
NEWSLETTER

WOODS HOLE
OCEANOGRAPHIC INSTITUTION



DECEMBER 1992

WHOI Receives Large Historic Photo Negative Collection

The Institution was recently given thousands of film negatives taken by the late Jan Hahn, the first editor of *Oceanus* magazine, during his 25-year career at WHOI. Hahn died in July 1972 at age 59 while his 57th issue of *Oceanus* was nearing completion.

WHOI Archivist Bill Dunkle received the donation, which he estimates at 10,000 plus negatives, November 24 from Hahn's widow, Dorothy Parshley Hahn of North Falmouth. The negatives are in the Archives at McLean Laboratory, where they will be held separately but as part of the Institution's visual archive.

"This is a significant contribution, the backbone of our visual history from 1947 through 1972," Dunkle said. "It thoroughly chronicles the Institution's post-war transitions and the start of the international joint oceanography programs such as GEOSECS (Geochemical Ocean Sections Study)."

Among the subjects in the negative collection are aircraft, WHOI buildings and labs, dock scenes, Woods Hole Village scenes, scientific equipment, vessels and submarines, visiting ships and people, shipboard activities, foreign ports, Associates cruises, and science projects around WHOI and on Cape Cod. Hahn also documented at least 60 scientific cruises.

Jan Hahn came to WHOI after meeting then WHOI Director Columbus Iselin on Martha's Vineyard. According to Dunkle, Iselin thought the Institution could use Hahn's talents as a writer and photographer. Hahn was hired in June 1947 and served as the Institution's first Public Information Officer. Over the next 25 years, he wrote articles and photographed events and scientific activities, both ashore and at sea.

"Columbus Iselin wanted an Institution publication and Jan began one that he named *Oceanus*," Dunkle said. The first issue appeared in the winter of 1952 with articles on "Physical Oceanography at Woods Hole" by Columbus Iselin, and "Fishing Grounds Discovered"

