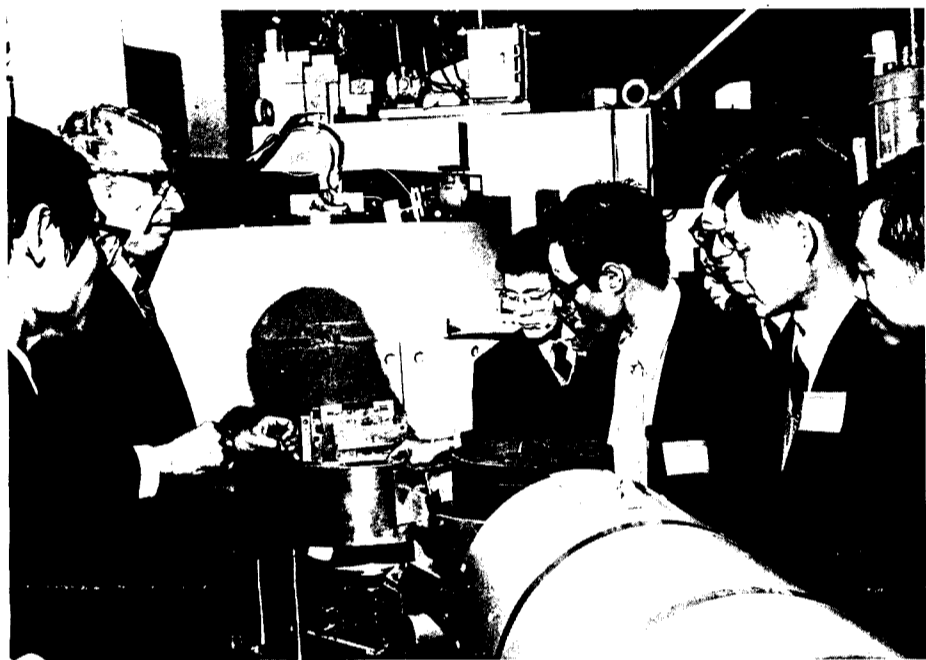




Over coffee and tea, Laboratory Director George Vineyard greets Wang Shou-wu (right), Head of the Chinese solid state physics delegation, and Lu Chia-hsi, Deputy Head of the delegation.



Lester Corliss (left) describes the operation of a neutron spectrometer on the experimental floor of the HFBR.

Chinese Physicists Visit BNL

A delegation of solid state physicists from the People's Republic of China spent March 28 and 29 seeing facets of solid state research at BNL.

Upon their arrival Friday morning, they were welcomed by Laboratory Director George Vineyard and Physics Department Chairman Joseph Weneser. The delegation was then given an outline of the solid state physics research program at BNL by Chalmers Frazer, Physics, before being taken on a tour of selected physics laboratories by Allen Goland, Physics.

Following lunch, David Gurinsky, DAS, outlined the BNL superconductivity program and Lester Corliss, Chemistry, described the solid state program at the High Flux Beam Reactor (HFBR). The visitors toured the facilities in the Metallurgy Building and the HFBR.

In the late afternoon, members of the delegation and their BNL hosts engaged in several games of ping-pong. The highlight of the game period was a match between Dave Cox, Physics, and Chang Tsung, one of the delegation members. Cox won the match with a score of 21 to 12 for the first game and 21 to 19 for the second.

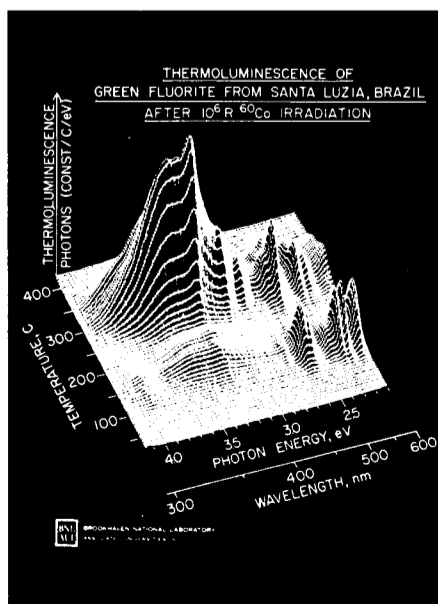
At a dinner held in their honor, members of the delegation were each presented with a plaque inscribed with a computer-synthesized three dimensional diagram of thermoluminescence from an irradiated green fluorite crystal. The diagram was created by Helena Swederski, a graduate student at Columbia University working with Paul Levy in Physics. The diagram was made using a three dimensional thermoluminescence apparatus designed by Levy.

On Saturday, the delegation spent the morning in the Chemistry Building. George Jeffrey explained the crystallography program and took them on a tour of the crystallography laboratories. Morris Perlman spoke to the visitors about photoelectron spectroscopy of metals and alloys.

The Chinese delegation was then taken on a tour of the Alternating Gradient Synchrotron before leaving the Laboratory for New York City.

Hold That Line!

A large number of participants in the APS New York Sectional Meeting will be eating lunch at about 1:15 in the cafeteria on Friday, April 11. BNL employees are advised to arrange to eat early this day in order to avoid a long line at the cashier and a long search for a table.



This thermoluminescence diagram appears on the plaques presented to the visiting Chinese delegation.

Weisskopf Tells The Promise Of High Energy Physics

In a lecture before a capacity crowd in Berkner Hall on Wednesday, Dr. Victor Weisskopf of the Massachusetts Institute of Technology, stressed the need for optimism and higher energies in order to fulfill the "promise of high energy physics."

