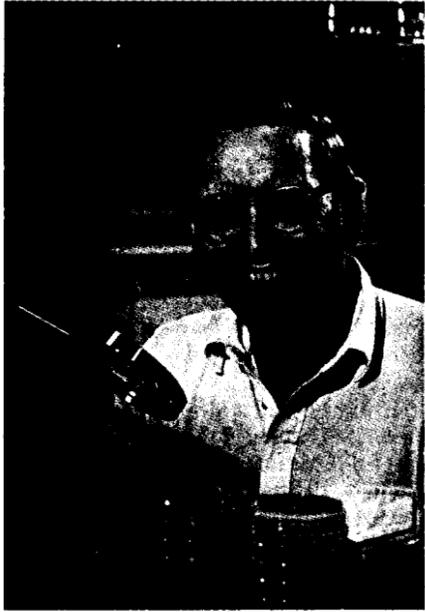


The Call of Science

The following articles are the first in a series of occasional profiles of BNL scientists. The series portrays the non-technical background of the scientists and gives a glimpse of how they became interested in science. We call the series *The Call of Science*. Today, we start with the stories of two biologists who work in the same field, but whose interests stem from different origins.



Mort Rosen

William Studier

William Studier recalls that as a child he was once asked by his father if he would like, some day, to become a scientist. "I remember not knowing what being a scientist meant at the time," he says. Studier seems to have found out. He is now a senior biophysicist with the BNL Biology Department who is specifically interested in studying "the biochemistry side of molecular biology."

Here at Brookhaven, Studier has ample opportunity to indulge his interest. He is currently working on a

research project to study the "bacteriophage T7" virus. Both he and John Dunn, also of the Biology Department, are using this particular phage as a model to study basic genetic mechanisms.

Studier spent his childhood in the town of Waverly, Iowa. "I guess I had a typical small-town upbringing, growing up in the same place until I went away to college," he comments. Once Studier left Iowa, he went straight away to Yale. During the mid-winter recess of his freshman year, his aunt gave him a book on Fermi's life. "I already had an interest in chemistry and biology at that time, but the book got me more attracted to physics." Consequently, he began working on an undergraduate degree in biophysics.

It so happens that Richard Setlow, currently chairman of the Biology Department at BNL, was a professor of biophysics at Yale, and Studier took some of his courses. In his junior and senior year there, Studier had the opportunity to work in Setlow's department as part of a scholarship program. After receiving his B.S. in biophysics in 1958, Studier went on to complete a Ph.D. program, also in biophysics, at the California Institute of Technology in 1963. He continued his studies in a post-doctoral program at the Stanford Medical School in California before he joined Brookhaven.

A married man with a wife and two
(Continued on page 2)



Mort Rosen

John Dunn

"I've always been the type of scientist to break open a cell and try to figure out how to put it together again afterwards," says John Dunn, microbiologist with the BNL department of biology. For Dunn, the challenge of science lies in discovery.

Dunn is currently working on the virus 'bacteriophage T7'. One project he has undertaken involves determining the protein structure of the phage's RNA polymerase molecule. In this work he collaborates with other staff members at the NSLS where they

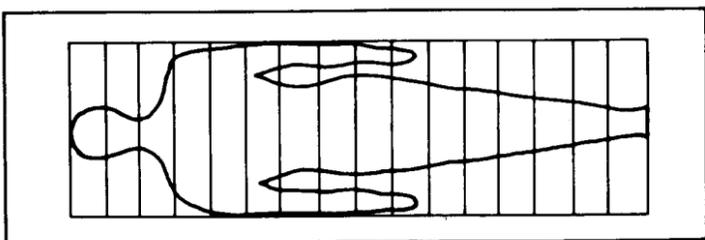
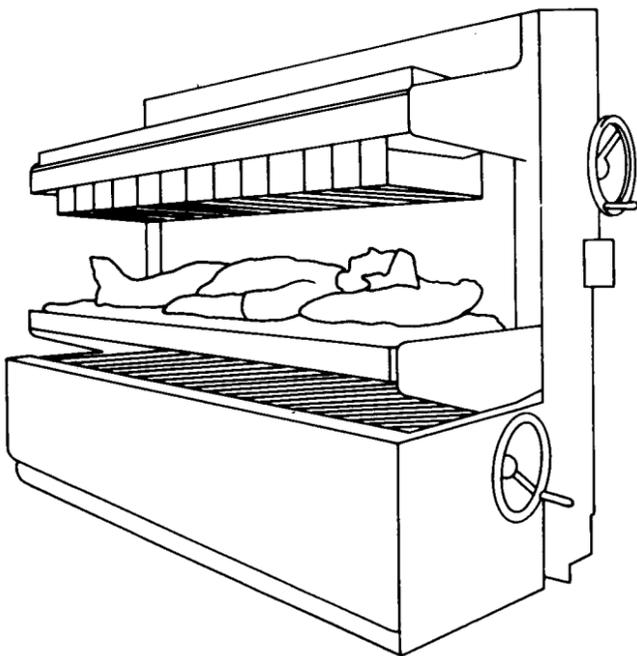
conduct experiments on optimizing procedures for crystallizing the protein.

Dunn was brought up in the town of Minersville, Pennsylvania, in the center of the state's hard coal region. As he recalls, "the only way out of there was through an education." Between the ages of sixteen and eighteen, while still in high school, Dunn managed to find work in the pathology laboratory of the Good Samaritan Hospital in the neighboring town of Pottsville. He was impressed by "a pathologist there who would take the time to explain things to me." He remembers one case where an individual was not responding to conventional antibiotics. "So the lab technician tried growing his own vaccine! That really fascinated me," says Dunn.

After high school, he went off to West Chester State College where he received his A.B. in biology in 1966 and then went on to complete a Ph.D. in Microbiology at Rutgers University in 1970. During his early college years, Dunn thought to pursue teaching as a career after having been impressed by a professor of his. He eventually did teach and has continued to do so right up through the present — he is currently an adjunct professor at SUNY Stony Brook.

