BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

No Language Barrier in U.S./Yugoslavia Study

The Biomedical and Environmental Assessment Division (BEAD) in the Department of Applied Science has a multilingual computer. It knows English, Albanian and Serbo-Croatian.

When two Yugoslavs, Behxhet Canhasi and Naim Hoxha, arrived last month to work with members of BEAD on a joint health effects study, they felt right at home. The computer, a Kaypro II, is a duplicate of a Kaypro in Yugoslavia, loaned to the Yugoslavs for the project by the U.S. Department of Energy (DOE).

BEAD's Sam Morris and Jerry Barancik hand delivered the computer to Yugoslavia in the spring of 1983. Now, after a year and a half of exchanging disks in the mail or during visits, enough data has been gathered in Yugoslavia and duplicated on the BNL Kaypro to begin analysis at BNL, where bigger computers are available for the necessary number crunching.

The project is a long term study of possible health effects of a synfuels plant in Yugoslavia. DOE, the Environmental Protection Agency and the National Institute of Occupational Safety and Health are the U.S. agencies supporting the study, which is a joint effort by the United States and Yugoslavia.

Located near the town of Pristine, the plant is part of the Kosovo industrial complex. Lignite coal, mined at the site, is used by the plant to produce a medium-BTU fuel gas for heating and to produce hydrogen for ammonia synthesis (ammonia is used to make fertilizer). The joint study will help Yugoslavia assess the health impact of the plant and also provide guidance to the U.S. agencies on potential problems of commercial synfuel plants under consideration in this country. Already, one plant has been completed in North Dakota. Before it begins operating commercially, the EPA must formulate a policy for regulating this new industry.

Roger Stoutenburgh

From left are Sam Morris, Behxhet Canhasi, Kaypro II, Naim Hoxha and Jerry Barancik. The Kaypro computer is a duplicate of one in Yugoslavia, and both are used for a joint health effects study of a Yugoslavian synfuels plant. The two Yugoslavs, Canhasi and Hoxha, have been at BNL for the past month helping with data analysis.

The health effects study has two parts. One is an assessment of industrial hygiene at the plant and involves Otto White in the Safety and Environmental Protection Division. Air contaminants at the plant include coal dust, coal tar pitch, polynuclear aromatic hydrocarbons, volatiles and chemicals such as benzo(a)pyrene, cresol, carbon monoxide and sulfur oxides.

Actual measurement of these pollutants will greatly aid the second half of the study, which is designed to detect acute and chronic health effects. Principals in this study are Morris, Barancik, Caroline Kramer and Henry Thode in BEAD; Canhasi and Hoxha, who have been here for a month; and other Yugoslavs, Musa Haxhiu, Mehmet Begraca, Alajdin Abazi, Hamdi Ukmata and Slobodan Kapor, all of whom have been to BNL for brief visits since the project began. BNL's Medical Department also gave assistance.

Initially, the epidemiological work has been an analysis of medical data on two populations: plant workers and miners. According to Morris, the medical records are extensive because workers get all their medical care at the plant clinic, not just for job-related illnesses and injuries. The records include results of annual checkups, clinical notes on sick leave, and medical causes for transfers and terminations.

Medical data pertinent to the study were entered into the Yugoslavian Kaypro by Hoxha, an electrical engineer who works at an electric power plant in the Kosovo complex. Even though he is relatively fluent in English, Hoxha programmed the computer to recognize certain words in Albanian and Serbo-Croatian, and to print out in all three languages, so others in Yugoslavia can input and work with the data.

Canhasi, a medical doctor and professor of pathophysiology at the nearby University of Kosovo, is in charge of data codification and analysis. The study is a research project for his university.

While data analysis is far from complete, Morris and Canhasi report that so far they have not seen a higher incidence of chronic respiratory diseases in the gasification workers as compared to the miners and there is no excess of cancers in either population.

After the Yugoslavs return home next week, the analysis will continue via the mail. Yet to be checked are blood diseases, circulatory diseases, effects on muscular and skeletal systems, injuries and neurological disorders.

When the study is complete, sometime in 1985, a new analysis will begin on workers involved in every aspect of the industrial complex. The long-range goal is to evaluate the existing standards, work practices and controls in the plant.

—Mona S. Rowe

BNL Lecture

Chaotic Dynamics

The national economy, electrical circuit theory and sleep/wake cycles may not appear to have much in common. But, in fact, all are complicated dynamical systems which do not always respond predictably. According to mathematician H. Bruce Stewart, Applied Mathematics Department, such random behavior (chaos) may have a simple explanation. For him, geometry is the key to understanding the chaotic dynamics involved.

In the next Brookhaven Lecture on Wednesday, November 14, at 4:30 p.m. in Berkner Hall, Stewart will discuss "The Geometry of Chaos." His lecture will be illustrated by slides and computer graphics, which, he says, are the best available means for studying these dynamics qualitatively, "if one knows what to look for."

An example of how chaos can arise from a simple dynamical system might be illustrated by the geyser "Old Faithful." Although it spouts every sixty minutes, on the average, this time span varies and the variation appears to be random. It has been suggested that the random fluctuations could be the result of a simple fluid dynamical system. Like the motion of the planets, this fluid dynamical system would have simple underlying laws. The random behavior of the system could be created by simple dynamics without any need to assume random influences from outside.

A unique software package created by Stewart allows him to analyze these simple models by constructing their dynamic geometry in phase space. Even though phase space is an abstract space which does not exist in the real world, it can be given substance through computer graphics. The animation available from computer graphics lets Stewart view the phase space and the shapes and structures within it, in three dimensions and in a continuous movement. These tools reveal that chaotic dynamics frequently have one of a small number of elementary geometric forms.

Alex Reben

Bruce Stewart works at his film editor.