Dr. Weisskopf, who formally retired last July after 28 years at MIT, was Director-General of the European Center for Nuclear Research (CERN) from 1960 to 1966, and head of MIT's Department of Physics from 1967 to 1973. He is known for his theoretical work in quantum electrodynamics and nuclear reactions.

He described the essence of high energy physics as the exploration of new territory in search of knowledge. The aim, he said, is to study the nature of matter under extremely unusual conditions, characterized by high energy concentrations.

Compared with chemical and nuclear energies, the energies attained in accel-

erators, such as the AGS, are much greater. Under these energies, matter behaves strangely and differently from ordinary matter or nuclear matter.

The world of high energy physics is very different from the ordinary world and therefore, hard to understand. "So far, I do not believe that we have reached any degree of understanding comparable to the degree of understanding of the atomic or nuclear world. This is why high energy physics is an exploratory science and not, at this moment, an explanatory science," he commented.

Dr. Weisskopf used the analogy of Columbus' trip in 1492 to explain the roles of the three different kinds of high energy physicists. "The accelerator builders should be compared with the ship builders and navigators who made it possible for Columbus to cross the ocean. The experimental physicists are like those men on the ship who went ashore and described the mountains, streams and the strange animals, plants and people. The theorists are compared to those who stayed in Madrid and predicted that Columbus would land in India."

In the new territory opened up by high energy physics, there are treasures and surprises which explain those facts that are not fully understood, he commented. The prize that high energy physicists are striving for is the explanation of why matter is the way it is, which is necessary to understand the basis of life.

"We are on the threshold of new insights and discoveries," he emphasized. Once the energy frontier has been extended "we have good reason to believe that new and significant results will emerge," Dr. Weisskopf said.

Over the last 30 years, the empirical picture of known particles has gone from very simple, consisting of protons, electrons, neutrons and neutrinos, to a very complex situation. This complex empirical situation has been studied in extreme detail, said Dr. Weisskopf, and many attempts have been made by theorists to understand what is behind it.

According to Dr. Weisskopf, "nothing definite has been found," but if one is optimistic, one can see a vague outline of a system through the fog of facts that may look like the beginnings of a theory. Although this vague system may not be a reality, he stressed, no experimental facts, so far, contradict it.

To help discern the vague outline he sees through the fog, Dr. Weisskopf has reached several conclusions as to what should be done. More evidence must be found for the quark-structure of atoms, quark interactions and quantum numbers; and the possibility of electromagnetic and weak interactions being connected at high energies must be confirmed. In order to search for this evidence, Dr. Weisskopf stressed the need for higher energies. "Most importantly, expect the unexpected," he concluded.

Test Confirms Einstein Theory

Two scientists at the National Radio Astronomy Observatory in Green Bank, West Virginia have confirmed Einstein's theory of gravity, General Relativity, with greater precision than ever before.

Using the techniques of radio interferometry, Edward Fomalont and Richard Sramek were able to show that radio waves emanating from distant quasars are bent when passing near the sun by exactly the amount predicted by Einstein's famous theory. The accuracy of the experiment rules out the most serious competing theory of gravitation, the scalar-tensor theory formulated in 1961 by Brans and Dicke.

After completing his general theory of relativity in 1916, Einstein suggested that a crucial experimental test of his theory was the so-called light deflection test. In 1919 a group of English astronomers organized an expedition to a solar eclipse where they were able to photograph the stars near the sun in the darkened sky. Several months later they re-photographed the same field of stars at night. In comparing the two photographs the positions of the stars nearest the sun had changed. The effect of the sun's gravity had deflected the star light toward the sun as predicted by Einstein.

While confirming the general features of Einstein's theory, these experiments were too inaccurate to distinguish among the many competing theories of gravity formulated over the last twenty years. However, in the last decade radio astronomers have developed techniques of interferometry which can measure positions of radio sources many times more accurately than optical astronomers can measure the positions of stars. After nearly a dozen attempts

(Continued on page 2)



Dr. Victor Weisskopf (right) with Associate Director for High Energy Physics Ronald Rau (center) and Dr. Maurice Goldhaber.

Chinese Physicists Visit BNL



After a day of touring the Lab, the Chinese visitors and their BNL hosts relaxed with a few games of ping pong. Featured, was a match between Dave Cox (above left) and Chang Tsung (above right). See story page 1.



APS Symposium Looks At Particle Physics

On April 11 and 12 the New York State Section of the American Physical Society will hold its 32nd Semiannual Topical Symposium on "Particle Physics." The Friday sessions will be held in Berkner Hall and the Saturday sessions in the Lecture Center at the State University of New York at Stony Brook.

The symposium is intended for non-specialists and the lectures will be at a general interest level so physicists working in other areas can understand them. There will be a banquet in Berkner Hall on Friday evening, at 7:00 p.m., followed by an open public lecture at 8:30 p.m. by Samuel A. Goudsmit entitled "Why Physics Flourished in the United States."

The symposium will open with a background review of particle physics followed by several talks on topics currently of high interest, and will conclude with talks on future plans and prospects. The sessions will begin at 9 a.m. on Friday.

The topic "Where Did We Come From?" will be discussed by Maurice Goldhaber,

BNL, in a talk entitled "Why So Many Particles?" and C.N. Yang, Stony Brook, in a presentation entitled "Speculation and Insight."