However, Dunn soon discovered that his primary ambition was to get involved with scientific research. During the time he worked as a
(Continued on page 2)

HHS Grant to Upgrade Whole Body Counter



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A schematic of the new Whole Body Counter (above), and (below) a top view showing how the new detectors cover the area of the body.

The 20-year-old Whole Body Counter is being upgraded with a \$244,500 grant from the Department of Health and Human Services. Using these funds over the next two years, the outdated gamma-ray detectors and slow electronic interface between the detectors and the computer are being replaced. The new system will have improved resolution and accuracy, and the sensitivity for measuring radioactive material will be considerably increased.

The design for the modifications were devised by Senior Scientist Stanton Cohn and Scientist Kenneth Ellis, who are the principal investigators working with the counter. Medical Associate Roman Shypailo and Technical Specialist Richard Skelaney will perform the work.

During the upgrading, the 54 original sodium iodide cylindrical detectors will be replaced with 32 rectilinear detectors, which are commercially made. The old two-channel interface between the detectors and a computer will be replaced with one having 32 channels, one for each detector. The interface will be connected to a new computer, which was purchased two years ago with Department of Energy funding. The counter will continue to be housed in a shielded room of concrete, steel, lead and aluminum in Bldg. 490.

In its present condition, the counter still surpasses all other total body gamma spectrometers in the world, and the upgrade will make it even more superior. It directly and noninvasively measures amounts of elements in the human body. It is able to compensate for attenuation because of different body sizes, and, thus, is

more accurate than other whole body counters.

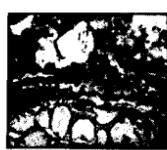
At present, the counter measures total body calcium to detect changes in skeletal mass because of aging and disease. This instrument is used primarily to diagnosis and follow the treatment of osteoporosis. Other studies use the counter to measure various components of bone composition and body cell mass.

These neutron activation and body composition studies are performed by the Medical Physics Division of the Medical Department, which also operates the counter, and by collaborators from Winthrop-University Hospital, Nassau County Medical Center, Health Sciences Center/University Medical Center at Stony Brook, North Shore University Hospital, Hillside Medical Center/Long Island Jewish Hospital, and Memorial Sloan Kettering Cancer Center. More than 75% of the researchers using the counter are funded by the National Institutes of Health.

The sensitivity of the counter as it is now is limited by the geometry and type of detectors and their energy resolution. These are further limited by the configuration of the computer interface.

"For example, the present design of the counter results in a 30-gram calcium error in our measurements of bone loss in post-menopausal women having the disease osteoporosis," explains Cohn. "However, the average loss of body calcium for post-menopausal women is six to eight grams per year. Because of its improved sensitivity, the updated counter will be able to measure such losses annually."

— Marsha Belford



"What a lovely looking kidney," he says, with enthusiasm. Indeed, it does look lovely, not at all what you would expect. But then, this kidney, or rather a thin slice of it on a slide, is in skilled hands. Right off, it's been magnified 100 times. That alone gives it much more visual excitement, bringing individual cells clearly into view. Then, a 3-D lens is popped into place and the circles become gentle hills. Finally, he clicks in a prism and a cool blue settles over the land. It's become a microscape — a creation of Brookhaven's photomicrographer, William Marin Jr.

Marin's world is a world of the invisible. To see into that world and capture it for the rest of us to see, he uses a tool called a photomicroscope, a combination camera and microscope.



William Marin Jr.

Microscape

Seeing Into the World of the Invisible

His two photomicroscopes can magnify up to 1800 times. One uses 4"x5" film and, therefore, reduces the amount of magnification necessary to make a print. The other uses 35mm film and is most convenient for producing multiple slides. On order is a photomicroscope for lower magnification, 40 times and below. All photography work requiring magnification comes his way.

The process begins with a visit from a scientist, who brings a sample already prepared to be magnified. During that initial meeting, they iron out details like areas to be magnified, how much magnification will best do the job, black and white or color. Sometimes Marin uses Polaroid film for on-the-spot work, so they can map the specimen more precisely. Then the scientist departs, and Marin's on his own to work his special magic. He doesn't merely magnify and photograph, he brings his artistic talents into play to enhance the image.

At his disposal are various optics — lenses, prisms, polarizers and filters. With their aid, he can modify an image by giving it more contrast, color, three-dimensionality and composition.

Explaining how he works, Marin says, "First, I satisfy the scientist's requirement to get the information across. Then I make it look as attractive as possible. If it looks good,

someone will look at it longer." He has a point. That extra glance could make the scientist's work more memorable. Certainly a plus no matter who is doing the looking — a sponsor in Washington, a taxpayer, a mother-in-law.

His work has proven to be eye-catching. He has placed in several international competitions, and his images have brightened the covers of notable journals.

Marin holds a BS from the Rochester Institute of Technology, where he specialized in scientific photography, cinematography and advertising photography. He joined the Lab in 1974. "I answered an ad in the paper for a photomicrographer," he recalls. "I didn't even know what that was and went to the library to look it up."

It turns out that photomicrographers are a rare lot, and Marin was hired even though he had no experience in the field. "I brought my photography skills to the job and learned how to use the specialized equipment. The first few months I did nothing but experiment," he says.

It was soon clear that he was right for the job. Within two years, he placed sixth in the Nikon International Small World Competition. That same year, one of his images was chosen for the cover of Science magazine. The following year, another appeared in National Geographic. In 1980, he took

second place in the Nikon competition. In 1984, his was the single photomicrograph chosen to represent the field in the book, *The World History of Photography*. From 1976 on, every year has been marked by some manner of recognition for his skill and artistry.

Here's what it takes to be a good photomicrographer, according to Marin. "You have to have a solid background in photography, you have to like the equipment, you have to like people, you have to have an artistic sense, and you must be a perfectionist."

He also speaks warmly of his work. "Each scientist who walks in here gives me a mini education in his or her speciality." Then he turns to view the room. "And look at this equipment," he says. "My department has been very supportive. I have the finest instruments."

Hung on the walls are some of his favorite images. There is a species of phytoplankton, *Dissodinium lunula*, floating delicately in a sea of blue... a fuzzy teddy bear made of tobacco cells fused with human cancer cells... giant amber baubles that trace the path of a proton microbeam burning through lung tissue. These are Marin's microscapes, and they give us striking images of another world.