Bruce Stewart has been on the staff of the Applied Mathematics Department since 1978. He came to Brookhaven following a year at M.I.T. and four years at the Nuclear Research Centers at Saclay, France, and Karlsruhe, West Germany. Stewart received his Ph.D. in mathematics from the University of California at Berkeley and his B. S. in mathematics from Stanford.

His work has included abstract theory of partial differential equations, theory and computation of neutron diffusion, numerical methods for solving equations of multiphase fluid flow, and qualitative behavior of nonlinear dynamical systems. He is now completing an introductory text, in collaboration with Prof. J.M.T. Thompson of the University of London, on "Chaos in Dynamical Systems."

All those interested in getting together after the lecture are invited to go with the lecturer to a restaurant off-site. If you want to be part of this group, call George Rabinowitz, Ext. 7637.

Chemists Search For Smoking Gun

Chemist Stephen Schwartz and colleagues from the Environmental Chemistry Division of DAS went up to Syracuse to tag clouds. Until November 16, they are following the tagged clouds and collecting cloud samples in BNL's Queen Aire, the newly acquired Beechcraft plane for the Environmental Sciences Program of DAS. They are chemically analyzing their cloud air, water and precipitation samples in a new mobile laboratory converted from a Shasta Roadmaster 2700 recreation vehicle.

Schwartz and the others are attempting to gather proof that air, water and pollutants chemically react within clouds to form acidic precipitation. To do this, they are using a tracer system developed by Russell Dietz and Robert Goodrich to tag and follow pre-cloud air as it is incorporated into clouds and as clouds yield precipitation.

"This project in Syracuse is one component of studies that we've been doing for some years regarding the processes of acid rain formation," says Schwartz. "We are interested in how the pollutants sulfur and nitrogen oxides become incorporated as sulfuric and nitric acid in rain. Our hypothesis is that clouds are not only the vehicle for delivering acidic compounds to the surface via precipitation, but a factory for making these acidic compounds."

From previous studies, Schwartz

(Continued on page 2)

Meeting Highlights Polymer Research

More and more attention is being paid to polymer research, and more light is being shed on polymer properties by the use of synchrotron light sources. Seventy scientists from other labs, universities and industry met at Brookhaven from October 29-31 to hear about current work on natural, synthetic and biological polymers being performed with these brilliant new tools.

At this first topical symposium on the subject, 21 invited lecturers presented papers dealing with time-resolved x-ray scattering and x-ray diffraction; anomalous x-ray scattering; extended x-ray absorption fine structures; fluorescence lifetime dynamics; x-ray lithography; and advances in detector technology.

The scientists who attended the meeting were either already doing research at a light source, or thinking about doing so. Representatives of the National Synchrotron Light Source (NSLS) were on hand to brief the attendees on research possibilities and procedures at that facility. Conference participants also got a first-hand look at the NSLS and at the High Flux Beam Reactor where complementary research using neutrons is conducted.

The DOE Office of Basic Energy Sciences, Division of Materials Sciences, sponsored the conference, along with the International Business Machines Corporation (IBM). Thomas P. Russell of IBM was co-chairman with Allen N. Goland, Associate Chairman of BNL's Department of Applied Science. Goland says he expects the symposium proceedings to be published as a DOE report which will be available at a nominal cost.

Inside Info

Jerome Hudis, Assistant Director for Scientific Staff Policy, has been reappointed for a term of five years, to September 30, 1989. Hudis heads the Office of Scientific Personnel, and has responsibility in the Director's Office for the Personnel and Labor Relations Division, Office of Affirmative Action and the Public Relations Office.

Smoking Gun (Continued)

and his colleagues have gathered circumstantial evidence that clouds are sustantially more acidic than the compounds found in clear air. From this they have inferred that clouds cannot become that acidic simply by dissolving the chemicals present in the air.

"From our data, we can circumstantially conclude that chemical reactions are taking place in clouds, but we lack the smoking gun: the definitive experimental evidence showing the reactions that are actually occurring," admits Schwartz. The aim of this project is to gather that conclusive evidence.

"We are trying to identify pre-cloud air, mark it with a tracer and measure its chemical composition," explains Schwartz. "We are then finding clouds containing that air and analyzing their water and air, and precipitation at ground." John McNeil set up the ground precipitation measurement equipment on the campus of SUNY-Syracuse.

The Beechcraft Queen Aire was recently equipped to locate the tracer, collect cloud samples and measure chemical concentrations. Peter Daum, Thomas Kelly and Daniel Leahy are performing the measurements from the aircraft.

A second aircraft is being provided by the Atmospheric and Environment Service and the National Aeronautical Establishment of the Canadian government which is participating in this study. Another airplane has been hired for the release of the tracer gas. Seymour Fink is in charge of the tracer release.

The RV was outfitted as a mobile laboratory for the Environmental Chemistry and Atmospheric Sciences Divisions by Daniel Spandau. "We are chemically analyzing the samples that have to be done immediately, in the RV," says Schwartz. Paul Klotz, Robert Doering and Eugene Ferreri are performing the chemistry in the RV. Joyce Tichler set up the data processing system, and had a computer installed in BNL's Queen Aire and one in the RV for this project.

"The other samples will be brought back to the Lab for subsequent analysis by members of the analytical chemistry group of the Environmental Chemistry Division," explains Schwartz. He expects to have results from the lab work in two months and to have conclusions from the results in about a year.

Robert Brown and Martin Leach are forecasting Syracuse's weather during the study. Syracuse was selected as the study region because it is free of major sources of pollution, yet is in a major pathway of pollutants being transported from the Ohio River Valley to the Adirondacks and Canada. — Marsha Belford

Alex Reben

(From left) Sy Fink, Dan Leahy and Tom Kelly finish outfitting BNL's Queen Aire for the Syracuse project. The aircraft, a twin engine Beechcraft, was transferred to DOE from the National Center for Atmospheric Research in June and is kept at Long Island MacArthur Airport. Environmental Sciences Program users pay for the upkeep and operating expenses of the aircraft through an hourly charge. Anyone at BNL may use the plane if it is available and if they have a defined scientific need.