"Where Are We?" will include talks on neutral currents by H. Williams and S. Bludman of the University of Pennsylvania; the new particles by U. Becker of MIT, G. Feldman of SLAC and S. Glashow of Harvard; and the structure of elementary particles by L. Lederman of Columbia and J.B. Kogut of Cornell.

"Where Are We Going?" includes a talk on the experimental program at FermiLab by J. Sanford and a discussion of the plans and prospects of ISABELLE, the proton-proton intersecting storage accelerator being planned for Brookhaven, by Nick Samios of BNL. A detailed program of the symposium has appeared in the *Weekly Calendar*.

Those wishing to attend the symposium can register on Friday morning at Berkner Hall. The fee is \$7 for members of the New York State Section of the APS and \$14 for non-members. Those wishing to attend the banquet on Friday evening or the luncheon on Friday afternoon should notify Mrs. Jo Ann Acevedo, Dept. of Physics at Stony Brook, 246-6105, by April 8. The banquet cost is \$7.50 and the luncheon \$2.50. The luncheon will be held in Berkner Hall at 1:10 so as not to conflict with the usual lunch hour. There will also be a wine and cheese party at Stony Brook, sponsored by McGraw-Hill, after the Saturday morning sessions.

It should be a very interesting meeting and everyone is welcome. Dr. Goudsmit's talk on Friday evening is open to the general public and registration is not required.

Selected Reading

New Sci. 65, January 30, 1975
Does loud music make you deaf? A. Hope. 254-6
Diagnostician for cities. C. Doxiadis talks to D. Cohen. 262-4
Guilty by machine error. S. Sutherland. 264-5
New Sci. 65, February 6, 1975
The quest for Gaia. J. Lovelock and S. Epton. 304-6
Inventing Pandora's box. J. Lovelock talks to M. Sherwood. 307-9
Are we reading right? J. Bradshaw. 321-3
N.Y. Times Mag., March 16, 1975
Energy from our star will compete with oil, natural gas, coal and uranium. But not soon. M. Harwood. 42-9

Upton Nursery School

"The Week of the Young Child" will be observed during the week of April 6 through April 12 by pre-schools in Suffolk County. It is a week when the rights, needs and well-being of young children will be emphasized.

Upton Nursery School invites you to look at some of our children's art work on display in the cafeteria during this week.

If you are interested in sending your child to our nursery school (It is open to 3 and 4 year olds of all Lab employees.) please stop by the Recreation Building in the apartment area between 11 and 11:30 on Thursday, April 10 or Friday, April 11 to observe our classes and meet the teachers for our two sessions.

For further information about the school, please contact our enrollment chairman, Anne Garrett 286-1825.

Letters To The Editor

To the Editor:

I wish to thank all my friends for the lovely cards sent to me during my convalescence.

Charlotte Schuette

Dear Sir,

We would sincerely like to thank all the fine people at Brookhaven National Laboratory for all the flowers, cards and good wishes sent to us in connection with our recent bereavements.

Phil Davis, Chemistry
Jud Davis, DAS

5 and 10 Mile Run And Bikathon Set

The Spring 5 and 10 mile run and the 17.5 mile Bikathon will be held on Sunday, May 4 starting at 10 a.m.

The meet will be open to family members and guests of Lab employees, with prizes for all BERA participants who finish. The starting line will be at Berkner Hall, with slight modifications to the course to make the 5 and 10 mile runs more appealing. A small fee for covering the cost of refreshments will be charged. For further details call any of the following: Bob Bari, Ext. 2629, Gus Prince, Ext. 2901, or Bill Thomlinson, Ext. 3978.

NRAO

(Continued)

since 1969 by many astronomers at radio observatories around the world, Fomalont and Sramek were able to obtain the necessary accuracy by using two telescopes located in the mountains near Green Bank, West Virginia. These telescopes, separated by twenty miles, were used as an interferometer which could measure the change of position of radio sources with an accuracy of one-millionth the apparent diameter of the sun.

The interferometer is one of three major radio telescopes at the Green Bank site of the National Radio Astronomy Observatory, which is operated by Associated Universities, Inc., under contract with the National Science Foundation.

When asked why the astronomers spent so much time and effort measuring this exceedingly small effect, Fomalont replied, "The differences predicted between the various theories of gravitation are slight in our solar system because the gravitational field of the sun is relatively weak. However, the gravitational field during the early stages of the universe when the galaxies were much closer, or in the vicinity of neutron stars or black holes, is exceedingly strong and the differences are very significant. The difficulties of trying to understand the early life of the universe or the evolution of black holes are now somewhat alleviated since astronomers are now more certain which theory of gravitation to use."

It is a tribute to Einstein that his simple and elegant theory has withstood the scrutiny of theoretical and experimental scientists for nearly sixty years.

For anyone interested in learning more about the research program at NRAO, a 20-minute film entitled "The Invisible Universe" will be shown in Berkner Hall on Monday, Tuesday and Wednesday, April 7, 8 and 9. The film, produced by two NRAO staff members, is described as "an off-beat view of NRAO."

3000 Mile Run

A 3000-mile race between Brookhaven National Laboratory and the Hanford Engineering Development Laboratory is now underway. The team from BNL, consisting of 10 runners, has already racked up enough mileage to take them to the Queens Midtown Tunnel. The Hanford team has not been heard from yet on their west-to-east journey.