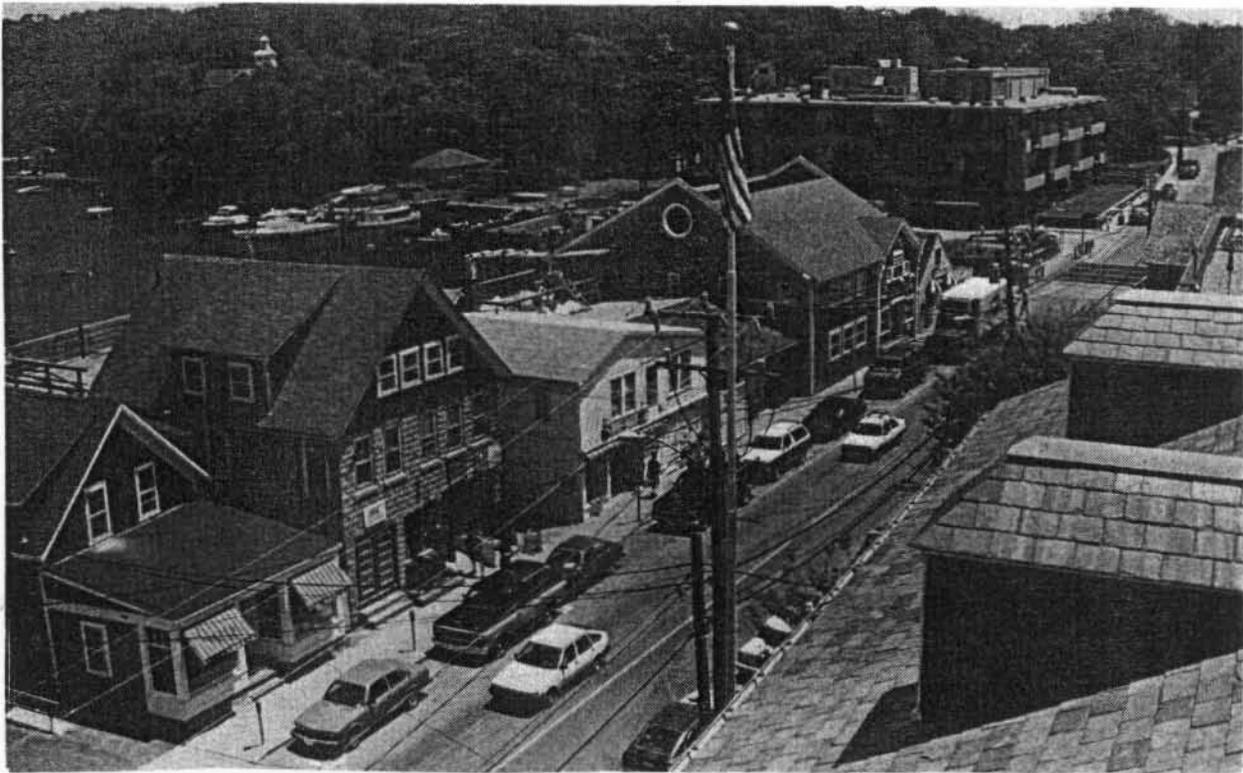
Photo Courtesy WHOI Archive



Jan Hahn at work aboard Atlantis. Hahn documented more than 60 scientific voyages.

and "Master of Sail" (Profile of Capt. Adrian K. Lane) by Hahn. Other articles were "Where are the Ships," "Gifts and Grants," and "Currents and Tides" (staff/Institution news). Only 350 or so copies of the first issue were printed, and most were distributed free to the newly-formed Associates.

"Jan Hahn almost single-handedly produced *Oceanus* for many years," Dunkle said. "Many of his photographs appeared in the magazine, which had reached a circulation of about 5,000 at the time of his death. This donation has significantly enhanced our historical image collection. We deeply appreciate Mrs. Hahn's generosity in giving them to the Institution."



Summer days - a look down Water Street from the cupola atop Bigelow Laboratory. The cupola is decorated with lights for the holidays.

Year-end Purchase Reminder

All purchase order items must be received in WHOI's Shipping and Receiving Department by 12/31/92 in order to be paid with 1992 funds.

The Newsletter is published monthly for employees, students and members of the Woods Hole Oceanographic Institution community. Copy deadline is the 25th of the month. Ideas for stories, photos, and items of interest to the community are welcome and should be sent to: Editor, Newsletter, News Office, Woods Hole Oceanographic Institution, Woods Hole, MA 02543. Telephone 508-457-2000 ext. 2270 or 3340.

Editor: Shelley M. Lauzon
Staff Support: Kathleen Patterson

After School Program Offered in Woods Hole

An after-school program for students in grades one through four is offered in the former Woods Hole School. The program is organized under the auspices of the Woods Hole Daycare Cooperative.

The program is the result of the need in the Woods Hole community for after-school care for the school-age children of working parents and offers an alternative to latch-key programs now operating in the public school system. The session is under the guidance of qualified teachers and begins at 3:30 p.m. and ends at 5:30 p.m. at a cost of \$6.00 per day.

Coverage is also offered for early dismissal days and days when school is closed, such as snow days. Openings are available for the school holiday week December 28-31. Cost is \$3.00 per hour and hours are 9 a.m. to 5 p.m.

If you are interested in the program, please contact Kathy Elder at ext. 2513 or Judy Fenwick at ext. 2520.

Used Toy and Equipment Drive Accepting Donations

The Committee on Work and Family Life is sponsoring a holiday used toy and equipment drive to benefit the Cape Cod Early Child Intervention Program. The program provides assistance to children up to three years of age with varying types of disabilities such as cerebral palsy, genetic disorders, Down's syndrome, and developmental delays. Donations of used toys, baby furniture and equipment (car seats, strollers, cribs, etc) in good condition are welcome. Contact Patty Duffy (Challenger, ext. 2361) or Judy McDowell (CRL, ext. 2557) for further information.

Steering Committee Appointed for Ocean Science Discovery Center

Director Craig Dorman has appointed a Steering Committee to oversee the strategic planning process and feasibility study for an ocean science and technology discovery center. Funded by a state Tourism Fund Grant with matching grants from the Bank of Boston and the U.S. Geological Survey (USGS) Branch of Atlantic Marine Geology, the study is designed to determine the financial viability of a science museum with the ocean as its theme.

The committee had its first meeting December 3 when the main agenda item was to prepare a request for proposals (RFP) to identify the consultants who will conduct the study. Proposals are due January 5. The committee will meet next on January 12 to select the firm that will get the contract.