A Veteran Recalls

Carl Vail, 89, of Southold, is a veteran of World War I who was inducted into the Army at Camp Upton. His account of his Army service is excerpted from an interview he gave to Maria Parson, which was published in The News-Review and The Suffolk Times of October 27, 1983 and reprinted in Up-Lot Reveries: An Oral History of the North Fork by Maria Parson [1984, Amereon Publishers, Mattituck].

World War I came along and I figured I owed it to my country to get into the service. I notified the draft board to forget my agricultural exemption and put me in the Army. I went to Camp Upton on December 5, 1917 — the coldest winter in my memory. It was down to 17 below zero, and they didn't have anything but campaign hats for us and no shoes to fit me.

When it's really cold like that you don't like to talk, so the officers had a code for when we went out to drill. If you got one pat on your back, your ears were freezing. If you got two pats on your back, you were excused to go back to the barracks to thaw out.

The barracks were built by a lot of make-shift carpenters. When it snowed, why the barracks had a ventilator that would fill up and then send all the melted water down on the beds.

In those days, anybody who had any lousy coal to sell sold it to the government. That coal hardly would burn, so when you washed your socks and hung them up to dry around the stove, why they'd freeze right fast. Camp Upton was a great place.

I was there from December 5 until sometime in April when we shipped off to France. I was taken off the ship in England with a case of German measles and sent to a hospital. Then I got over that and was on my way to Winchester when I came down with scarlet fever. So I was sent to another hospital where I came down with acute Bright's disease and bronchitis and finally had my tonsils cut out. The doctor who operated on me had accidentally cut a fella's jugular vein the day before.

I was hospitalized from April until August. When the Germans got pretty well near Paris, they took everybody that didn't have a fever out of every hospital and zip — I was headed for the front. It took me five days of travelin' around France to find my division. No one knew where the 77th Division was, but at the American dispatch offices they'd tell me the name of the city where they thought it was. I had open travel orders, so I'd get on the next train in that direction.

When I finally reached my division, it was on its way to change fronts. The first night on the front, I dug into a foxhole on a side hill, and the Germans shelled the hell out of it. That started a landslide and buried me alive — my buddies dug me out before I suffocated. When they dug me out, my knees were banging together and I couldn't do anything about it. I thought, my God, what a hell of a soldier you are. I concentrated and gritted my teeth and finally my knees stopped shakin'. Later on I had a reputation for not being afraid of anything, but they didn't know.

Doug Humphrey

Carl Vail (left) and Marion Pond, the adjutant of New York State Barracks 1411 of the Veterans of World War I, at BNL's Camp Upton museum at the Exhibit Center.

I'd made up my mind very early in my experiences that if the Germans were going to get me, they were going to have to get me on the run, not settin' still like a settin' duck. So anything that came up, I volunteered. I got all kinds of jobs.

Having been brought up in the country, on a farm in Peconic, I knew my directions pretty well, so they made me a runner and a guide. When all the communications were shot up during a barrage, they sent me out. The first time I went out, I didn't know which way the shells were going. I was literally blown from one shell hole to another. But I got there and back without a scratch.

I was in France for a year, and then I went back to the States. I'll tell you, the Statue of Liberty was one welcome sight.

Vail joined the American Legion in 1919, and in 1981, he became a member of the Veterans of World War I. Vail is being considered for a Congressional Medal of Honor, the nation's highest military decoration to a member of the armed forces who has distinguished himself in combat at the risk of life and beyond the call of duty.

Alex Reben

The R of RV stands not for recreation, but for research. The research vehicle was purchased by the Environmental Chemistry Division in August as a permanent mobile laboratory. According to Dan Spandau, the RV is a better and less expensive lab on-wheels than the temporary experimental stations set up and then disassembled in different vans borrowed for each field trip. Spandau outfitted the RV as a multi-purpose, multi-user field laboratory.

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$22,421, or Bust!

The goal set by BNL's United Way campaign coordinator Cheryl Williams for the 1983-84 campaign is $65,000. As of November 7, 590 employees had pledged $42,579 towards that goal. Put another way, about 18.2% of the Lab's employees had contributed enough to bring the pledge total to almost 65.5% of goal. That's unbalanced. But there's still time for the 2,657 employees (81.8%) who have not yet donated to make up that other $22,421 (34.5%), and more. The campaign officially ends tomorrow, so please send in your pledge card today.

Holiday Hams

The Cafeteria has Thanksgiving hams for sale, cooked and garnished for the table. Two dollars per pound plus sales tax. Place your order soon. Ext. 3541.

WIS Meeting

A WIS luncheon meeting will be held at noon on Tuesday, November 13, in Room C, Berkner Hall. Mary White, training and development administrator, will speak on BNL training programs.

In The News

Irving Montanez (Accelerator Department) won the pumpkin at the cafeteria on October 31. He guessed that it weighed 95 lbs. and its actual weight was 96.8 lbs. What do you do with all that pumpkin? Well, since the Montanez' don't particularly like pumpkin pie and there are only the two of them, Irving gave it to Olga Betancourt who helped him guess the correct weight, and who has children who love pumpkin pie.

County Van at Lab

The Senior Citizen Action Mobile Van will visit the Laboratory on Friday, November 16, from 11:00 a.m. to 2:00 p.m. The van will be parked in the lot across the street from Berkner Hall, near the old theater. Employees, retirees and their family members who are 60 years and older are invited to take advantage of this Suffolk County service.

A Medicare and Medicaid consultant will discuss the various services, and a Veteran Services officer will answer questions regarding veterans. Senior Citizen Identification Cards and Golden Park Passes for those 62 years and over will be issued; applicants must bring proof of age and identification. Golden Park Passes entitle holders to free State Park admissions on week days.

