BROOKHAVEN BULLETIN
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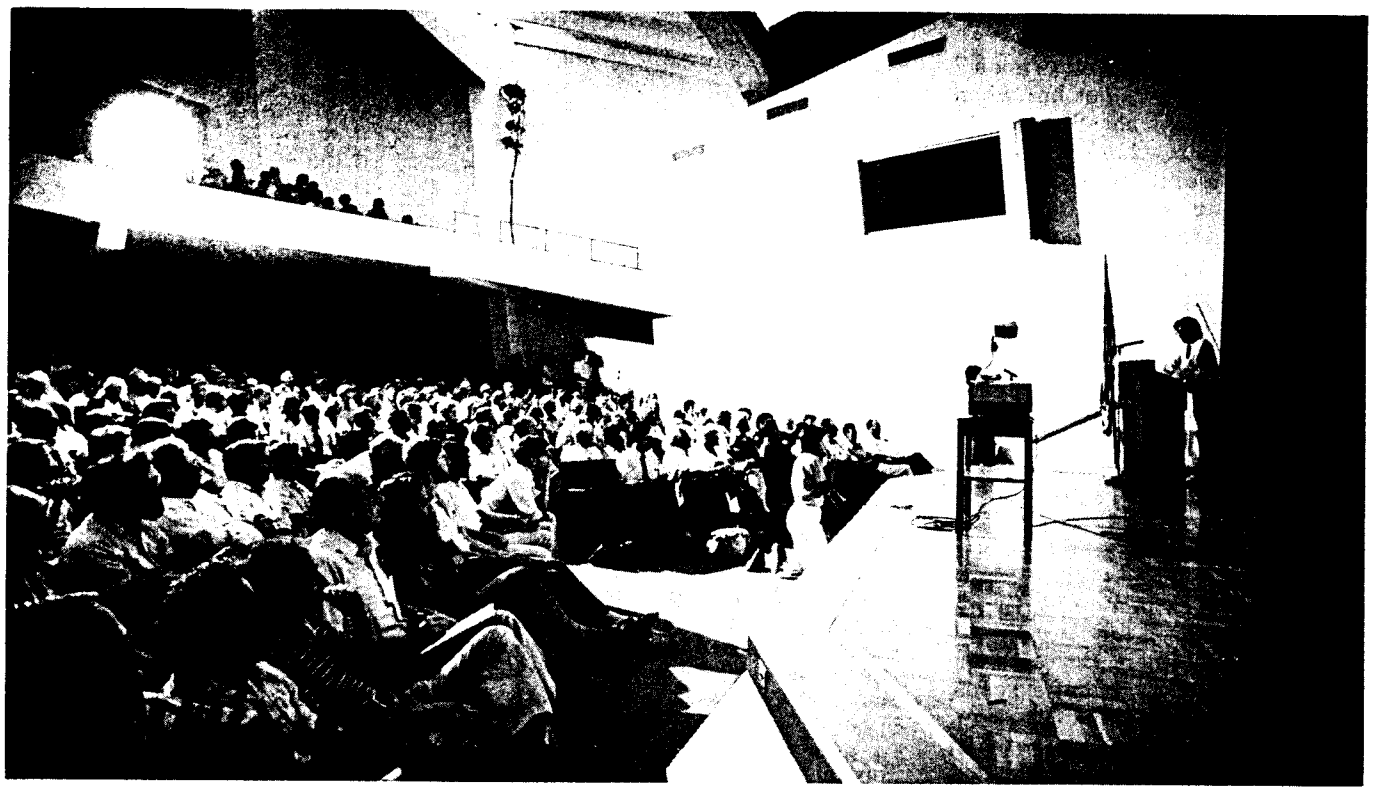
BROOKHAVEN NATIONAL LABORATORY



Nicholas Samios addresses an overflow crowd at Berkner Hall.

Stanley Wojcicki — *"We hope that BNL will be a major partner in the next project."*

BNL Looks To The Future

New Directions for CBA Staff Presented at Meeting

The High Energy Physics Advisory Panel to the Department of Energy this week voted to recommend discontinuing the construction of BNL's colliding beam accelerator (CBA), in favor of a superconducting super collider (SSC). The CBA, as we know it, is gone, but a lot of the ideas it generated may find their way into the new machine. "In fact," said Lab Director Nicholas Samios at a Berkner Hall meeting on Wednesday, "you could call the proposed machine a super CBA. It comprises many of our ideas, except the energy is higher."

Samios pointed out that the minority view of the Subpanel on New Facilities, which was charged by HEPAP to study the matter of the CBA, was strongly held. (The vote was 10-7). He said that, although he disagreed with the majority vote, "the majority rules and it is done. It's time to go forward."

The meeting at Berkner was a "where do we go from here" meeting to acquaint the CBA staff, in particular, with some details of the recent HEPAP decision and the plans that the BNL administration is making to bound back.

In this quarter, they received encouragement from the high energy physics panel. Dr. Jack Sandweiss, HEPAP chairman, summarized the contents of the Panel's cover letter to DOE when they transmitted their report. In part, the letter states that "the BNL accelerator R&D team and the new BNL management have been highly succesful during the past two years. Brookhaven now has expertise and experience that will be an important resource for the national effort that the SSC will require. HEPAP urges the DOE to help Brookhaven retain its vitality in this field as its efforts are redirected."

