednesday morning, from 9:30 to 11:30 a.m., at the Recreation Building.
- **Women's Forum** — Conducted by Marion Davis-Parzen, will meet next on Tuesday, February 18, from 10 a.m. to noon, in the Recreation Building in the apartment area. The group meets every third Tuesday of the month to discuss women's issues, and to share experiences and concerns. Wives of Lab employees and guests are invited.

ANS Meeting

Stanley Hatcher, President and CEO of Atomic Energy of Canada, Ltd., will speak on "The Energy Dilemma" at the next meeting of the Long Island Section of the American Nuclear Society (LIANS), on Wednesday, February 12, at the Three Village Inn, Stony Brook, at 8 p.m.

Following cocktails at 6 p.m. and dinner at 7 p.m., the speaker will be introduced by LIANS President Peter Kroeger of BNL's Department of Nuclear Energy. To make reservations, call Kathy Ratto, Ext. 7250.

Catch a glimpse of

GLANCE

playing in Berkner Hall
weekdays, 11:30 a.m. to 1:30 p.m.
Show changes every Tuesday.

Software Training

Three on-site training courses will be offered this month on LabVIEW2 — the Laboratory Virtual Instrument Engineering Workbench for Macintosh personal computers.

LabVIEW2 is a high-level, integrated graphical program that combines the acquisition, analysis and presentation of laboratory data. It is capable of instrument control (GPIB, RS232C, VXI), digital signal processing, data acquisition (analog, DIO, counters/timers), statistics, and data storage and display. With code interface nodes, existing code written in Basic, C, Pascal or Fortran can be incorporated into LabVIEW2 applications, and many commercial instruments that have canned LabVIEW2 drivers are available at no charge.

The three LabVIEW2 courses are: Basic, to be held February 17-19; Advanced, February 20-21; and Code Interface Node, February 24-25.

Course costs will be based on the number of participants, and registration is on a first-come, first-served basis. For more information, contact Ed Castner, Ext. 4362, or E-mail castner@chm.chm.bnl.gov; or call Carl Chen, Ext. 3152.

Service Awards

The following employees celebrated BNL service anniversaries during the month of January 1992:

- 40 Years**
- Martin F. Montag Sfgdrds. & Sec.
- Rudolph M. Sternheimer Physics
- 35 Years**
- Stephen Gracia Cent. Shops
- William A. James Sup. & Mat'l.
- Dmitri Stephani Instrum.
- 30 Years**
- Elliot H. Auerbach AGS
- Neal R. Carciello App. Science
- James R. Curto AGS
- Robert T. Diem AGS
- Frank P. Foster NSLS
- George W. Harris Plant Eng.
- James A. Pontieri Plant Eng.
- Thomas A. White NSLS
- 25 Years**
- Thomas H. Albertina CCD
- John J. Bland MIS
- Matthew V. Conforte Plant Eng.
- 20 Years**
- Earle E. Edwards Jr. S&EP
- John D. Smith NSLS
- Frank W. Stubblefield Instrum.
- Harry L. Ulyat Medical
- 10 Years**
- Giovanna Viotto Staff Serv.
- Christopher Wennes Reactor

Note to Employees:

Attendance at lectures, meetings and other special programs held during normal working hours is subject to supervisory concurrence.

Turquoise

(cont'd)

extensive trade became, Harbottle and Weigand counted, weighed and measured turquoise — mainly tesserae — on as many artifacts as possible. From these data, they got a good idea of how much was used in other pre-Columbian artifacts illustrated in catalogues and art books.

"Such a mixture of methods means that our estimates are approximate," cautioned Harbottle. "However, they are informed and consistent with the present state of archaeological knowledge."

Further investigation resulted in more evidence linking the regions.

For example, around 1050 to 1180, a sudden development exploded in the city layout of Chaco Canyon, a major turquoise mining district.

From a few hamlets scattered over the Colorado Plateau, Chaco Canyon evolved in two generations into a sophisticated arrangement of exotic buildings built in the Mesoamerican way, with rubble core and veneer walls — "and even a colonnade with porticos, which was totally alien to Southwest America at that time, but very often seen much further south," said Harbottle.

Other Mesoamerican influences at that time changed the Southwestern culture. For instance, turquoise took on deeply religious connotations; numbers such as 13 and 52, which held great significance for the Mexicans, became important in American dances; and colors came to have similar associations in both areas: The north was thought of as red, while the south was blue.

Mesoamerican articles that may have been traded for the Southwest's turquoise have also been found.

"For example, quetzal feathers — from a Mesoamerican jungle parrot — were very highly prized in both areas," said Harbottle. "So a magnificent feathered blanket dug up in a cave in the Southwest would have had to have come from Mesoamerica. In Casas Grandes, now in north Mexico, pens for breeding and rearing the parrots were found. This is so difficult in such an alien climate that it showed the feathers' value — worth the exchange of turquoise."

Studying the history of the inland and coastal trading routes showed how their importance tended to follow the fortunes of different mining areas. And the mines themselves, where dangerous conditions of extreme hardship did not deter the miners, gave more evidence of the extraordinary lengths to which people would go to obtain turquoise.