If you should need more information, call the Recreation Office, Ext. 2873.

PSI News

The monthly meeting of PSI (Professional Secretaries International), Upton Chapter, will be held on Monday, November 19, at Berkner Hall, Room C, at 6:00 p.m.

The talk for the evening, "Aim High — Become a Certified Professional Secretary," will be presented by Joan Cramer, CPS. Cramer is secretary to lawyer Ira J. Adler, a partner in Wofsey, Certilman, Haft, Lebow & Balin. As well, she is currently recording secretary for the NYS Division PSI.

Cramer's past PSI offices include NYS division treasurer and rules & bylaws committee chair, and Queen Anne Chapter president and vice president. She obtained her CPS rating in 1973.

For any further information, contact Juanita Heyliger, at Ext. 3490.

Arrivals & Departures

Arrivals

Agnes C. Abola ..... Accelerator
Joseph M. Barkwill ..... Reactor
Robert E. Chandra ..... Central Shops
Paul Fernyhough ..... Biology
Donald S. Olcott ..... Reactor
Louis M. Pergola ..... Central Shops
Philip Sgro ..... Plant Eng.

Departures

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

Min-Tsong Chang ..... DNE
Anthony L. Feliu ..... Chemistry
Ellen P. Gannon-Weider ..... DAS

BERA News

The Golub/Kaplan/Carr Piano Trio.

Piano Trio at Berkner Nov. 15

The Golub/Kaplan/Carr Piano Trio will present an evening of chamber music at Berkner Hall on Thursday, November 15, at 8:30 p.m.

Internationally renowned as soloists, pianist David Golub, violinist Mark Kaplan and cellist Colin Carr made their debut as a trio in 1982, performing with the Vancouver Symphony in its Beethoven Festival. The three musicians had played together for many years before they decided to join forces to share with the public the excitement of their informal music-making sessions. Now acclaimed around the world, the group plans a three-week tour in the 1983-84 season, including their performance at Brookhaven.

David Golub has made numerous appearances in the U.S. and abroad both as soloist and chamber musician. With Isaac Stern, he gave joint recitals throughout China in a tour documented in the Academy Award-winning film, "From Mao to Mozart."

One of the leading violinists of his generation, Mark Kaplan is a popular soloist with major U.S. orchestras and has appeared at the Aspen, Santa Fe and Ravinia Festivals.

Colin Carr has repeatedly proved his musical virtuosity, beginning in 1979 when he captured the Young Concert Artists International Award, then First Prize at the 1981 Namburg Competition, and most recently, the 1982 Piatigorsky Award.

On the program November 15 will be Mozart's Trio in C Major, K. 548; Beethoven's Trio in E Flat Major, Op. 70, No. 2; and Mendelssohn's Trio No. 2 in C Minor, Op. 66.

Tickets will be sold at the door. General admission is $8; students and those over 65, $5; under 18, $3.

Bowling

White League

High games were bowled by Dave Penoyar 212, Ken Asselta 211, Gene Hassell 211, Rich Larsen 210, Jim Griffin 202-201, John Connolly 201, Ed MacDougall 201, Millie Connolly 201, Lee Barberich 189/184, Caryl MacDougall 187. The Gropers are in first place.

Purple League

Elaine Zukowski rolled a 193, Sharon Moore 186, Mary Grace Meier 185/179, Pat Manzella 182, Renee Flack 182, Nancy Erickson 175, Nancy Roesler 175. Four Of A Kind are in first place.

Red/Green League

High games were bowled by Ed Sperry 234, Ed Sperry IV 228/205/603 scratch, Bruce Medaris 220, Ken Batchelor 216, George Meinken 214, John Cochrane 212, Jim Morris 208, John Muller 205, John Connelly 203, Charlie Tomesch 202, Lloyd Schairer 200.

In the BNL Theater Group's production of "Morning's at Seven," Uncle Thor (Bill Love) is astounded by what Homer (Tom Morris) has just told him. This play will be presented at Berkner Hall on November 9, 10, 16 and 17, at 8:30 p.m. Advanced sale tickets are $3 regular admission, $2 for senior citizens and students. Tickets are available at the BERA Sales Office, from cast members, or at the door for $1 more. A parent of a BNL employee will be admitted free if accompanied by the employee.

Volleyball

A League	W-L
Dinkers	7-2
Semi Tough	7-2
Up Fagrabs	4-5
TeddyBares	4-5
Mixed Ups	3-6
Nuts & Bolts	2-7
B League	
Phoubars	8-1
TNT	7-2
Fossils	4-5
Chungas Revenge	3-6
Set-Ups	3-6
Servers	2-7

C League

Craw/Couples
15-12; 5-15; 15-12
Tigers/Quirks
15-13; 15-6; 15-12
Screwballs/Capt. Midnight
15-10; 15-1; 15-3

Open League

Half Lives/Rowdy Radicals
15-13; 9-15; 18-16
Phoenix/Generic
15-4; 15-1; 15-1
Odds & Sods/Team 6
15-9; 15-2; 15-7

Cooking Exchange

"Slavic Savor" will be the theme of the next meeting of the Cooking Exchange on Wednesday, November 14. Dishes such as Struklji, Gypsy John, and a vegetable pot (Djuvec) will be prepared.

The Cooking Exchange is open to all employees and members of their immediate families. Meetings are held in the Recreation Building on the second and fourth Wednesdays of each month from 12:30 to 2:30 p.m. A $1 donation entitles each attendee to a copy of the day's recipes, generous samples of the prepared dishes, and coffee or tea. Babysitting is provided at 50¢ for each child.

