

Of Pots and Politics

Archaeologists are at work around the world looking for artifacts that will help illuminate the past. Sometimes their search for ancient civilizations takes place in the midst of modern upheavals.

In April, three weeks before Ron Bishop was to go to Guatemala, the government was overthrown in a military coup and a new president declared. But Bishop didn't cancel his trip. It was going to be his sixth visit, and he had seen governments come and go before.

Ronald Bishop is an archaeologist with a long-time interest in Mayan culture and history. "The climax of Mayan civilization was about 600-900 A.D.," he says. "It was a time of great



Much of Mayan art contains hieroglyphics, and deciphering them is a skill acquired by only a small number of people in the world. Spending the summer at Brookhaven to work with Ron Bishop in his study of Mayan ceramics is Dorie Reents, an art history Ph.D. student at U. of Texas specializing in epigraphy, the deciphering of ancient inscriptions. According to Reents, Mayan hieroglyphics are based on a combination of phonetics and pictures. The glyphs on the Mayan pot shown above are probably part of a ritual speech or chant. The scene depicts an individual (left) greeting in deferential manner (holding his shoulder) a god of the underworld. The pot may have been made to commemorate the individual's passage to the underworld.

achievement in architecture, art and science.

"Why did it suddenly collapse? Where did the people go? No one has a good handle on what happened. The best we can say is that there seems to be no single cause."

For nine years, Bishop has been a research collaborator at BNL, studying Mayan jade and ceramics. The focus of his month-long trip to Guatemala was polychrome ceramics, which were widely produced at the height of Mayan civilization. Polychrome art is characterized by multiple colors, figure representation and hieroglyphics. Bishop says a study of this pottery will give archaeologists and art historians more insight into the social and political events in Mayan pre-recorded history.

For example, he has studied pots that display a historical narrative describing a power struggle between cities. Which cities, why? To help answer those questions, says Bishop, "it's important to place the pottery not just in time, but in space. And one can't assume a pot was made where it was found."

To trace a pot's origin, he uses a technique called neutron activation analysis, which was first applied to archaeology by Edward Sayre and later by Garman Harbottle, BNL senior chemists.

A small sample is taken from an object. In Bishop's work, he drills a tiny hole in the bottom of a pot and collects the powder — about a good pinch of it. The sample goes into the BNL High Flux Beam Reactor to be irradiated. Isotopes of the trace ele-

ments in the sample become radioactive, each one having a distinct pattern of radioactive decay that identifies it. Then the patterns are compared with vessels whose origins are already known. Bishop works with a data bank of over 5,000 samples and more than 1,000 whole vessels.

The background to all of this is that clays from different regions can be distinguished because of chemical anomalies. For example, Bishop reports that chromium values are high in Guatemala's Usumacinta River drainage area, which drains the highlands and flows to the eastern coast of Mexico.

During his April trip, Bishop spent his time in museums and institutions cataloging and photographing collections of polychrome ceramics. He also collected samples to bring back for later analysis at Brookhaven.

He didn't venture into the countryside and passed up a chance to join a team of archaeologists excavating a site in northern Guatemala. But not because he was worried about his safety. Bishop was in a car accident a month before the trip and was barely off a cane when he went. "I can tell you that codeine and tequila are a great combination for numbing pain," says Bishop, who could not postpone the trip because it was two years in the making. His study of Mayan ceramics is funded through Boston's Museum of Fine Arts Research Laboratory, directed by Lambertus Van Zelst, with whom Bishop collaborates in addition to Sayre and Harbottle at BNL.

Bishop says except for occasional incidents, like the terrorist take-over of the Brazilian embassy down the street from where he was staying, travel around the country is possible and the tourist areas are safe.

"Rios Montt, the new president, has some innovative plans to help the poor Indians," says Bishop. According to him, Guatemala today mirrors the ancient Mayan civilization, which was structured like a pyramid: priests and administrators at the top, craftspeople in the middle and a large pool of laborers at the bottom. The pyramid today is formed by the military, the professionals and the Indians.

"The Indians live at subsistence level," says Bishop. "They need medical care, schools and most of all roads to open communication and provide a



A family in traditional dress in the Guatemalan village of Santiago Atitlan. Clothing from each village has a unique pattern of colors and woven motifs.



Archaeologist Ron Bishop during one of his earlier trips into the Maya jungle. Bishop is standing at an ancient aqueduct used to carry river water to a central city complex at Palenque near the border of Guatemala and Mexico.

way to get to market places for trading goods.

"But even in their condition, they are incredibly honest people. I've lived in the villages among the Indians. You can lose a pencil, and within a day it will be returned to you."

Bishop says apart from his work, what brings him back to Guatemala over and over is the physical beauty of the country and the sense of living history that he gets when he is among its people.

—Mona S. Rowe

To The Times

On June 24, The New York Times led off with an editorial that was critical of high energy physics and, in particular, of Project ISABELLE. Of course, Brookhaven physicists were dismayed and none more so than Lab Director Nicholas Samios. He was particularly angry, he said, that the Times' editorial writer did not have all his facts straight. For instance, a statement that "Brookhaven switched to the Fermilab-magnet design," is wrong, said Samios, unless you believe that cold iron is the same as warm iron, and that warm vacuum is the same as cold vacuum. In another instance, where the editorial alluded to the collider at CERN as "a clever stratagem suggested by a mostly American team," Samios said that the collider was not an American idea, but mainly European. So that Lab employees may be aware of Samios' full response, following is the text of his reply to the Times:

