

Profs. Identify Rocks As Part of Earth's Core

A team of Cornell scientists has announced the discovery of pieces of the earth's core. They disclosed the finding in April to a gathering of the American Geophysical Union in Washington.

The iron-nickel rocks, which are called "josephinite" because they were found in Josephine County, Ore., are the first specimens of the earth's core ever identified. They bear evidence of unusual chemical and physical processes which could only have occurred, the scientists said, under the extreme conditions of heat and pressure existing near the center of the earth.

The Cornell group, made up of two geologists and two chemists, called the rocks "startlingly unique" in their petrological, geological and chemical aspects. The geologists are Professor John M. Bird and graduate student Maura S. Weathers; the chemists are Professor George H. Morrison and graduate student Robert I. Botto.

It is on the basis of the geological associations and detailed chemical analysis that the group has decided the josephinite must have originated in the earth's core. The geologists can explain the transport of the rocks from the interior of the earth to the surface according to the new theory of plate tectonics — a



Part of Earth's Core?

scientific model of the still-changing earth which accounts for geologic events according to the motions of huge plates around the surface of the earth and the ejection of molten material from the core.

Although the Cornell team finds the preliminary evidence convincing, a great many more analyses, additional field work and further refinement of the tectonic theories involved must still be completed.

The scientists cited several facts in support of their statement that the josephinite samples originated deep inside the earth. The density of the rocks precisely matches the density of the outer core, which was determined by

(Continued on Page 7)

CORNELL REPORTS

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June Highlights

Reunion, Commencement Set

The traditional year-end events of Commencement and Reunion will be high points on the June calendar at Cornell, with more than 3,000 students receiving degrees on Monday, June 3, and an even greater number of alumni coming back to campus from Thursday, June 13, to Monday morning, June 17.

Reunion

Registration for this year's Reunion was more than 2,500 by early May, the highest ever for that time of year by several hundred.

One of the featured programs will be a forum Saturday morning on the topic, "The Shape of Things to Come — The Next 25 years." Panelists will be Austin H. Kiplinger '39, editor and publisher; Sol M. Linowitz '38 LL.B., ambassador to the Organization of American States; Jerome "Brud" Holland '39, University trustee and former ambassador to Sweden, and Max Black, the Susan Linn Sage professor of philosophy.

Speakers at other events will include Urie Bronfenbrenner, professor of child development and family studies; Thomas W. Mackesey, vice president for planning, and Judith T. Younger, associate dean of the Cornell Law School.

The Herbert F. Johnson Museum of Art will be open during the entire weekend, and on Sunday at 2, 3 and 4 p.m. Director Thomas Leavitt will offer a lecture and guided tours.

The annual Savage Club show will be at Bailey Hall Saturday night; on Sunday evening, Cornelliana night will be a tribute to the late Morris Bishop '14, and will include the Glee Club and Reunion awards.

Commencement

About 10,000 persons — faculty, students and their families — are expected to attend Cornell's 106th Commencement exercises Monday, June 3.

The academic procession will begin forming on the Arts Quadrangle at 9:40 a.m., led

by Blanchard L. Rideout, University marshal, and will move to Barton Hall for the 11 a.m. Commencement. As it passes the Olin Library terrace, the procession will be reviewed by University President Dale R. Corson, the Board of Trustees, other officials and guests.

President Corson will deliver the commencement address and confer approximately 3,114 degrees (Continued on Page 6)

Rep. Robison To Be Visiting Professor



Howard Robison

U.S. Representative Howard W. Robison '37 (R-N.Y.) will join the Cornell faculty as a visiting professor starting with the spring term, 1975.

In a joint announcement, H. Justin Davidson, dean of the Graduate School of Business and Public Administration (B&PA), and Robison, the Republican from Tioga County who represents the 27th Congressional District, said that Robison has accepted a one-year joint appointment in B&PA and in the Cornell Law School.

Davidson said Robison will teach two courses as visiting professor of public administration in B&PA, one on the legislative process and the other a seminar in governmental affairs.

At the Law School, according to Dean Roger C. Cramton, Robison will teach a legislation course and one concerned with Executive-Congressional relations.