"Once the consultant is identified

and a contract is signed," Sallie Riggs explained, "we can begin defining the exhibits, demonstrations, and programs that would be included in a science and technology discovery center designed to teach the general public and school groups about the ocean. That will be the fun part. I hope to arrange a series of meetings where the consultants can sit with members of our science and technical staff to 'blue-sky' ideas. We want to make the process as comprehensive as possible and to end up with a plan that would encompass the range of ocean science and technology in a way that no other science center can."

According to the terms of the grant, the study must be complete by mid-summer. The various Institution discussions will be planned for February and March.

The study will also include a definition of the parameters of site selection and recommendations on a site, the financial viability of a completed project and the feasibility of raising funds to start-up such a project without jeopardizing Institution fund-raising for the support of science. Several Cape towns have expressed interest in hosting such a center, including Falmouth.

When the study is complete, the Steering Committee will forward it and the consultant's recommendations to the Director. Any decisions to go forward with such a discovery center will be made after thorough review and additional discussions. The Executive Committee of the Board of Trustees is being kept informed of the process in its monthly meetings.

Steering Committee Members

Sallie K. Riggs (chair)

Director of Communications, WHOI

Peter Boyer

Town Administrator, Town of Falmouth

Dana Briggs

Chairman, Economic Development Commission, Town of Sandwich; Vice President, Sandwich Cooperative Bank

John Burris

Director, Marine Biological Laboratory

Bradford Butman

Chief, USGS Branch of Atlantic Marine Geology

George Costa

Selectman, Town of Mashpee

John Farrington

Associate Director for Education and Dean of Graduate Studies, WHOI

Robert Firth

Town Counselor, Town of Barnstable

Kurt Frstrup

Research Specialist, WHOI

David Gallo

Director of Corporate and International Programs, WHOI

Susan Humphris

Research Specialist, WHOI

Richard A. Kraus

President, Cape Cod Community College

Laurence Ladd

Associate Director for Institution Operations, WHOI

Karen G. Lloyd

Trustee, WHOI
Founder, Lloyd Center for Environmental Studies

James F. Lynch

Associate Scientist, WHOI

Michael McCartney

Associate Scientist, WHOI

William McKeon

Facilities Manager, WHOI

Marie Oliva

Chairman, Board of Selectman, Town of Bourne

Charles Ritch

Regional President, Bank of Boston

Keith Thomson

Trustee, WHOI
President, Academy of Natural Science, Philadelphia

Howard Whelden

Member, Cape Cod Economic Development Council;
President, Software 2000

Fye Lab Gets New Equipment

A new high resolution hybrid mass spectrometer in the Fye Laboratory is helping WHOI staff discover compounds in the ocean that previously were beyond the limits of analysis.

Mass spectrometers sort and measure the weights of individual molecules by passing them through magnetic and/or electric fields. A high resolution mass spectrometer is able to determine those weights very accurately, and provides a unique elemental composition for a given molecule.

WHOI's new hybrid instrument is basically two mass spectrometers back to back. The high resolution section is used to select one chemical substance from all others in a simple mixture, while the attached quadrupole (oscillating electrical field) mass spectrometer is used to generate a spectrum of the fragments that make up the selected molecule. The total data set from this hybrid instrument enables scientists to infer the structure of the chemical compound like a person pieces together a jigsaw puzzle.

The new mass spectrometer, commonly called a mass spec or MS, is the second in Fye Lab. It is part of the Gas Chromatography Mass Spectrometry and Nuclear Magnetic Resonance facility, more commonly called GCMS/NMR.

Research Associate Carl Johnson of the Marine Chemistry and Geochemistry Department (MC&G), which operates the facility, said there are probably not many more than a hundred of the hybrid mass spectrometers in the world. "To our knowledge, this is the only high resolution hybrid mass spectrometer in the oceanographic community in the United States."