"They really wanted the stuff," summed up Harbottle. "And they got it in such quantities that evidence of a systematic trading system to handle it is not surprising."

— Liz Seubert

In Memoriam

The Bulletin has learned of the recent deaths of the following retirees:

• **Edward Fowler**, who ended his 25-year career at BNL in May 1986 as a senior lab specialist in the Department of Nuclear Engineering, died unexpectedly on December 23 of a sudden brain aneurism. He was 65 years old.

Fowler, who lived in Shoreham, is survived by his wife Florence, two sons, a daughter and a granddaughter.

• **W. Ansel Tuthill**, who had left the Lab in July 1981 as a technical associate I in the Department of Applied Science, died on December 24, following a short illness. He was 73 years old and had been at BNL since June 1, 1949.

Having resided in Jamestown, Rhode Island, Tuthill is survived by his wife Jean, and three daughters and a son.

PSI Meeting

What professional or technical problem haven't you been able to solve on your own? What would you like to do better, faster, more efficiently? These questions will be discussed at the next monthly meeting of the Upton Chapter of Professional Secretaries International (PSI), on Monday, February 10, at 6 p.m., in the south dining room of the Brookhaven Center. For more information, contact Patricia Durcan, Ext. 3807, or Nancy Griffin, Ext. 4177. Guests are welcome.

Rifle & Pistol Club

The next meeting of the Rifle & Pistol Club will be held at noon on Wednesday, February 12, in Room 202, Bldg. 911B. Changes to the constitution and club rules must be made to accommodate DOE regulations. Please make an effort to attend.

Basketball

Week of January 27

Trailblazers 78	Scram 37
T. Buck 16	S. Nappi 10
C. Edwards 14	S. Coleman 9
D. Branch 13	J. Barkwill 6
T. Mayo 10	E. Gregory 4
S. Cramer 7	P. Bergh 2
D. Martin 5	J. Skoniczny 2
R. Garappolo 5	T. Power 2
S. Springston 4	J. Duggan 2
A. Ratti 3	
R. Domenech 1	

3-point shots: T. Buck, S. Coleman, R. Garappolo, T. Mayo, S. Nappi

Runaways 84	Deep Six 64
W. Cummings 21	M. Williams 27
P. Ratzke 15	P. Brown 10
J. Belz 15	R. Hart 8
G. Shepherd 14	J. Simms 7
J. Desmond 10	S. Anderson 6
S. McAlary 5	D. Eleazer 2
B. Wells 4	C. Saxen 2
	S. Dimaiuta 2

3-point shots: J. Desmond, J. Simms, M. Williams (5)

Standings as of January 31

Trailblazers 3-0			
Runaways 2-0	X-Men		0-2
Scram 1-2	Deep Six		0-3

Bowling

White League

Ken Riker had a 229, Joe Ferrante 204, Kay Conkling 201, Gerrie Riker 193, Ellie Adams 190, Marilyn Picinich 187.

Purple League

Vito Manzella had a 228, Phil Radusewicz 214, Lee Grimes 207, Ray Raynis 207, Debbie Keating 204, Diane Lombardi 203, Pete Stelmaschuk 200, Ginny Waterman 196, Pat Manzella 192/187, Brigita Gordon 191, Caryl MacDougall 184, Jeanne Penoyar 183.

Red/Green League

R. Wells had a 252/207, R. Wiseman 234/603 scratch, C. Bohnenblusch 226/205, K. Asselta 225, K. Koebel 225, E. Sperry IV 222, S. Thompson 216, R. Sick 213, H. Marshall 212/203/611 scratch, R. Jansson 202, G. Meinken 201, M. Palumbo 200, R. Raynis 200.

Scotch Doubles

The Scotch Doubles Tournament will be held on Sunday, March 1, at 1:30 p.m., at the Port Jeff Bowl. The cost is \$24 per couple. The tournament is open to BNL employees and immediate family members.

Applications are available at the BERA Sales Office, and deadline for applications is Friday, February 28. If you need a partner or have questions, contact Maryann Reynolds, Ext. 5241, or Ed Sperry IV, Ext. 2697.

Tai Chi Club

The Tai Chi form of exercise was developed centuries ago to promote physical and mental health, and longevity and stamina. Applying yin and yang throughout its form, the Tai Chi practice orchestrates quiescence and motion to enhance balance and relaxation.

Tai Chi and the complementary exercise Push Hands are offered on site by the Tai Chi Club and instructors Dejun Xue and Chuan-Zheng Yang. A new ten-week session will begin on Monday, February 10, with three weekly practices from noon to 12:45 p.m., in the North Room of the Brookhaven Center, as follows:

- Monday and Wednesday — Instruction in the Yang Long Form of Tai Chi, along with training in Push Hands.
- Thursday — Slow exercise in the complete, 88-posture Tai Chi form to develop control, inner tranquility and uniformity in movement.

The fee for ten weeks is \$30, generally payable at registration during the first class. Prospective members are invited to observe or participate in a free trial session for one week before committing to membership.

For more details, call Dave Phillips, club vice president, Ext. 4671; Jerry Tanguay, club secretary, Ext. 2198; or instructors Dejun Xue, Ext. 2846; or Chuan-Zheng Yang, Ext. 5790.