Paul Reardon, Associate Director for High Energy Facilities, emphasized how the BNL team had demonstrated the technical and managerial competence to turn the CBA project around, and that there was every reason to be proud of the work done, particularly on the magnets. He outlined steps to be taken to make use of this BNL expertise:

- Immediately form a new R&D group from CBA staff, under Bob Palmer, to start the development of magnets and accelerator plans for the SSC and, as soon as possible, to make a proposal to DOE on the role we wish to play.
- The AGS will be run more in 1984 than planned and improvements are in the works.
- Look at how to use the CBA tunnel for a machine of scientific interest. At present, a heavy ion device is a good candidate.

Reardon also called for a fellowship program for young accelerator scientists to join in these efforts.

Robert Palmer, Associate Director for High Energy Physics, stressed that the Lab has a strong reputation for its expertise in superconducting magnets and accelerator technology. "Now we have to exercise these skills in a new arena," he said, referring to the SSC.

The high luminosity superconducting super collider (SSC) recommended by HEPAP would have an energy range of 10-20 TeV (trillion electron volts) per ring. (CBA would have been a .8 TeV per ring.) The Panel estimated that the SSC would cost approximately $2 billion and would have a construction time scale of 10-15 years. (The Laboratory estimates that CBA would have been completed by October 1987 — 4 years — at an additional cost of $218 million in construction funds.)

Stanley Wojcicki, who chaired the subpanel, spoke about his committee's recommendations. Their deliberations involved meetings at each of the three major high energy physics labs (BNL, Fermilab, SLAC); followed by ten days of discussion at Woods Hole, Massachusetts; then three days at the Nevis Laboratory. In the end, Wojcicki said, most of the panel members agreed that the U.S. high energy physics community should concentrate on building an SSC "to investigate things in the 1-2 TeV mass range." This decision led to the one to "leapfrog" CBA. As Wojcicki summed up the majority view, "There was a real danger that CBA would interfere with SSC, which should be our top priority." Wojcicki emphasized the panel's feeling that, under its new management team, the Lab had shown a great ability to solve difficult problems, but the high energy physics community wants to explore higher energy ranges than those offered by CBA. "For that to succeed," he concluded, "it must be a broadly-based effort. We hope that BNL will be a major partner in the next project."

The 17-member Subpanel on New Facilities is the last of a number of panels which have been involved in developing a program for a colliding beam accelerator at BNL. In 1963, proton storage rings at the AGS were first proposed by the Ramsey Panel, but not much was done until the idea was revived by John Blewett at the 1970 CERN Conference. The idea became a proposal in 1974, and the proposed accelerator was named ISABELLE. In 1975, the Low Panel recommended authorization of ISABELLE in FY 1977 at 200 GeV. This was subsequently bumped up to 400 GeV by the Sandweiss Panel in 1977. The Treiman Report in 1980 recommended that only ISABELLE and Fermilab superconducting projects proceed, and that no new construction projects be authorized. In 1982, the Trilling Report put limits on cost and construction time for ISABELLE — the project to be completed by the end of the decade if high energy physics funding reached $440 million by 1985. In anticipation of design changes, ISABELLE was renamed the Colliding Beam Accelerator (CBA) in the fall of 1982.

What is the impact of the CBA decision on the Laboratory? Jobs, of course, are a primary concern and they, in turn, hinge on the state of the budget. Most of Brookhaven's budget for FY 1984 is contained in the Energy and Water Development Appropriations Bill, now on the President's desk awaiting his signature. According to Assistant Director Hank Grahn, "the bulk of the scientific programs and support functions are in good shape." The hole left by the demise of CBA is in the high energy physics budget, and this budget should be preserved in large measure, says Grahn, if funds are approved for the greater utilization of the AGS and for R&D on the super accelerator. Until these things are decided, no numbers will be available. When they are, they will be published in the Bulletin. —B.P.

Jack Sandweiss — *"Brookhaven now has expertise and experience that will be an important resource for the national effort that the SSC will require."*

Paul Reardon — *"BNL has the best superconducting magnets in the world. We will immediately form a new R&D group to start the development of magnets and accelerator plans for the SSC."*

—photos by Humphrey

Reports Available

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call Ext. 5068.

NUREG/CR-2331
BNL-NUREG-51454
Vol. 2, No. 3
Safety Research Programs Sponsored by Office of Nuclear Regulatory Research Quarterly Progress Report July-Sept., 1982. A.J. Weiss et al.

NUREG/CR-2006
BNL-NUREG-51541
Modeling and Analysis of Low Heat Flux Natural Convection Sodium Boiling in LMFBRs. M. Khatib-Rahbar et al.

BNL-NCS-51572
Compilation of Requests for Nuclear Data. Natl. Nuclear Data Center

NUREG/CR-2993
BNL-NUREG-51594
Examination of Failed Studs from No. 2 Steam Generator at the Maine Yankee Power Station. C. Czajkowski

BNL 51595
Identification of Water Requirements for Selected Enhanced Oil Recovery Methods. B. Royce et al.

NUREG/CR-3074
BNL-NUREG-51623
Application of Reduction Methods to Nuclear Power Plant Structures. C.A. Miller et al.

BNL 51625
A Study of Air Pollution Mixing Heights and Atmospheric Turbulence Over New York City. S. SethuRaman et al.

