BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

A Visitor's View

Brian Fender, Institut Laue-Langevin

The scenes associated with Grenoble, France are generally quite different from those found on Long Island. But the two locales have more in common than one would suspect. Both Long Island and Grenoble are home to scientific research institutions, Brookhaven National Laboratory (BNL) and the Institut Laue-Langevin (ILL), respectively. And both BNL and the ILL are home to a high flux research reactor.

During his visit to Long Island and BNL last week in conjunction with the conference on neutron scattering, Laue-Langevin's present director, Brian Fender, talked about his laboratory. It was founded in 1967 as a collaboration between France and the Federal Republic of Germany. In 1973, one year after reactor experimentation began, the United Kingdom joined the ILL as a third equal partner. Today the Institut is a reactor laboratory which employs about 500 people and hosts over 900 visiting researchers each year.

BNL and the ILL

In size, the reactors at both institutions are similar; Brookhaven's HFBR is run at 60 megawatts (MW) of power and the ILL reactor at 57 MW. But two features of the original ILL design have contributed greatly to its versatility. Said Fender, "Our reactor was designed to have both a hot and a cold source. That tailors the neutrons, if you like, pushes them to shorter or longer wave lengths. The second aspect was the use of neutron guides which are essentially nickel-coated glass pipes which transport the neutrons rather efficiently from the reactor into a big experimental area, so you can get many more instruments around the reactor. These features have been so successful for us that, indeed, we have got plans to introduce a second cold source and we've already built our second guide hall."

European Light Source

Experimentation with cold neutrons is now going on at the HFBR, and BNL has submitted a proposal to the Department of Energy for a guide hall of its own. And, Fender said, the ILL and Brookhaven are soon likely to have even more in common. "There have been high level discussions between the French and German governments," he explained. "As a result, the French have decided that they will propose Laue-Langevin as a site for the European synchrotron source, which will be a five GeV source, or it may turn out to be six GeV as the Americans have proposed similarly for this next generation. It is a decision to build it in Grenoble, but who will be partners and how much money will be made available to the project is still unclear."

With the completion of this project, the ILL will have the same two elements that have made BNL a world center for research into the structure of matter: a high flux beam reactor and a synchrotron light source (the NSLS, designed for 2.5 GeV). "That's the attraction of doing this," Fender confirmed. "There is a strong interaction between the scientific communities that use neutrons and those that use the synchrotron facility. That was the whole point of our argument, that you should put these together on the same site because it will have a strong, supporting effect."

Fender knows this from his own research interests, which fall on the borderline between physics and chemistry. "I'm interested in proton conductors," he explained. "What are the structures of and what are the mechanisms by which protons are transferred, particularly in those systems where proton conduction is rather high. I'm also interested in defect or disordered materials, which include fast iron conductors. With disordered materials, you may use a reactor to study structure by classical diffraction methods. But you can use the synchrotron technique called EXAFS [Extended X-ray Absorption Fine Structure] to get the local distribution of the atoms."

Europe and the U.S.

Though he is involved with research, Fender admitted that, "At the moment, being director takes up a fair amount of my time." To assume the five-year post at the Institut in 1980, Fender had to leave his native England, where he was in the inorganic chemistry department at the University of Oxford. He had done experiments at the ILL since 1973, and had served on the steering committee and the scientific council, so he knew what to expect by a move to Grenoble, which is sometimes called the "Capital of the Alps."

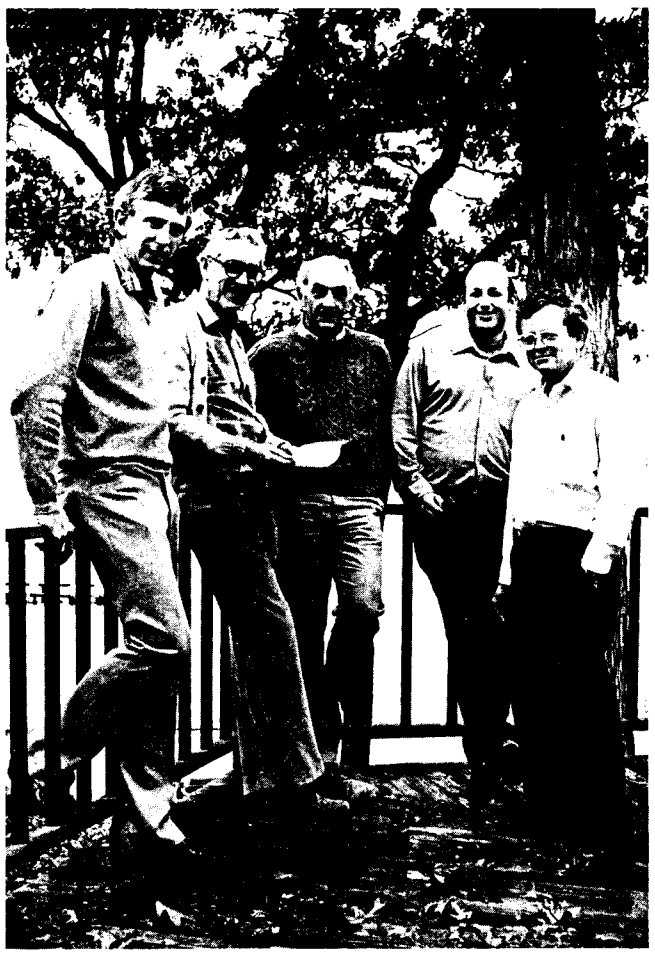
Alex Reben

Brian Fender

Mountains — Mt. Rainier and the Cascades — were also in Fender's view when he was at the University of Seattle from 1960-61. Now, he said, "It feels like going back home, in a way, to visit the States, even this far east." Though there are no mountains here, Fender said, "You do get marvellous falls in the eastern states. I think better than in the west."

And of course, there's BNL, which Fender had a chance to visit for the first time following the conference, to tour the HFBR and the NSLS. "There have always been rather good links between the neutron scattering community in the United States and Europe, but I think, if anything, that's grown stronger in the last few years, and this conference was a good example of that." By the same token, he added, "The ILL already has collaborations with Brookhaven, and one expects those to get stronger. And no doubt, the European synchrotron source will also establish rather strong links with the light source at Brookhaven too."