I am compelled to respond to the New York Times editorial of June 24, 1982 concerning U.S. high energy physics in general, and project ISABELLE in particular. This is a complex subject requiring deep understanding — especially when it is discussed in a few paragraphs. Unfortunately, this editorial has failed to exhibit an adequate grasp of the issues. It is inaccurate to assume that large accelerators, which require many years to construct, have preordained discoveries. In fact, the most notable findings at major high energy accelerators were not predicted or even conjectured when they were begun. Even the Bevatron at Lawrence Berkeley Laboratory, whose energy was chosen so as to allow for the finding of the anti-proton, which it did, made its most profound impact by enabling the discovery of numerous other unexpected particles. It is therefore simplistic to focus on the race for the gluon or the vector bosons; these are appetizers, not the main course. (Strong evidence for the existence of the gluon had been found in the U.S. well before the Europeans entered the picture.) Thus the unattributed "quote" ending with "That will stick it to the Europeans for beating us to the gluon, and we'll win a Nobel Prize for sure." shows imagi-

(Continued on page 2)

Goland Assumes DEE Post

Allen Goland, a solid state physicist at Brookhaven since 1963, has been appointed associate chairman for Energy Sciences Programs in DEE. In this capacity, he will oversee the programs in chemical sciences, metallurgy and materials, and process sciences. According to DEE chairman Bernard Manowitz, Goland will also be responsible for developing new programs in materials science and for improving the links between departmental programs and those at various universities.

Goland received his Ph.D. from Northwestern University in 1956 and then held a two-year postdoc in BNL's Physics Department. He was affiliated with the Army Materials Research Agency at Watertown, Mass. from 1958 to 1963, and spent the greater part of that period doing research at BNL. In 1963 he was appointed to the scientific staff of the Physics Department and ten years later became group leader of the Particle-Solid Interactions Group. He was also in charge of the 3-MeV electron accelerator.

Before he settles down full time to his job in DEE, Goland will chair a session on particle-solid interactions at the Gordon Conference this month. Among his other activities, he holds an appointment as Adjunct Professor of Materials Science at SUNY, Stony



Allen Goland

Brook, is a member of the OFE/DOE Task Group on Radiation Damage Analysis and Fundamental Studies, is on the Advisory Board on Treatises on Materials Science and Technology of Academic Press, and is a consultant to the Chemistry and Materials Research Division, Los Alamos National Laboratory. At BNL he is a member of the Brookhaven Council and was its secretary in 1981. He was a member of the Laboratory Safety Committee for six years, and chaired the committee from 1979-80.



Firefighters Gary Schaum (descending) and Jim Yerry (top) practice their rescue skills in a rappelling drill.



In a simulated cardiac arrest, Firefighters Jim Yerry (left), Jim Forkin (bottom) and Richard Richard (right) rehearse cardiopulmonary resuscitation techniques.

Doug Humphrey

Firefighting Plus

Where there's smoke, there's fire, rescue, and a whole lot more.

Firefighting is only one of the main duties of the 28 members of the BNL fire department. The others include rescue and medical services, a building inspection program for fire prevention, and extinguisher maintenance. This expansion of the purely traditional role of the firefighter fits in well with the philosophy of Captain Michael Carroll.

"Brookhaven is primarily an educational institution; people come here from all over the world to learn, and I think that should also apply to the fire service," said Carroll.

Medicine is the area in which the Fire and Rescue Group has made its greatest advances in recent years. Since 1976 anyone hired has had to have Emergency Medical Technician (EMT) training. Nine firemen are now enrolled in an advanced first aid course. All of the firefighters take part in two to three medical training sessions every week in which they review the techniques and procedures involved in treating everything from scraped knees to cardiac arrests. All of this is in preparation for the 150 medical calls responded to by the ambulance each year, in addition to the 220 calls for fire and rescue operations.

"If you have an emergency, whether it be medical, fire, or a hazardous

material we'll take care of it, or we'll get the people to take care of it," says Capt. Carroll. "The point is that we're trained professionals, and we're anxious to help, but we can't do anything unless people call." The phone number for all emergencies on site is 2222.

Capt. Carroll has suggestions for ways in which people can help themselves, and the fire department, this summer. Be particularly careful with the storage of flammable liquids such as gasoline for lawn mowers, and potentially hazardous materials like chlorine for swimming pools. All of these materials should be kept in approved safety containers and used only as directed. Parents should also take extra precautions to keep children away from barbecue grills and other outdoor fires.

When emergencies do occur the fire department is not only well trained, but also well equipped. The group has two new class A pumbers, one of which is equipped with a foam system for flammable liquids, a rescue vehicle containing equipment such as the "jaws," a pneumatic device used to extricate victims from crushed vehicles, and a fully equipped ambulance. All of this equipment will arrive at the scene of an emergency anywhere on site within four minutes of an incoming call. For instance, during a rappelling training session, an alarm was tripped at the LINAC facility due

to a power outage. The BNL firefighters arrived at the scene within two minutes, including those men who were on the wall when the alarm was first sounded. Police and fire alarm technicians also arrived on the scene at about the same time.

Firefighting is no easy task at Brookhaven because as Capt. Carroll says, "The day of just splashing water all over a building is over as far as this place is concerned." Here, firemen must be prepared to deal with radioactive elements, explosive chemicals, and other hazardous materials in the course of their work. Special classes are arranged for this purpose, such as a 30-hour course in hazardous materials that the entire department completed in April.

Brookhaven has one of the best fire safety records of any national laboratory, according to Capt. Carroll. A part of that tradition of excellence since its beginning is Capt. Fred Strier, who recently celebrated his 35th year with the department. The newest member to carry on the tradition is Frank Palmeri, who was hired several weeks ago and is now engaged in a 13-week training course before assuming regular duties.

—Derek McCalmont

(Derek McCalmont is a summer student in the Public Relations Office.)