Volleyball

League Standings as of January 30

Open League	League I
Magnum 27-3	Upfagrades 31-11
G-Team 19-11	Network News 28-11
Phoenix 15-15	Rude Dogs 28-14
Me and the Boys 14-16	Dinkers 23-19
Penetrating Vollyies 8-22	Six PackAttack 20-19
Leftovers 7-23	Setups 11-31
	Bumps & Sets 3-39

League II	League III
Monday Night Live 26-1	Nutcrackers 23-10
Net Wits 19-8	Renegades 23-10
Just Ups 16-11	High Volley'em 22-11
Fossils 15-12	Over the Top 20-13
Nuts & Bolts 13-11	Good Timers 18-15
Night Court 14-13	Interns 16-17
Volley of the Dolls 8-19	Sourcerers 11-19
Upton Ups 7-20	Undertakers 5-22
Muffits 2-25	Silver Bullets 6-27

Arrivals & Departures

Arrivals

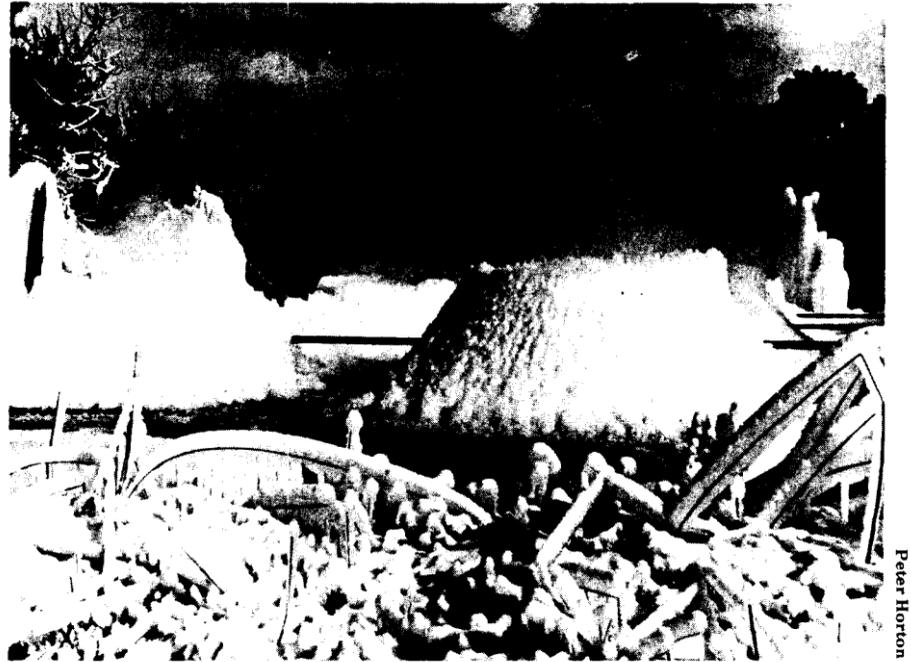
Anthony J. Curcio.....AGS
Wing K. Louie.....Accel. Dev.
Glenn W. Mehl.....Reactor
Jon R. Merkel.....Saf. & Env. Prot.
Krzysztof Polewski.....Biology
Ignacio Romero.....Plant Eng.
Peter J. Simpson.....Physics

Departures

This list includes all employees who have terminated from the Lab, including retirees:

Walter H. Doyle.....Accel. Dev.
Barry M. Gordon.....App. Science
Elizabeth B. Mill.....Sup. & Mat'l.
Valery L. Pokrovski.....Physics
Eugene C. Raka.....AGS
Joseph R. Steimers.....Saf. & Env. Prot.

An Ice View of BNL



Peter Horton

It looks like a setting straight out of "Star Trek," but the star date on this photo is actually January 1992.

These volcanic-like ice formations were created by water spray produced in BNL's Aquifer Restoration Project. The purpose of the project is to remediate the amount of trichloroethane (TCA) in the groundwater near the Lab's Hazardous Waste Management area. It employs an air-stripping technique, in which water pumped from the ground is sprayed into the air. The chemicals are stripped from the water and the clean water is returned to the ground.

Initiated in 1986, the project was temporarily halted in the spring of 1990, in response to concerns of the U.S. Environmental Protection Agency. Operation resumed in November, with a pilot study to detail the system's operation. Said Alan Raphael, who heads BNL's Office of Environmental Restoration, "Though we still have a lot of data yet to gather, all the results we have so far show that TCA levels in the spray and the recharged water meet drinking water standards."

Social Club News

Call Doris Terry, Ext. 7610, for information on ski trips, vacation offers and the following events on the Social Club's calendar:

- U.S. Hot Rod Association — Saturday, March 7, 8 p.m. Nassau Coliseum, \$17.50 each, ticket money due February 14 for good seats.
- Ringling Bros. & Barnum & Bailey Circus — Saturday, March 21, 3 p.m., Nassau Coliseum, \$15 each.

Rec Building Open

Effective immediately, the Recreation Building in the apartment area is reopened for general activities, under the supervision of a recreation attendant, between the hours of 5:30 and 9:30 p.m., Tuesday, Wednesday and Thursday.