— Anita Cohen



Alex Reben

With Peconic Bay and the Greenport shore behind them, the organizers of last week's workshop assembled on the balcony of Shelter Island's Pridwin Hotel. From left are: Gerry Lander, Argonne National Laboratory; Ralph Moon, Oak Ridge National Laboratory; Victor Emery, BNL; Richard Silver, Los Alamos National Laboratory; and Mike Rowe, National Bureau of Standards.

Neutron Scattering Facilities Discussed at S.I. Workshop

Tucked between Long Island's north and south forks and accessible only by boat, Shelter Island is a cozy community with New England charm. Last week, it was also the temporary home of 75 scientists who traveled there from the far corners of the world for a workshop on "Scientific Opportunities with Advanced Facilities for Neutron Scattering."

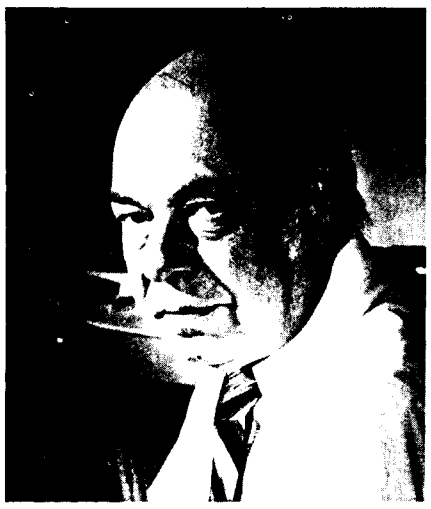
The advanced facilities under discussion from October 23 to 26 would be the next generation of sources for producing neutrons for scientific research. The workshop had two focal points: (1) new facilities with increased flux (more neutrons) and the new kinds of science that can be attempted with them, and (2) detailed comparisons between the performance of instruments designed for steady state and pulsed sources. Steady state sources are those like reactors that produce a steady stream of neutrons. Pulsed sources are more like accelerators, issuing a bunch of neutrons at fixed, short intervals.

The first half of the workshop involved small group discussions devoted to crystallography, liquids and amorphous materials, small-angle scattering, collective excitations, high resolution spectroscopy, chemical spectroscopy, polarized neutrons and their application, high energy spectroscopy and fundamental neutron physics. Each group considered its subject in light of the two aims of the workshop, then reported its findings to the conference as a whole. A report of the workshop proceedings will be published.

The workshop was sponsored by those U.S. national laboratories which already have neutron sources: BNL, Oak Ridge National Laboratory and the National Bureau of Standards, (steady state sources), and Argonne and Los Alamos National Laboratories, (pulsed sources). Victor Emery of the BNL physics department, who chaired the conference with Gerry Lander of Argonne, explained, "To maintain our objectivity about the different types of sources, we didn't want to hold the conference at any of those laboratories, so we looked around for a suitable conference site." Based on earlier successful conferences held there, the workshop was set for Shelter Island.

The unusual location warranted unusual preparations, such as arranging buses for transporting travelers to and from Kennedy Airport and arranging a seasonal decor in the Pridwin Hotel's lobbies and restaurants. These and other arrangements were handled by Nancy White, who was assisted at the conference by Patricia Tuttle.

Donald Metz, head of the Chemical Sciences Division of DAS, received an honorary Doctor of Science degree from St. Francis College, Brooklyn, New York, on October 26. The occasion was a Centennial Science Symposium in celebration of the 100th year of the college as a chartered organization. Metz received his B.S. degree from St. Francis in 1947 and from that time until 1976 taught part-time at the college. For the last 22 years, he held an adjunct appointment as Professor of Physics and Chemistry. Metz was cited for his lifelong dedication to science and science education, particularly his contributions to the education of undergraduates and, more recently, his efforts to upgrade the teaching of science.



Coming Up

Mathematician H. Bruce Stewart will give the 209th Brookhaven Lecture on Wednesday, November 14, at 4:30 p.m. in Berkner Hall. He will speak on "The Geometry of Chaos," describing recent discoveries of underlying order in apparently erratic dynamic behavior. Computer-generated movies produced with CSCF computers and BNL micrographics will illustrate the talk.

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The next BERA concert will feature the Golub/Kaplan/Carr Piano Trio in an evening of chamber music at Berkner Hall on Thursday, November 15 at 8:30 p.m. On the program will be Mozart's Trio in C Major, K. 548; Beethoven's Trio in E Flat Major, Op. 70, No. 2; and Mendelssohn's Trio No. 2 in C Minor, Op. 66. General admission is $8; students and those over 65, $5; under 18, $3.

Public Sale of Motor Vehicles

Thirty-four vehicles, located at Warehouse T-87, will be available for Public Sale. Inspection will be permitted from November 5 to 9, during the hours of 9 a.m. to 4 p.m. The sale will be an informal competitive bidding. Bid forms may be obtained at Bldg. T-87. For further details, please call Ext. 2302.

Arrivals & Departures

Arrivals

Patrick F. Browne ..... Plant Eng.
Augusto Lazos ..... Accelerator
Carrie J. Lofstad ..... S&EP
Jacobus H. Van Dijk ..... Physics

Departures

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

Charles Balsamo ..... Plant Eng.
Edward W. Dexter ..... Accelerator
Edward G. Divis ..... DAS
Eugene Findl ..... DAS
Leslie Lasker ..... App. Math
Michael C. Ogilvie ..... Physics
Maria T. Pavlova ..... Medical

More Addled Addresses

Here is the latest crop of addled addresses forwarded to us by employees:

Bloodhaven Nat Lab
Upton, New York
Battelle National Laboratory
Upton, New York
Brrook Heaven National Lab.
Uttom, New York
Harback Chress
(should be Chris Harbach)
Brook Steven National Lab.
Broddraven Nat'l Lab/Chem
Upton, New York
Brookhaven National Michael Rowe Lab.
Upton, New York
Brookhaven National Lab
Fairport, New York
Brookhaven Nut Lab's
Upton, New York
BEWokhaven Natl. Lab.
Upton, New York
Brookhaven National Laboratory
Public of Relations Office
Uptown, New York
Bronx Haven Natnl Lah
Upton, New York
Brookhaven National Bank
4 Bayview Street
Bellport, New York
Peter Rathvon
460 Brookhaven
Lipton, New York

Note: If any addled addresses come your way, please send them on to the Bulletin.