Times

(continued)

nation but little else.

Further, the Times' interpretation of the issue of innovation is muddled. The Europeans are commended for "betting on the tried technology of ordinary magnets," while the U.S. is chastised for innovating on superconducting magnets; yet the reverse attitude is adopted towards other machine design efforts. Unfortunately, you can't have it both ways. Due to spiraling energy costs, the U.S. has been forced to innovate or else price itself out of the market. We have indeed tackled the difficult and unforgiving superconducting technology and, have solved it. In view of the many Times articles and editorials supporting the need for renewed U.S. vigor in pursuing new technologies, it is surprising that no kudos were given for the success of these efforts. This is a technology which will have a great impact far beyond the field of accelerator physics.

The statement that "other physicists had to use their accelerators less to pay for ISABELLE's cost overruns" is also incorrect. In fact, the opposite is true. The reduced national funding of the last two years resulted in disproportionately decreased funding for ISABELLE construction. For example, the Fiscal '82 funding for ISABELLE decended through the tortuous budgetary process from 50 to 41 to 21 to 15 million dollars, thereby preserving the operating program.

The editorial is misleading, but worse, it misses the main point, which is the inadequate level of funding for research in the United States. It is indeed a well known fact that the Europeans, with admirable foresight, are spending twice as much as the U.S. on high energy physics, both in absolute dollars and as a percentage of the GNP.

In response to the marked budgetary constraints, the U.S. has closed numerous major accelerators (4 in the past 12 years) and planned a coherent national program based on physics complementarity (electrons at Stanford, proton fixed target at Fermilab, and colliders at Brookhaven) and a constant level of funding (in fixed dollars) from 1979 on. The fact that we are 15-20% below this level has been a major cause of the present difficulties. Cognizant of this fact, the President's Science Advisor and the Department of Energy have made heroic efforts to partially restore the necessary funding in 1983. At the same time Brookhaven, responsive to this budget situation, is actively seeking ways to reduce the cost while maintaining capabilities of this facility.

The U.S. high energy physics community has attempted to act in a responsible manner under adverse conditions. Sadly, the New York Times, which I usually consider to be a reliable and sound source of information, has in this case missed the mark. I hope this is a temporary aberration.

Sunday Tours

In addition to enjoying the regular Sunday tour program on July 11, visitors to the Laboratory will also be invited to inspect the Brookhaven House — the energy-efficient, passive solar home located on the corner of Upton Road and Mitchell Lane.

Tours of the house will be given between 10 a.m. and 3 p.m. An award-winning film entitled "Building the Brookhaven House" will be shown in Berkner Hall and a member of the project team will be available at the house to answer technical questions.

All tours begin at Berkner Hall, where buses will depart for two destinations, either straight to the Brookhaven House, or for a guided tour of the Lab site and a visit to the Exhibit Center where dozens of lively displays describe BNL's research — past, present and future.

While no date has been set, it is likely that the Brookhaven House will also be opened to the public one day later in this tour season.

Because of the Fourth of July holiday, no tours will be held this Sunday; the next scheduled tour date is July 11.

Los Alamos National Laboratory reports in a recent issue of its Newsletter that they have received a letter from the Italian Embassy in Washington, D.C. addressed to "Lost Animals National Laboratory."

Firefighting and rescue skills are rare among the general population, so the members of the BNL fire department share their abilities with the communities in which they live, as well as putting them to use on the job. The stork pin pictured can be found on the hat of Firefighter Richard Richard who delivered a baby boy while he was on a run with the Patchogue Ambulance Corps. Other members of the department who have delivered, or assisted in a delivery, are Firefighters JoAnne Delise and Chuck LaSalla, Fire Sgt. Daniel Gilliam and Capt. Michael Carroll. Almost all of the firefighters at Brookhaven belong to Long Island volunteer fire departments or ambulance corps, providing invaluable life-saving services to their communities.



—Doug Humphrey

Arrivals & Departures

None Arrivals

Departures

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

Gerald T. Bida Nuclear Energy
 H. Lee Conway Energy & Env.
 Richard W. Dodson Chemistry
 William E. Dunne Central Shops
 Clifford Fredrickson Energy & Env.
 Donald I. Garber Nuclear Energy
 Donald M. Gilzinger Accelerator
 David E. Gumm Central Shops
 Thomas A. Mullany NSLS
 William R. Sceviour Chemistry
 Anna M. Sell Accelerator
 Edward E. Shelton Plant Engrg.
 Mary S. Smith Accelerator
 Milda E. Vitols Physics
 Chiang Y. Yang Energy & Env.

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Market Day Today

All sorts of Long Island produce, from strawberries to cauliflowers, will be on sale at Brookhaven during the summer and into the fall. Beginning today, from 11:30 a.m. to 1:30 p.m., a farmers' market will be held every Friday in the parking lot adjacent to the theater on Brookhaven Avenue.

Local farmers will bring their wares to Brookhaven and sell them to employees from the backs of their trucks. It is expected that they will bring fruits and vegetables, as well as pies, jams and plants. The market will be open until October 29 and employees will have access to the whole range of Long Island produce as it comes in season. It should be emphasized that this market is not for the general public, but Lab employees only.

Establishing similar farmers' markets throughout the state was the brainchild of the State Department of Agriculture and Markets. According to reports, a market opened recently at the state office building at Hauppauge was a sellout.

S&EP emphasizes that when you come back from the market, do not put your produce in refrigerators containing chemicals. It isn't healthy for your lettuce or for you.