BNL 51636
Beam-Beam Interactions in P-P Colliding Accelerators. G. Parzen

BNL 51644
A Theory of Losses and Loss Measurements of Superconducting Power Cables Consisting of Helically Wound Conductor Tapes. F. Schauer

BNL 51651
An Assessment of the OHZ Hydrogen Process Final Report. C.C. Silverstein (CCS Associates)

NUREG/CR-3187
BNL-NUREG-51653
Crevice Corrosion of Titanium Alloy TiCode-12 in Simulated Rock Salt Brine at 150°C. T.M. Ahn et al.

BNL-51602
An e-p Primer. D.H. White

BNL-51615
Solidification of Ion Exchange Resin Wastes. R.M. Neilson, Jr., P. Colombo

BNL-51624
Recovery of Hydrogen from Hydrogen Sulfide: Bench Scale Studies of the Reaction of Hydrogen Sulfide with Liquid Copper. Final Report. G.N. Krishnan, D.L. Hildenbrand

NUREG/CR-3082
BNL-NUREG-51628
Probabilistic Approaches to LCO's and Surveillance Requirements for Standby Safety Systems. E.V. Lofgren, F. Varcolik

Fish Gotta Swim, These Dogs Gotta Catch'em!

Sonja Santos has always been a dog lover and a dog owner. When she met her first Portuguese Water Dog, she also became a dog breeder.

"My first one, Fado, was so good," remembers Santos. "I got her when she was nine weeks old. She took to the youngest in my family, my son, who was 18 months old. When he started teething, she would comfort him by lying on the floor next to him."

"As my son and daughter got older, they would play games and hide from me. I'd give them a count of three to come out. On two, Fado would grab them by the pants and bring them to me. She was intelligent, eager to please, a real member of the family."

Fado (Portuguese for "sea chant"), in 1965, was one of only nine or ten Portuguese Water Dogs in the U.S. and 14 others in the world. Santos became determined to breed them to save them from extinction.

The dog was used for centuries by Portuguese fishermen. But with the changeover to modern fishing systems, its numbers have dwindled, and now, most working dogs can only be found in the Portuguese province of Algarve.

Santos learned about the breed by chance. It was her brother-in-law who first heard the dog mentioned on a TV program and was impressed by its history and its rareness. (The Santos family originally came from the Portuguese Azores.) Months later, her husband saw a newspaper ad for puppies. They went to see, fell in love and brought one home.

Several years later, Santos helped form the Portuguese Water Dog Club of America, Inc., serving as vice-president for awhile and now on the Board of Directors. The group worked to get the breed registered with the American Kennel Club. Last year, the AKC accepted it under the Miscellaneous Class. This month, its classification was changed to Working Group, with full AKC registration.

And a working dog it truly is. Because of its swimming and diving instincts, the dog is a fisherman's ideal partner. If a fish escapes from a hook or net, the dog will voluntarily retrieve it from the water. It will fetch tackle washed overboard. It will scan water in search of fish. With training, it can dive to twelve feet under water and can swim up to five miles in open sea. It is the only known breed able to jump unaided from open water into a fishing dory. It even has webbed feet.

Males stand between 20-23 inches; females, 17-21 inches. Colors include solid black, various shades of brown and black/brown with white maskings. The coat is wavy or curly.

Doug Humphrey

Sonja Santos, National Nuclear Data Center, with one of her Portuguese Water Dogs, Champion Baluarte de Alvalade. At one time, the breed was listed in the Guinness Book of Records as the rarest dog in the world. Baluarte has been groomed in the traditional lion cut, which aids the dog in swimming.

The dog resembles a poodle, especially when its coat is cut in the lion clip — a sensible cut, actually. The dog's face is cleared for unobstructed sight while swimming. From the first rib back to several inches from the tail tip, including the legs, the hair is cut close for ease and freedom in the water. Hair on the tail tip is left full length because the tail serves as a rudder. The rest of the body is cut longer, to two inches, to protect vital organs when the dog swims in cold, open water.

In breeding these dogs, says Santos, the goal is to carefully match females and males so that their offspring will carry on the special qualities that distinguish the Portuguese Water Dog from other breeds. She tells the story of one of her puppies, as relayed to her by the dog's new owners. Every afternoon, the dog would disappear and after awhile come home wet. The owners assumed he was doing laps in their backyard pool. Later, they met the neighbors, who recognized the dog as the same one who went fishing every day in their goldfish pond. After a bit of splashing, the dog would place a fish, unharmed, at the pond's edge and then happily trot off.

The retrieval instinct is so strong that one of Santos' dogs never comes in from the outside without bringing her something. Another digs for clams.

Santos now has 11 dogs and breeds them only to maintain their numbers. While they give her the kind of pleasure that children can, they also require a lot of parenting. For example, just feeding them properly takes diligence.

The adults get dry dog food, biscuits for their teeth, and periodic treats of chicken and fish. And just like children, they all get vitamins and yearly check-ups with inoculations.

But it doesn't end there. Females in whelp get calcium, special vitamins and daily doses of liver. Newborn puppies get supplemental bottles filled with a mixture of evaporated milk, honey, egg yolk, pablum and puppy vitamins. Raw meat is added later, and at six weeks, they are put on puppy chow.

As most parents would agree, Santos thinks puppies take the most concentrated effort. That's why she breeds her dogs only once a year.

Two weeks ago, Santos got out the bottles for a litter of ten pups. Brown is a rare color for Portuguese Water Dogs, and she has been trying to breed a brown litter since 1976, when she bought the only brown female in the world.