TAKE A DAY OFF FROM SMOKING
NOVEMBER 15, 1984

According to Occupational Medical Clinic director Laura Sbarra, overwhelming evidence shows that cigarette smoking is a major cause of avoidable disability and death. The best medical benefits any organization may offer employees will never compensate for the heavy medical and personal losses caused by the effects of cigarette smoking.

The Clinic is cooperating with the American Cancer Society in sponsoring the Great American Smokeout on November 15. On this day, volunteers try not to smoke for 24 hours.

Sbarra urges all employees who smoke to try to quit for this day. "Success in kicking the habit often begins with a small victory such as giving up cigarettes for a day," says Sbarra. "For many people, this small triumph encourages them to continue their new non-smoking habit or try again if they failed."

- Estimated medical costs and loss of productivity due to smoking amounted to $47 billion in 1980. Medical costs were estimated at $11 billion, and loss of productivity at $36 billion.
- It has been estimated that 146 million workdays per year are lost in the U.S. alone because of smoking-related diseases.
- Employers are spending on the average almost $300 extra per smoker each year in insurance claims alone.
- One study of job-related accidents found that the total accident rate among smokers is twice that of nonsmokers, precipitated by loss of attention, preoccupation of the hand, eye irritation and coughing.
- Smoke also places an extra load on the company's air conditioning equipment. The air conditioning level required to clear a smoke-filled room may be up to six times that of a room where smoking does not occur.
- Smoking-related disorders, including heart disease, cause 340,000 premature deaths each year and cost the nation $27 billion in medical care.

Cafeteria Menu

Week Ending November 16

Monday, November 12
Snack Bar Service 9:00 a.m. — 2:00 p.m.

Tuesday, November 13

Beef barley soup	(cup)	.65
	(bowl)	.85
Beef stroganoff on egg noodles		2.20
Southern fried chicken w/ cranberry sauce & 1 veg.		2.05
Hot Deli: Baked ham	(bread)	1.95
	(roll)	2.15

Wednesday, November 14

Cream of mushroom soup	(cup)	.65
	(bowl)	.85
Braised beef liver & onions w/1 veg.		2.00
Baked Italian lasagna & 1 veg. w/garlic bread		2.20
Hot Deli: Grilled Reuben		2.00

Thursday, November 15

Minestrone soup	(cup)	.65
	(bowl)	.85
Roast turkey & bread stuffing		2.15
Barbecue spare ribs & 1 veg.		2.10
Hot Deli: Philadelphia style steak w/peppers & onions	(bread)	2.00
	(roll)	2.20

Special:

Top your own hamburger 1/2 lb meat with assorted toppings.		2.00

Friday, November 16

Manhattan clam chowder	(cup)	.65
	(bowl)	.85
Turkey chow mein on rice		2.05
Meatcakes & onions w/1 veg.		2.00
Hot Deli: Breaded fish fillet	(bread)	1.95
	(roll)	2.15

Stony Brook Events

Concert: Jazz. "We Remember Basie." November 10, 8 p.m. Main Stage.

Concert: Indian classical music, played on the mandolin. Master U. Srinivas. November 11, 3 p.m., Student Union Auditorium.

Concert: Stony Brook Symphony Orchestra, David Lawton and Paula Zerkle, conductors. November 18, 8 p.m., Main Stage.

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.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

2142. ADMINISTRATIVE POSITION - Requires bachelors degree in business administration or equivalent pertinent experience in an administrative environment. Laboratory experience in one or more of the following areas very desirable: the coordination of personnel activities, preparing reports utilizing a data base system and knowledge of personnel policies and procedures. Alternating Gradient Synchrotron Department and Advanced Projects.

Autos & Auto Supplies

79 TOYOTA CELICA GT - hatchback, a/t, a/c, p/s, low mi., $3,700; 1963 Chevy Belair, 2 dr., 90,000 mi., runs well, sacrifice at $379. Mark, 286-4150.

79 HONDA CIVIC - auto., trans., reg. gas, excel. cond., cass. w/equalizer, rustproof, 4 spares, $2,250. 821-0137.

TIRES - (4) Ground Hawgs, 14.5"/15"x35", on Ford 5-lug rims, good cond., $195. Mark, Ext. 4028 or 734-7561.

71 DODGE DART - V8, p/b, p/s, a/c, excel. running cond., asking $599. Ext. 4935 or 928-5737 eves.

75 CHEVY MONZA - coupe, a/t, 4 cyl., stereo casette. Bill Sampson, Ext. 2036.

RIMS - (2) Ford/Mercury, 14", 5-hole, $5/ea. Tony, Ext. 3637.

78 MAZDA - stick shift, excel. cond., $2,500 or best offer. Faith, 727-0378 after 6 p.m.

80 KAWASAKI - 250 LTD, excel. cond., low mi., asking $700. Norbert, 567-1800 or 821-3940 eves.

TRAILER HITCH - Class I, 2,000 lbs., fits 1977-79 Caprice/Impala/Bonneville/Catalina/Delta, $15. Ed, Ext. 3466.

81 ESCORT L - auto., air, am/fm cassette, 59,000 mi., $3,100. John, Ext. 5279.

79 RABBIT DIESEL - 44 mpg (hgwy), clean, tan, $2,500. George, Ext. 3636 or 4522.

79 DODGE B-200 - a/t, p/s, p/b, 318 CID, 57K mi., sunroof, new brakes, excel. running cond., $4,500. Tony, Ext. 5308 or 288-3535.

74 DODGE COLT WAGON - needs engine, new clutch, 4 spd., $140. 732-3338.

71 PONTIAC CONVERTIBLE - new paint, excel. cond., $3,500; tow bar for small car, complete, $75. 473-3987.

TIRES - P185/80R13, Goodyear, all weather, steel belted radials, very good, $55 pair, Duke, Ext. 2957.