To use the building for a special function or meeting, a group must complete a form that must be approved by the Recreation Office. For more information, call M. Kay Dellimore, Recreation Supervisor, Ext. 2873.

Cooking Exchange

Various dishes will be demonstrated at the next BERA Cooking Exchange meeting, on Wednesday, February 12, at 11:30 a.m. in the Recreation Building in the apartment area. Recipes will be provided, and all dishes can be sampled.

All are invited, especially newcomers to BNL or the apartment area. A charge of \$2 per adult helps defray the cost of ingredients, and babysitting is provided at \$1 per child.

For more information, call Yfke Boosman, 736-2880, or Megumy Akiba, Ext. 3015.

Cafeteria Menu

Luncheons

Monday, February 10

Soup: Navy bean	.80/1.10
Entree: Spaghetti w/meatballs	3.20
Entree: Quiche w/1 veg.	3.20
Entree: Chef's choice	3.20
Carvery: Hot pastrami sandwich	2.95
Grill: Turkey, roast beef & beef provolone w/Russian dressing	2.95

Tuesday, February 11

Soup: Country vegetable	.80/1.10
Entree: Baked chicken w/1 veg.	3.20
Entree: Stir-fried beef & peppers	3.45
Entree: Chef's choice	3.20
Carvery: Hot roast beef sandwich	2.95
Grill: Italian sausage & pepper grinder w/fries	2.95

Wednesday, February 12

Soup: Turkey noodle	.80/1.10
Entree: Chicken & biscuits w/1 veg.	3.20
Entree: Sausage jambalaya & 1 veg.	3.20
Entree: Chef's choice	3.20
Carvery: Baked Virginia ham sandwich	2.95
Grill: Tuna melt w/French fries	2.95

Thursday, February 13

Soup: Vegetable beef	.80/1.10
Entree: Beef fajitas over rice	3.45
Entree: Tricolor tortellini Alfredo	3.20
Entree: Baked fish w/mushroom-wine sauce	3.65
Carvery: Hot corned beef sandwich	2.95
Grill: Marinated boneless chicken breast & bacon on a bun	2.95
Deli special: Six-foot hero (inch)	.90

Friday, February 14

Soup: Seafood bisque	.80/1.10
Entree: Fried fish w/1 veg.	3.45
Entree: Baked chicken teriyaki w/1 veg.	3.20
Entree: Chef's choice	3.20
Carvery: Hot turkey sandwich	2.95
Grill: Bronco bacon dogs w/cheese	2.95

Breakfast w/coffee & small juice

Mon.:	2 eggs, bacon, pancake, home fries
Tue.:	Western omelet, home fries, toast
Wed.:	Spanish omelet, home fries, toast
Thu.:	2 eggs, bacon, cheese on croissant, fries
Fri.:	French toast, 2 eggs, bacon, home fries

Wanted: 500 More Sets Of Natural Teeth



Some 500 more BNL employees, retirees and their spouses age 45 and over who have at least 15 natural teeth are asked to volunteer for a four-year dental decay-prevention study.

Conducted by the School of Dental Medicine at the State University of New York (SUNY) at Stony Brook, the study needs 1,000 BNLers and 3,500 inhabitants of Portland, Maine, to find out how effective fluoride mouthwashes and gels are in preventing tooth decay in adults. So far, about 500 people in the Lab community have signed up.

As part of their daily oral hygiene, participants will be asked to brush as usual, but to add the use of a free fluoride gel or mouthwash after brushing. In addition to being supplied with the gel or mouthwash, subjects will receive free toothbrushes, Colgate toothpaste and no-cost dental exams at BNL at 16-month intervals over their four-year participation.

The first exams will take place in March, and those who have signed up so far will be contacted soon to set up exam dates.

To explain the study and recruit volunteers, Francine Forte of the SUNY at Stony Brook School of Dental Medicine will be in the lobby of Berkner Hall on Friday, February 7, and Monday, February 10, from 11 a.m. to 2 p.m. Volunteers who wish more information or to sign up for the study over the phone are invited to call Health Promotion Specialist Mary Wood, Ext. 5923.

BROOKHAVEN BULLETIN

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Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBSITE, Ext. 7744 (282-7744), for a complete listing of all openings.

SCIENTIFIC RECRUITMENT - Candidates may apply directly to the department representative named.

SCIENTIST - With advanced degree and background in experimental particle accelerator physics. Principal activities will be directed to operation and enhancement of existing NSLS storage rings, and will include study of beam intensity-limiting effects, orbit stabilization and development of related hardware. Additional activity will involve the design, construction and commissioning of a compact, superconducting storage ring dedicated to x-ray lithography. Contact: Samuel Krinsky, National Synchrotron Light Source Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

MK 8371. DEPARTMENT ADMINISTRATIVE MANAGER - Requires a BS/MS in a relevant discipline or equivalent, substantial experience with high-level administrative policies and procedures in an engineering/research environment. Will be responsible for the full range of functions including budgets, proposals, personnel, procurement, program support, technical assistance, facilities/property management, MIS and systems development. Will have supervisory responsibility for administrative staff. Will carry out existing departmental policies, and develop and implement departmental policies. Must have excellent analytical skills and effective oral and written communication. Must be able to deal effectively with all levels of Laboratory staff and those of customer agencies, and demonstrate a high degree of initiative and professional judgment. Submit resume to Marsha R. Kipperman, Personnel Division, Bldg 185. (Reposting) Department of Nuclear Energy.