Volunteer Knows United Way Works

The Society of St. Vincent de Paul is one of the 130 United Way of Long Island agencies which helps hundreds of needy people. Joseph Wiensko, a BNL employee on long-term disability, is president of the Society's eastern district of Suffolk County and of his church's chapter. As a result of his volunteer work, Wiensko knows firsthand how many people need help and how many needy people live close to the Lab.

"From October 1983 until the end of this September, we have helped 469 families, or 1600 people in Mastic, Shirley, Center Moriches and Manorville," says Wiensko. "We will never refuse anybody — we help all the needy regardless of religion, race or anything else." Most of the people Wiensko has assisted are women who are single heads of households and their children, the physically and mentally disabled, orphaned and abandoned children, poor elderly and those who have suddenly lost their jobs.

"When we get calls from the people themselves, government social services, or local clergy, we go to the people's homes and first bring them whatever food they need," explains Wiensko. "The second time we go to their homes, we question them to find out what their real need is — a job, social services or financial assistance.

"One example is that around last Christmas, a woman called to ask for toys for her five children," continues Wiensko. "I arrived at her home to verify the need, I asked her if I could sit down at the kitchen table to write the names and ages of her children. She told me there was no place to sit in the kitchen and there was no table to write on. Upon asking her more questions, I also learned that she had no beds or mattresses for her children. But when Christmas arrived, we were able to supply the woman and her children with furniture, food and toys."

The St. Vincent de Paul chapter at St. John the Evangelist Roman Catholic Church of Center Moriches, of which Wiensko is president, receives about $1,000 per year directly from the United Way to provide donated, reconditioned furniture to those in need. "In the past two months, 10 families who live within a six mile radius of BNL obtained furniture through the Society of St. Vincent de Paul with the help of the United Way," Wiensko mentions. His local chapter is given money by Catholic Charities, another United Way agency, to provide counseling and toys at Christmas.

Wiensko has 13 volunteers from St. John's Church working with him. He can arrange for a house call to be made any time there is need in his area. For his volunteer work, the Suffolk County Legislature awarded him their 1984 Care Award.

"Though I am disabled, I am not the type of guy who was about to give up and sit in front of the TV for the rest of my life," explains Wiensko. "I'm just trying to help those who really need help and trying not to shirk my duty as a human being to other human beings."

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As of Wednesday, October 31, nine days before the end of BNL's 1984-85 United Way Campaign, 363 employees have pledged $29,222 towards the $65,000 goal set by campaign coordinator Cheryl Williams. If any of the 2,884 employees who have not yet contributed would like to make a donation towards the $35,778 difference, they may return this pledge card to Betty Pergan, BNL United Way campaign treasurer, Building 179A, or to their United Way department representative. If they each gave a one-time gift of $12.41 or authorized a United Way payroll deduction of 24¢ per month, we would meet our goal.

LIFE NUMBER	EMPLOYEE NAME (Please Print)	DEPARTMENT

In support of the Member Agencies of the UNITED WAY OF LONG ISLAND, I hereby authorize Brookhaven National Laboratory to make regular payroll deductions for the amount indicated. Payroll deduction PER PAYDAY to start 1st payday of January 1985. If you are already contributing through payroll deduction, last year's authorization expires the last payday of December 1984. **Won't you please renew or increase your contribution on this new card today?**

1984—1985 CAMPAIGN

bnl

United Way

☐ Here's my one-time gift in the amount of $ _____ Paid by Cash ☐ Check ☐

1.00 ☐ 2.00 ☐ 4.00 ☐ 6.00 ☐ 8.00 ☐ 10.00 ☐ Other ☐

Payroll Status ☐ Weekly ☐ Monthly

Date _____ Contributor's Signature _____

The booklet enclosed with this mailing lists agencies that are served by the United Way of Long Island. If you would like to have your contribution donated to one of these particular agencies, please indicate below. United Way will forward your contribution directly to the agency you have designated.

Agency (Please Print) _____

Patents Awarded

Craig E. Thorn, Chellis Chasman and **Anthony J. Baltz,** all in the Physics Department, were issued U.S. Patent #4,445,102 for inventing an improved magnetic pole tip. Their invention makes possible an improved magnet which more easily provides a radially increasing magnetic field, as well as reduced fringe field, and requires less power for a given field intensity. The apparatus is made of a pair of spaced, opposed magnetic poles, formed from a low reluctance material such as iron or steel. In addition, the poles are comprised of a pole root and a pole tip attached to the central portion of the pole root. At least some opposed portions of the pole tips are separated from the pole root, the separation beginning at a predetermined radial distance from the center of the pole and increasing with the radius. Thus, the pole tips define a magnetic gap wherein the magnetic field is accessible. The improved magnets have been found to be particularly advantageous for use in large isochronous cyclotrons.

Powell Richards, now retired, **Suresh C. Srivastava** and **George E. Meinken,** both in the Medical Department, were awarded U.S. Patent #4,448,762 for developing a novel ruthenium labeled transferrin compound and methods for preparing and purifying it. Transferrin is a blood protein of high molecular weight and can make a complex with one or two metal ions, since it contains two predominant binding sites. The compound, called ruthenium-97 (Ru-97), can be used in nuclear medicine as a diagnostic tool, as well as in the treatment of tumors and abscesses. In many ways, Ru-97 is superior to gallium-67 (Ga-67), which is presently the most widely used agent for tumor localization. Studies show that uptake of Ru-97 in several mouse tumor models is almost twice as high as that of Ga-67. Also, the imaging characteristics of Ru-97 are superior, and detection sensitivity with Ru-97 is five times greater than with Ga-67. The novel ruthenium complex is prepared by reacting iron-free human transferrin dissolved in a sodium acetate solution with ruthenium.

the Great American SMOKEOUT

In conjunction with the Great American Smokeout Day, November 15, the Long Island Division of the American Cancer Society is conducting a "Fresh Start" program for smokers who want to quit. The first day of the four session program in Tuesday, November 6, at 8 p.m. in meeting room A of Central Suffolk Hospital, Roanoke Avenue, Riverhead. The other three sessions will take place on November 8, 15 and 20. Attending all four one-hour sessions is advised. The requested donation is $25. Call 420-1111, Ext. 506, for additional information.