The team with the best time for 3000 miles of running will be declared the winner.

Employees who wish to join the BNL team should contact Robert Powell, Reactor (Building 703), to get on the runner's list. The rules are simple: Participants should run at least three miles at a time, with a 12 mile weekly minimum, over a closed course. Distance for each run should be accurate to within 1/10 of a mile. Entries will close on April 11 at 5 p.m.

After each run, or each weekly series, call in your time and distance to Bob Powell, who is keeping a distance chart and a time record. The 3000-mile distance between Richland, Washington and BNL is measured as the jogger runs.

There will be planned rest periods for the runners at Las Vegas and at Lake Tahoe. Bob Powell will keep the spectators and the runners informed as to progress at regular intervals.

More Bottles Needed

With a new project underway, the Department of Applied Science is in need of empty brown bottles. A dumpster has been placed at the corner of 6th Street and Brookhaven Avenue for all employees who wish to donate bottles.

The bottles should be clean with no caps and the labels removed if possible.

Theater Group Plans Meeting

The next meeting of the Theater Group will be on Wednesday, April 9 at 8 p.m. in the Exhibit Hall.

Following a short business meeting, there will be a prepared reading of a one-act comedy written by Elaine May entitled "Not Enough Rope." Bob and Joy will participate in the reading. Everyone is welcome.

Rifle and Pistol Club

The regular monthly meeting of the Rifle and Pistol Club is scheduled for April 9 at the usual time and place.

BROOKHAVEN BULLETIN

Published Weekly for the Employees of
Brookhaven National Laboratory

CARL R. THIEN, Editor
JEAN BURKE, Assistant Editor
CAROL GOLDSTEIN, Copy Preparation

40 Brookhaven Ave. Upton, N.Y. 11973
Telephone 516 345-2345

Welcome to the world Michele! At 3:12 a.m., April 3, Claire Lamberti, who was Editorial Assistant for the Brookhaven Bulletin for eight years, gave birth to a healthy, 6-lb, 14-oz baby girl named Michele Christine Lamberti.

Official & Special Events

Monday, April 7

ERDA High Energy Program Review -
Berkner Hall (April 7-8)
"The Invisible Universe," NRAO Film,
12:30 p.m., Berkner Hall

Tuesday, April 8

"The Invisible Universe," NRAO Film,
12:30 p.m., Berkner Hall

Wednesday, April 9

"The Invisible Universe," NRAO film,
12:30 p.m., Berkner Hall

Friday, April 11

ERDA Hot Atom Chemistry Meeting -
Chemistry Department
APS - New York Section Meeting -
BNL & SUNY, Sponsors (April 11-12)

Wednesday, April 16

ERDA Solid State Physics and Metallurgy Information Meeting - Physics Department (April 16-17)

Thursday, April 17

Iranian Atomic Energy Organization Visit
C.W. Post College Environmental Society Tour

Friday, April 18

SUNY Albany Physics Students Tour

Have The Fish Gone?

On Sunday, April 6, NOVA will examine the question "Will the Fishing Have to Stop?" The program will be aired on Channel 13 at 7:30 p.m. and again on Tuesday, April 8, on Channel 21 at 8:30 p.m.

Fish is an excellent source of protein and could help ease the growing international food shortage. But in 1972 the total world fish catch dropped. Was this the result of man's over-fishing or of natural fluctuations in the environment?

In order to answer this question, oceanographers and biologists have been studying the productivity of the ocean. They are exploring the phenomenon of "upwelling," a combination of winds and currents which bring nutrients for plant and animal growth up from the depths of the sea. It may have been the failing of upwelling which caused the Peruvian anchovies to disappear in 1972.

ERDA Publishes Two New Journals

The ERDA Technical Information Center has started publishing two new abstract journals which are now available for interested BNL staff members.

Energy Abstracts for Policy Analysis contains abstracts and indexes of selected publicly available, nontechnical literature dealing with energy-related analysis and evaluation in the following areas: policy, conservation, research and development studies and environmental effects.

Specific fields of energy covered by the new journals are: energy sources, including fossil fuels, nuclear fuels and hydroelectric power; unconventional energy sources, including solar, wind, geothermal, tidal, and waste products; electric power; and energy conversion and storage. Energy consumption is also covered, and includes residential, commercial, industrial, agricultural and consumption in the transportation sectors. Intersectoral studies and efficient utilization for these sectors are also included.

Pertinent material is included from Congressional Committee prints, ERDA, NSF, FEA, and other Federal agency and department reports; regional and state government documents; news reports; books and conference proceedings and papers. In general, only documents considered to have significant reference value and published within the past two years are included.

Subscriptions to *Energy Abstracts for Policy Analysis* can be obtained by sending a re-



John Binnington displays two new journals published by ERDA.

quest on an ILR to Marilyn Galli at the Research Library. The annual rate is \$20.

ERDA Reports Abstracts (ERA) includes abstracts and indexes of nonnuclear energy scientific and technical reports, patents, journals articles, conference papers, theses and monographs originated by the United States Energy Research and Development Administration and its laboratories, energy centers and contractors.

It also covers reports from foreign governments with which ERDA has agreements for technical cooperation. ERA does not cover ERDA literature pertaining to nuclear science and technology; such information is covered in the ERDA publication *Nuclear Science Abstracts*. ERA does not cover literature not of ERDA origin.

Each issue of ERA contains subject, personal author, corporate author, and report number indexes. The latter indicates the availability of each report. Indexes are cumulated annually.