DD 8376. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent, excellent communication skills and a good knowledge of laboratory policies and procedures as well as proficiency in the use of WordPerfect. Will provide varied secretarial support to the Engineering Technology Division, including preparation of technical reports, arranging travel and maintaining office files. Additional duties will include assisting Division Secretary and other group secretaries as needed. Department of Nuclear Energy.

MK 6436. SECRETARIAL POSITION (term appointment) - Requires an AAS in secretarial science or equivalent, 3-5 years' experience, and knowledge of WordPerfect. Experience with d-Base and graphics programs highly desirable. Will provide secretarial support for on-site training programs, craft apprenticeship and tuition-refund programs. Responsibilities include processing tuition-refund requests, purchase orders, ILRS, STAs and the preparation of training manuals and materials. Training & Development Group, Personnel Division.

NS 6125. OFFICE SERVICES POSITION (term until 9/30/92) - Requires AAS degree or equivalent with good secretarial skills and experience using PC-based application packages. Responsibilities will include extracting data and generating reports from a commercial database program; managing Department maintenance and safety training records; and distributing document updates, revisions and new procedures. Alternating Gradient Synchrotron Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 8372. ADMINISTRATIVE/PROGRAMMING POSITION - Requires BS in computer science or equivalent comprehensive background and at least three years' experience writing COBOL programs. Knowledge of HP interfacing programs and familiarity with IBM PC software desirable. Will program on-line databases; flowchart, install, test, document and maintain programs for business applications of Department. Will run programs generating various reports in the areas of budget, payroll, cost reporting, etc. (Reposting) Department of Nuclear Energy.

NS 0179. CONTRACTS POSITION - Requires BBA or equivalent experience and a comprehensive background in all aspects of procurement. The ability to draft RFPs, contract modifications and special provisions; perform analyses of cost and person-hour estimates; and knowledge of Federal Acquisition Regulations is also required. Previous experience in an R&D environment desirable. Division of Contracts & Procurement.

MK 1012. PHYSICS ASSOCIATE POSITION - Requires MS in physics, and 5 years' experience in accelerator physics and fast-pulsed magnet systems. Will be responsible for the supervision of the R&D and design of fast-pulsed magnet systems for beam injection into and extraction from RHIC, as well as the beam absorber and beam scraping systems of RHIC. RHIC Project, Accelerator Development Department.

DD 1031. DESIGN POSITION (term appointment) - Requires AAS or equivalent and significant experience performing mechanical design functions. A working knowledge of engineering fundamentals, machine design, shop practices, welding and vacuum systems also required, as is a familiarity with ANSI Y14.5-1982. Will be responsible for design projects from conceptual layouts to detailed working drawings. AutoCAD, either DOS or UNIX required. Accelerator Development Department.

DD 8699. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent experience, with experience troubleshooting electronic equipment to the component level. Duties will include maintenance and calibration of various radiation detection and environmental monitoring instruments. The ability to obtain and maintain security clearance also required. (Reposting) Safety and Environmental Protection Division.

Motor Vehicles & Supplies

85 DODGE CARAVAN SE - 66k mi., 2.6L eng., gar., new tires, ask. \$3,800; '84 Chevy Luxury Van, long-bed, seats 7, ac, ask. \$3,950. Roy, Ext. 7357.

85 KAWASAKI KX-80 DIRT BIKE - mint cond., also whole other bike for parts, 100-cyl. kit, much more modified parts. \$750 neg. 928-5065.

84 OLDS DELTA 88 - 2-dr., am/fm cass., ac, white w/blue top, 97k mi., excel. cond., \$2,100. Toner, Ext. 2769.

84 COUGAR - white, good cond., \$3,000 neg. 587-4696 after 6:30 p.m.

84 PLYMOUTH RELIANT - p/s, p/b, ac, 4-dr., orig. owner, \$1,000. Ext. 5621 or 294-3287 after 6 p.m.

83 MITSU TREDIA - good cond., runs well, \$950. Bob, Ext. 7627.

82 GMC 2x4 PICKUP - 8' bed, 6.2 diesel, dual 20-gal. fuel tanks, good cond., \$2,500. Pat, Ext. 2452 or 722-4706 eves.

82 CHEVROLET CHEVETTE - 79k mi., a/t, ac, p/s, p/b, am/fm cass., new tires & brakes, looks good, runs well, \$800 or best offer. Ext. 3057.

81 CAMARO Z28 - a/t, p/w, p/b, p/s, ac, black, mint cond., 929-8396 after 8 p.m.

81 TOYOTA COROLLA - 2-dr., 4-spd., 91k mi., new clutch, brakes, muffler, alternator & tires, \$970. Bo, Ext. 3537.

80 PLYMOUTH PICKUP - am/fm cass., cap, good tires, exhaust, runs well, some rust, asking \$1,200. 289-1726.

80 HONDA HAWK - 450cc, runs well, \$250. Jon, 281-7935 eves.

80 PONTIAC TRANS AM - gray, p/s, p/b, T-top, low mileage, runs well, looks good, asking \$2,200. Jeff, 286-1348 after 6 p.m.