1984 HONDA - CR125R, new top, end, tires, excel. cond., $1,100. 929-4678 eves.

78 FORD COURRIER - pickup, std., am, 50K, new paint, brakes, muffler, excel. cond., $2,600. 744-4047.

GM TRUCK PARTS - floor mat, new blue carpet, $40; 15" stainless wheel covers, set of 4, $25; roof vent for camper, $10. Ext. 2462.

65 VOLKSWAGEN BEETLE - new muffler, brakes, good cond., $375. 286-9390.

71 FORD MAVERICK - 6 cyl., a/t, 2 dr., good cond., $475. 281-1214.

68 PONTIAC TEMPEST - 8 cyl., 50K orig. mi., clean, $700. Marge, Ext. 3158 or 727-7075 eves.

84 OLDS CUTLASS SUPREME - 2 dr., p/b, a/c, a/t, am/fm, $8,300 firm, Roy, Ext. 4421.

TIRES - Datsun B210, sport rims w/tires, ½ worn, $25 takes all 4; 72 Duster windshield, 727-3608.

78 HONDA - Moped, good running cond., $200. Ramona, 928-3088.

72 BMW 2002 - 4 spd., am/fm cass., minilite mags, near mint cond., orig. owner, must see to appreciate, will take best offer, 286-4652 after 6:30 p.m.

80 DATSUN - 200SX, am/fm w/quad. speakers, a/c, p/s, p/b, 5 spd. turbo, elec. warning system/-side mirrors, sunroof, good, $5,500. 654-0830.

GM TRUCK PARTS - front bumper, $40; rear step bumper, $65; bumper guards, $20/pair; set of 4 wheel well mouldings $25. Ext. 2462.

70 CAMARO - a/t, a/c, runs well, needs body work, $595; 1978 Honda motorcycle, CB, 550K, low mi., excel. cond., 467-8563 after 6 p.m.

71 240Z - mech. excel., new paint, $25 or best reas. offer, Bob, 281-2192.

71 FORD PINTO - new starter, brakes, alternator, runs well, $250. 878-4304 after 5 p.m.

74 DODGE DART - Swinger, low mi., good cond., one owner, $1,000. Ext. 2590.

81 PLYMOUTH - TC3, under warranty, 4 spd., maroon, 39K, mint cond., am/fm, Aug, Ext. 2898 or 363-7620.

DUNE BUGGY - must be seen to appreciate, Porsche motor, full custom, $2,500. Dave, 669-2526.

65 MUSTANG - fast back, 2+2, runs, needs body work, $1,000. 281-5321 after 6 p.m.

TIRES - two 15", w/w, steel belted, tires, size 225-15, price $15. 727-5912.

SNOW TIRES - 2 FR78-15, Dunlop, steel radials, w/Chrysler 5-hole rims, like new, $75. Ext. 7518.

73 FORD - Maverick, 6 cyl., 4 dr., a/t, p/s, looks good, runs well, Bob, Ext. 2104 or 928-3863.

76 DODGE VAN - Rebuilt 318, am/fm cass., CB excel. running cond., asking $2,000. Jim, 924-5126.

SNOWMOBILE - 440cc, Mercury, very fast, $500. Mike, 924-5126.

TIRES - 2 Pirelli-P3, 175SR-14, low mi., $75. Ext. 2253.

81 TRUCK CAP - tuff top, fiberglass, 8' bed, $300. Ext. 4312.

74 GMC - 4x4, utility truck, all new sheet metal, tires, wheel paint, $5,500. L/message, 744-9892.

83 SUZUKI - RM80, dirt bike, used one season, good cond., $550. Lois, Ext. 4904 or Bob Ext. 4672 or 929-4753.

82 KAWASAKI - KZ440, motorcycle, 6K mi., mint cond., $850 must sell, 924-0960.

80 CHEVY - Citation, auto., a/c, p/s, p/b, $2,600. 821-9296.

71 BUICK SKYLARK - V8, p/s, p/b, $450. Gary, Ext. 2350 or 567-9617 after 5 p.m.

79 CHEVY MONZA - V6, p/b, p/s, a/c, am/fm stereo, new tires, excel. cond., good MPG, asking $2,900. 878-0012.

60 CORVAIR - good cond., best offer, Gene, Ext. 5319 or 363-9527.

74 AMERICAN MOTORS - Matador, auto., p/b, p/s, a/c, 74K orig. mi., $500. Hank, Ext. 3848 or 472-0553.

70 DODGE - window van, 318, auto., long wheelbase, heavy duty hitch, new tranny, $750. Ray, Ext. 3536 or 289-7615.

82 HONDA - model MB5, engine, tires, excel. cond., front end damaged, best offer. 286-0904 after 5.

DATSUN PICKUP - truck tires, (4) and 15" rims, $65. Annamarie, Ext. 2352 or 744-9016.

Boats & Marine Supplies

80 SEA OX - package deal, $5,500. 821-9296 after 6 p.m.

BOAT TRAILER - power winch, $75; Rathyo chart & flasher recorder $150. John, Ext. 4312.

79 O'DAY - 25', VHF, knotmeter, depth gauge, 9.9, Evinrude, extras, $14,900, Ext. 7128 or 472-4196.

Miscellaneous

QUILTED BEDSPREAD - red, white & blue, for twin size bed, like new, $15. Les, Ext. 2920.

OIL TANK - 275 gal., $75. 331-2228.

MINK STOLE - with Launaire collar, beautiful fur, $300 or best offer. 363-6121 after 6 p.m.

MAN'S SKI PANTS - 34 R, dark blue, wool/poly stretch, never worn, $75. Ext. 4727.

BEDS - extra long singles, wood frames, form king size, good cond., $150 firm. Ext. 4771 or 286-8747.

BABY CRIB - $40; baby carriage, $20; baby car seat, $5. 399-4394.

TRUMPET - used 6 months. excel. cond., asking $190. Ext. 7672 or 727-1667.