This journal is available for no charge. Requests for a subscription should be sent to Broni Orłowski, Technical Information Division, Bldg. 477B.

Hospitality Plans Trip To City

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, April 9.

Departure will be at 8:45 a.m. from the Patchogue Long Island Railroad station. Any train to Patchogue may be used for the return trip.

The round trip cost will be between \$2 and \$3, depending on the number of people who take the trip. Children under 6 years of age are free.

If you are interested, please sign up as soon as possible by calling Ruth Dimmler, 751-6342 or Rosemary Jewett, Extension 3089.

Bowling News

Grace Fales

Green League

3/18/75: N. Parrinello 235, J. Mayeski 203, W. Kollmer 216, J. Ferrero 202, R. Jones 220, G. Walker 209, and W. Crockett 200/200/562. 3/25/75: D. Plows 200, B. Belligan 213, J. Cain 207, H. Marshall 216, and W. Crockett 208.

Red League

Neutrons continue to lead the League, with the Anachems in second place. High series for the night was R. Larsen's 233/208/612 scratch. Other high scores were rolled by P. Borzi 201, W. Piel 200, and J. Scesny 204/203.

Pink League

Grace Fales rolled a 187/178/525, K. Conkling 172, Brita McGonigle 172, E. Murgatroyd 170. Marie Brenner converted the 6-7-10 and M. Stoeckel the 5-7.

Black and Blue League

Joe Mayeski 210, Charlie Tomesch 209, Peg Taylor 193, Diane Schug 169, Nancy Mayeski 168, Ellie Murgatroyd 165. Pots were won by Diane Schug 238 and Joe Mayeski 235.

Hear Ye! Hear Ye! Scotch Doubles coming up on April 26th. Fun bowling before the tournament and cocktail hour afterward with hors d'oeuvres. During the cocktail hour beer will be free and mixed drinks will be \$1. Tournament and cocktail party is \$13 per couple; guests attending cocktail party only will be \$3. Need a partner? Call the matchmakers - Ruth Petit or Marie Brenner on Ext. 2456 or 2457. See you there!

Volleyball News

With two weeks left in the final half of the season the pressure is really on. The Cool Tools are out in front with a record of 18-3, closely followed by both the Atom Spikers and the Spikers with a record of 14-7. The Foot Faults, who have improved tremendously this half, are in third place with a record of 13-8. The No Names and the Circuits are tied with a record of 2-19. Attendance seems to be their biggest downfall.

In the Mixed League the competition has been fierce throughout the second half of the season. The match between the Trolls and the Playmates this past week was one of the best this season. The total concentration and marvelous teamwork of both teams had to be admired by those of us watching from the sidelines. Unfortunately, one must win and one must lose. The Trolls are now in the lead between the Nuts & Bolts, who are now tied for second with the Spikers, and the Trolls for the Championship of the league.

— Pat Oster

It's The Law

The drunk driver continues to be a menace in Suffolk County. During December of 1974, 62 percent of traffic victims tested positively for alcohol. For those who may not be aware, the law provides upon conviction for drunk driving a maximum penalty of \$500 fine and/or one year's imprisonment.

— Chief Paskiewicz

Cafeteria Menu

Week Ending April 11, 1975

Monday, April 7	
Cream of Mushroom Soup	
Chicken a la King on Rice	1.10
Cheese Omelet & 1 Veg.	1.00
Tuesday, April 8	
French Onion Soup	
Chinese Pepper Steak on Rice	1.20
Roast Fresh Ham & 1 Veg.	1.15
Wednesday, April 9	
Split Pea Soup	
Breaded Flounder Filet & Fr. Fr.	1.10
Special	
Spaghetti W/Meat Sauce	
Garlic Bread	
All You Can Eat	1.00 plus tax
Thursday, April 10	
Cream of Chicken Soup	
Macaroni & Chopped Beef	1.00
Veal Patty Parmigiana & 1 Veg.	1.20
Friday, April 11	
Fish Chowder	
Broiled Filet & 1 Veg.	1.10
Braised Beef & 1 Veg.	1.20

For Better Or Worse . . .

Big oaks from little acorns grow, and gangly, scrawny, fungus-ridden, indefatigable plants from an avocado nut.

It all started a few years back when an erstwhile member of the Office of Scientific Personnel (OSP) decided to beautify the premises. The always precarious state of the budget precluded buying new furniture or anything of that nature, and there was a feeling in the office that any improvement should be homemade, or "creative."

An avocado nut, left from somebody's lunch, was placed in a glass of water, as is usual, and thereafter regularly checked for roots, which, as is also usual, appeared on schedule. Then it was transferred to a home made pot (fired by the erstwhile member's son) and surrounded by earth surreptitiously dug up from the front of Building 460. Glad cries from all hands greeted the arrival of the first green sprouts.

It grew and grew and grew and also separated and started another stalk which grew and grew. As with sibling rivalry, the second stalk apparently needed to outdo the first and grew higher. All this growing was accompanied by big fights in the office as to who the hell's turn it was to water the plant.

Time passed. The erstwhile member went elsewhere in the Laboratory, but still claimed ownership as she brought it "to birth." The rest of us were caretaker parents and under pain of death to keep the damned thing healthy.

She needn't have worried. Nothing will destroy it. It has been unwatered, overwatered, cursed, moved into the sunlight, out of the sunlight - and still it keeps putting out new green leaves.