—Mona S. Rowe

A collection of photomicrographs by William Marin Jr. have been put on display in the Exhibit Center. You can see them during tour hours, which are every Sunday, 10 a.m. to 3 p.m., through August 25.

Studier

(Continued)

college-age kids, Studier leads a full life. He likes sports, especially basketball and tennis, and enjoys concerts and classical music. His current work in molecular biology at Brookhaven satisfies his interest in biophysics. "Work is pretty all consuming," says Studier. "I do spend a lot of time at it so I don't have much place for any major hobbies on the side. I enjoy the lab work as much as such things anyway. My work is a constant challenge, with things to deal with each day. It is almost like playing a game... there are puzzles to be figured out and pieces to be fitted together."

Studier does not anticipate any radical change in the direction of his career. He is confident, however, that his current work will lead him on to new problems and down new avenues of research.

Studier's views of the social responsibility of the research scientist suggest that he sees a need for a greater emphasis on the fundamentals of science in public education. According to Studier, the public needs to gain a greater scientific and technical familiarity with scientific issues that concern society at large. For him, the scientist represents one segment of the workforce, not a magical group of individuals with special powers of discretion. Says Studier, "I believe that the scientist shares an equal obligation with other professional people with regard to issues of social concern." — Alexander Laszlo

All film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Patent Awarded

U.S. Patent #4,485,266 was awarded to **Kurt F. Minati**, consultant in AGS; **Gerry H. Morgan**, Accelerator Development Branch; **Andrew McNeerney**, AGS; and **Felix Schauer**, consultant in AGS, for inventing a termination for a superconducting power transmission line.

The termination consists of coaxial cryogenic bushings that generate no external magnetic field and are capable of operating in a horizontal position. Advantages of the invention include minimizing heat flow into the cryogenic region and compatibility with technology developed for the termination of conventional power transmission cables.

In Memoriam

Richard M. Emberson, Director Emeritus of the Institute of Electrical and Electronics Engineers, died on July 12 in Eugene, Oregon. Early in his career, Emberson was involved in the management of BNL. He joined AUI in 1951 as Assistant to the President and was made Assistant Secretary in 1952. He remained at AUI until 1962. During these years, Emberson played a key role in the establishment of the National Radio Astronomy Observatory in Green Bank, West Virginia.

It has been learned that **William F. Stafford**, a former Patrol Officer, died on July 19, in Mastic, New York. He was 62 years old. Stafford came to the Laboratory on April 10, 1947 and had been on long term disability since 1978.

Dunn

(Continued)

laboratory at college he became co-teacher's assistant in the biology lab. He was convinced by the professor under whom he was working that his real interest lay in studying basic biology. The whole experience of having worked in a hospital and been privy to real-life problems that required skilled scientific solutions was of the greatest importance to him.

As a result, Dunn always tries to have a summer student in his lab at Brookhaven. He thinks that such an experience can provide a unique opportunity to learn how to meet challenging problems with innovative solutions. Dunn claims that the greatest reward that life can afford comes when your work provides you with "the independence to do essentially what you want to do." He says that his area of research provides him with the opportunity to continue to learn more about protein chemistry and that that is precisely what he intends to do.

Dunn works most of the seven days of the week and in the time left over likes to run, or rather, would like to pick up running again, as he left it a while ago. He also enjoys reading — especially spy novels and fiction — and he can often be found down at the Bellport Public Library where his wife works as librarian.

When asked 'what scientist do you hold in the highest esteem,' Dunn was quick to respond, "Bill Studier" — his friend and colleague in the Brookhaven Biology Department. The two of them work closely together on many projects and Dunn says that Studier's sharp mind and quick perception make him an excellent troubleshooter. Says Dunn, "Bill usually knows if something is going to crash."

With respect to the question of the role of the research scientist in issues of social concern, Dunn sees a clear distinction between the role of those involved in generating basic research and the role of those who use its products for profit. He says the research scientist is responsible for what goes on in the laboratory, not for the marketing or application of a given research tool. Accordingly, Dunn asserts that "we [scientists] develop the system. When it comes down to exploiting our findings for any kind of gain it is clear that it has passed beyond our domain of basic research." — Alexander Laszlo

Inside Info

Carl B. Amthor, Controller, Treasurer and Vice President for Administrative Affairs of Associated Universities, Inc. (AUI), resigned on June 20 to take a position in private industry.

Taking his place as Controller and Vice President is **Gerald F. Tape**, and as Treasurer, **LaRoy B. Thompson**. Tape is the former president of AUI, who retired in 1980, and Thompson served on the Board of Trustees from 1951 to 1980, a service that included three terms as chairman of the Board. They have agreed to hold the AUI posts during the Board's search for a successor to Amthor.

Diners Note

The Cafeteria will be closed on Saturday, August 3. On that day, snack bar service will be available from 9 a.m. to 2 p.m. at the Brookhaven Center.

BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

BERNICE PETERSEN, Editor
MONA S. ROWE, Associate Editor
ANITA COHEN, Reporter
MARSHA BELFORD, Reporter

35 BROOKHAVEN AVE., UPTON, N.Y. 11973
Telephone (516)282-2345

On Site

Q: Why is the gym closed?

A: The gym is closed for repainting and refinishing. It will reopen on Monday, August 13, according to Plant Engineering's schedule. Since the gym was closed three weeks ago, its walls were painted off-white and the ceiling brown, and the walls of the two exercise rooms were coated with maize paint. Now the wood gym floor is being stripped and recoated with a clear finish.

Sandblasting the cinderblock exterior of the gym and pool has been completed. Three-inch thick polystyrene block will be cemented to the cleaned and smoothed walls for insulation, as has been done to other World War II vintage buildings around the site. Tan acrylic stucco will be applied on top of the insulation. The work should be completed in October.