FIREWOOD - ½ cord, oak & pine, $75 cut. Ext. 3389.

REMO DRUM PAD - with stand, book and drum sticks, for beginner, all for $40. Ext. 3604 or 878-0516 after 5:30 p.m.

POOL TABLE - best offer. 929-4688.

STORM DOOR - 6'8"x32", $25; wood door, 6'8"x32", $25. Joe, Ext. 5233 or 369-0432 eves.

PORTABLE PHONOGRAPH - stereo, nearly perfect cond., $15. 751-3551.

KODAK INSTAMATIC POCKET CAMERA - with flash attachment, $20. Ext. 4680 or 286-1331.

BOY'S BICYCLE - 10 spd., Ross, compact and in very good cond., asking $80. 689-8090 after 4 p.m.

GAS ENGINE - 3-½ HP, Briggs & Stratton, horizontal shaft, $80 or best offer; Sears vacuum power nozzle, attachments, $225 new, sell for $95. Artie, Ext. 2674.

ANTIQUE VISE - $50; yogurt maker, new, $10; 50 ft. tow chains, $20/ea. 732-3338.

ANTIQUE SINGER TREADLE MACHINE - in closed walnut cabinet, $65. 744-5317.

JUKE BOX - 1935, A.M.I., plays 45's, mechanical, $500; Thomas Organ, model 1320, 5 yrs. old, 2 key boards, 13 pedals, color glow rhythm keys, $1,500. 473-3987.

TIMING LIGHT - non-inductive, pick-up, $10. Bill, Ext. 3992.

UNICEF XMAS CARDS - & gifts, for order or info., Anh, Ext. 2022, 12 p.m or 744-8386 eves.

GOOSE PLANTERS - Approx. 2' long and 2' high, $30. Ext. 3658.

COAL STOVE - Haas & Sohn, model 121-U, Porcelain exterior, auto. feed, thermostat, brand new in crate, $350. 929-4678 or 929-6013.

WOMEN'S JACKETS - 1 camel, 1 purple corduroy detailing, sm., like new, $20 ea., 2/$35. Theresa, Ext. 2907.

ATLAS 6" - metal lathe attachments, and related equip., $450. 878-0584 after 5 p.m.

ANTIQUE REFLECTOR - TV, 1940's, 3'x3-½', cherry mahogany wood, cabinet, $425; bass AMP, Baldwin Professional, 2-½" spks., load, sacrifice, $275. 281-3149.

SOFA BED - convertible, excel. cond., $125. Ext. 4531 or 331-3785.

WASHER - Hoover, portable, good cond., $65. 698-6120.

COAL STOVE - Surdiac, model 713, like new, w/pipes, paid $1,250 asking $750. 286-1358 after 5 p.m.

TRUNDLE BED - excel. cond., $75; girl's twin size bedspread, excel. cond., Carol, Ext. 3341 or 363-2268 after 6 p.m.

CITRUS JUICER - good cond., $15. Ext. 3701.

WINE PRESS - lg. size, indestructible brand, $100. Annamarie, Ext. 2352 or 744-9016.

DINING ROOM SET - Mahogany table, 3 leaves, pads, 6 chairs, hutch, $600. 732-3105.

SWIVEL ROCKER - colonial, $25; bar, stereo cabinet, $55. 732-3105.

EXERCISE APPARATUS - Backswing, back/body stress, like new, $350 value, asking $200. Chris, Ext. 2882.

OAK ROUND TABLE - 46" w/claw feet, three extra leaves, (4) chairs, $500. 289-5420.

DRUM SET - 7 pc., cb 700, all stands included, plus high hats, asking $350. Guy, 732-6712.

TV 19" - black & white, w/cart, $30. 929-4326.

AIREQUIPT SLIDE - cartridges, $1 ea., 3 for $2.50; Carousels, $1.25 ea. 929-4326.

WOMAN'S SUIT - black w/red pin stripe, 100% wool, size 9, classic, worn once, orig. price $120 sell $50. Janet, Ext. 2345 or 929-8152.

GE REFRIGERATOR - immaculate cond., 18 cu. ft., harvest gold, frost free, $325. Tom, Ext. 4084 or 878-1060.

DINING TABLE - 58" (70") x 42 oval, very good, $50. Ext. 2830.

CASSETTE RECORDERS - Sanyo and Panasonic, slim line, portable, never used, $20; CB roof antenna, negotiable, Ext. 2830.

CHAIRS - 2 L/R, gold, excel. cond., $100 ea., 6 D/R chairs, $40 ea., 924-0960.

CASEMENT WINDOWS - heavy duty, aluminum screens incl., various sizes, $20 ea., Niels, Ext. 4124.

SKI EQUIPMENT LANGE - XL, jr. boots, size 4-½, rossignol 130cm., skiis, w/Salomon, 127 bindings; T poles, excel. cond., 928-6921 eves.

DOORS - 30", $4 ea.; artwork setup frames/trays, $1 ea., M. Strongson, Ext. 4192.

FIREWOOD - full cords, split and delivered, $135. 467-8976.

DESK - steel office desk, four drawers, typing stand, $25; desk chair, $10. 744-9677.

DOBERMAN PUPPIES - AKC, registered, 7 wks., have shots, tails docked, $150. 281-2272.

TENNIS RACKET - Davis classic, gut strings, w/press, $30. Georgia, Ext. 2342.

STOVE - coal/wood, Glacier Bay insert, airtight, cost $860 asking $550; bunk beds w/mattress, excel. cond., used 6 months, $75. 924-0617.

SEWING MACHINE - Singer, zig zag, excel. cond., $89. Sandy, Ext. 3369 or 286-1022.

DOUBLE BED - extra firm mattress, Ext. 3705 or 862-7998.

BATHTUB - white American Standard, still in crate; 1 trestle table, w/2 leaves, and chairs, Gary, Ext. 2350 or 567-9617 after 5 p.m.