Hospitality News

The Hospitality Committee's monthly morning get-together, originally planned for Tuesday, July 6, has been rescheduled for Tuesday, July 13, from 9:30 to 11:30 a.m., in the Brookhaven Center. All wives of Laboratory employees and guests are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

Cafeteria Menu

Week Ending July 9, 1982

Monday, July 5	
Snack Bar Service — 9 a.m. to 2 p.m.	
Tuesday, July 6	
Lentil soup	(cup) .60 (bowl) .70
Roasted turkey w/ stuffing & giblet gravy	1.85
Beef liver & onions w/1 veg.	1.75
Hot Deli — Meatball hero	1.90
Wednesday, July 7	
Cream of potato soup	(cup) .65 (bowl) .75
Old fashioned beef stew on egg noodles	1.90
Corned beef & cabbage	1.85
Hot Deli — BBQ pork sandwich	(bread) 1.80 (roll) 1.90
Thursday, July 8	
Split pea soup	(cup) .60 (bowl) .70
Veal pattie Parmesan & 1 veg. or w/ spaghetti	1.80 2.00
Sauted chicken breast on rice	1.80
Hot Deli — French toasted ham & cheese	1.75
Friday, July 9	
Fish chowder	(cup) .65 (bowl) .75
Breaded fish fillet & 1 veg.	1.80
Beef hash & 1 veg.	1.75
Hot Deli — Clam boat	1.90

Give blood-Save lives!



Feeling good after giving blood at last week's Bloodmobile are (from left) McHarrell Thomas, DEE; Linda King, Plant Engineering; Marsha Kipperman, Personnel; Harry Ackerman, Jr., AGS; George Greene, DNE; and Bill Leonhardt, AGS. The six pints of blood collected from this group helped the Lab to reach its final total donation of 568 productive pints. Despite this generosity, the Greater New York Blood Program is currently experiencing critical shortages — especially of type O Negative blood. Anyone who missed last week's opportunity to donate but who would still like to do so, can call Len Emma on Ext. 3334 or the blood program at (212) 570-3158.

Runners' Corner

Now that summer is here, all runners should remember that the heat can cause problems. To help you avoid them, here are some simple suggestions taken from the journal for the 3rd Annual Shelter Island 10k run:

- Drink fluids before, during and after running.
- Apply water to head, neck and body, whenever possible.
- Wear light-colored, loose-fitting clothes and a light cap.
- Avoid salt tablets.
- Allow time to become acclimatized to the weather.
- Adjust summer workouts; go easy and avoid the hottest part of the day.

Applications for local races are available in Rm. 2-32, Bldg. 130. Also, SUB-4 singlets are now available at \$10 each. For information, call Jeanne Penoyar, Ext. 2614.

Diners Note

The Cafeteria will be open from 9 a.m. until 2 p.m. on Saturday, Sunday and Monday, July 3, 4 and 5, due to the holiday.

The Center club will be closed on Sunday, July 4, reopening Monday, July 5 at 5 p.m.

The Vended Food Service in Building 912 will be in operation continuously.

A Record Breaker

You weren't just imagining it — there was a lot of rain in June. Walter Jahngig of Meteorology reports that 12.85 inches of rain fell at BNL in that period, breaking the record. It was the most precipitation recorded in this area since record keeping began here in January 1949. The previous winner was August 1954 with 11.98 inches of rain, and a hurricane thrown in.

Insect Identification

To control insects in your garden, you need to know the villains you're after. This guide to some of the more common garden pests is compiled from information provided by the Cooperative Extension Association of Suffolk County.

Pest	Description	Where They're Found	What They Do	To Control Them
Aphids or Plant Lice	Small, soft-bodied, vary in color from gray to green, brown, yellow or black	In large numbers, on the undersides of leaves	Suck juices from plant, causing curling, wilting, even stunting	Apply malathion at weekly intervals as needed
Striped Cucumber Beetle	Yellow with black stripes	On cucumbers, squash, melon, related plants; often inside squash flowers late in season	Transmit bacterial wilt disease to healthy plants	Spray or dust methoxychlor on plants when beetles appear; repeat weekly as needed.
Mexican Bean Beetle	Yellowish to copper in color, with black spots; sometimes confused with ladybug	On the undersides of bean leaves	Both adults and larvae (fuzzy yellow) skeletonize leaves by feeding on them.	Use carbaryl.
Colorado Potato Beetle	Eggs are yellow; larvae is brick red	On the undersides of leaves of potatoes, egg-plants, tomatoes	Beetles and larvae feed on leaves which leads to defoliation	Use methoxychlor or carbaryl
Tomato Hornworm	Has a spikelike projection on one of the last abdominal segments	On tomatoes	Feed on leaves and green fruit causing early defoliation and deformed fruit	Use carbaryl or Bt (<i>Bacillus thuringiensis</i> , a biological control sold as Dipel, Bactur or Thuricide.
Cabbage Loopers	Same color as the plants they eat	On cabbage, broccoli, cauliflower, kale, related crops	Feed on outer leaves but gradually work to inner plant parts	Use Carbaryl, Bt or Diazinon, following label instructions.

Ticket Deadline!

Today is the last day to buy tickets for Picnic '82, the Lab's 35th anniversary celebration slated for Saturday, July 17. A few tickets are still available and can be purchased today on a first come, first served basis from Blanche Laskee, Bldg. 185, Ext. 2873; Betty Pergan, Bldg. 179A, Ext. 2937; Rosalie Piccone, Bldg. 355, Ext. 3160; Marge Stoeckel, Bldg. 134, Ext. 2459; or the BERA Film Service Office.

Anyone wishing to participate in the picnic parade should contact Blanche Laskee or Marge Stoeckel.

Quilting Club

The Quilting Club will meet on Tuesday, July 6, from 9:30 until 11:30 a.m. at the Brookhaven Center for a sewing bee. Bring your own handwork. For information, call Bernie Benz at 928-1068.