Arrivals & Departures

Arrivals

Axel M. Bossuyt Medical
Carmine DellaRocca Central Shops
Christopher S. Jung Plant Engrg.
Eric Kneeder NSLS

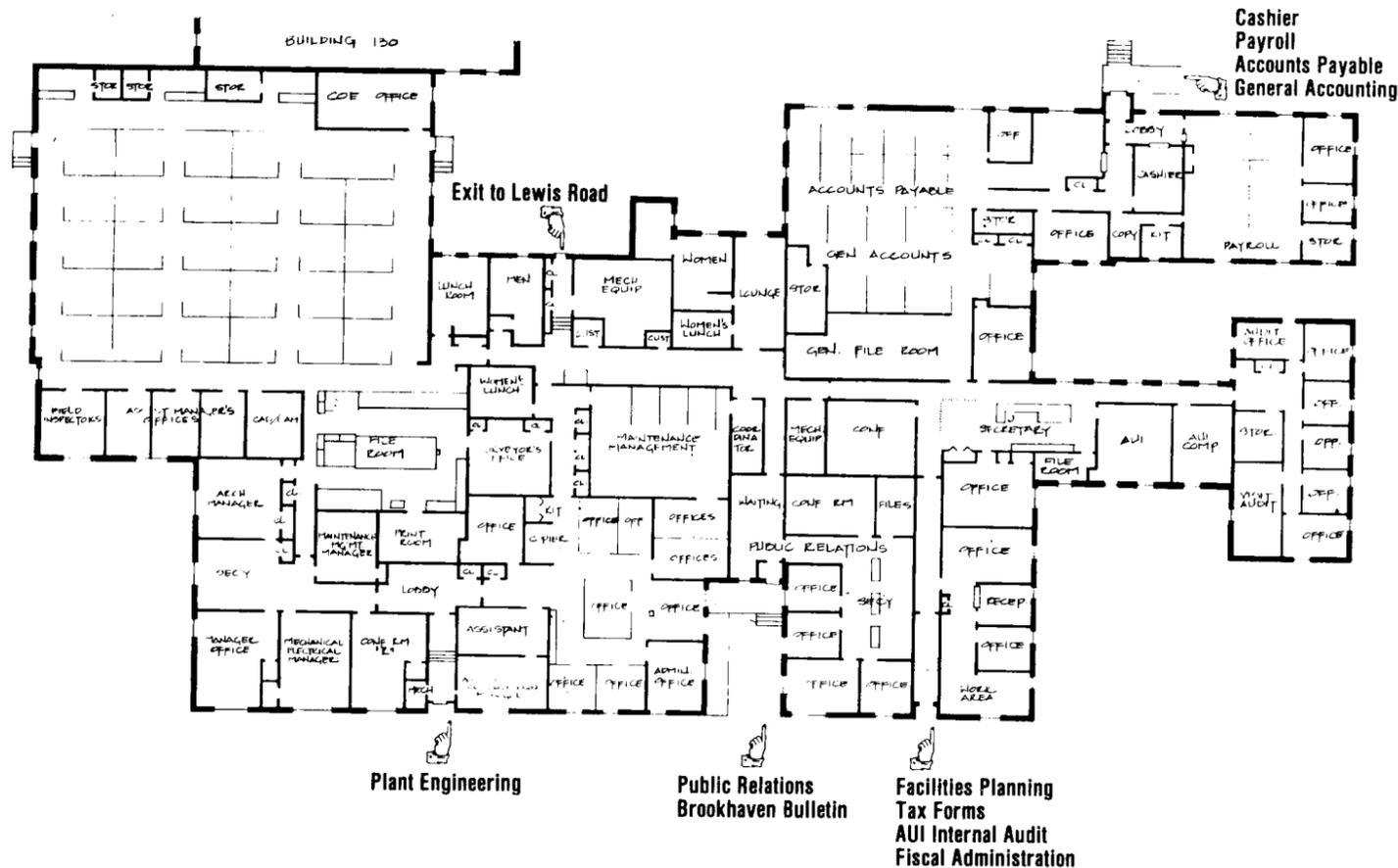
Departures

This list includes all employees who have terminated from the Laboratory, including retirees:
Bruce J. Barton DNE
Rennell E. Brown Physics
James J. Lipka Biology
Ronald N. Shiotsuka Medical

Cafeteria Menu

Week Ending August 9

Monday, August 5	
Cream of chicken soup	(cup) .65 (bowl) .85
Veal scallopini & 1 veg.	2.20
Western omelet & fries	2.10
Hot Deli: BBQ top round of beef	(bread) 2.10 (roll) 2.30
Tuesday, August 6	
Split pea soup	(cup) .65 (bowl) .85
Roast turkey w/stuffing & cranberry sauce	2.25
Hungarian noodle bake & 1 veg.	2.15
Hot Deli: Chili dogs	2.20
Wednesday, August 7	
French onion soup	(cup) .65 (bowl) .85
Baked meatloaf & 1 veg.	2.15
Roast pork loin w/apples & prunes & 1 veg.	2.20
Hot Deli: Knockwurst & sauerkraut	(bread) 2.05 (roll) 2.25
Thursday, August 8	
Lentil soup	(cup) .65 (bowl) .85
Chicken Kiev & 1 veg.	2.30
Flank steak & 1 veg.	2.35
Hot Deli: Pastrami	(bread) 2.10 (roll) 2.30
Top your own baked potato Served with chili & cheese sauce w/2 extra toppings	1.25
Friday, August 9	
Manhattan clam chowder	(cup) .65 (bowl) .85
Old fashioned beef stew w/biscuit	2.25
Tuna noodle casserole & 1 veg.	2.15
Hot Deli: BBQ fresh ham	(bread) 2.10 (roll) 2.30



During World War II, Bldg. 134 was erected at Camp Upton as one of two enlisted men's mess. The original building contained 20,800 square feet, but over the years has grown by 6,000 square feet. In 1948, a piece of Bldg. 419 was added to Bldg. 134; sections from Bldg. 305 and Bldg. 337 were attached in 1962; and a part of Bldg. 109 was annexed in 1977. The resulting floor plan has been called a mess by many employees who have gotten lost in Bldg. 134 while search-

ing for the Cashier, Plant Engineering or the Brookhaven Bulletin. To assist lost travelers and Bldg. 134 inhabitants weary of giving directions, new signs are being posted in Bldg. 134 highways and byways. This floor plan may be helpful as well. Once you know your way around the building, please do not use it as a passageway to Brookhaven Avenue or Lewis Road.