WOOD BURNING STOVE - Federal used one season, excel. cond., $75. 758-9430 5 to 7 p.m.

100% SILK SCARVES - orig. design, hand painted, washable, $20. 472-1596.

TWIN BED - head/foot board, triple dresser w/mirror, night stand, $275; colonial hutch, buffet, pine $325. 698-7063.

MAN'S SUIT - grey striped, size 36; woman's blue all weather coat, size 20, 331-1162.

GE CHEST FREEZER - 12 cu. ft., brown, excel. working order, $100. Linda, 286-1268 day or eves.

Free

NEWSPAPERS - 5 ft. stack, bundled. Ext. 4761 or 924-3556.

SOFA - old but useable; Kodak, 35mm camera, works, Ext.2590.

DOG - small cute, lovable female, spayed, spaniel, housebroken, good w/children, owner allergic, Ext. 2256 or 928-5836.

Yard Sale

MILLER PLACE - 8 Magnolia Lane, 11/10/84, 10-4 p.m., years of accumulation, 473-9016.

E. PATCHOGUE - 22 & 23 Camille Lane, 11/9-10, toys, bikes, beds, furniture, 2 dinette sets, snow-tires/rims E78-14, 10-4 p.m.

Car Pool

NORTHPORT - Ft. Salonga, 3 person on time car pool looking for 4th member, door to door, Brian, Ext. 2799.

FT. SALONGA - Kings Park, Northport, need one or two drivers for exist. car pool, Eva, Ext. 7772.

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 Rent

MEDFORD - rooms for rent, 20 min. from Lab, share kitchen & bath, $65/week. 732-3037.

SHOREHAM VILLAGE - unfurnished, unusual small cozy 6 room house, large windows, 1 acre rolling landscaped yard, close to beach/store/tennis, avail. mid Dec. for 18 months, $950/mo. plus util. 744-2836 or 821-2599.

FURNISHED HOUSE - 2 bdrms., bath, eik, d/r, l/r, $800/mo. 473-6432.

SELDEN - 1 bdrm., unfurn. apt., eik, full bath, immacul. cond., 10 mi. from BNL., $475 including util., 698-6120.

BELLPORT VILLAGE SOUTH - near bay, stores, fully furn., spacious, modern house, incl. all appliances, piano, Jan. to July, rent neg. to responsible tenant, adults only, 286-0379.

SHIRLEY - 3 bdrm., ranch, 5 min. to Lab, full basement, fenced in yard, $600 month plus util., avail. immed. Mickey, Ext. 3173.

E. MORICHES - Newport Beach area, lg. one bdrm. apt., eik, l/r., f/p, lg. yard, half block from beach/marina, $550 month, 589-2260.

RIDGE - house to share, avail. 11/2/84, $310 month, util. includ., non-smoker, 5 min. from Lab., 929-4789.

STRATHMORE RIDGE - 2 bdrm., town house, Lou, Ext. 4986 or 473-1549.

SOUND BEACH - 2 lg. room apt., kit., bath, water view, prvt. entrance, walk in, $425 month, 821-9296.

SKI TRIP & PARTY - Big Vanilla/Hunter, 1/25-27, $145 incl., transp., meals, equip., lodging, free use of resort facil/activ., great wknd. for nonskiers also, Ext. 5257.

For Sale

SAYVILLE WATERFRONT CO-OPS - unique 1 bdrm. apts., private deck, parking, pool, excel. for investment or occupancy, from $35,000. 585-4741.

UPSTATE WASHINGTON - 50 mi. from N.Y.C., split level, 4 bdrm., 2 bath, f/p, 1-½ garage, parquet floors throughout, detatched screen house, barn shed, 1-½ immac. landscaped acres, sacrifice, $110,000. 281-7786.

BELLPORT - mother/daughter, 5 bdrm., split level, Florida sun room w/deck, 100 x 180 back yard, 286-9051.

FLORIDA - Zephyr Hills, 1981 35' Franklin R.V., 12' x 12' l/r, 8' x 12' bdrm., full bath, furn. w/carpeting, full concrete slab, perm. metal patio roof, ample closet storage space, mint cond., Mickey, Ext. 3173.

Wanted

TRAINS - Lionel, Americal Flyer, accessories, any condition brings good price. Carole, Ext. 3362 or 924-4097 eves.

MEDICAL EQUIPMENT - wheel chairs, walkers, hospital beds, etc., for disabled American Veterans. Joe Yelk, Ext. 3464.

SKIS - 175 or 180, with or without bindings, good cond. Ext. 3604 or 878-0516.

ELECTRIC TYPEWRITER - used, reasonable, in good cond. Ext. 2914 or 286-3742 eves/weekends.

VENDORS - for 11/17, Xmas crafts, fair, sell your homemade crafts, Xmas items, Kreamer St. School, Bellport, Pat, 286-9390.

HOUSEMATE - to share 2 bdrm., furn., condo., w/prof. male, 27, incl. use of w/d, kit., den, l/r, d/r, 1 ½ baths, $280 plus ½ util., 369-0412.

SWIMMERS - for 1st workout of BNL swim club, on Fri. 11/9, 5:15 p.m. at the pool. Marsha, Ext. 3327.

PING PONG TABLE - Ext. 4490 or 289-9724.

BICYCLE - built for two, John, Ext. 7671.

STORM DOOR - 36" x 80"; maternity bathing suit size 10/12; vacuum; electric broom, Pete, Ext. 7190/2193 or 369-1844 late p.m.

VENDORS - Dec. 1, Holiday crafts fair, Bay Community School, Brookhaven, June, 399-2587 or 286-8026.

UPHOLSTERER - to redo rocking chair pads, M. Strongson, Ext. 4192.

BLENDER - Proctor Silex pitcher or any make blender in working cond., 744-0722.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.