Wearable Art At Hospitality Party

Art — The conscious use of skill and creative imagination, especially in the production of aesthetic objects.

There is nothing in Webster's definition that says art has to hang on a wall, stand on a pedestal or lie in a display case. Those who turn their skills and imagination to the creation of beautiful clothing or jewelry are simply engaging in another form of art — wearable art.

"Wearable Art" is the theme of the Hospitality Committee's fall Tea and Sherry Party, set for Thursday, November 15. Mingling with the guests at the party will be Hospitality Committee members attired in their own wearable art creations, including quilted jackets and vests, clothing adorned with embroidery and lace, sweaters and hand-crafted jewelry. Members will be wearing garments and jewelry representative of the crafts and styles of such countries as Mexico, India and Japan.

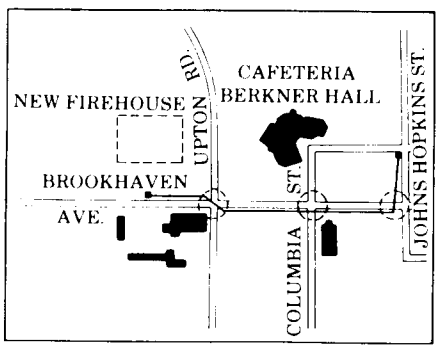
In addition to this unique fashion display, the party will feature demonstrations of such crafts as weaving, patchwork and tatting. Tea, coffee and sherry will be served along with a variety of homemade breads and an assortment of vegetables and dips.

Women employees and wives of BNL employees and guests are invited. Babysitting will be provided free of charge in the gymnasium.

Please note: The Tea and Sherry Party will be held from 4 to 6 p.m. The hours have been extended to make it convenient for those employees who would like to attend after work.

On Site

Are you ready for another detour? Excavation work will begin next week to provide central steam and sewage service to the west end of the site for the new firehouse and other buildings. As noted on the map, road work will be done at three locations where the steam, condensate and sewage pipes will have to cross streets. From time to time, temporary barricades will be set up, and traffic will have to detour around these sites. Whenever possible, excavated portions will be bridged to allow normal traffic flow. The entire project will take several months to complete, so be prepared for those occasional detours.



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BERA News

Benefit Statements Mailed Next Week

Next week, all regular and eligible part-time employees will receive an annual statement of their present insurance and retirement benefits. The statement will be sent to their home addresses.

The statement reflects each individual's various group insurance coverages (premiums, beneficiaries, disability benefits), and AUI and employee contributions to the retirement plan.

The purpose of this statement is to provide employees and their families with a better understanding of their AUI benefits and to insure that their insurance coverages and beneficiaries are correct and up-to-date.

PC Users Meeting

The PC/Workstation group will meet at the AMD seminar room on Wednesday, November 7 at 10 a.m. Marty Deutch of IBM will present the PC/AT and other new IBM products.

Hospitality News

Betsie Kinney and Ruth Hill will be the guest speakers at the Hospitality Committee's next morning get-together on Tuesday, November 6, at 9:30 a.m. in the Recreation Building in the apartment area. They will discuss the different methods and ideas which can be used in braiding a rug.

Wives of Laboratory employees and guests are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

Cafeteria Menu

Week Ending November 9, 1984

Monday, November 5

Chicken okra Creole	(cup)	.65
	(bowl)	.85
Beef turnovers in puff pastry & 1 veg.		2.20
Quiche Lorraine & 1 veg.		2.00
Hot Deli — BBQ chicken breast	(bread)	2.15
	(roll)	2.30

Tuesday, November 6

Lentil soup	(cup)	.65
	(bowl)	.85
Roast leg of veal & 1 veg.		2.25
Polish style stuffed cabbage roll & 1 veg.		2.10
Hot Deli — Jumbo chili dogs		2.10

Wednesday, November 7

Old-fashioned cabbage soup	(cup)	.65
	(bowl)	.85
Pasta seafood paella & 1 veg.		2.15
Stuffed pork chops & 1 veg.		2.00
Hot Deli — Top round of beef	(bread)	2.00
	(roll)	2.15
Bowl of mussels		.75

Thursday, November 8

Beef noodle soup	(cup)	.65
	(bowl)	.85
Pork & cabbage crisp		2.10
Salisbury steak & 1 veg.		2.00
Hot Deli — Baked ham	(bread)	2.00
	(roll)	2.15
Top your own baked potato w/ chili & cheese sauce plus two toppings — your choice		.75
	each extra	.25

Friday, November 9

Seafood gumbo soup	(cup)	.65
	(bowl)	.85
Breaded fish fillet & 1 veg.		2.00
Turkey vegetable Oriental over rice		2.15
Hot Deli — Sausage & pepper hero		2.05

Party Reservations

Recreation Building

Laboratory organizations and BERA activity groups interested in reserving the Recreation Building for holiday parties are invited to send representatives to a meeting in the Personnel Conference Room on Friday, November 9, at 1:30 p.m.

Reservation dates will be given to those attending the meeting in the order determined by a drawing which will be held at that time. Subsequent reservations, if dates are still available, may be scheduled by calling the Recreation Office, Ext. 2873, before the deadline date of Friday, November 16.

NOTE: Due to the schedule of the Upton Nursery School through December 13, the Recreation Building will not be available for large parties (more than 50 people) until Friday evening, December 14. Small parties will not be affected.

Brookhaven Center

Reservations for parties at the Brookhaven Center may be arranged by contacting Jean Byrne, Staff Services, Ext. 2553.

Chess Club

The newly organized BERA Chess Club is looking for players. Those interested, call Kim Mohanty, Ext. 7110.