79 CHRYSLER LE BARON - 2-dr., tan, new exhaust, good tires, runs well, \$1,200. 751-6139 after 3 p.m.

78 OLDS 88 - looks good, runs well, \$700 or best offer. Ext. 7897 or 331-0807.

72 GREMLIN - runs, good rubber, \$100. Pete, 924-0277.

65 FORD MUSTANG - good cond., 395-5045 after 5 p.m.

64 CHEVY BISCAYNE - 2-dr., 6-cyl., \$350. Dan, Ext. 7271.

31 CHRYSLER - 2-dr., rumble seat, all orig., excel. cond., ask. \$8,000. Rosalie, Ext. 3160 or 289-5704.

TIRES - P195/70SR14, w/w, Uniroyal, yours for the taking, Paul, Ext. 2447.

TIRES - 2, Falken Low Profile sport, steel-belted radials, 215/60R15904, \$75 ea. or make offer. Bill, 281-4726.

TIRES - snows, P175/80R13-MS, Plymouth wheels, \$30, two like new. Stewart, 273-6993.

Furnishings & Appliances

BEDROOM - 4-poster full bed, pine, armoire, 2 nightstands, lamps, \$375; 2 love seats, tan, walnut wood, \$110. Hurst, Ext. 3844.

BEDROOM - 6 piece, wood, excel. cond., must see, \$400. Don or Jackie, 744-2921.

COUCH - Ethan Allen, 7', excel. cond. 325-0447.

DINING ROOM - cherry, table & 4 chairs, Queen Anne style, excel. cond., \$500. Jean, Ext. 4938.

RANGE - electric, 30", large over-range hood, avocado color, good cond., \$35. 363-9527.

GRANDFATHER CLOCK - oak case, Westminster chime, moon dial, works, needs to be cleaned, orig. \$850, sell for \$350. Rob, Ext. 2502.

HUTCH - & dry sink, Colonial, good cond., \$150 or best offer. Mike, Ext. 7165.

KITCHEN CABINETS - birch white formica; GE dishwasher, white; Kenmore refrigerator, 19 cu. in., brown, v.g. cond. Ext. 5058 or 689-9869.

LAMP - Oriental, \$45; rattan sofa bed, \$100; fireplace grate, \$5; ice skater tablecloth, \$5; twin bedspread, \$10. Kathy, 744-2203.

LIVING ROOM - rattan, 7 piece, couch chairs, rocker, 2 end tables, coffee table, etagere, \$1,100. Toni, Ext. 5257.

LIVING ROOM - red velvet Spanish couch, 2 chairs, 2 end tables, coffee table, 2 lamps, 2 large pictures, \$450/all; more. Frank, 928-9834.

SCHOOL DESK - old, w/attached seat, storage compartment, \$35. 821-1042.

SEWING MACHINE - works, \$25; manual typewriter, \$20; 10-light chandelier, \$50; 1941 RCA radio, \$50; dishwasher, \$75. Roger, Ext. 7518.

TABLE - dark wood, round, 4 captain's chairs, \$200. 395-3907.

WASHER - Whirlpool, white, 5 yr. old, v.g. cond., \$140. Paul, Ext. 7577.

WATER BED - super single, full-motion mattress, \$200 neg. 653-6286.

Tools, House & Garden

CHAIN SAW - Craftsman, 20", \$25; 2 Jacobson Chief lawn tractors, 8 h.p. Keller engines, good for parts, \$50. Jeb, Ext. 7607 or 286-0204.

COAL STOVE - Surdiac, Southport model, approx. 30,000 Btus, excel. cond., black porcelain finish, \$200 neg. Joe, Ext. 5139.

FIREWOOD - seasoned, hardwood, Riverhead/Mattituck area. Steve, 722-4821.

FIREWOOD - split, oak, J. Scesny, 732-2849.

FIREWOOD - full cord, delivered, stacked, 6 cords left, \$100/cord. Ken or John, 331-1841.

GARAGE DOOR OPENER - Sears, 1/2 h.p., remote, excel. cond., \$70; garage door tracks, w/hardware, like new, \$30. Tom, Ext. 4563.

KILN - Sitter model K, includes 240V outlet, 8 gauge wire, several assorted molds, used twice, \$500. Rob, Ext. 2502.

WEATHERVANE & WOOD ROOF CUPOLA - copper roof, \$75; 1940s wood doll crib, \$20. 475-4199.

WOOD STOVE - Vermont Castings, \$550. Ext. 7130 or 924-8323.

WOOD STOVE - Vermont Castings Vigilant, excel. cond., w/chimney pipe, 2 cords of seasoned wood. Steve, 722-4821.

Sports, Hobbies & Pets

BICYCLE FRAME - 56cm Colnago Master w/Dura Ace headset & BB, \$400; Blackburn track stand, \$60. Ext. 3499.

BIRDS - hand trained cockatiel, parakeets, finches, orange breasted weavers, cages, new & used, more, reasonable. Kelly, 744-3069.

CAT - gray & white, short hair, male, needs good home, mellow, mature lap cat, gentle, w/cute funny face. Rob, Ext. 5161.