Softball

Scores for week of June 21

Leagues I and II

Six Pax 26 — Moles 3
For the Six Pax, Walt Reams was 5 for 5, Ken Asselta and Ed Meier, Jr. were 5 for 6. Wayne Rambo, Ralph Brown and Joe Sheehan had home runs.

Ravens 23 — Roga 0

For the Ravens, Harold Bolling pitched a shut-out; he and Mac Thomas were 3 for 4 offensively. Herbie Harris was 4 for 6, Greg Mack and Pat Ross were 3 for 5. Home runs by Herbie Harris, Leroy James and Greg Mack.

Blue Jays 11 — Ice Pops 0

Very strong defense by the Blue Jays gave Larry Musso a shut-out. Larry helped his own cause with 6 put-out assists. Offensively, Nick Pisco was 4 for 5 and George Oldham was 3 for 3.

Phoubars 30 — Big Sticks 7

For the Phoubars, John Ingoglia, Jim Rowehl, Gary Goldstein and Bob Schoen were 4 for 6. John Ingoglia had a home run.

Leagues III and IV

Dirty Sox 7 — Medical 6
Magnuts 20 — Random Errors 3
Electric Co. 7 — AMD 1
Titans 19 — Lights Out 10

League V

TNT 12 — Nads 8
E-Z Riders 8 — Turkeys 5
Four-baggers by Larry Musso and Bobby Callister. Sally Albergo went 3 for 4 with 3 RBI's.

Survivors 16 — No Names 15

The No Names had the Survivors on the run, leading by 3 going into the 7th inning. But, with good hitting by Ken Sutter (4 for 4) with a home run, and Sydel Lamb (4 for 4), the Survivors were able to pull out.

League VI

Random Sample 12 — Who's On First 10
Mole-Esters 26 — No Feedback 13
Who Cares 27 — Mudville Sluggers 8
The Source 13 — Underalls 10
Makeup game:
Mole-Esters 12 — Underalls 8

Tennis Tournament

The Tennis Committee announces that the annual tournament consisting of five events (mixed, m & w singles, m & w doubles) will commence the weekend of July 24. The tournament will take priority over all other play during the weekends of July 24 and July 31. Competitors may sign up at the BERA Sales Office now, until July 15. The draw will be posted by July 16 at the BERA Sales Office and at courtside. Competitors are encouraged to play first-round matches as soon as the draw is posted. The tournament is open to Laboratory employees and spouses, and the entry fee is \$1.50 per person per event, payable at sign-up. A satellite tournament will be organized later for losers of first round singles.

Safety Shoes

The Safety Shoes office, located at 14 S. Railroad St. (Building 88), will be closed the week of July 12, and will re-open Monday, July 19.

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1714 AFFIRMATIVE ACTION OFFICER - Responsible to the Director for the management of all phases of the Affirmative Action Program at the Laboratory. Requires a minimum of a bachelor's degree or equivalent plus substantial experience in the administration/management of one or more aspects of affirmative action programming. Requires excellent communication and interpersonal skills. For further information please contact Janet Whitehead on extension 2872. (re-posting).

1717 MACHINE MAINTENANCE MECHANIC B (Temporary to 10/15/82) - Responsible for maintenance of machine tools and similar equipment. Central Shops Division.

Autos & Auto Supplies

73 JEEP CJ5 - 258 eng., 6 cyl., 3 sp., 11x15 tires w/white spoke rims, new master cyl., alternator, battery, runs great on & off road, real clean - must see. \$3,300. Toni, Ext. 2907.

74 DATSUN - 260Z, 4 sp., a/c, am/fm, good cond., no rust, \$2,995. 878-0288.

69 DODGE - Charger body, excel. cond., prime, ready to paint, \$250. 473-5890 after 5 p.m.

79 HONDA MOTORCYCLE - Hawk, 400cc, almost new cond., asking \$1,200. 588-0805 eves.

73 PINTO - Fastback, excel. running, standard, many new parts, \$650 or make an offer. Ext. 4017 or 928-8379.

81 RABBIT - Custom "L", excel. running, many extras, fuel-injected, standard, 4-door. Ext. 4433 or 928-8379.

76 KAWASAKI - KZ400, 7K mi., custom seat, new battery, many extras, excel. cond., asking \$800. 589-8394 eves.

78 TRANS AM - 6.6 LT, gold, beige int., ps/pb/de, am/fm, 8 track, t-top, excel. cond., \$4,995 firm. Roy, Ext. 4664 or 744-8779.

77 HONDA MOTORCYCLE - Supersport, 400cc, 4 cyl., sissy bar, new rear tire, excel. cond., garaged, \$900. Ext. 2032 or 281-2257 after 5 p.m.

71 CHEVELLE - 307 V8, p/s, a/t, good mech., body & inter. rough, good for parts, needs 4 tires & windshield to pass inspection, \$125. June, Ext. 2878 or 878-2040 after 6 p.m.

79 HONDA - CM400T, 2,000 mi., garaged, must sell, \$1,100. 981-0181.

76 AUDI - 100 LS, 4 dr, a/t, p/b, p/s, radio. Carol, Ext. 4398.

71 HONDA - 175cc, good cond., runs well, reliable transportation, \$250. Ext. 2021 or 281-7240.

65 YAMAHA MOTORCYCLE - 250cc, extra engine & misc. parts, \$175. Lee, 929-3023.

68 OLDS - 6 cyl., rebuilt carburetor, starter, alternator, new battery, very good tires, \$300. Lee, 929-3023.

79 MGB CONVERTIBLE - 2 tops & hood cover, 32,000 mi., am/fm, 8-track stereo, undercoating & 5-year rust-proofing, good cond. in and out. 878-0516.