Country and Western Dance Demo

Come see the new C&W dance steps (not square dancing). Texas Two-Step (as seen in Urban Cowboy), Cotton-Eyed Joe, Double D and Flying Eights will be demonstrated on Thursday, November 15, at 5:30-6:30 p.m., Room C, Berkner Hall. All welcome. If enough people are interested in learning the new dance steps, a class will be formed. Sponsored by BNL Singles Club, Ext. 2228.

REMINDER: The regular monthly meeting of the Singles Club will be held on Tuesday, November 13, in Room C, Berkner Hall at 5:10 p.m. to discuss the possible reorganization of the club.

Bowling

Pink League

High games were bowled by Mary Grace Meier 183, Maryann Reynolds 177, Renie Rosati 171/506 scratch series.

Red/Green League

Ken Riker had games of 235/213/202 for a 650 scratch, 701 gross series; Bruce Medaris 227, Tom Holmquist 221, Jim Morris 215, Joe Ferrante 201, John Cochrane 200.

White League

Kay Conkling rolled a 217, Rich Larsen 212, Ben Belligan 210, Bob Barberich 205/200, Lee Barberich 177, Marge Belligan 177, Kathy Griffin 176, Caryl MacDougall 176.

Purple League

Mary Eggert bowled a 192, Sharon Moore 176, Mary Grace Meier 171/171, Elaine Zukowski 181.

In The News

In the Puns and Anagrams puzzle of last Sunday's New York Times, item #29 asked, "What a cat looks like at Brookhaven?" The answer — atom. Helen Keeley, Technical Information Division, brought this to our attention and what's more, completed the puzzle.

The best in BGA golf: Jim Phelan (foreground), and Marshall Elzinga.

Alex Reben

Golf Wrap-up

The BERA Golf Association (BGA) recently brought its 1984 season to a close with the completion of the team and individual league playoffs.

The team league championship was won by Marshall Elzinga and Jim Phelan. They defeated Doug Mitchell and Al Wirszyla in the final match. Regular season winners of the four groups which made up the team league are: Steve Heald and Bob Mills (Group 1), Joe DePace and Mike Losquadro (Group 2), John Connelly and Tom Holmquist (Group 3) and Deborah and Jay Adams (Group 4).

The individual league championship was won by Jim Phelan over runner-up Les Lawrence. Regular season winners were Lawrence for Group 1 and Mike Losquadro for Group 2.

The year-round awards for best overall performance in the BGA tournaments went to Doug Sweely, gross score standings, and Howard Vetter, net score standings.

The Theater Group will present "Morning's at Seven," a joyful comedy, at Berkner Hall on November 9, 10, 16 and 17 at 8:30 p.m. In the scene above, Arry (Peggie Woodie) has stolen a revealing document from her sister, Cora (Jane Love), while Cora's husband, Thor (Bill Love) is caught in the middle. It's entertainment the whole family will enjoy, and a gentle and loving look at a time when things were simpler. And so the Theater Group is going to make it easy for families to be there. Any employee who brings his mother or father to the play will receive a free ticket for one parent. Advance sales are $3 regular admission, $2 for senior citizens, students and the handicapped. Tickets are available from the BERA Sales Office, or from cast members. When purchased at the door, tickets will be $1 more.

Classified Advertisements

Placement Notices

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

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

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

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

2138. MATERIAL HANDLER - Supply and Materiel Division.

2139. RESIDENCE CUSTODIAN - Staff Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants

2140. OFFICE SERVICES/ACCOUNTING POSITION - Requires a minimum of two years college accounting credits. Responsibilities include report preparation, reconciliations, inventories and other accounting analyses. Will provide assistance within the General Accounting Section. Fiscal Division.

2141. LIBRARIAN - (6 months position) requires MLS degree plus 2-4 years relevant experience. Will provide technical information to users via reference research and on-line bibliographic searching; acquisition and cataloging; and collection development. Department of Nuclear Energy.

Autos & Auto Supplies

71 DATSUN - 83K miles, $800. 286-9051.

DATSUN - B210, sport rims w/tires about ½ worn, $25 takes all; 72 Duster parts, right fender, windshield, 727-3608.

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

73 GREMLIN - Hi milage, good, reliable, local transp., $300. Ext. 4184 or 736-3573.

79 FORD LTD - wagon, a/c, p/b, p/s, p/w, p/l, am/fm cass., 55K mi., excel. cond., white/maroon interior, $4,000 firm, 286-2890 after 6 p.m.

74 DODGE - Colt, $125; Dodge Colt starter; 4 spd. trans.; 1-10 ply truck tire on Ford rim, 16.5, $17 used; 1-15" tire like new $16. 732-3338.

81 TOYOTA - Starlet, a/c, am/fm, excel. mi., excel. cond., $3,800. Ext. 2576 or 221-4448 after 7 p.m.

81 TOYOTA - Corona, 4 dr., like new, garaged, low highway mi., a/c, 4 speakers am/fm, p/s, $6,800. D. Hardy, Ext. 3389.

CHEVY PICKUP - carpet floor mat, blue, $40; stainless 15" wheel covers, set of 4, $25; camper roof vent, blue lid, $10. Ext. 2462.

TOW BAR - H.D. universal, new $175; trailer hitch, frame mount, very good, $50; L78-15 wheels & white wall tires, $15. Ext. 2462.

72 MGB - GT, 4 spd., 4 cyl., wire wheels, many extra parts, not running, 93K mi., $500. Tony, Ext. 7543.

TIRES - snow (2), radial (4), mounted on 14 in. 5 hole G.M. wheels. 363-6673 eves and weekends.

77 TOYOTA COROLLA - excel. cond., $1,850. Ext. 4768 or 2512 after 6 p.m.

GM TRUCK FRONT BUMPER - rear step bumper, bumper guards, stainless mirrors, set of 4 fender well moldings. Ext. 2462.

80 SUZUKI DIRT BIKE - RM125, high performance, excel., will deliver. 929-8287.

75 TOYOTA PICKUP - 100,000, good running cond., body rust, $250. 728-2104 eves.

77 INVADER TRAVEL TRAILER - 28' sleeps 10, awning, equalizer and stabilizer, $6,300 firm. 929-4473.

79 CHEV MONZA - p/b, p/s, air, am/fm stereo, new tires, good cond., very good MPG, asking $2,900. 878-0012.

70 FORD TORINO - dependable car. Elizabeth, 924-9155 after 7 p.m.

DUNE BUGGY - show cond., Porsche motor, all new parts, $2,500. 669-2526.