For this litter, she matched a brown female (granddaughter of the original) with a champion brown male purchased last year. The result was five browns and five blacks.

Except for color, it's too soon to tell how their temperament, body shape and water instincts will turn out. But whether a dog is pick of the litter, show dog or companion dog, each one is special to Santos.

— Mona S. Rowe

Mort Rosen

A tour of the Brookhaven House highlighted the recent visit to BNL by Ebbe Johannsen, Industrial Attache to the Consul General's Office at the Danish Embassy. During his stay, Johannsen (second from right) discussed comparative energy conservative houses currently being manufactured in Denmark with (from left) Dan Hagan, Department of Applied Science (DAS); Mark Galgano, Consultant; Tom O'Hare, Associate Chairman, DAS; Lou Harson, Plant Engineering; and Ralph Jones, DAS.

'Peanut' Power

Savings from "peanuts" are not peanuts — that's the gist of an employee suggestion for recycling the styrofoam "peanuts" used to pack materials for shipment or delivery from the Lab's stockrooms. To find out just how much can be saved from this idea, the Supply & Materiel Division is asking that employees recycle the "peanuts" in conjunction with a similar program for corrugated boxes announced a few weeks ago. During the three-month trial period, employees are asked to place the styrofoam packing either in cartons or plastic bags. Deposit the "peanuts" and/or corrugated boxes to be recycled in building stockrooms, or at whatever location Supply & Materiel drivers normally deliver packages.

Please Return!

HP200 certified data cartridges labelled MH1, and other things, have been reported missing by Malcolm Howells since his office was moved last month. These tapes contain programs written by Howells which are important to him, but of little value to anyone else. Will the finder please return the tapes, via office mail, to Howells, Room 3-162, Bldg. 510E.

Arrivals & Departures

Arrivals

Raul C. Monuz ..... Chemistry
Ann S. Tebbutt ..... Biology

Departures

None

BROOKHAVEN BULLETIN

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A Costly Habit

Imagine how you would feel if you got a phone bill for $511 because you were too lazy to look up telephone numbers. That's what BNL was charged in its most recent billing from the New York Telephone Company — for directory assistance request calls alone.

Each time you request a phone number for any place in New York State, the Lab is charged 35¢. Simple arithmetic shows that this act took place 1460 times in the last billing period. To reduce this frequency, and this expense, keep a record of numbers provided by directory assistance, so you don't have to make repeat requests.

Palmedo and Wilkinson in Concert

A concert featuring the voices of mezzo-soprano Helen Wilkinson and soprano Elisabeth Palmedo will be presented on Wednesday, July 27, at 8:30 p.m. in Berkner Hall. The program will include music by Dvorak,

Helen Wilkinson

Elisabeth Palmedo

Mendelssohn, Poulenc and Schumann, as well as by John Lessard, a professor of composition at SUNY Stony Brook and one of the founding members of the music department there. Lessard attended the Ecole Normale de Musique in Paris, studying with Nadia Boulanger.

Wilkinson studied at the University of Stellenbosch, South Africa, and has performed in that country, Sweden, England and the U.S. She has sung both solo and on a program with Elisabeth Palmedo, under the auspices of the British Broadcasting Corporation.

Palmedo graduated from the New England Conservatory of Music and made her debut at Carnegie Recital Hall in 1976. She is a founding member of the North Shore Pro Musica.

The singers will be accompanied by pianist Pamela Ross, a graduate of Juilliard and the Yale School of Music.

Tickets for the July 27 concert will be available at the door and are priced at $4 for general admission and $3 for students or senior citizens.

Motorcycle Club

A special meeting to finalize plans for the picnic will be held at the Recreation Building on Monday, July 18, at 5:15 p.m. Please attend.

African Exhibit

The Afro-American Culture Club will sponsor an African Art Show on Saturday, July 30. The exhibition will be held in Berkner Hall, Room A, from 2-6 p.m. It will consist of imports from Kenya, Nigeria, Liberia, the Ivory Coast and other African countries. On display will be original prints; wood, brass and bronze sculptures; hand-made jewelry; ivory articles; colorful caftans and other attire.

Special Train Trip

In addition to the regular Wednesday LIRR trips to New York City, the Hospitality Committee will sponsor a group trip to the city on Saturday, July 30. Departure will be at 8:31 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $3.50, children under five years ride free.

Reserve a ticket by sending your fare through the U. S. mail to BNL, P.O. Box 322, Upton, New York 11973. Please do not send cash. Checks or money orders, payable to BNL, must be received no later than Monday, July 25. Put the date of the trip, your telephone number and your BNL life number on the check. Reservations will be accepted on a first-come, first-served basis. Your tickets will be given to you on the train.

Tennis

The draw and rules of play for the tennis tournament are now posted at courtside and in the BERA Sales Office. Matches have been scheduled for the weekends of July 23 and July 30, with finals planned for the week of August 8, but opponents are encouraged to play matches ahead of schedule when mutually convenient.

Tennis players who are not playing in the tournament are reminded that tournament players will have priority use of the courts during the two weekends and the finals week.