79 PLYMOUTH VOLARE - 6 cyl., p/s, p/b, a/c, mint., \$3,250. Ext. 4490 or 286-2155.

66 MERCURY WAGON - clean, runs well, \$500. Rich, Ext. 3499 or 585-0025.

79 HONDAMATIC - 400cc, crash bars, electric starter, \$1,100. Barbara, 475-1932 after 4 p.m.

78 OLDS DELTA 88 - diesel, 41,000 mi., 2 mounted snows, very good, \$2,900. 862-8040.

64 AMC AMBASSADOR - 990, 2 dr., blue sedan, good cond., \$700. Jack, Ext. 3433 or 331-3959 eves.

74 CHEVY STEP VAN - V8, 4 spd., refrigerated, insulated, fiberglassed, heavy duty front and rear, \$4,000. 654-5169.

TIRES - (2) L78-15 snows. (2) 215.75 15's and (2) FR78-15, reasonable: parts from 69 Chevelle SS, sell/trade reasonable, have everything. Greg, 399-4313.

CAR STEREO CRAIG T689 - w/power amp, 4-spk. balance, under warranty, \$175. Eric, Ext. 2973 after 5 p.m. or 669-4845 during day.

SAAB SONETT - new burgundy lacquer, sharp, clean economical sport car, fiberglass body, \$5,850. Ext. 4387.

77 AMC GREMLIN - 4 cyl., excel. running cond., new trans. & muffler, \$1,850. 878-4268.

75 FORD MUSTANG - 4 cyl., manual, fine tires, runs good, best offer. Homer, Ext. 2357 or 924-3054.

67 OLDS CUTLASS - 44,000 mi., 350 V8, needs body work, best offer. 757-5478.

76 DATSUN 280Z - loaded, mint., 60,000 mi., must see, white w/black int., \$5,895. 799-4834 after 6 p.m.

80 SUZUKI GS - 1000L, mint cond., bought new Dec. 81, 600 mi., must see, \$2,700. 799-4834 after 6 p.m.

80 AUDI - diesel, 5000S, 5 spd., met. red, p/b, p/s, a/c, am/fm cassette, cruise control, 19,000 mi., \$11,900. 941-4999.

SHOCKS - rear spring load levers for GM intermediates prior to 1978. Ext. 3919.

63 CHEVY CARRYALL 292 - 6 cyl., rebuilt engine, low mi. & HD, 4 spd., body very poor. Good for parts. 878-0071 after 6 p.m.

73 LINCOLN - good condition. Rich, 665-6189.

79 YAMAHA - XS11, many extras, 4,300 mi., mint cond., \$2,800. 981-0025

74 NOVA - 2 dr., auto., excel. engine, good tires, body & int. need work, \$400 firm. 473-5542.

64 BUICK SPECIAL - new exhaust, tires, brakes, good running cond. 325-1080.

69 CHRYSLER - New Yorker, good cond., \$350. 924-0960.

75 HONDA - X-R75, good frame, some new parts, needs work, best offer. Ext. 3499.

Boats & Marine Supplies

14' GRUMMANS - aluminum boat, complete w/controls, 25 hp Johnson motor & trailer, clean, \$600. 924-0010.

18' GARVEY - 40 hp Johnson outboard, good cond., must sell, asking \$750 for both. John, Ext. 3292 or 286-1348.

25' CAPE DORY - very clean, 4 sails, 10 hp Chrysler in concealed hatch, \$16,000. Paul, 734-6605 eves.

CLAM RAKE & BASKET - \$28. 475-4394.

20' BAYLINER LIBERTY - 130 Volvo, I/O cabin, trailer, extras, \$5,100. John, Ext. 4973 or 541-4792.

16' FIBERGLASS BOAT - 65 hp Mercury, trailer, all access. included, ready for water \$850. Jack Dunn, Ext. 4613.

19' CHAPARRAL - 70 hp Johnson & galvanized trailer, all in excel. cond, \$4,500. 269-9072.

17' PLYWOOD HULL - good cond., 33 hp Evinrude, long shaft, needs tune-up, \$400; Chrysler marine engine, dual carb., 6 cyl., transfer case, engine complete, \$200. Lilawski, 878-9098 after 5 p.m.

Free

LAWN MOWER - runs but needs some work, extra parts incl. 589-8394 eves.

UNITED FRIG/FREEZER - fair cond., 281-4662.

Yard Sales

YARD SALE - Friday-Sunday, July 2-4, 22 Moriches Ave., East Moriches (South off Montauk Hgwy.).

Miscellaneous

FISHING REEL - German Silver Shoenfeld Seagull, 1920; (3) copies of paintings by Pres. Eisenhower in frames, 18x14; hand crocheted scarves, afghans, shawls, dolls, hats, reasonable prices. 924-0576 after 3 p.m.

TV - 25" G.E. console, early American cabinet, 4 yrs. old, excel. working cond., \$200. 286-2093.

TV - new 19" Sharp, b/w, \$135; oak triple dresser w/mirror, \$125; vinyl recliner, \$70; full mattress & spring, \$25. Ext. 4618 before lunch or 928-5737 after 1 p.m.

ORGAN - electronic w/mini-synthesizer, special voices, 5 rhythms, 15 voices, orig. \$995, now \$495. Roy, Ext. 4664 or 744-8779.

CLASSICAL GUITAR - nylon strings, excel. cond. w/case, \$45. Nick, Ext. 4701.

COOKBOOK - Weight Watchers International, \$5. 744-9677.