Pulling Together

For the last year, BNL has been a member of a steering committee that is devoted to providing services for the needy in the Town of Brookhaven by volunteering the talents of its members. The committee is Interface, a partnership between Town of Brookhaven businesses and corporations and the local government. Other corporations on the steering committee are Grumman Aerospace, 7-Eleven Convenience Stores, McDonalds Restaurants, United Artists Theaters, and Radio Station WALK. The successful toy drive last Christmas, to which Brookhaven employees responded so generously, was a result of this alliance. Now, Interface is asking that those who enjoy the Town-sponsored concerts at Bald Hill bring along some canned goods to the events of August 14

(Randy & The Rainbows, 50's and 60's Rock 'n' Roll) and August 21 (Big Band Association). Collection containers will be in evidence. The canned goods will be collected by the organization, Long Island Cares, inspected by them and returned to the Town of Brookhaven for distribution. Interface is volunteerism in action. And the Town of Brookhaven has need of volunteers who can give of their time and skill to help in such areas as housing, community development, and programs for youth and senior citizens. Employees who live in the Town of Brookhaven and who wish to be of service to their community should call Ray Wysolmierski, Town of Brookhaven, at 473-5588. For any further information, call the BNL representative, Business Manager James Desmond, Ext. 3330.

BERA News

Model Plane Club

The R/C Model Airplane Club will hold its regular monthly meeting on Tuesday, August 6, at noon at the Club field. Those interested are welcome to attend.

Singles Club

Deposits for the Mystery/Murder night trip sponsored by the Singles Club are needed immediately to reserve your seat. The balance is due August 30. Confirmation and directions will be given upon receipt of deposit. Any questions, call Doris Terry, Ext. 2228.

Aviation Club

Aviation Club is planning a group flight to Fisher's Island on Wednesday, August 7, with a rain date of Wednesday, August 14. Non-members are invited to join the group. Seats will be assigned first-come-first-served. Costs are shared by participants. If you would like to fly with the Club, please call Audrey, Ext. 3962.

Softball

Games week of July 22	
League I	
Cool 'n Gang	13 - Phoubars 10
Six Pax	10 - Scram 5
Blue Jays	10 - Ravens 8
League II	
Titans	16 - Faze II 8
Magnuts	26 - Medical 8
Makeup game from June 5:	
Magnuts	6 - Titans 4
League III	
Farm Team	7 - Nads 4
TNT	won - No Names lost
League IV	
Who Cares	17 - Farmbusters 10
Mole-Esters	14 - Kidz-R-Us 13
Turkeys	8 - Septembers 5
Makeup of June 27 game:	
Mole-Esters	11 - Turkeys 3
League V	
Foul-Ups	4 - No Feedback 3
Mudville Sluggers	19 - Underalls 9

Answers to Last Week's Quiz

13. d. Helium's discovery on the sun gave it its name; the Greek word for sun is *helios*. (Note that the last statement in question 33 constitutes a heliocentric [sun-centered] theory.)
14. d
15. d
16. b
17. d. Little was known about electricity in Newton's time.
18. c
19. d. Deoxyribonucleic acid (DNA), the carrier of genetic information, is studied in molecular biology.
20. b. In a transmutation, one element becomes another.
21. c
22. b
23. a
24. d

Long Island Guide

The Public Relations Office has a limited supply of the 1985 edition of the Long Island Guide available for summer visitors. The Guide is published by Newsday, and it is a listing of what to do and where to go on Long Island. To obtain a copy, call Public Relations at Ext. 2345 or stop by our office in Bldg. 134.

Added Addresses

Mr. Brooke Haven
Attn JEA Cookhaven Natl Labor
Brookhaven National Laboratory
Upton, Long Isle, NY
Brookhaven Natl Laborator
Brookhaven Naval Laboratories
Brookhave Nationa Laboratory
Director/Recreational Serv
City Hall
City of Upton
Oakhaven Natl Lab
DOE Special University-Laboratory
Cooperation
Brookhaven National Laboratory
Ass Universities Inc.
Brookhaven Nat Labs
And, finally...
Brook Heaven Nat. Rubber Tree

Drivers Note

If you rent cars for official or personal use and don't recognize this sticker, you are missing out. Check with the Travel Office for more information.

A/A 242635				A/A 242635			
AVIS	AVIS	AVIS	AVIS	AVIS	AVIS	AVIS	AVIS
25	10	20	20	25	10	20	20
US WIZARD	AS PER AWD #	AVIS 800-331-1212		US WIZARD	AS PER AWD #	AVIS 800-331-1212	

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 Employment Manager, Ext. 2882.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

2296. SECRETARIAL POSITION - Requires AAS degree in secretarial science or equivalent and excellent communications and organizational skills to perform Division secretarial duties. Responsibilities include preparation of highly technical manuscripts on a Micom word processor, setting priorities and handling administrative paperwork. Environmental Chemistry Division. Department of Applied Science.

Autos & Auto Supplies

71 PLYMOUTH VALIANT - 4 dr., runs but needs work, 6 good tires, make offer. 929-8443.

63 CHEVY BELAIR - orig. 9k mi., 3 spd. manual, 2 dr., good cond., needs work but it runs, \$400. John, Ext. 3292 or Mark 286-4150.

72 PINTO - 50k mi., good mech. cond., newly painted, 35 mpg, \$1,450. Miriam, 473-5060 eves.

77 MUSTANG GHIA - 4 spd., a/c, am/fm tape, very good eng. & body. Ext. 7699 or 821-1435.

71 CHEVY IMPALA - V8, a/c, a/t, p/s, 82k mi., good cond., \$600. Ext. 2673 or 744-8632 or 744-3100 days (Mon.-Fri.)

79 YAMAHA 650 SPECIAL - 10k, new tires & battery, excel. cond., \$1,000. Ext. 2223 or 929-6421.

81 SUZUKI GS1000 - 9,500 mi., helmet, cover, \$1,350. Ext. 2231 or 589-8533.

73 JAGUAR XJ6 - a/t, p/b, p/s, a/c, p/w, am/fm cass., excel. cond., many new parts, \$7,500. Fred, Ext. 5032 or 744-2655.