74 CHEVY NOVA NOSE - $125; subframe, $75; doors, $25/ea.; rear end, $50. Dick, Ext. 3499 or 589-9103.

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

73 VW SQUARE BACK - good running cond., $650. Ron, Ext. 2189 or 281-6630 after 5 p.m.

75 PACER - silver, 6 cyl., a/t, p/s, p/b, am/fm, good cond., must sell. 654-9340 after 6 p.m.

71 PORSCHE 914 - excel. cond., blue, asking, $4,100. Anna, 281-4202.

81 FORD ESCORT L - auto., a/c, 2 dr., hatchback, am/fm stereo w/cassette, $3,100. John, Ext. 5279.

81 FIAT SPYDER - silver, 49K mi., new conv. top, am/fm cassette, Perrelli P6, alloy rims, new clutch, rebuilt trans., mint, $6K. 653-9653 or Ext. 7132.

78 OLDSMOBILE CUTLASS - 8 cyl., 4 dr., p/s, p/b, a/c, clean in and out, low mileage, $3,600. Katherine, 281-8021.

80 HONDA ACCORD HATCHBACK - 5 spd., am/fm, good cond., $3,400. 286-8356.

73 VOLVO 1800 - orig. owner, 4 spd. overdrive, $4,000. 538-8007 eves.

76 DATSUN 280Z - wire wheels, 4 spd., a/c, am/fm, clean, orig. owner, $3,500. Ext. 4867 or 744-8087.

70 TOYOTA - engine good cond; 75 Cordoba - for parts, must sell, 286-8185 after 5:30 and weekends.

71 CHEVY IMPALA - V8, p/s, p/b, a/t, a/c, good cond., 82,000K, $1,000. Ext. 2673 or 744-8632 after 6 p.m.

74 T-BIRD - white, 83 K, a/c, buckets, full power, new tires, new exhaust, looks/runs well. $1,000. Ext. 3711 or 751-1413 eves.

Miscellaneous

BENCH PRESS - weight bench, $15. Gary, Ext. 7518 or 589-5490.

DIAMOND RING - beautiful Marquis, 2 baguettes, 1 point total, appraised at $3,125, price $2,000 firm. MaryAnn, 286-2435.

AMPLIFIER - Bryston 2B, 50 watts per channel, warranty, original carton & patch cords, $325. Ext. 2694.

STUDENT TRUMPET - in case, $10; swivel desk chair on wheels w/arms, $25. 941-4328.

TRUMPET - Bach/Stradavarius, case, $375; Olds/Ambassador Coronet, case, $125. Jim, Ext. 3372.

UPRIGHT FREEZER - 15-1/2 cu. ft.; 3 modern sofas; chandeliers; headboards; bikes for 8-12 yr. old; 100 amp circuit box, guitar & amp. Jake, Ext. 4532.

TREADLE SEWING MACHINE - Singer, antique, in closed walnut cabinet, $65. 744-5317.

HYDROCOLATOR - (2) Col-Pak, for ice pack treatment of sprains or muscular problems, $5 each. 281-2002.

CARTRIDGE DISK DRIVE - Hacker Spec. 6MB, $100, 3 for $250. 929-8475.

PORTABLE WASHING MACHINE - Sanyo, new, 3 wash cycles, $250. Peter Eterno, Ext. 4167.

REFRIGERATOR - dorm. size, used one semester, new $110, asking $65; incline weight bench, 90 lbs., steel weights, 110 lbs, plastic weights, $70. Janet, Ext. 2345 or 929-4688.

REFRIGERATOR - apt. size, 2'x2'x5', excel. running cond., $75. Joe, Ext. 5233 or 369-0432 eves.

MEN'S RACING SKI PANTS - wool/polyester, stretch, dk. blue, 34-R, never worn, $75. Ext. 4727.

ROUND TABLE - 46", oak, claw feet w/3 extra leaves, 4 chairs, $500. 289-5420.

VICTROLA CONSOLE - RCA, radio, Pre-WWII, cut your own records, 78 rpm, works, $300. Frank, Ext. 7684.

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

ELECTRIC BASEBOARD HEATER - 8'; double bed, extra firm mattress, Ext. 3705 or 862-7998.

TREE SAPLINGS - maple, white pine, you dig, cheap, now is the time to transplant. 281-2002.

COLECO CABBAGE PATCH DOLL - bald, preemie, green eyes, $65. Donna, 722-4644.

TABLE - w/4 chairs, decorative iron, painted white, glass tabletop, 2-1/2'x4', for living room, porch, $100. 744-9749 preferably between 7 & 8:00 p.m.

ATARI 5200 - w/5 tapes, very good cond., asking $100; portable typewriter, Smith Corona, asking $25. 689-8090 after 4p.m.

SKI EQUIPMENT - child's, Lange XL jr. boots, size 4 ½, Rossignol 130 cm., skis w/salmon 127 bindings-poles, excel. cond., 928-6921 eves.

RC AIRPLANE - Falcon 56, w/engine ready to fly, $100. John, Ext. 2269 or 281-2623.

OFFICE DESK - four drawers and typing table, $25; office chair, $10. 744-9677.

FUR STOLE - good cond., $40 or best reasonable offer, Ext. 3701.

TENNIS RACKET - Dunlop Max, 200G, graphite strings, 4 ½ L. 3 months old, $75. Paul, Ext. 5287.

BABY CRIB - $40; baby carriage, $20; baby car seat, $5. 399-4394 after 6 p.m.

PING PONG TABLE - movable w/accessories, $35; 4' x 3' aluminum storm/screen windows, $10 ea., Paul, Ext. 4156.

BEDROOM ENSEMBLE - queen size bedspread, 2 pair insulated drapes, & sheers, blue print on off white, excel. cond., $60. Susan, Ext. 7235.

IDEAL GIFT - 100% silk scarves, orig. design, hand painted, washable, $20 ea. 472-1596.