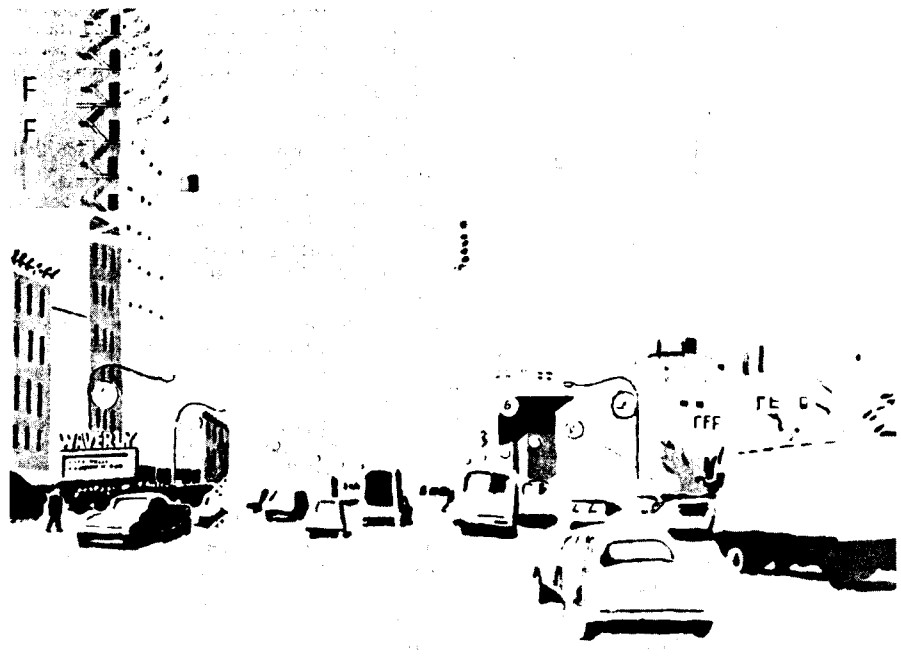
Golf

The fourth tournament of the BGA golf season will be held on Thursday, July 28 at the Middle Island Country Club. Tee times will be from 11:30 a.m. to 1 p.m. and may be obtained by contacting Les Lawrence, Ext. 4107, Bldg. 515. A $1 entry fee for league members and a $2 entry fee for non-members must be paid by Friday, July 22. Greens fees are $8. The tournament will be run as a "flag tournament" with each golfer given a stroke allotment equal to the par of the course plus his handicap. The golfer advancing his flag the furthest wins. League matches may still be played, with scores and handicaps computed as usual.

Squash Flowers, But No Squash

Did you plant a standard variety of squash in your vegetable garden? Are you wondering why you have many flowers but no fruit forming? The Cooperative Extension Association of Suffolk County advises that's because the first early male flowers bloomed and dropped off the plants before female flowers appeared for pollination.

The difference between the blossoms is that small fruit form below the petals of the female flower, while the male has no fruit attached. Both male and female flowers must be produced at the same time for satisfactory fruit production. But don't despair. You'll still have a crop from blossoms which will appear later in the summer. To ensure an earlier crop next year, try one of the new hybrid varieties.



Sixth Avenue I, by Fairfield Porter, is part of a group of delicately-hued lithographs done in the early 1970s.

Art Show Opens July 25

A one-man art show of prints by Fairfield Porter opens July 25, at 4:45 p.m., with a wine and cheese reception in Room B, Berkner Hall. The show will continue through August 5, weekdays only, from 11:30 a.m. to 1:30 p.m.

Fairfield Porter, who died in 1975, was known primarily as a painter, although he produced thirty-one prints. His prints include early linoleum block prints, paper-offset lithographs, a single silkscreen, and fourteen color lithographs which were done in the last six years of his life.

He was born in 1907 in Winnetka, Illinois. His father's interest in art and architecture and his mother's interest in language and writing were major influences upon him. In 1939 his first one-man show was arranged at the Winnetka Community House.

During the war years, Porter lived and worked in New York City. In 1949, he and his family moved near to Southampton, New York, in a house near the ocean, where he lived for the rest of his life. He began to exhibit at the Tibor de Nagy Gallery in New York City. He also became an editorial associate for Arts News, remaining in that position until 1958.

In 1959 he became art critic for The Nation, and it was for an article on de Kooning in this periodical that he won the Longview Foundation Award in art criticism.

Beginning in 1959, and through 1968, Porter showed his work in the Whitney Museum Annuals in New York. During these years, he was in demand as a guest lecturer and visiting artist at many schools and universities throughout the country. The Cleveland Museum of Fine Arts organized the first retrospective of his work in 1966.

Porter's lithographic achievement ranks with his painted works. The color lithographs demonstrate painterly rather than graphic concerns; yet in translating his watercolor technique into the graphic medium, he achieved his aim of producing works with a vitality and an independent life of their own.

This exhibition of Fairfield Porter's prints is presented by the Gallery Association of New York State and sponsored by BERA. There is no admission charge, and the show is open to the public.