82 TOYOTA PICK UP - 4 WD, cap, grey/black, many extras, mint cond., \$7,800 or best offer. Mike, Ext. 7633 or 289-9238.

WHEELS - 5 lug, 14", from Pontiac, will fit others, 2 for \$10. 727-4859.

72 CHEVELLE - blue, w/black vinyl roof, high mi., \$300. 399-4122.

80 VIKING POP-UP - 17' Saga spare, elec. refrig., awning & much more, \$3,000. Ext. 3457 or 732-1913.

75 CORVETTE - \$4,500. Roy, Ext. 4664 or 212-691-4396.

83 DATSUN 200SX - mint cond., 28k mi., dk. brown metallic, \$6,000. 585-3433 after 6 p.m.

77 TOYOTA CELICA - \$1,350; 73 Chevy Suburban, 4 WD. Ron, Ext. 4082 or 298-1003.

73 VW BUG - orig. owner, 2 new tires, runs perfectly, rust, 72k mi., \$950. 878-8113.

82 SUBARU - 39k mi., excel., asking \$4,200; 84 Ford Escort "L", 4 spd., 12k mi., must see, \$4,450. Rob, 727-8546 days.

79 PONTIAC GRAND PRIX - 2 dr., V6, excel. cond. & maintained, \$3,800. 722-3865.

67 DODGE - 4 dr., sedan, 6 cyl., runs well, needs exhaust system, \$200. Ext. 4153 or 732-5829.

77 CAMARO LT - p/s, 3 spd., am/fm cass., new paint & tires, excel., must see. Ext. 5163 or 475-6964.

71 CHEVY WAGON - excel. mech. cond., \$500. Rob, 928-1209.

71 VW BUG - 4 spd., needs work, still runs, \$350. Ext. 3670 or 744-1760 eves.

73 VW BEETLE - 4 spd., needs work, still runs. 281-8458 eves. & weekends.

77 LINCOLN - 2 dr., full power, am/fm, \$2,800. Ext. 3457 or 698-5701.

RIMS - (4) white spoke, chrome hub covers & nuts, 5 hole, fits Jeep & GM. Bob 467-4222.

CAP - for 8' bed, sliding side & front windows, (2) bunk inserts, very good cond., \$300. Tony, Ext. 2462.

52 GMC -2-1/2 ton Army truck, w/winch, \$800. 924-3449.

82 VW JETTA - diesel, excel. cond., high mi., best offer over \$2,500. 718-224-5730 eves.

81 DATSUN 200 SX - 5 spd., am/fm, 79k mi., good mech. cond., orig. owner. Cosmore, Ext. 2253.

72 DODGE DART - a/t, a/c, am/fm stereo, good cond. Sandy, Ext. 3369 or 286-1022.

CHEVY IMPALA - blue, good cond., \$500. Carol, Ext. 2907 or 698-8510.

CAP UTILITY - GEM top, fits S-10 or similar, w/shelving, racks & draws, excel. cond. JoAnn, Ext. 4120.

70 DODGE DART - slant 6, 4 dr., stereo, good cond., \$450. 589-6803.

GOODYEAR TRAILER TIRE - w/rim, new, 20.5x8.0-10, best offer. Ext. 2705.

80 SUZUKI GS1000S - 1984 KTM; 125 MXC, dirt bike. Ext. 3357 or 325-9580 after 6 p.m.

CHEVY BODY PARTS - 69 to 72, fenders, tow chains; 73 Chevy Nova bumper, \$20; 75 Chevy truck bumper, \$20. 732-3338.

77 VOLARE - a/c, p/s, p/b, new battery & trans., snow tires on rims. Chris, Ext. 7547/5615.

72 DODGE DART - oldie, but runs, 166k mi., new carb., tires, brakes, \$500 or best offer. Om, Ext. 5332 or 928-2994.

77 MONTE CARLO - fully equipped, very good cond., blue/white int., \$1,950. 585-3417.

74 MUSTANG - 2 dr., hardtop w/vinyl roof, p/s, a/t, \$800. 654-0924.

70 DODGE VAN - 318, a/t, \$650; Crager rims, (3) w/good rubber, (1) blowout, \$50. Ray, Ext. 3536 or 289-7615.

75 CHEVY WAGON - runs well, good tires, air shocks, new carb., p/s, p/b, a/c, needs charge, reliable, reg. gas. Ext. 3238 or 744-1194 after 5.

77 FORD PICK UP F150 - w/cap, 75k mi., 4 spd., 6 cyl., clean, \$2,500 firm. 281-2009.

70 TOYOTA COROLLA - wagon, p/s, p/b, a/t, am/fm stereo, good cond. Mark, 286-2658 eves. till 9 p.m.

FORD RIMS - (3), 15", mounted H78-15 tires, \$8. Mike, Ext. 2705.

84 BRONCO - a/c, am/fm stereo, CB, many extras, \$16,500. Joan, Ext. 5241 or 924-0450.

77 TOYOTA COROLLA DELUXE - good cond., a/t, vinyl roof, \$2,000. Kim, Ext. 2839 or 732-5451 eves.

76 DODGE TRADESMAN VAN - 318, V8, body like new, mechanically sound, must see, \$3,450. 361-6227 after 6 p.m.

70 OLDS 88 - p/s, p/b, 4 dr., runs well, \$300. Jeanne, Ext. 7742 or 281-7568.

82 SUZUKI GS1100L - 4k mi., garaged, excel. cond., \$2,800. 288-5879.

81 SUZUKI GS1000 - 9,500 mi., w/helmet, cover, \$1,350. Ext. 2231.

75 CADILLAC BROUGHAM - 4 dr., loaded, needs minor electrical work & some body work, best offer. Bob, 286-3280 eves.

Boats & Marine Supplies

ISLAND DAYSAILOR - 1978, 4 HP Evinrude, galv. trailer, roller reefing, excel. cond., \$3,000. Rich, 472-9034.