It still resides in its homemade pot which it outgrew a long time ago. It has been a repository for cigar butts, paper clips and coffee and, Christmas bulbs have hung from its branches.

The plant caught a blight of some sort and most of its leaves curled up with dark, ugly splotches and hung in dismal disarray. With the *laissez-faire* attitude of OSP, the plant stayed in its corner in that state for about a year or more, with comments from passers-by like "hmmmm, what is it?" The erstwhile member has, of course, kept up a running commentary over the years on the lack of green thumbs in OSP, or alternately, the heartless, uncaring attitude of its present inhabitants towards her "child."



The erstwhile member of the Office of Scientific Personnel with her creation.

A present employee, fired up after months of staring at those disfigured leaves, finally got up enough guts to hack them off, hoping the plant would expire gracefully.

But, oh no! Bright new leaves have appeared, it is growing and growing and we may have a jack-in-the-beanstalk type growth in OSP. We won't need rockets. We may someday climb to the stars on it.

In the meantime, enjoy the avocado fruit and throw out the pits. Get a plant from Biology, or consult your local florist.

— Bernice Petersen

A New Kind Of Swashbuckler

Every Friday at 6 p.m. karate enthusiasts of all ages and levels gather in the gym for a weekly karate class organized by the Karate Club.

The type of karate taught is a modified form of Tae Kwon-Do (Korean karate) called Kempo Tae Kwon-Do. The instructor, Ed Gross, is a 7th degree black belt in Tae Kwon-Do and founder of Kempo Tae Kwon-Do. Before moving to Suffolk County from New York City, he taught karate to members of the New York Police Department and the 11th Airborne Green Berets. He is president of the National Karate Federation.

If any employees are interested in joining the class, which costs \$10 a month, call Whitey Caizza, Ext. 2913, for details.

Haiiiiiiiii!!!



Emil "Whitey" Caizza, Photography & Graphic Arts, receives a flying side thrust from karate instructor Ed Gross. The reason he is taking it calmly is because Gross is using a karate technique called "focus" by which the kick is controlled to prevent actual impact.

Arrivals & Departures

Arrivals

W. Barclay Jones.....Chemistry
Coorg R. Prasad.....Applied Science

Departures

Rosario S. Hsieh.....Medical

In Memoriam

Louis Lento, who worked for the Health Physics and Safety Division as a patrolman since March 11, 1947, died on Monday, March 31, 1975.

Slo Break Basketball

Regular season basketball is over and playoffs begin this week. At the end of our 18 games the final team records were:

Team	Won	Lost	Pct.	Avg. Pts./Gm.
Persuaders	16	2	.889	61.2
Condors	9	9	.500	53.0
Spuds	7	11	.389	55.4
Roga	4	14	.222	62.1

The league's top ten scorers were:

Player	Avg.	Team
Bukowski	24.9	Roga
Nordstrom	17.8	Spuds
McKeever	15.9	Spuds
Garrison	13.2	Persuaders
Vignato	13.1	Condors
Brooks	12.4	Condors
Rowley	11.9	Persuaders
Samuelson	11.2	Spuds
James	11.1	Persuaders
Casey	10.9	Persuaders

The Condors and Persuaders finished in a tie for the last third of the season. This qualifies the Condors for a playoff berth. In the semifinal round the Persuaders have an automatic win which advances them to the playoffs. In the second semifinal the Condors meet the Persuaders and the outcome will determine the need for a final game.

In the first game last week the Condors met the Spuds in an important game for the Condors. A win would insure them a playoff position. The game started sluggishly with a low half time score 27-22 Spuds. The Spuds playing with only five men used a zone defense and managed to shut off the Condors' inside game. The game remained close and with only seconds remaining and a one point lead the Condors used a patented inbound play and put the game out of reach.

Spuds		Condors	
Player	Pts.	Player	Pts.
Nordstrom	8	Brooks	10
McKeever	6	Thomas	8
Samuelson	8	Vignato	12
Gill	15	Erdman	2
Kowalski	10	Barone	4
		Nettles	14
		Sutter	0
		Hill	0
Final score	47		50

The Persuaders finished their season with a run and shoot game which put three of their players over 20 points, a season's record. Cotten put on an amazing offensive performance with his season high 34 points but Roga was unable to compensate the loss of their center and suffered their fourteenth defeat.

Persuaders		Roga	
Players	Pts.	Player	Pts.
Garrison	23	Albright	5
James	11	Glenn	20
Rowley	22	Cotten	34
Schuman	6	Scott	4
Casey	22	*Hill	6
Final score	84		69

*Played under rule allowing 4-man team to pick up a player from special pool.

—Walt Brooks

Classified Advertisements

Placement Notices

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice, or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, extension 2874 or 2882.

60. TECHNICIAN - A.A.S. degree or equivalent in electronics plus three to five years' experience desirable. Assignment involves development, modification, and maintenance of equipment to transport high energy particles to experiments. External Beam Group, Accelerator Department.

61. PROGRAMMING ASSISTANT - A.A.S. degree or equivalent in data processing. Department of Applied Science.

62. TECHNICAL ASSOCIATE - Temporary position. Medical Department.

Autos & Auto Supplies

69 SPRITE - Radials, r/h, Tonneau cover, excel cond throughout. \$1000. M. Sautter, Ext. 4417, 924-3338.

67 RAMBLER AMBASSADOR - 6 cyl, auto, new tires, exhaust sys & shocks, good cond. \$550. Ext. 4417, 924-3338.

66 FORD VAN - 6 cyl, fair cond. \$275 firm. 473-9121 morns, late eves & weekends.

RIMS - 2-13", 5 holes, \$5; 1-15" Ford rims, 5 hole, \$5. O. Booker, Ext. 4719.