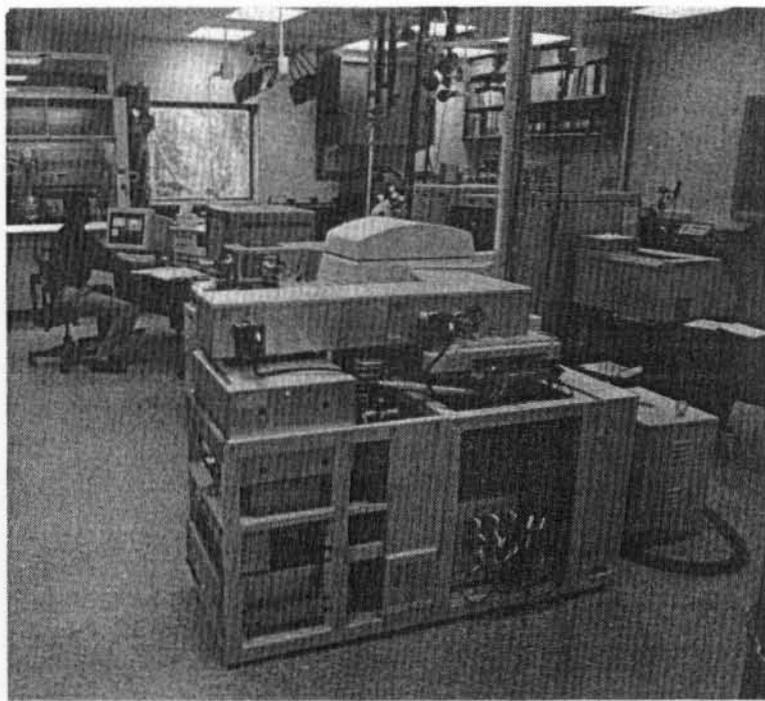
The \$600,000 instrument was funded by the Department of Energy and the National Science Foundation, with additional support from WHOI, the MC&G Department and several principal investigators. "This acquisition meets a need that has been growing in the department for many years," Johnson said.

Since the equipment's arrival in June the Fye lab staff have been busy setting it up and running quality checks prior to actual operation, which began in October. An open house was held September 15 to celebrate the delivery and installation.

"This new mass spectrometer, in its most sensitive mode of operation, can detect an amount of material equivalent to about one ten-millionth of a grain of sugar," Johnson said. "We are just beginning to realize its capabilities."

The two mass spectrometers at Fye Lab are used in conjunction with other analytical tools like

Photo by Shelley Lauzon



Research Associate Carl Johnson at work in Fye Lab. The new hybrid mass spectrometer is visible in the foreground.

the facility's nuclear magnetic resonance (NMR) spectrometer, which arrived in 1989. NMR is closely related to the technique known to the public as magnetic resonance imaging (MRI), which is used in the medical community to locate tumors by looking at differences in tissue density.

"While MRI in hospitals looks at bulk distributions of hydrogen atoms in living tissue, the NMR looks at the molecular neighborhood around a variety of elemental nuclei, such as carbon and phosphorus, in a relatively pure sample of a single chemical," Johnson explained. "This gives researchers another way to determine a molecule's structure, or where atoms are positioned within a molecule."

"There is no one magic technique in analyzing organic compounds," Johnson added. "You need a suite of tools, and we are fortunate to have them at WHOI."

For more information about the Fye Lab facility contact Carl Johnson at ext. 2304 or Nelson Frew at ext. 2489.

Correction in New Benefits Law

Please note a correction from the Retirement Plan Distribution Law which appeared on page 6 of the November *Newsletter*.

Not affected by this new law are retirement benefits paid as lifetime annuity income, as a series of substantially equal payments over a period of ten or more years, or as required minimum distributions. Only money cashed out of a retirement plan or money paid in installments over less than a ten-year period will be subject to 20 percent withholding. If you have any questions regarding this new law, contact Elaine Wilcox, Nobska, ext. 2706 or contact Fidelity, TIAA-CREF or Vanguard.

UMASS/Lowell Spring Courses Offered

Proposed course offerings for the spring 1993 UMASS/Lowell program on-site at WHOI include Accounting Principles I, Principles of Management, Total Quality Management, Precalculus Mathematics, Calculus B, Introduction to Data Analysis, Introduction to Microcomputer & Applications Software, C Programming, Introduction to UNIX Operating Systems, Data Structures with C, Technical and Scientific Writing, General Psychology, Self Assessment and Career Development, Hazardous Waste Management, Statistical Quality Control, and Environmental Law and Regulations.