CLOTHES - boys, sz. 5, girls, sizes 3&4, Healthtex, cheap. Helen, 281-8848.

CARTRIDGE DISK DRIVE - Diablo, Model 44B, 10 megabyte capacity. Ext. 3160 or 289-5704 after 5:30 p.m.

FREEZER - old but works very well, 6'x3', \$75 takes it. 924-6751 eves.

LAWN MOWER - push type, excel. cond., \$35. Peter, Ext. 4608.

DINING SET - Mediterranean, 102" table, 6 chairs, china closet, 60"wx82" h glass front, \$950. 331-2779.

COMPUTER - S-100, SOL-20, 32 KRAM, NS-DD drive, complete documentation & software library, \$1,200. Ext. 2450 or 744-5217.

WETSUIT - U.S. Divers, men's medium, gloves & boots incl., like new, sacrifice \$75. Jeff, 732-3842.

BABY GUINEA PIGS - Abyssinian (curly hair), \$5; baby pet rats, white & tan, \$1.75. 281-2471.

TRAILER HITCH - Reese Model 1100 Straitline, equalizing, sway control, bolts to car frame, \$95. 265-3612.

G.E. AIR CONDITIONER - 14,500 BTU V115, 7-1/2 amps; TV reclining chair, new cond. Ext. 3392 or 475-8330.

BEDSPREAD - canopy, 2 pillow shams for double bed, yellow & white checked, 2 matching window shades, \$20 for all. Ext. 3390 or 751-3551 eves.

DINING SET - solid oak w/table mat, 2 leaf extensions, 6 chairs w/cushions & covers, excel. cond., \$200. Ext. 3742 or 821-9423.

TOOLS - Proto automatic torque wrenches, 1/2", 3/8", & 1/4" drive, almost new, lists for \$200, sell for \$100. 473-2059.

COLONIAL MAPLE COUCH - \$125 and recliner, \$35. Ext. 3040 or 399-5042.

ATARI & ACTIVISION CARTRIDGES - all kinds. 727-4783 after 5 p.m.

MATTRESSES - (2) twin size, \$25 ea., or (2) for \$45. 475-4394.

ATARI GAME & CARTRIDGES - Space Chase, Space Invaders, Breakout, & Laser Blast, \$125 for all. Ext. 2022 or 727-4228.

AQUARIUM - 20 ga. w/all access. and (4) tropical fish, \$25. Lee, 929-3023.

LAWN MOWER - Sunbeam elec. twin-blade, flip-over handle, like new, cost \$150, sell for \$85. 744-3792.

GE AIR CONDITIONER - 7500 BTU's, 26"x16", very good cond., \$150. 744-3792.

HONDA LINE - off-road leather pants, 34 waist, excel. cond., \$45. Mark, Ext. 5350.

MARY-KAY COSMETICS - 3/4 case of samples, and 4 make-up trays & mirrors, all for \$35; lady's black leather jacket, sz. 12, \$60; plain large wooden dresser, 4 drawers, w/closet & desk, 5'x3', \$70. Sharon, Ext. 3755 or 878-9571 eves.

WROUGHT IRON HANGING LAMP - 4 lights, w/wood, beautiful, \$35. Lois, Ext. 4904 or 929-4753 after 5 p.m.

GE DISHWASHER - portable, excel. cond., \$75. 286-2155.

ACCORDIAN - Excelsior, full size, 3 tones switches, very good cond. 929-6172.

COUCH - good cond., 91", traditional, \$50; water bed, 2 yrs. old, mint, \$150; antique breakfront, \$500. 924-4685.

MOPED - Toms, GM sport, 2 spd., auto., new, \$500. Ext. 3926.

WOOD SCREENS - (2) 28x42-1/2, \$6 ea.; glass tub enclosure, 5', \$25. Bill, Ext. 3355 or 472-4684 after 6 p.m.

ELECTRONIC MEDICAL THERMOMETERS - new, \$10 ea. Charlie, Ext. 3935 or 325-0968.

SOUND DISCRIMINATOR - for home or office protection, new \$265, great buy at \$210. Richie, 924-5329 eves.

WINDOWS/DOORS - wooden, double hung/stationary, w/storms, metal and wooden storm doors. Bob, Ext. 7785.

PANASONIC TAPE PLAYER - portable, 8 track; quart canning jars, w/glass tops. Ext. 2950.

MOVING - lamps, bed, dinette set, vacuum, fan, dishes, lawn chairs, 10 spd. men's bike. 473-5542.

(2) TRUCK TIRES - 750x16 highway tread, good, \$50. Lilawski, 878-9098 after 5 p.m.

WESTERN BOOTS - square toe, men's sz. 9, excel. cond., \$40. Kathy, Ext. 3652.

TRAILER - 13' Monitor, sleeps 5, gas, elec., ref., porta potti, elec. water system, good cond. 234-9630.

BICYCLE - men's 10 spd., 24", steel frame, Weinmannrims, bearings repacked, wheels trued, \$100. Lloyd, 325-0389.

4 BURNER STOVE - oven, builder model, \$150. 981-4177.

TRAILER HITCH - Reese Equalizer, for tent trailer, \$75. Ext. 4846 or 363-6940 after 5 p.m.

MEN'S BICYCLE - Raleigh, 3 spd., excel. cond., \$50; belt sander, near new, \$35. Webster, Ext. 2525.

GIRL'S BEDROOM SET - dbl. bed., chest/bookcase, night table \$90; air conditioner, \$75; 90" couch, \$40; cane back chair, \$50. 567-5619.

STEREO - Emerson compact, tuner + amplifier = cassette recorder + turntable + two speakers, \$130; 20", 3 spd. fan, \$20; Norelco coffee maker, \$12; hairdryer, \$5; all in very good cond. Ext. 3107, after July 4.