PHONO CARTRIDGE - Astatic MF 200H, $35; stylus $45; very transparent, Rick, Ext. 7178 or 878-8665.

WASHING MACHINE - portable, 15 lb. load, hook up to sink or perm. install, 289-6455.

BLACK & WHITE TV - Panasonic, 10", $20; beach glass collection, $10; Avon collectibles; glass dome top, qt/pt., canning jars, 732-3338.

GARAGE DOOR - 8'x7', swing type, low clearance, ideal for shed, $50. Joe, Ext 5233 or 369-0432 eves.

VCR - Fisher, FVH 615, 105 channel, cable ready, VHS format, 475-6938.

GUITAR - classical w/case, good for beginner, $50; trash compactor, Kenmore, new changeable panels, free standing/under counter, $200. Nick, Ext. 7652 or 758-9197.

CHAIRS - teak, $20 ea.; Hi-Fi cabinet, blond mahogony, $35; Table, Marble, 36"D, $50; Dresser, walnut, $125. Ext. 3591.

TREADLE MACHINE - antique, Singer, in closed walnut cabinet, $65; 16" swag lamp, brown wicker shade $30; Quartz heater $30; Zenith black/white TV, $25. 744-6874.

LAWN TRACTOR - Wards, 8 HP, $250. Ext. 7231 or 281-9355 after 6 p.m.

COLOR TV - (1) 15" Sears, works well, $50; (1) 14" RCA, works O.K., $35. Alan, Ext. 2928 or 821-1389.

REFRIGERATOR - Westinghouse, frost free, excel. cond., $275; Atari 2600 w/8 tapes, $100. 399-4822.

STRAW WREATHS - ribbon decorated w/tin punched insert, choice of 7 different designs, Marcia, 924-3756.

FLOOR TILE - white/black marble, 9"x9", enough for 15x18 room, cost, $100, sell $45; GM child's car seat, $10. Artie, Ext. 2674.

PLAY HORSE - "Wonder Rawhide" by Gabriel, new cond., cost $60, sell, $40 great for xmas, ages 3 to 5 yrs., 581-6432 after 6 p.m.

COLOR TV - 19", w/stand, $50; Commodore Vic 20 w/cass. recorder, 3 game cartriges, $85. 751-4822.

WOODEN SWIVEL DESK CHAIR - $30; adult wooden crutches. Ext. 7509.

FREEZER - upright 15-½ ft 3; 3 modern couches; electric guitar and amp.; bed frames, 12'x 20'; green nylon carpet; chandeliers. Jake, Ext. 4532.

SECTIONAL - two pieces, 9 ft., Herculon, excel., will deliver. 929-8287.

JUNIOR SKI PACKAGE - Rossignol skis, 140 cm. Saloman bindings, poles and boots, excel. cond. Ext. 4449 or 751-8403 after 6 p.m.

DINING ROOM TABLE - walnut, 58" x 40", w/2 leaves, 4 matching chairs, excel. cond., excel. cond. Ext. 4449 or 751-8403 after 6 p.m.

ICE CREAM MAKER - like new, 5 qt. electric, $15. Tom, Ext. 4084 or 878-1060.

PENTAX 110 - mini camera, includes exchangeable lenses, (normal, tele, wide angle flash, winder, $100. Bernd, Ext. 3405.

PORTABLE HIGH CHAIR - excel. cond., used twice, great for grandparents home. Marge, Ext. 2459.

TWIN BED - head/foot board, triple dresser w/mirror, nite stand, $275; colonial hutch, pine, $325; 19" color TV, $25. 698-7063.

ATARI 2000 - w/6 tapes, askign $60 or best offer. Simon, Ext. 2812.

REFLECTOR TV - Philco, 1940's, 16" screen, excel., 3' by 3 ½" cherry mohagony wood cabinet, needs some work, $495. 281-3149.

FISH TANK - 20 gal. long, w/stand and hood filter, pump, gravel, plants. Bill, Ext. 2047 or 472-4684 after 6 p.m.

SPACE HEATER - brand new, $25; childrens sheets, brand new, 3 pc. set, $15; 2 pc., $10; womens velour robe, never worn, orig. $66, asking $25. S. Spark, Ext. 4111.

GARAGE DOOR - 8'W x 7'H, swing type, low clearance, $50. Joe, Ext. 5233 or 369-0432 eves.

BASS AMP - Baldwin, professional, 2/12" speakers, 4 inputs, Loud, $295. 281 3149.

MENS SKI EQUIPMENT - Kniessl skis & poles, 175 Tyrolla bindings, Munaki boots, $200; jumpsuit w/pullover & jacket, $125. 286-4018.

TREES - locally grown, evergreens, maples, dogwood, you dig., reasonble. 924 6582.

LIVING ROOM SET - Country style, sofa, loveseat, & ottoman, like new, $575. 543-4099 after 6 p.m.

PVC DARKROOM SINK - 72'x22', splash board, print drying racks, cabinet underneath, excel. cond., $250. 698-0234.

UNICEF XMAS CARDS & GIFTS - for info. or order call. Anh, Ext. 2022 lunch time or 744-8386 eves.

RABBIT AND CAGES - reasonable. Andy, 234-8444 after 5 p.m.

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

COLOR TV - 17 in., portable, $30, needs work; Popular Science Magazines, 1945 to 1965, all or part, best offer. Victor, Ext. 2395.

DRESSER - $25; 3 Mission Oak Chairs, $20/ea.; mahogony coat-tree, $20; ping pong table, $20; fir & spruce evergreens, u-dig, 2 for $9. 878-6637.

UPRIGHT FREEZER - Manitovog, 16 cu. ft., old but works perfectly, $90. Mati, Ext. 4570 or 924-4991 eves.

WHITE WICKER BASSINET - eyelet cover, good cond.; baby carrier, excel. cond.; host of baby clothes. Ext. 4444 or 288-2498 Eves.

PINE TABLE - 48" Bennington, 2 leaves, $200. Lynn, 473-6321 before 4 p.m. or 928-8919 after 4 p.m.

COLONIAL LIVING RM SET - loveseat, sofa, club chair, coffee table and end table, $400. Wendy, 423-1554 eves.