A recent mailing to all employees details course descriptions, times and instructors. Representatives from UMASS/Lowell will hold on-campus registration January 6 from noon to 6:00 p.m. in Clark 201. Mail-in and telephone registration will be accepted up to and including January 19, 1993, when classes are scheduled to begin. Classes will run through May 16, 1993.

Under the Employee Education Assistance Program, regular full-time, three-quarter and half-time employees (the latter on a pro-rated basis) can be reimbursed for tuition, fees and books for approved courses. Reimbursement applications must be approved by the employee's supervisor and the Education Office prior to the beginning of the course. The policy supports job-related and career-related studies. The studies may be either individual courses or programs leading to a degree. Application forms are available from the Education Office in Clark 223. Questions concerning the policy should be directed to the Education Office at extensions 2200 or 2219.

For further information about registration, schedules and course content contact UMASS/Lowell at 508-934-2405.

United Way Campaign Underway

The 1992 United Way Campaign at WHOI is winding down. Director Craig Dorman and Senior News Officer Shelley Lauzon are campaign co-chairmen once again this year. Information about the 27 member agencies served by the United Way on Cape Cod and the Islands has been sent to each employee, along with a donation form. Please send all contributions by December 31 to Shelley Lauzon, Co-op, ext. 2270.

Photo by Peter Gray



AOP&E Department Chairman George Frisk (left) presents Henri Berteaux with "à globe" (The Boston Globe). Berteaux later received the real thing at his retirement party December 4.



Henri shows off a gift from long-time colleague Bob Walden. The sweatshirt reads "I conquered Grand Turk I. 1972." Walden and Berteaux spent considerable time on the island while working on a mooring project in 1972.

Henri Berteaux Honored at Retirement Party

Friends and colleagues gathered at Carriage House December 4 to honor Principal Engineer Henri Berteaux of the AOP&E Department, who will retire at the end of December after 26 years of service.

Berteaux received a number of gifts, including a photo montage entitled "Scenes from the Further Adventures of Buoy Man."

1992 Technology Innovation Program Awards Announced

Sixteen proposals were received for the 1992 W.M. Keck Foundation Technology Innovation Awards Program. A total of \$211,700 was awarded to the nine proposals listed below. Support for these awards is provided by the W.M. Keck Foundation, Walter A. and Hope Noyes Smith Fund, and George K. Moss.

In 1991 the Institution received a three-year \$450,000 grant from the W.M. Keck Foundation to support the development of sophisticated scientific instruments. The competitive annual awards are designed to stimulate new approaches to ocean-

graphic instrumentation development by encouraging collaboration among scientists and engineers as they seek answers to some of the critical questions about how the ocean works and what role it plays in global climate change.

Scientists and engineers submit short proposals which outline their hypotheses, designs, project concepts and budgets. The proposals are then reviewed by a panel of their peers and awarded on the basis of creativity and innovation in meeting a special instrumentation need.

Neil Blough and Carl Johnson, "The Application of Liquid Secondary Ion Mass Spectrometry to the Identification of Polar Marine Products";

Cabell Davis, Scott Gallagher and Andrew Bowen, "In Situ Observations of Midwater and Hydrothermal Vent Plankton Using the Video Recorder on ROV JASON";

Nelson Hogg, "VACM Retrofit"; **Dana Yoerger and Eugene Terray**, "Inertial Aided Velocity Measurements for Underwater Vehicles";

Laurence P. Madin, "A Large-Area Optical Trawl for Macroplankton Sampling: Engineering Feasibility and Prototype of Illumination Systems";

Andrew Maffei and Kenneth Stewart, "Demonstration of Concept for SeaNet: An Information and Communications Resource for At-Sea Oceanography";

Daniel Repeta, "Development of a Multi-Coring Device to Sample the Sediment-Water Interface";

Dajun Tang and Thomas Austin, "Three Dimensional Acoustic Imaging of Sediments";

George Tupper, "New Power Source for Surface Buoy Instrumentation."

Holiday Party Attracts 179

Red and green balloons and table clothes decorated the dining hall at MBL's Swope Center for the Institution's annual Holiday Party December 12. One hundred seventy-nine tickets were sold to the party, and despite the stormy weather most attended the event. Hot and cold hors d'oeuvres and refreshments were served, with music provided by the local band "The Keep." Door prizes were awarded.