COMPOUND BOW - Alpine Mustang, right hand, 55-70 draw weight, 4 mo. old, orig. \$250, asking \$150. John, Ext. 5409.

DOG CRATE - new, orig. \$155, asking \$75. 821-1042.

DOLLS - Princess Diana & Prince Charles, 19" & 21", porcelain, by Lady Anna, \$450; Yamaha keyboard, excel. cond., \$50. 727-0082.

ENLARGING LENS - El Nikkor, 50mm, 2.8, excel., \$75; slide projector, Argus 2x2, 3.5 lens, 4" projection, \$20. Susan, Ext. 7647.

Audio, Video & Computers

ADAPTER - electronics power supply, 120Vac to 7.3Vdc, \$5; Gerrard turntable, works well, \$10. Pete, Ext. 4581 or 399-2813.

COMPUTER - Apple II/CPM-80, dual 5 1/4 drives, Epson FX-80 NLQ printer, monitor, software, complete system, \$350. Don or Jackie, 744-2921.

COMPUTER - Tandy CoCo3, 128K, 2 f/d, tape drive, cart. bay, color monitor, joysticks, 24 games/program, w/table, \$110 neg. Hurst, Ext. 3844.

COMPUTER - IBM compatible, 386-25 2 mb ram, 2 floppies, 1.2 & 1.44, 40mb hard drive, 2 s/p/g ports, more, \$1,200. Al, Ext. 3992 or 331-1003.

COMPUTER - Apple IIE 128k-80, color 8MHz, zipchip, joystick, 2 drives, modem, printer, card, software, manuals, \$700. Mel, Ext. 2285.

POWER AMPLIFIER - Conrad-Johnson MV-45, stereo, \$425. Bob, Ext. 5851.

TV TEST EQUIPMENT - 130 Sams Photofacts, 400 tubes & caddy, make offer on all or partial. Richie, Ext. 2216 or 734-7342 after 6 p.m.

VIDEO GAME COMPUTER - Atari, w/various games, \$30. Pete, Ext. 4581 or 399-2813 after 5 p.m.

Miscellaneous

AIRLINE TICKETS - 2, one-way, JFK-Seattle United Airlines, Feb. 25, 9 a.m. Chris, Ext. 5692.

BALLET TICKETS - 2, NY City Ballet, Lincoln Center, 1st tier, great view, orig. \$52/ea., make offer. Bob Kelly, Ext. 3782.

FUR JACKET - woman's, European, short, light brown, leather trimmed, size 6-8, like new, orig. \$145, sell for \$50. Ext. 3071.

HUNTING OUTFIT - Woolrich, red & black, medium, pants, shirt; orange rainwear outfit, best offer; boots, size 10, almost new. 928-9834.

Lost & Found

FOUND - medium-size dog, Moriches area, mostly black w/brown/white under chin and brown paws. 286-3851.

Yard & Garage Sales

BELLPORT - Sat., 2/8, 10-3 p.m., books, records, washer, kerosene heater, racing bike, house items, #5 Woodland Park Rd. Paul, Ext. 7577.

Wanted

AMP - for guitar, Fender Quad Reverb amplifier, tube-type, for parts, also need schematic. John or Phil, Ext. 3292 or 286-1348.

COAL - pea size, are you fed up with it? Will pay cash to remove it. Fred, 744-2655.

DINGHY - any old kind that floats, 7'-10' long, cheap. John, Ext. 7671.

FISH TANK - 35 gallons, for teen-age project. Bob, 732-9517.

HOUSEMATE - 1-bdrm. avail. cable/HBO, phone, w/w, fenced yard, utilities incl. reasonable, 10 min. to Lab, \$350/mo. Sue, 399-3087.

ICE SKATES - woman's size 6-6 1/2, girl's size 2-2 1/2. Ken, Ext. 7915.

PROJECTOR - 8mm, need Argus Showmaster Model 5500 or equivalent for parts. John, Ext. 3292 or 286-1348.

SKIERS - for Bellayre, 2/19, \$42 for bus & lift, send payment to Augie Hoffman, Bldg. 510C, Ext. 3884.

TRAINS - Lionel & American Flyer, priv. collector, pays top \$. Bruce, 924-4097.

TUBED AUDIO COMPONENTS - working or not, Quad, Ampex, Tandberg, Grundig, Marantz, ARC, Macintosh, Collins, etc. Jim, Ext. 4584.

WESTHIGHLAND TERRIER - puppy, female, for adoption. Mary, 727-0082.

Services

Services are listed in the first Bulletin of every month as a courtesy to BNL employees. They are neither screened nor recommended by the Bulletin. Services forms are available in the Bulletin lobby, Bldg. 134.

ACCOUNTING SERVICES - CPA, tax return preparation, individual, partnership, corporate, low prices. Nadia, 878-5886.

ASPHALT - and driveway sealing work. Bob, 475-4382.

AUTO DETAILING - protect your investment, full detail or bi-weekly washings at your home/office, reasonable rates, refs. avail. Andy, 929-4450.

BABY-SITTING - responsible mom of one to care for your child in my Eastport home, M-F afternoons/eves. and weekends. 325-1207.

BABY-SITTING - I'm good with kids, ages 1-10, after 3 on weekdays, anytime weekends, call any time. Viki, 281-7568.