OUTBOARD MOTOR - 25 HP Johnson, long shaft, very good cond., \$375. 286-1169.

16' MFG - 1972, tri-hull, full canvas, 79 Merc, 50 HP motor, elec. start, 83 Cox, galv. trailer, extras, \$2,800. 281-8458 eves./weekends.

17-1/2' SPORTCRAFT - 1982, 120 HP Mercruiser, I/O, many extras, w/trailer, excel., \$6,500. Desi, 724-4663.

BOAT LADDER - \$10. 732-6647.

18' MARK TWAIN BOWRIDER - teleflex, needs little work, Cox trailer, \$600. 589-6803.

16' FIBERGLASS BOAT - 1971, 50 HP Johnson, w/trailer, \$1,000. Ext. 4846 or 363-6940 after 5 p.m.

BIMINI TOP BOOT COVER - & spray hood boot cover for Mako boats, both new, \$25; OMC outboard motor controls, new, \$25. Ext. 4312.

SEA SNARK STYRO - complete w/sail, rudder, center board rope, \$100. Ray, Ext. 3536 or 289-7615.

8' SAILING DINGY - fiberglass, foam floatation, excel. cond., \$250. 369-0432.

SAIL FISH - good cond., \$450. Ext. 3428 or 427-6738 eves.

Miscellaneous

GOWNS - prom or wedding, worn once, maize or peach, size 8-10, \$25. Walt, Ext. 2907 or 698-0576.

BABY CARRIAGE - Italian, elegant, Peggy, used 8 mos., mattress & sheet incl., new \$200, sell for \$100. 924-8722.

FOOD PROCESSOR - Strong, 550 W, w/access., big bowls (holds 8 lb.), blender (1-1/2 qt.), slicer, shredder. Nonika, Ext. 3117.

FREEZER - 16 cu. ft., United, upright, used only once, \$200. Bill, Ext. 4173 or 929-3029.

HIDE-A-BED - Colonial style, \$250; brown recliner, \$40, both excel. cond.; Everett piano, \$1,500; manual typewriter, w/scientific keyboard, \$25. Ext. 4425 or 751-6781.

SIZER LUBRICATOR - Lyman Model 45, \$40; precision scale, Ohaus 505, \$40; Sears 17 cu. ft. upright freezer, \$100. Ext. 4312.

HAND SPLIT SHINGLES - 18 bundles, \$100. Andy, Ext. 2907.

CAMERA - 35 mm, Pentax Program Plus, excel. cond., Vivitar flash unit, access. Mike, 331-5042.

BEDROOM SET - Bassett, headboard (full or queen), 2 night tables, dresser, mirror w/shelves, chest on chest, \$800. Karen, Ext. 4262.

CLOSED CAPTION TV - decoder for the hearing impaired, new, \$180. 727-4859.

SECRETARY DESK - mahogany, \$75. Sue, 289-7218.

SCUBA SUIT TOP - 1/4" thick, men's reg., \$40; U.S. diver alum. tank, w/frame & regulator, \$100, both for \$125. Bob, Ext. 3145.

SOFA - loveseat, chair & ottoman, \$775; dinette set, \$150; maple desk & dresser, enxcel. cond., \$75. 567-0687 after 4 p.m.

10" RADIAL SAW - combination w/leg set, brand new in box, reasonable offer. 924-6582.

BATHROOM COUNTER TOP - 37", w/round sink, faucets, drain, \$25. 286-0795.

ASSORTED LAMPS & FURNITURE - dining rm. set, sectional couch, dresser & chest of drawers. 475-2998.

CHESS GAME - voice sensory, elec. model VSC w/instruct. Sal, Ext. 2460.

AIR CONDITIONER - 6,500, excel. cond., \$120. Bill, 286-8554.

GEREFRIGERATOR - 19 cu. ft., gold, good cond., side-by-side, \$75. Jim, Ext. 2432 or 821-9178.

VACUUM - Sears Power Mate, works well, 4 pile adj., \$50. Frank, Ext. 3531.

CAR SEAT - excel. cond., stroller, cassette recorder. Marie, Ext. 3135.

DINING ROOM TABLE - pine trestle type, (6) chairs, \$275. Elaine, Ext. 4271 or 924-9567 after 5:30 p.m.

VCR - GE, 4 function, wired remote, 1 event, 14 day programmable, \$150. 467-4222.

DINING ROOM TABLE - w/chairs, contemporary, \$30; modern hanging swag lamp, yellow w/white globe, \$10. Dan, Ext. 4677 or 698-7322.

CAMERAS - Canon, F-1 Classic, A1, 35 mm f2.8, 50 mm fl.4, 100 mm f2.8, 28 to 90 Amm f2.8, 80 to 200 mm fy.0 lens; Yashica Mat TL reflex, Sunpak flash, filters and more. Ext. 2482.

AIR CONDITIONER - washer, dryer, scuba tank, regulator wet suit, moving, must sell, best offers. Bob, Ext. 3145.

BUNK BEDS - solid maple, \$50; 30" gas range, brown, w/matching hood, \$25. John, Ext. 3675 or 924-3528.

COUCH - contemp., separate cushions, blue, Selig, excel. cond., \$100. Gerry, Ext. 7544.

STEREO - Clarion Model 27300, 4 channel, w/8 track, Garrard 6-100 turntable, (4) speakers, make offer. Ext. 7112 or 472-1922.

REFRIGERATOR/FREEZER - 18 ft., Whirlpool, \$125. Jim, Ext. 7772.

COMMODORE 64k COMPUTER - never used, \$75. Wait, Ext. 4028.

FOLDING BED - aluminum, w/foam mattress, \$20; marine portable CB, \$35. 744-9832.

KODAK CAMERA - Disc 4000, w/carrying case, almost new, \$40. Sharon, Ext. 3995.

GE APPLIANCES - refrig., \$125; Tappan range, avacado, good cond., \$100. Peter, Ext. 4923 or 821-9513.

DINING TABLE - (4) chairs, contemp., good cond., \$150; 12" TV, B&W, \$30. 475-4394.

ELECTRIC STOVE - Kelvinator, 4 burner, brown, excel. cond., \$50. Ext. 4014 or 821-2319.