Committee members were Andrea Arenovski, Sue Callahan, Hovey Clifford, Kathy Eimer, Deana Erdner, Don LeBlanc, Lesley Reilly, Sandy Sherlock and Mary Zawoysky. Sue Oliver assisted the committee with ticket sales.

Telephone Tip

If you are leaving messages in voice mail and wish to exit to reach another extension or the Institution operator, press 0 to exit to an Institution operator, or to reach another WHOI extension dial 0, the four digit extension and the # sign.

Photo by Shelley Leuzon



Senior Engineer Ken Peal of the AOP&E Department at work at the Ocean Bottom Seismology Lab in Smith.



Season's
Greetings

Up, Up and Away

Building Services personnel Jay Murphy (driving forklift at right) and Napoleon McCall (on pallet at center) move office furniture and equipment from Challenger into a trailer truck November 25 for storage while new carpeting was installed. The first floor was recarpeted Thanksgiving week, and the second floor completed earlier this month. Bob Greene (left, on trailer) and Fred Brown (right) helped pack the trailer.

Photo by Shelley Lauzon



New Magic Kingdom Club Benefits

One of the benefits available to WHOI employees is membership in Walt Disney's Magic Kingdom Club, which offers benefits at all Theme Parks including the New Euro Disney Resort and Tokyo Disneyland.

In addition to continuing benefits, there is an increased Club discount on the Five-Day Super Duper Pass at Walt Disney Resort in Florida. Members will now save over \$8 on the Adult Pass and over \$6 on the Child Pass. This Pass includes unlimited admission to all seven Walt Disney Resort Theme Parks and provides the greatest savings and value. New for 1993 is a 10% savings on the "Top of the World" and "Polynesian Luau" dinner shows.

There is also a new 10% discount on merchandise from the Disney Catalog. An order form for the catalog is included in the 1993 Membership Guide, which contains complete details on all Club benefits and services. The Guide is available from your Personnel Representative at Nobska.

Congratulations to:

— Sarah Little and Doug Hersh on their October 24 marriage at Fenno House. Sarah is a visiting investigator in the G&G Department and Doug is a doctoral candidate in the Boston University Marine Program.

A Note of Thanks

The following note was received recently from Charlie Innis: "Thank you and grateful appreciation to my friends and fellow employees of WHOI for the many prayers, cards, flowers and fruit. I would guess in my 35 years at WHOI I signed dozens of get well cards and personally arranged to send fruit and flowers to numerous individuals and families sick or in distress. My concern then was sincere, but until you are on the receiving end of those wishes, you don't appreciate what it means to receive and read the individual cards and names and realize that those people do pray for you, do wish you a speedy recovery and are concerned. I will write as soon as possible to each and every one, but until then I did want you to know how grateful I am to have been a part of a great institution made up of wonderful people, past and present."

Ship Notes

ATLANTIS II/ALVIN

R/V *Atlantis II* remains at the Institution pier in lay-up status. The vessel is scheduled to return to service in March 1993.

DSV *Alvin* is undergoing a scheduled overhaul in the Iselin high bay and is also scheduled to return to service in March.

KNORR

R/V *Knorr* completed a 52-day leg for the World Ocean Circulation Experiment (WOCE) November 26 when it arrived in Papeete, Tahiti. The vessel departed Papeete December 4 for a 51-day cruise to continue WOCE hydrographic sections in the South Pacific. *Knorr* is scheduled to arrive in Punta Arenas, Chile, January 22, 1993.

OCEANUS

R/V *Oceanus* will make a port call at the Azores December 16-21 and will return to Woods Hole January 7, 1993, completing Leg V of Voyage #254. Fourteen Ocean Bottom Seismometers (OBS) will be recovered along the Mid-Atlantic Ridge.

Exhibit Center Open For Holidays

The Exhibit Center is open daily December 18 through December 31 Monday through Saturday 10 a.m. to 4 p.m. and Sundays noon to 4 p.m. It will be closing at 2 p.m. on December 22, 24 and 31 and will be closed December 25 and January 1. The Exhibit Center will close for the winter January 1 and will not reopen until April.