Common Garden Pests

The first step in controlling garden pests is to identify them. These tips on insect identification come from the Cooperative Extension Association of Suffolk County:

Insect	Description	How They Work	Recommended Chemical Control
Aphids, or plant lice	Small, soft-bodied insects usually found in large numbers on the undersides of leaves; green, brown, yellow, black.	Suck juices from plants causing curling, wilting, stunting.	Malathion; weekly, as needed.
Striped cucumber beetles	Yellow, with black stripes; often found inside squash flowers late in season; also on cucumbers, melons, related plants.	Transmit bacterial wilt disease from diseased plants to healhy ones.	Methoxychlor; spray or dust on plants weekly, as needed.
Mexican bean beetles	Yellowish to copper with spots (sometimes confused with ladybugs); fuzzy yellow larvae feed on undersides of leaves.	Both adults and larvae skeletonize bean leaves during feeding.	Carbaryl
Colorado potato beetles	Yellow egg masses are laid on the undersides of leaves; brick red larvae feed on leaves.	Defoliate potatoes, eggplants, tomatoes; feed first on tender foliage.	Methoxychlor or carbaryl
Totato hornworms	Have a spikelike projection on one of the last abdominal segments.	Feed on leaves and green fruit of tomatoes causing early defoliation, deformed fruit.	Carbaryl or Bt (*bacillus thuringiensis*)
Cabbage loopers	Camouflage coloring makes them hard to see.	Feed on cabbage, broccoli, cauliflower, kale, related crops; starting on outer leaves and working inward.	Carbaryl, Diazinon or Bt

Classified Advertisements

Autos & Auto Supplies

79 HONDA MOTORCYCLE - $1,000. Ext. 7125.

73 GREMLIN - 924-3755.

79 MUSTANG TURBO - $4,000. Ray Patuano, 666-0587.

77 FORD ECONOLINE VAN - $3,500. 325-0369 eves.

82 FIREBIRD - $12,000. 929-6531 after 3 p.m.

73 VW CAMPER - $2,800. 286-0497 eves.

71 TOYOTA COROLLA - $750. Mike, Ext. 4649 or 732-1722.

79 YAMAHA - $1,200. Henry, Ext. 3082.

57 FORD STATION WAGON - $1,800. Roger, Ext. 2012 or 878-8847.

76 SUPERIOR MOTOR HOME - 475-1696 after 6 p.m.

70 FORD FAIRLANE - $150 neg. 924-6906 after 6 p.m.

77 FORD LTD - J. Allentuck, Ext. 2412.

MG PARTS - Ext. 4976 or 929-3061.

CHROME BASKET RIMS - (4), 13", for Ford vehicles, $125. 979-8033 after 4:30 p.m.

81 BUICK REGAL LTD - Ext. 4976 or 929-3061.

74 DATSUN B210 - $400. 331-2419.

79 FORD FAIRMONT - Futura, asking $3,000. 399-4122.

71 CHEVY IMPALA - asking $850. Scott, Ext. 2582 or 286-8624 after 6 p.m.

71 DODGE CHALLENGER - $1,000. 878-9534.

PIONEER STEREO - KP-500, $75. Chip, Ext. 2256.

60 FORD FALCON - $250. Ext. 2021 or 878-8901 after 5 p.m.

72 VW KARMAN GHIA - 744-5218 eves.

76 HONDA CIVIC - CVCC, $1,500. Joe, Ext. 5131.

81 KAWASAKI LTD 440 - Ext. 5212 or 475-6797.

80 TOYOTA COROLLA - $3,800. Ext. 3074.

80 RENAULT LE CAR - $2,900. Ron, Ext. 3887, or 286-0353 after 6 p.m.

TIRES - (3), GR-78-15, steel radials, $20/ea. Suzuki, Ext. 7561.

77 CHEVY PICKUP - 325-0348.

VW BUG PARTS - (4) hubcaps, $20; battery; $15; radio, $10; and other assorted parts. Kevin, Ext. 2377 or 473-0961.

80 SUZUKI - RS175, dirt bike, $800; BMX bike, $80. Ron, Ext. 7696 or 289-1003.

VW PARTS - brand new. Augie, Ext. 2419 or 289-4211 eves.

72 VW BUS - $1,000. 654-2076.

76 DATSUN B210 - hatchback, $1,000. Sharon, Ext. 3995.

Boats & Marine Supplies

33' C&C SLOOP - full race, cruise equip., elec., extensive inventory, mint cond. 751-8158.

22' THOMAS GARVEY - alum., 1979 50 HP Mercury, boat & motor, $2,895 or boat alone, $1,695. Ext. 4758 or 588-7260 eves.

17' LYMAN - 1960, 50 HP Evinrude, very good cond., $1,300. Roger, Ext. 2012 or 878-8847.

MODEL CHRIS CRAFT BOAT - twin screws, 30 in. x 10 in., r/c adaptable, $15. Pete, Ext. 4819.

16' GLASSPAR RUNABOUT - 40 HP Johnson, elec. start, new galvanized trailer, $1,100. Dave, Ext. 4019 or 798-7564.

HOT WATER HEATER - Sears, 10 gal., 110 V, 1,000 W, new camper/boat, $75. Hank, Ext. 7592 or 727-7515.

31' CHRIS CRAFT - 1959, Lapsteak flying bridge, needs engines, best offer over $1,000. 475-5343 after 6 p.m.

12' ALUMINUM BOAT - Sears, excel. cond., $375. 473-0178 eves.

81 TRI-HULL - w/65 HP Mercury, all access. incl., dock space, avail. throughout summer. 399-4122.

Free

INFANT FORMULA - Similac or Enfamil, some babyfood jars. Yako, Ext. 3349 or 2592.

COLOR TV - 25", Magnavox with maple cabinet. Ron, Ext. 7696 or 289-1003.

Miscellaneous

AIR CONDITIONERS - (2) Westinghouse, new, 8,000 BTU, $260; (1) 5,000 BTU, $190. Ext. 3064 or 744-6910.