COLOR TV - 13", \$115; baby carrier, \$12; baby walker, \$5. Ext. 3029.

AKC LABRADOR PUPS - welped 5/16/85, papers, shots, (3) male, (1) female, \$200 firm. 281-8949.

SONY STEREO - 8 track, phono., am/fm, external spkrs., \$80. Ext. 3894 or 744-9812.

WORKBENCH - industrial, steel/formica, struts hold shelf & 6' flourescent light, \$50. Dave, Ext. 4256.

PINE TRESTLE TABLE - 5' to 7', \$300; Noritake china for 12, white w/charcoal, perfect, w/storage bags, \$200. Ext. 3173.

BEDROOM SET - colonial, dbl. dresser, mirrored hutch, queen/double head board, (2) night stands, 2 yrs. old, \$400. Ann, Ext. 4078.

FURNIURE - bar set, dining room set, large window air conditioners, mattress. Ady, Ext. 4531 or 331-3785.

HUFFY TRACTOR - 8 HP, 26" cut, \$450. Ext. 3428 or 427-6738 eves.

PUMP - Burks, 3/4 HP, 120/240, deep or shallow well, new, \$280. Jeanne, Ext. 7742 or 281-7568.

FREEZER - 6'x4', coppertone, has freon leak but otherwise good, best offer, must pick up. Flint, 744-0485.

BEDROOM SET - full sz., matt., box spring, hbrd., (2) night stands, bureau, triple dresser w/mirror, excel. cond., \$275. 929-4886 after 5 p.m.

Free

DOG - 2 yr. old Shepherd mix, very lovable, loves outdoors, must find home, moving into apartment. 981-59923 after 6 p.m.

Yard Sale

MANORVILLE - 8/2 & 8/3, Woodland Ave. off Moriches Middle Island Rd., large. 9 a.m. to 5 p.m.

Car Pool

PATCHOGUE - want to join existing car pool, can drive 1/2 a week. Ext. 2245.

MATTITUCK - 3 persons, promptly 8:30-5:00, want fourth driver. Haeg, Ext. 3140.

LIE EXIT 36 - need 5th person for existing car pool, 8:30-5:00. Peter, Ext. 4982.

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

SMITHTOWN - 8 rms., high ranch, 3 bdrms., deck, carpeted, 2 baths, w/d hookup, Smithtown School District, \$1,200 mo., avail. immed. 473-6950 or 212-953-1900, Ext. 250.

ROCKY POINT - 1 bdrm. house, single person, 1 block from beach, 15 min. from Lab, \$475 plus util. 744-9032 or 922-2024 eves.

BELLPORT VILLAGE SOUTH - near bay & stores, spacious, modern, all appl., fully furn. incl. piano, Aug. 29 to Jan. 1 or longer, rent neg. to responsible tenant. 286-0379.

MASTIC - large, 1 bdrm. apt., full bath, d/r, \$525 mo.; 2 bdrm. apt., eik, w/garage, \$625 mo.; each incl. heat, prvt. ent., quiet neighborhood, 2 blocks from marina/beach. Jim Griffin, 281-2849.

LAKE PANAMOKA - 1 bdrm. apt., clean, lake rights, prvt. ent., single preferred. 929-4877.

PORT JEFFERSON - 3 bdrms., 2 baths, family rm., f/p, all appl., village beach, available Sept. 1, 1985 for one yr. 331-4768.

SHIRLEY - apt., 1 bdrm., kitch., l/r, unfurn., all util. & cable, no pets, no smoking, one person, \$375. 399-4692.

For Sale

PORT JEFFERSON VILLAGE - Harbor Hills, 3 bdrms., 2-1/2 baths, 1 car gar., lg. den, l/r w/cathedral ceiling, d/r, eik, bsmt., patio, 1/3 landscaped acre, prvt. beach rghts., avail. immed., \$160,000 w/some financing flexibility. Ext. 4505 or 928-2803.

ROCKY POINT - Tides North, colonial, 4 bdrms., f/p in den, full bsmt., gar., deeded prvt. beach rghts., walk to beach, \$126,900. 821-9577.

BAYPORT - S. of Middle Rd., 700 ft. from bay, 4 bdrms., 1-1/2 baths, new kitch., wood floors, den/sunroom, 20x40 setting w/great potential called "Frog Hollow". 928-5875.

CORAM - Stathmore E., W section, 10 rm. ranch, 4 bdrms., 3 full baths, M/D, f/p, nicely landscaped, quiet, move-in cond. 928-8071.

MIDDLE ISLAND - 3 bdrms., cedar, colonial, 10 yr. old, 1,600 sq. ft., energy eff., 4 wooded acres & pond, special setting w/great potential called "Frog Hollow". 928-5875.

Wanted

LIONEL TRAINS - and accessories. Bruce, 924-4097.

RABBIT CAGE - indoor, wire mesh, inexpensive. Nancy, 821-9547.

TYPEWRITER - elec., portable. Janet, Ext. 7604.

PERSON(S) WITH TRUCK - to move household furnishings approx. 10 mi. Smith, Ext. 2835 or 924-8523.

HOUSE TO SIT - previous homeowner, responsible, references, free, any period between 9/1/85 - 5/31/86. Bob, Ext. 3145.

TRAILER - 6'x8' or larger. Nancy, Ext. 3260.

FEMALE BOWLER - mixed league, Thurs., 6:30 p.m., Shirley Bowl. Ext. 2459.

68 VOLVO P1800S - for parts. Cosmore, Ext. 2253 or 491-3523 after 6 p.m.

SCUBA DIVER - looking for an intermediate for weekend dives. Ext. 7112 or 472-1922.

FISHING POLE - good cond. Richard Jones, Ext. 3316 days or Ext. 2516 eves.

PARTNER - for the game GO. Ext. 3919 eves. or weekends.

MORSAN CABIN TENT - in excel. cond., 8'x10' or 9'x12'. 878-2244.

Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by the Bulletin.

MAGIC SHOWS - shows to meet all budgets, clowns, balloon sculpture and much more, children's parties our specialty. 654-9094 after