GOLF BAGS - ladies new w/head covers, $30; mens Browning Club Master, bag and cart together. R. Feindt, Ext. 3281.

Car Pools

E. NORTHPORT/COMMACK - 4 driver pool looking for 5th driver, Paul, Ext. 4156.

MT. SINAI - form or join carpool or 1 will pay for ride; OHIO - for Thanksgiving. I am driving to Canton, Columbus area for ride call. Barb, Ext. 3052.

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

PORT JEFF STATION - brand new colonial, 4 lg. bdrms., 2-½ baths, lg. dr., fam. rm., eik., fplc., 2 car garage, mid Nov. occupancy, $1,090 plus utilities, 751-8707 or 689-6470.

MILLER PLACE - apartment, living room/bedroom, kitchen/dining area, full bath, 473-8391.

GORDON HEIGHTS - small 3 room furnished apt., private entrance, bath, kitchen, 15 min. from Lab, $360 plus util., 732-3037.

ROCKY POINT - 2 bdrm. house, private & quiet, unfurnished, Sheldon, Ext, 4986.

SELDEN - studio apt., private entrance, eik, near transp. and stores, no children/pets, $475 includes util., 732-5408 after 7 p.m.

VERMONT - ski season rental, Okemo Mt./Ludlow Vermont, Condo or Chalet, seasonal and short term. 744-3623.

SELDEN - 1 bdrm., unfurn. apt., eik, full bath, pvt. entrance, $475 incl. utilities, single preferred. 698-6120.

For Sale

MIDDLE ISLAND - 3 bdrm., 1 ½ baths, fam. room, lg. sunken liv. room, property fences, oak floors, fplc., full basement, $99,000. 924-6454.

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

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

CORAM - Birchwood at Bretton Woods, condo., Dalton model, 3 bdrms., den, formal d/r, 1-½ baths, gas heat, central air, patio, ½ block to clubhouse. 698-0234.

MILLER PLACE - colonial, 4 bdrms., formal l/r, d/r, coutnry kitchen, 4 baths, fam. rm., w/brick wall fireplace. 331-1718.

Free

BEDS - twin box spring, foam mattress, harvard frames, good for camp or second home, 286-3679.

DOG - small, cute, lovable female, spayed, spaniel, housebroken, good with children, owner allergic. Chip, Ext. 2256.

Wanted

HOME - for 4 month old male tabby kitten, affectionate, will pay for neutering, Lois, Ext. 2959 or 751-0023.

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

HOME -for beautiful tri-color, long haired cat, spayed, new baby allergic, Ext. 4184 or 736-3573 eves.

APARTMENT - one bedroom, between exits 57 and 60 LIE, Dan, Ext. 2319.

MICROSCOPE - eye pieces for B&L 20x, George Hrabak, 589-0819.

REPAIRMAN - someone to repair my broken 8 track tapes, can't replace them, 924-6751 eves.

GARAGE - to rent for winter months. Ext. 4098.

OLD BROKEN LAWN MOWERS - free, for shop class, will pu. 728-2104.

SERVICE MANUAL - for Olds Delta 88, 1977 thru early 80's. Ext. 4669 or 744-9429.

WIND-UP WATCHES - whether they work or not, also clocks. Al, Ext. 2043.

MATURE WOMAN - to share large apartment, all utilities, low rent, walk to shops. 473-4383.

RADIAL ARM SAW - small, reasonable please. Sanchez, Ext. 3848 or 281-6498.

MEN'S GOLF CLUBS - right hand, 3, 5, 7, 9 irons, #2 wood and wedge, reasonable. Ext. 2468.

HOUSEMATE - secure adult to share house with mother & two teens, own room, cooked meals. Doris, 727-3790 after 5:30 p.m.

USED MAGAZINES - for CHPS Medical Center, children thru adult, you bundle-up and I will pick-up. Joe, Ext. 3464 or 281-7683 evenings and weekends.

Yard Sales

CENTER MORICHES - Nov. 3, 1 Hewitt Blvd., Cabbage Patch Clothes and assorted items. Ext. 4267.

BROOKHAVEN - Chinese auction and raffle, Nov. 9, 1984 at 7:30 p.m., Brookhaven fire house, Montauk Highway, Brookhaven.

Services

BABYSITTER - reliable, experienced teen, available nights & wknds., Mary, Ext. 2926 or 281-0268 eves.

BABYSITTER - former nursery school teacher desires to stay home and take care of children, 2 to 4 yrs. old, ref., Barbara, 821-2952.

MOVING - no job to small, reasonable, 563-2847 after 5 p.m.

ELECTROLYSIS - the only permanent hair removal, physician trained, licensed, free consultation, safe, 331-4768.

FORMICA - existing cabinets or will build new cabinets, vanities, table tops, etc. Mitch, 585-7667 after 5:30 p.m.

BABYSITTER - experienced mom will care for your child(s), playmates, meals, snacks, activities, fenced yard, ref., 399-0039.

PORTRAITS- capture the personality of your pet in pastel, excel. gift, Bob, Ext. 4434 or 727-2346.

CABBAGE PATCH CLOTHING - handmade, save, order now, under $10. Eileen, 281-7722 10 to 1 p.m.

PAINTING - interior/exterior, wall paper hanging, 878-8828.

PIANO ENTERTAINMENT - any occasion or service, lessons, Ivan, 473-8150.

FALL CLEAN UP - ambitious, strong, 13 yr. old, desires yard work, garage cleaning, carwashing, etc., Peter in Shoreham, 821-9547.

TREE WORK - and fire wood cut, reasonable, leave message, Tim, 744-8279.

BABYSITTER - reliable experienced teen avail. nights and/or wknds., Norma Jean, Ext. 3319 or 928-4048.

BABYSITTING - experienced in my home, ref., available, plenty of TLC, Bellport, MaryAnn, 286-2435.

MAGICIAN & CLOWN - balloon sculpture also avail., childrens magic our specialty, reasonable rates for package deals. 654-9094 after 6 p.m.

PAINTING - interior/exterior, reasonable rates, BNL references. John, 924-5012 eves.

LAND CLEANING - using excellent rake on JD 450 track loader, $45/hr. w/operator. Tom, Ext. 4084, 878-1060.

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