LAWN SPREADER - for fertilizing, seeding, etc., Scott's, stainless steel, 24", like new, used only once, $40; Compton's pictured encyclopedia, excel. for home & school, 15 vols. & yearbooks, $35; Haitian cotton, for upholstery or slip covers, 6-1/2 yds., 54" wide, brand new bolt, beige, $50. 286-0379.

HUMMELS - 1950 era, full bee. 751-8158.

DOG HOUSE - wood, cost $110, asking $45. Lou, Ext. 4758 or 588-7260.

G.E. AIR CONDITIONER - 14,000 BTU, operates on any outlet. Ext. 3392 or 475-8330.

POOL CHEMICALS - HTH Granular, 60 lbs., $50; water clarifier, 1 gal., $1; algaecide, 1 gal., $1. Sue, Ext. 2905.

SOFA - 7 ft., shades of green with beige flowered print, excel. cond., $100. Jody, Ext. 4183.

GO KART - good shape, 2 HP motor, $50. HR2-1875 after 5:30 p.m.

GATE WALKWAY - 5 ft. high, chain link, self-closing, $30; projection screen, home movie type, $10. Victor, Ext. 2395.

SEARS LAWNMOWER - 20", with bag and extra blade, good cond., $60. Bob, Ext. 3509 or 289-9533.

DRUM SET - 4 piece with cymbal and high hat, asking $130. Bob, Ext. 4672 or 929-4753.

BIKES - 20" and 12"; baby high chair. (201) 464-6745.

8' POOL TABLE - $50. Ray Patuano, 666-0587.

BLACK LOCUST FENCE POSTS - assorted sizes. Ext. 3841 or 286-9450 eves.

LAWN MOWERS - $35/ea.; G.E. elec. range, $50. Al, Ext. 2075 or 281-6617 after 5 p.m.

DINING ROOM SET - Parkay table, 6 highback wrought iron chairs, excel. cond., $300. Tony, 281-0350.

CHILDCRAFT CRIB - and mattress, $40; GM car seat, $8; bicycle child carrier, $8. 751-3666.

BABY FURNITURE - & clothes, to size 2T; 12 cu. ft. freezer; blue bathroom vanity. 298-4398.

RCA TV - 19" b&w, console, solid state, $25. O. Booker, Ext. 3082 or 727-5912.

REFRIGERATOR - $50 neg.; dryer, $50 neg., both run well. Ext. 4664 or 744-8779.

AIREQUIPT SLIDE PROJECTOR - plus 10 carosels, good cond., $50. Bob, Ext. 3509 or 289-9533.

POMERANIAN PUPS - AKC, adorable, 6 wks., temp. shots, m/f, health guaranteed, must see. Angelo, Ext. 3457 or 661-4401.

COLONIAL BEDROOM SET - 5 piece, less than 1 yr. old. 399-4122.

COLONIAL BUFFET - & hutch, $300, less than 1 yr. old. Ext. 4547.

SOLID PINE BEAMS - (4) 6"x12", (1) 4"x12", (3) 4"x8", (12) 4 ft. lengths. Ext. 2081 or 878-9384 eves.

TOYS - good cond., 1/2 price, for newborn to 3 yrs., a deal for new parents. Mona, Ext. 2347.

AIR CONDITIONER - 8,500 BTU, needs recharging, $50. Sue, Ext. 7772 or 475-3415 after 6 p.m.

INSULATION - used, 3-1/2"x15", over 700 sq. ft., $50; 20" boy's bike, $15. 732-3105.

DOG PEN - chain link w/latching gate, 6"W x 12'L x 6'H, screws together, $100 firm. Ext. 2168 or 744-7679.

POOL TABLE - slate, regulation size, all accessories, like new, $175. Ext. 7502 or 265-3208.

YAMAHA ORGAN - 2 manual keyboards, full automatic chords, 4 yrs. old, new cond., $900. Richie, Ext. 2175 or 734-7342.

GIRL'S BIKE - 20", mint, $40; boy's bike, 20", $20; ride on mower, 5HP, $150; radio/phone Olympic console, needs work, $40; 19" Admiral portable TV, needs work, $20; Kenmore dishwasher, runs, needs work, $75. 473-9223.

OUTDOOR FURNITURE SET - sofa, 2 chairs, coffee and end tables, wrought iron, $150. Bernie, Ext. 4842 or 331-2298.

HIGHCHAIR - like new, $20; slow cooker, never used, $10; many other appliances. 924-0318 after 6 p.m.

BIKE - 26", Schwinn, reasonable. Ext. 4341 or 475-4005.

POOL COVER - lightweight, black, to cover 20 x 40 ft. in-ground pool, make offer. 286-9389.

BICYCLE - Columbia, 20", 3 spd., red & chrome, excel. cond., $60. Ext. 3642.

ELECTRIC GUITAR - $150; guitar amplifier, $250; dormitory refrigerator, $75; Kenwood stereo, beautiful, $750 . Mitch, 277-4091.

BICYCLES - men's Schwinn, 3 spd.; women's, 3 spd., good cond. 298-8657.

OSTER KITCHEN CENTER - mixer, blender, grater, etc., 1 yr. old, new $150, sell for $75. Ext. 3074.

CEDAR POSTS - and rails, $5/ea. 744-9677.

BRITANNICA JUNIOR - 1956 edition, plus misc. yearbooks through 1971, $20; girls bicycle, $20. Ext. 2673 or 744-8632 after 6 p.m.

UNICYCLE - excel. cond., great exercise, $25. Jeff, 351-1017 after 7 p.m.