BABY-SITTING - 13-yr. old, reliable & responsible young lady, Ctr. Moriches area. Vanessa, 878-1178.

BABY-SITTING - experienced H.S. student avail. after school & wknds. & all summer. 399-2179.

BICYCLE REPAIRS - tune-ups, upgrades, etc., no basket cases please. Joe, 929-4425.

BRICKWORK - masonry, patios, walks, swimming pools, retaining walls, landscaping ties, Belgian block, 25 yr. exp., Lab discount. Tony, 698-9274.

CARPENTER - 20 yr. exp., seeking small jobs, decks, sheds, cabinet work, etc. Kevin, 758-2653.

CARPENTRY - custom kitchens, baths, sheet-rock, dormers & extensions, closets, roofing, siding, custom decks, more. Mike, 737-1506.

CARPETING - discount purchase, installation & repair, custom work, stripes, borders, printing in carpet. Mark, 399-2813.

CARPET/UPHOLSTERY CLEANING - spot, pet stains, odor removal, auto interior, fabric protector, free est., Lab discount. Jerry, 924-6019, days.

CHILD CARE - nurse w/pediatric experience, your child, my home, evening hours only, Yaphank area. Lee, 924-8802 after 4:30 p.m.

CHILD CARE - mature, experienced mom has on-site openings for children, reasonable rates. Karen, Ext. 3181.

COLLEGE FINANCIAL AID - guaranteed, refund if no aid, computers match grants & scholarships w/student, Lab discount. Tom, 736-6691.

DECORATED CAKES - beautifully decorated cakes for all occasions, pies, cookies, brownies, & cream pastries. Millie, 367-4147.

ELECTRICIAN - outlets, switches, lighting, alterations, repairs, service upgrades, licensed. Steve, 758-7002.

EXERCISE - in your own home under professional supervision & guidance. Joann, 472-6742.

GENERAL CLEAN-UP - landscaping, shrubs moved, driveways sealed, reas. Ernie, 698-9274.

HANDYMAN - experienced in electrical, plumbing, dry-wall construction, spackling. Harvey, 281-7568.

HOUSEKEEPING & BABYSITTING - mother of two grown children. Valentina, Ext. 3097.

HOME IMPROVEMENTS - windows & doors, kitchens & baths, 35 yr. exp., lic. & insured. Carl, 698-9274.

HOMEMADE COOKIES - tasty & reasonable. 363-7032.

HOUSE CLEANING - reasonable rates, very reliable, excel. refs., cleaning the way you want it. Carmen, 744-2715.

HOUSE CLEANING - reasonable, reliable, refs. Cathi, 281-0360.

INCOME TAXES - prepared by tax consultant, your home or mine, reasonable, servicing Lab people for over 25 years. John, 732-2472.

INCOME TAX PREPARATION - your home, my office, electronic filing. John, 281-4008.

INCOME TAX PREPARATION - IRS enrolled, 18 yr. exp., reasonable fees. 864-2236.

KARATE - Shinjitsu situational, confrontational, rape survival, mental, physical conditioning, weapons instruction. Richard, 289-2939.

LOCKSMITH - sales & service, 10% Lab discount, keys cut during lunch. Pete, 399-2813 after 5 p.m.

STUMPS/TREES/BRUSH REMOVED - clean & clear w/rake on 450 loader, \$70/hr. Tom, 878-1060.

MASSAGE THERAPIST - therapeutic massage by licensed therapist, Medford. Alana, 475-4947.

NAILS - nail tips, gel, silk wrap, etc., polish & designs for special/all occasions, full sets or fill-ins. Jackie, 744-2921.

PAINTING - interior, exterior, taping, spackling, wallpapering, carpentry, roofing, wood shingle, power washing, insured. James, 399-4912.

PARTIES - make all your parties special events, every detail covered, all size parties, any occasion. Rosalie, 289-5704.

PIANO LESSONS - graduate musician in piano performance, 5-yr. teaching exp. at college, letters of recommendation. Sasa, 929-0407.

PLUMBING & HEATING ALTERATIONS - and repair work by Jim Morris, BNL retiree. 472-1205.

PROPERTY MANAGEMENT - complete home care for your home or business. 878-1178.

SEWING - mending, repairs, hems, Lab discount. Joann, 472-6742.

SHEETROCKING & SPACKLING - free estimate. Kevin, 563-9855.

SKYLIGHTS - complete, prof. service, cleaning, preventive maint., installations. Joseph, 924-6019.

TUTOR - retired engineer/teacher will tutor high school & college level physics, chemistry & all mathematics thru calculus. 758-8233.

VIDEOGRAPHER - capture those precious moments, will tape weddings, parties, all occasions, fair prices. Larry, 281-7240.

WORD PROCESSING - scientific papers, resumes, mailing lists/labels, term papers, letters, for home & business needs. J. Lamb, 589-2848.

In Appreciation

The family of Bob Recame, Custodial Services, wishes to thank his co-workers for their prayers, cards and generous gifts to him. At this time visitors are restricted, but your continued well wishes will be greatly appreciated. Thank you all.

Ads left out of this issue due to lack of space need not be resubmitted to appear in the next issue.