PLAYPEN - like new, \$20; baby Swing-o-matic, \$5; baby scale, \$5; toaster. Ext. 3107, after July 4.

WOOD PLATFORM - new, queen size, cost \$198, only \$150. 924-0960.

MARIGOLDS - mixed colors \$1.10/doz. Bill Stars, Ext. 4278 lunchtime or 298-9648 after 6 p.m.

SOCKET SET - 1/2", 18 metric sockets, sliding "T", speed handle, 5" and 10" extensions, 10" rachets, U-joint, box, \$40. 878-0717.

FREEDOM PHONE - cordless telephone, Model #3050, new \$269; telephone dialer, 30 nos., new \$80; Bearcat scanner, 4 channel, portable, new \$109.95; crystals for scanners, \$5 ea. Paul, Ext. 4665 or 727-4859.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

WADING RIVER - custom built, 4 bdrm. colonial, 2 baths, d/r, den, f/p, 2 car garage, full basement, private beach. Ext. 7727 or 929-4631.

MASTIC BEACH - ranch house w/new vented roof, partially finished basement, storage shed + extras, 3 mi. to Smith Point Park, beautiful area, close to schools, shopping & beaches, \$33,500. Carl or Penny Nagle, 281-7627 after 3 p.m.

SHOREHAM/WADING RIVER, 4 bdrm. colonial on acre, Axeman-Anderson boiler, 12" insulation, full basement, deck, quiet location, mortgage assumable at 10%. Lee, 929-3023.

OLD STONY BROOK NORTH - 100 yds. to beach, energy efficient, totally restored, 2-3 bdrm., 1-1/2 baths, basement, brick patio, 2 car garage, fence, \$1,100 taxes, \$89,500. Ext. 2145.

CONDO - Birchwood at Blue Ridge, 15 min. from Lab, 3 bdrms., many extras, facing golf course, low \$60's. 698-7213.

RIDGE - 2 bdrm. house on 100x100, deck, fire-place, lake rights, \$34,000. 929-6034.

VACATION CAMP SITE - w/sewage, water & elec., in heart of Poconos, 1-1/2 hr. from NYC, lake, pool, club house. 928-0066.

For Rent

COLONIAL WOODS - new 3 bdrm. townhouse, 10 min. from Lab, w/w, 5 new appl., Blue-Ray III, swimming, tennis, \$550/mo., avail. July 14. Ext. 3591 or 265-0501.

SHOREHAM - 2-5 bdrm., furn., beautiful secluded grounds, walk to beach, from August for 1 year, rent varies depending on space needed. 744-6804.

BROOKHAVEN HAMLET - 3 bdrm. house, mid July - mid Aug. 286-0612.

PORT JEFFERSON STATION - studio apt., priv. entrance & kitchen, share bath room w/female, \$200 + util. Ext. 3492.

POCONO - camp site for rent, lake view, elec. water, sewer, pool & club house, \$10 a night. 928-0066.

AMAGANSETT - secluded, w/verview, 3 bdrm., 2 baths, contemp., appliances, beach in walking distance. 267-8319.

Car Pools

PATCHOGUE VILLAGE - or paying rider. Barbara, Ext. 2456.

BAYSHORE - driver for 5 person car pool. Rich, Ext. 4308/2593.

STONY BROOK/STRATHMORE - established car pool needs rider/driver. Morris, Ext. 4192.

GREENLAWN - need one driver for existing 3-man car pool. Mark, Ext. 3258.

PATCHOGUE VAN POOL - one seat open, leave name and number at Ext. 2384.

Lost & Found

LOST - sunglasses in leather case. Bob, Ext. 7638.

LOST - (2) Wilson tennis rackets in Gym locker room area. George Oldham, Ext. 7672.

Wanted

FISHING PARTNER - weekends, Moriches Inlet area, offshore, Bluefish, Shark, Tuna, 20' cabin outboard, share expenses. 878-8491.

DEHUMIDIFIER - Ext. 3636 or 369-2151 after 6 p.m.

FOR ADOPTION - homes for adorable, shy kittens, 2 calico, 1 tabby. Susan Pepper, Ext. 2181 or 499-1532.

MOLDS - for casting metal miniatures, military figures, cartoon characters, farm animals, etc. 475-5688.

STAMPS - foreign postage stamps, don't throw them out. Mail to Leonhardt, Bldg. 911A. Thank you.

APARTMENT - 1 or 2 bdrm., Babylon, Bayshore or Islip area. A. Farrell, Ext. 4393 or 422-3208 after 6 p.m.

TRAINS - Lionel, American Flyer, access., any cond. brings good price. Carole, Ext. 3362 or 924-4097 eves.

UTILITY TRAILER - 2 wheel w/4' bed, approx. \$100 to spend. 924-6751 eves.

POOL FILTER - for above the ground pool, reasonable. Carl, Ext. 3499 or 928-6944.

DRY MOUNTING PRESS - 11"x14" or larger. Rick, Ext. 3803.

TIRES - C78-13, 700-13 or 650-13, good to fair cond. Susan, Ext. 4267.

APARTMENT - 1 bdrm., Setauket/Port Jefferson/Mt. Sinai area. Nick, 928-9000.

HOME - for kittens and cats from local humane society. JoAnn, 744-2821.

GOOD HOME - for Tabby cat, orange/white, well behaved. JoAnn, 889-2755 eves.

AMBITIOUS PERSON - \$200-\$300/month, 6-8 hrs/wk. 698-5861 after 7:30 p.m.

THIRD PERSON - to share house, Rocky Point, \$150/mo. George or Wanda, Ext. 3682 or 8