The Stockroom and the Exhibit Center have many gift items for sale. Employees should purchase WHOI gift items from the Smith Stockroom, which is open 8 a.m. to 4 p.m. Although much of the merchandise carried in the Smith Stockroom is also sold in the Exhibit Center, employees are encouraged to make purchases at the Stockroom whenever possible.

"Although employees are entitled to purchase Stockroom merchandise at cost, buying that merchandise at the Exhibit Center results in a bookkeeping burden and leaves the Exhibit Center low on stock to sell to visitors, a problem from both the public relations and income points of view," Information Officer Lee Campbell said. "There are selected items for sale at the Exhibit Center that are not carried at the Stockroom. Although it is not possible at this time to sell these items at cost to employees, the Exhibit Center does offer a 15 percent staff and Associates discount. The only merchandise not subject to any discount are the books." The Exhibit Center became a subretailer for the Market Bookshop in July and carries selected titles.

In Memoriam

The Institution announces with great sorrow the death of Honorary Corporation Member Taggart Whipple November 26 at his home in Oyster Bay, New York. He was 80.

A New York antitrust lawyer, Whipple was a partner in the law firm of Davis, Polk & Wardwell for 40 years. He represented many American corporations, such as Texas Instruments, Exxon, and ITT, in their fights with the federal government over provisions of various antitrust laws. In 1942 Whipple assisted John Davis in representing the Standard Oil Company of New Jersey, then called Esso and now Exxon, before Senate hearings chaired by Sen. Harry S. Truman (D-MO) investigating charges of industrial mismanagement of the war effort.

Taggart Whipple was a graduate of Harvard University and the New York University law school. He served as director of the Lincoln Center for the Performing Arts and was vice chairman of Cold Spring Harbor Laboratory. He is survived by his wife, Katherine (Brewster); two sons, George S. of Aspen, CO, and Hugh W. of St. Charles, CO; one daughter, Christine Farrington of Portland, OR; and four grandchildren.

Staff Honors and Awards

Senior Scientist Carl Bowin of the Geology and Geophysics Department has been elected a Fellow of the American Association for the Advancement of Science (AAAS). A Fellow is "a member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished."

Bowin was elected "for the development of real-time shipboard geophysical data processing and display systems and novel methodologies for analyzing earth and planetary structures."

Bowin was one of 237 Fellows elected and will receive an official certificate and rosette pin at a ceremony at the AAAS Annual Meeting in Boston February 14.

Women's Committee Sponsors Holiday Food Drive

The Women's Committee of WHOI is sponsoring a holiday food drive to benefit the Carriage House, a facility for homeless women and their children in North Falmouth. Appropriate items to donate include low-sugar cereals, coffee/tea, sugar, flour, cake mixes, baby food, soy-based infant foods, canned or boxed soups, spices, biscuit mix, salad dressings, pasta, toothpaste, soap, stationary and paper goods.

Donation boxes are located throughout the Institution in the Clark lobby, Smith lobby, Redfield lobby, McLean Lab, Fenno House, Fye Lab, GEOSECS, Challenger, Blake, Nobska, Bigelow and Iselin.

Members of the Women's Committee are Stella Callagee (co-chair), Laurel Duda, Rindy Ostermann (co-chair), Mercedes Pascual-Dunlap, Tracey Crago, Debbie Smith and Ann Edwards.

Committee Members Wanted

The Committee on Work and Family Life originated as the direct result of one of the recommendations made by the 1989 Ad Hoc Child Care Committee. The overall charge to the Committee is to monitor the child, elder and other dependent care and family needs of the Institution's employees and students.

This past year the Committee initiated the Parents Forum to share ideas and discuss topics of interest to working parents, sponsored a used toy and equipment drive for the Cape Cod Early Child Intervention Program, and sponsored an infant and child CPR class. Other projects are being planned for 1993.

Current committee members are Kathryn Elder, Judith Fenwick, Shelley Lauzon, Andrew Maffei, Robert Nelson (chair), Sheila Payne, and Timothy Stanton.

The Committee is seeking volunteers to serve for one or two years. Anyone interested in participating on the committee should contact Karen Rauss at ext. 2645 or Judy Fenwick at ext. 2520.