FURNITURE - contemporary couch, 90"; (1) chair, (2) lamps, like new, $225. 289-1627.

ANTIQUE SPINDLE-BACK ROCKER - oak w/carvings, $75; antique trunk w/brass fittings, $45; both in great shape. 475-2090 eves.

Yard Sales

BELLPORT - 28 Gerard St., 7/16-7/17, 10 a.m.-3 p.m., furniture, books, antiques, hand hewn timbers, linens, much more. 286-2272.

BLUE POINT - 18 Wyandanch La., off Middle Rd., July 16, 10 a.m.-4 p.m., household items, bike, headboards, boy's suit, misc. items. 363-6753.

CENTEREACH - 22 Norman Dr., July 15-17. 588-5949.

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

SAYVILLE - cedar & brick ranch, 7 rms., eik, d/r, 2 full baths, full basement, garage, central air, extras, excel. cond., can be made mother/daughter apt., $69,900. 589-2681.

RIDGE - 1 acre wooded plot, 100x400, fully treed, quiet established neighborhood, asking $13,900. 924-3236.

WADING RIVER - direct Long Island Sound waterfront, private beach, year round, 2 bdrm. home, lg. family room w/wood stove, decks, excel. cond., salt marsh opposite, boat ramp adjacent, $90,000.00's. 929-3127.

MARGARETVILLE N.Y. - year round, 2-plus bdrms., 2 baths, elec. & wood heated, full cellar, fireplace, 2 car garage with shop & loft, all heated and insulated storage bldg., 8 acres, 2 cleared, 1/2 stream, adjoins state land. (914) 586-4634.

CORAM - split level, 1/3 acre, 3 bdrms., 2-1/2 baths, lg. den, 1 car garage, fenced yard, $63,000. 473-5434.

For Rent

PATCHOGUE - 3 bdrms. house, for 1 yr., $600 plus util., security. 475-2328 eves.

EASTHAM CAPE COD - 4 bdrm. house, sleeps 8, 2 baths, washer & dryer, dishwasher, deck, near beaches. 722-3865 eves & weekends.

MASTIC - 2 bdrm. apt., lg. rooms, furnished or unfurnished, avail. now. 281-6116.

BELLPORT VILLAGE SOUTH - near bay, stores, fully furnished, spacious, modern house, incl. all appl. + piano, late Aug to X'mas or Jan., rent neg. to responsible tenant. 286-0379.

MIDDLE ISLAND - house in quiet area of Carman's River, 2-3 bdrms., 1 bath, kitchen, d/r, l/r, basement, trout filled river, boating & swimming, 5 min. from Lab. 924-3755.

MASTIC PARK - 2 bdrms., near Marina, good area, $375 heat included, refs., security. 281-7844 eves.

BELLPORT - studio apt., kitchen, priv. ent., no smoking, no pets, one person, $325 util. incl. 286-9051.

Car Pools

JERICHO/SYOSSET/PLAINVIEW - 8:30-5:00. Mike, Ext. 4605.

RONKONKOMA - driver to join 3 person pool, near LIE exit 59. Victor, Ext. 2395.

E. HAMPTON/SAG HARBOR - rider for 8:30-5:00 carpool. Ext. 7199.

Wanted

8 TRACK TAPES - classicals or vocalists. Janet, Ext. 2345.

HOUSE - or apartment to rent for couple during August. Ext. 4192.

WATER BOTTLES - or any large glass bottles. Nancy, 281-6699 after 5 p.m.

TAPE DECK - or recorder (reel to reel). Morris, Ext. 4192.

HOUSE TO SIT - free, caring, experienced, responsible, August only. J. Allentuck, Ext. 2412.

SURVEYOR'S TRANSIT - working order. Ext. 3841 or 286-9450 eves.

WOMAN'S BIKE - for small person, wheel 24x1-3/8, size 18 frame, reasonable. 281-2002.

HOUSE SITTER - Sept. 12-October 3. 281-2002.

HANDYMAN - to put together new metal storage shed. 281-7844 eves.

ACTS - for Vaudeville show on Aug. 5 & 6, auditions July 21 & 27 at 7:30 p.m. in north room of Center. Ext. 5154.

IRON - coffee pot, corkscrew, toaster, blender, coffee mugs, silverware. Ext. 2060.

PIANO - good cond. Ext. 3926.

HOUSE TO RENT - 2-3 bdrms., long term. Tom, Ext. 5212 or 731-9215 eves.

KILN - good cond. and reasonable. Rick, Ext. 3803 or 467-1090.

CORNET - or trumpet, for beginner, reasonable, in good cond. Russ, 325-0563.

WOOD LATHE - from old houses. 751-6418.

Ads for Services may be posted at the BERA Sales office.

Classified Ad Policy

Deadline is 4:30 p.m. Friday for publication Friday of the following 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. Ads for the sale or trade of firearms will not be accepted.
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. One ad per person per week.
7. **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, Building 134.**

☐ For Sale: Autos & Auto Supplies ☐ For Sale: Boats & Marine Supplies ☐ For Sale: Miscellaneous ☐ Car Pools ☐ Wanted ☐ Free ☐ Lost & Found

Please print your ad below in 15 words or less using one word per block. Include name and phone number to call.

Note: The following must be completed for your ad to appear.

NAME (Please Print) .....

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

Send to: Brookhaven Bulletin, Building 134 (Ext. 2345).

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