70 FORD FALCON - Asking \$1000. 475-3960.

14" WHEELS - For Chevy or Tempest, \$5/pair; 2 br carb for Rambler, \$6; 1 tire & wheel, 640-14 for Tempest, \$6, very good cond. Bob, Ext. 4652.

68 CHEVY - Auto, sm V-8, economical on gas, 2 dr sedan, clean inside & out, very good cond. \$475. H. Virgo, Ext. 4189 after 4.

68 RAMBLER - 4 dr sedan, standard trans, good cond. \$550. 744-7170.

68 AUTO VW - Good cond. 473-5833 after 6.

73 CHEVY VEGA - 25,000 mi, excel cond, dk green, auto trans, r/h. \$1800. 289-4318.

65 FORD FAIRLANE - 6 cyl, standard trans, new brakes, starter, clutch, battery & exhaust sys, low mi, clean inside & out. \$350. 732-5829.

64 CHEVY WAGON - Good transportation. Asking \$250. Ext. 3525.

TIRES - W/chrome Chevy rims, 2-L-70. 929-8367.

SNOW TIRES - On 15" Olds rims, Dunlop, w/w, wide track belted, H 70-15, practically new, \$25 each. 944-4328.

68 CHRYSLER - Newport, 4 dr, good cond, orig owner. Mrs. Meehan, Ext. 3304.

KEYSTONE MAG WHEELS - 2 each, mounted on F 70-15 tires. \$5 each. Bill, Ext. 4249.

TOYOTA RIMS - 12" for Corolla 1200, 13" for most other Toyotas. \$5 each. Brian, Ext. 4121.

66 T-BIRD - Air, full power, good cond. \$600. Ext. 3121, 744-5261.

64 PONTIAC AMBULANCE - Good motor, tires, body, low mi, needs work. \$300. 744-8576.

72 CHEVELLE - 402 engine, 45,000 mi, 3 spd, auto, am/fm, 8 track stereo, mag wheels. Leroy, Ext. 4582.

PAIR MG WHEELS - 13", wire-spoked. \$20. Sauter, Ext. 3783.

70 FORD FAIRLANE WAGON - Auto trans, ps/pb, radio, roof rack, new tires, brakes, starter, alternator & battery. \$850. E. Weinstock, Ext. 2943, 286-0263 eves.

72 VW - 411 Wagon, auto trans, new radial snow tires, am/fm, 8 track stereo, excel cond, 878-1711 after 5.

Boats & Marine Supplies

KAYAK - Klepper "Aeius" 17' foldboat, fully equipped for sailing, touring, whitewater, excel cond. F. Paf-frath, Ext. 4407, 864-1214.

12' ROWBOAT - Needs work. \$25 or best offer. 286-0384.

HOBIE 14 - Excel cond, many extras. \$1000. Wayne, Ext. 3046, 281-6129 after 10.

70 HP MERC OUTBOARD - Direct drive racing motor, used only in fresh water, excel cond. 732-5338 after 6.

16' AQUAGLAS - Trihull, 50 hp Merc, galvanized trailer, 71 boat, 73 eng, 74 trailer. \$1250. 588-5833.

25' CRUISE ALONG - 225 marine eng, sleeps 4, dnette, head, stove, perfect cond. Tony, 281-5825.

TRAILER - For 12-15' boat, new wheel bearings, perfect for Sunfish or light sailboat. Ext. 4121.

HEATHKIT RDF - 5 bands, battery, 12 VDC or 110 VAC, good cond. Don, Ext. 2026.

32' BALTZER - Twin 125 hp Chrysler, camper back. \$4900. 331-1718.

ELCO CLASSIC 1932 - Sleeps 6, 32' sedan, 135 hp Palmer, dinghy w/3 hp Evinrude, excel cond. \$4350. 878-1711 after 5.

DUCK BOAT - One man, \$50. Ext. 4058, 286-0436.

Miscellaneous

KITTENS - Perfect present for your children, free. 331-1765.

HO TRAINS - 3 locomotives, 4 passenger cars, 10 asst freights, 2 transformers, complete village w/landscaping. \$250. 924-4063 or 281-3299.

POWER SEWING MACHINE - Singer. \$75. Mary Pitacco, 281-5357 before 4.

WEDDING DRESS - And veil, size 12, excel cond. \$50. 924-6348 after 5 & weekends.

AIR CONDITIONER - York, 5000 btu, 5.5 amps, under warranty, used 4 times. \$150. 665-5910.

JIG SAW - Heavy duty, tilt table, 18" throat. \$40. Pele, Ext. 3350.

RUP MINI BIKE - Engine needs work, disc brakes, torque converter & pivot point, \$35. Dan 588-5833.

BABY GRAND PIANO - W/bench, Cable Nelson, good cond. \$550. Ext. 2445.

CAMERA - 35mm, Konica Auto S-3, F1.8 lens w/case, \$85; filter & shade, a \$225 value, like new, \$135. 744-9785.

LESLIE TONE CABINET - Mod 147, 200 watts w/ Fischer reverb. \$325. Ext. 4058, 286-0436.

REFRIGERANT COMPRESSOR - Sealed unit, Copeland model SSC4-0100 CAA. \$25. Ext. 4058, 286-0436.

DINING RM FURNITURE - Blonde rectang tbl, 4 chrs, matching china closet, reasonable. 363-8919.

ANTIQUA STATUE - O. Booker, Ext. 4719.

PACHYSANDRA - Good ground cover, 50 plants for \$4. 744-5448.

AIR CONDITIONER - Philco, 8000 btu, \$135; book-case, 6' w/cabinet below, \$25; dumbbells, 1/2" drill & press. \$30. 286-2032.

COPPERTONE METAL HUTCH - Formica countertop, light, sliding glass windows. L. Arnold, Ext. 2024, 281-2136.

TAPES - 25 new & used 7" reel to reel, \$25 takes all. Joe Bush, Ext. 4257.

STEREO - 7" reel to reel tape recorder, needs minor repair. \$25. Joe Bush, Ext. 4257.

GOLDEN RETRIEVER PUPS - Avail in 2 weeks. \$50. Ron, Ext. 4652, 289-1003.

COLOR TV ANTENNA - 3 months old, 100 mi range w/chimney mount. \$20. Frank, 929-8317 after 5:30.

CAMPER - Sm cab over 8' pick up, propane stove w/ oven, sleeps 4, 66 Travel Queen. Asking \$600. Leo Redmond, Ext. 3272.

COMPACT CUBE REFRIG - 18x19 1/2 x 18 1/2, perfect for den, office or home bar. \$50. 727-0063.

WOMEN'S BIKE - W/child's carrying seat & baskets. good cond, \$25; 16" fan, \$7.50; child's car seat, \$5. 286-2032.

SEEDS & PLANTS - Snow pea seeds, strawberry & raspberry plants available, cheap. Ext. 3400.

GE FREEZER - 11 cu ft, upright. \$40. Bookless, Ext. 4522.

OPERA!! - Two \$6 tickets to Met Opera's production La Boheme, Thurs, April 17, 8 p.m. J. Weeks, Ext. 2617, 751-1149.

REFRIG - Westinghouse Copertone, frost-free, 16 cu ft, 3 yrs, excel cond. \$175. 732-7570.

70 LEISURE TIME TRAILER - Tandem, 22', a/c, self-contained, red interior, refrig, bath. \$3600. Bob, 473-3987.

CAMPING LANTERN - Bernzomatic, propane, \$5; travel crib, \$10. Ron, Ext. 4310.

2 GIRLS' BIKES - 3 spd, Ross, hand brakes, good cond. \$50 each. Bob, 473-3987.

AWNING - Black canvas, custom-made, 13' w/hardware, used 1 season. \$50. Watson, 286-3679.

FOR ADOPTION - 2 yr old female spayed tiger cat, also 1 yr old gray female cat. 298-4089.

GIRLS' Bike - 20" hi-riser, 3 spd, speedometer. \$40. Ext. 3121, 744-5261.

AMER FLYER TRAIN SET - Ken, 924-3756 after 5:30.

21" COLOR RCA TV - Needs picture tube, all other parts good. Bob, Ext. 4652.

ENLARGER - 4"x5", Federal w/easel, \$35; misc trays, \$10; flood light, \$8; spotlight, \$15. Ince, 286-0682.

TABLE - Limed oak rectangle, opens to 74", 4 chairs, green padded seats. \$80. 289-1754.

COUNTER TOP STOVE - 4 burner, uses propane gas. Sauter, Ext. 3783.

MAPLE COFFEE TABLE - Raised sides, center drawer. \$30. Ext. 4058, 286-0436.

LEVELS - Dietzen engineer's, \$125; Brunning, \$75. Ext. 4058, 286-0436.

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

BROOKHAVEN HAMLET - 3 bedrm ranch, 2 baths, family rm, fireplace, full basement, fenced yard, wooded lot. 286-2032.

STONY BROOK/SETAUKET - 2 mi SUNY, lg solid brick ranch on 1 1/2 wooded landscaped acre, 10 rms, 3 baths, 30' living rm, fam rm, 2 fireplaces, formal dining, 3 car garage, oil/hw, basement. Principles only. \$79,900. 751-1629 eves.

PORT JEFFERSON STATION - 3 bedrm, fireplace, gar, w/w, appliances, \$38,000. 928-4149.

SHIRLEY - Custom ranch, 3-4 bedrm, liv, din, eat-in-kit, util rm, attached gar, w/w, s/s, 100x100. Sal, Ext. 2375, 281-2907.

BROOKHAVEN HAMLET - 4 + bedrm, 1 1/2 baths, 2 1/2 car garage, 2.4 acres, woods, marsh, boat landing. 286-0798.

3 BEDRM HOUSE - 1 1/2 baths, 3 appliances, finished basement, pool, deck, patio, fenced yard, near schools, shopping, move-in cond. Ext. 3005.

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser's property.
3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
4. Firearms offered for sale or trade may not be brought on site.

5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated.
7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employee's signature.

For Sale: Auto & Auto Supplies
 For Sale: Boats & Marine Supplies
 For Sale: Miscellaneous
 Wanted
 Carpools
 Lost & Found
 Services

Check the heading applying to your ad. Print or type your ad in 20 words or less.

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 111, 40 Brookhaven Avenue.

(Name & Phone No. To Call)

Employee's Signature..... Life No..... Ext.....

Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue (Ext. 2345).