In announcing the Robison (Continued on Page 7)

In Florida

'Red Tide' Hinders Professor's Research

Far away from Cayuga's waters, on the Gulf Coast of Florida, an insidious "red tide" has killed millions of fish and left tons of rotting carcasses on the beaches. The disaster, which covered a six-month period from November to April, also claimed the lives of seven Cornell associates — healthy experimental sharks swimming in observation tanks at the Mote Marine Laboratory (MML) on Siesta Key near Sarasota.

The sharks were part of a long-standing investigation into shark biology and behavior, shark attack and shark deterrents, conducted under the leadership of Perry W. Gilbert, MML director and professor of neurobiology and behavior at Cornell. Calling the recent red tide a "mixed blessing," Gilbert said he was saddened by the loss of the animals, but felt that the duration and severity of the outbreak afforded "an excellent opportunity" for MML scientists to evaluate their research on red tide cause and control.

Red tide is a rusty discoloration and toxicity of marine waters caused by



POISON — The dead fish on the beach are indicators of high concentrations of red tide microorganisms in the Gulf waters on the west coast of Florida.

blooms, or dramatic population increases, of certain single-cell organisms. The culprits differ from seacoast to seacoast. On the west coast of Florida, red tide waters contain hundreds of thousands of cells per liter of a toxic organism called *Gymnodinium breve* (G.breve). At its usual concentration of less than 1,000 per liter, G. breve is harmless to most marine life.

At red tide proportions, however, G. breve can poison fish by paralyzing their gill mechanisms so they die of suffocation. Since most fish have a swim bladder which inflates with gas at death, they float to the surface where waves wash them ashore to rot in the sun. The lack of good fishing drives away the shorebirds. The stench drives away the tourists. An economic assessment, conducted by two MML researchers, of the 1971 red tide outbreak, placed the damage at \$20,000,000 for the seven afflicted counties on the Gulf coast. The researchers noted that this figure was a "conservative estimate."

Although the danger to human health from red tide (Continued on Page 7)

In Physical Sciences

Newman Endows 2 Professorships

Two new endowed chairs have been created in the College of Arts and Sciences with gifts from Floyd R. Newman, a 1912 graduate of Cornell.

The professorships honor Newman's son, John A. Newman, and the donor's friend and lawyer, James A. Weeks.

Roald Hoffman, professor of chemistry, has been elected the John A. Newman Professor of Physical Science, and Kenneth G. Wilson, professor of physics, has been named the James A. Weeks Professor of Physical Science.

University President Dale R. Corson said of the gift that "Cornell is grateful to Floyd Newman for responding to the real need to retain the University's stature in the physical sciences. It is literally true that until three years ago, there was only one endowed chair in all of the physical sciences at Cornell. Now, with the Newman professorships, there will be six. The Newman professorships will also fill another need, that of the need for recognition of distinguished members of the University faculty. Cornell thanks Floyd Newman, one of its most generous donors, not only for his generosity but also for keeping his finger on the pulse of the University and anticipating its needs."

This latest gift from Floyd Newman caps a long series of contributions to the University, including the Floyd R. Newman Laboratory of Nuclear Studies and Helen Newman Hall, which houses the facilities for women's physical education and intramural sports. He is also the donor of the Thomas R. Briggs Professorship in Engineering, established in 1965.

Newman served Cornell as a member of the Board of Trustees from 1951 to 1958 and has been a member of the Cornell University Council since 1951. He was also one of the first members of The

Tower Club. He belongs to the Cornell Clubs of Cleveland and Akron, and is a life member of the Cornell Club of New York.

Hoffmann, the first holder of the Newman chair, joined the Cornell faculty in 1965. A native of Zloczow, Poland, he came to the United States in 1949, received his bachelor's degree from Columbia University in 1958 and his doctorate from Harvard University in 1962. In 1960-61 he studied at Moscow University in the Soviet Union. From 1962 to 1965 Hoffmann was a Junior Fellow in the Society of Fellows of Harvard.

John A. Newman, for whom Hoffmann's chair is named, is a 1943 graduate of Cornell in chemical engineering. Immediately upon his graduation he began his career in petroleum research with the Atlantic Refining Co. in Dallas, Tex. From 1946 to 1953, he worked for the Shell Oil Co., first as an engineering trainee and later as district reservoir engineer at Houston.

Newman, a member of the Cornell Council, opened his own consulting office in Houston in 1953. He began to acquire oil and gas producing properties and, at present, manages his own oil and gas producing business as an independent operator. He is president of Southwest Gas Distributors, Inc., a natural gas distribution company which serves small towns in the Houston area.

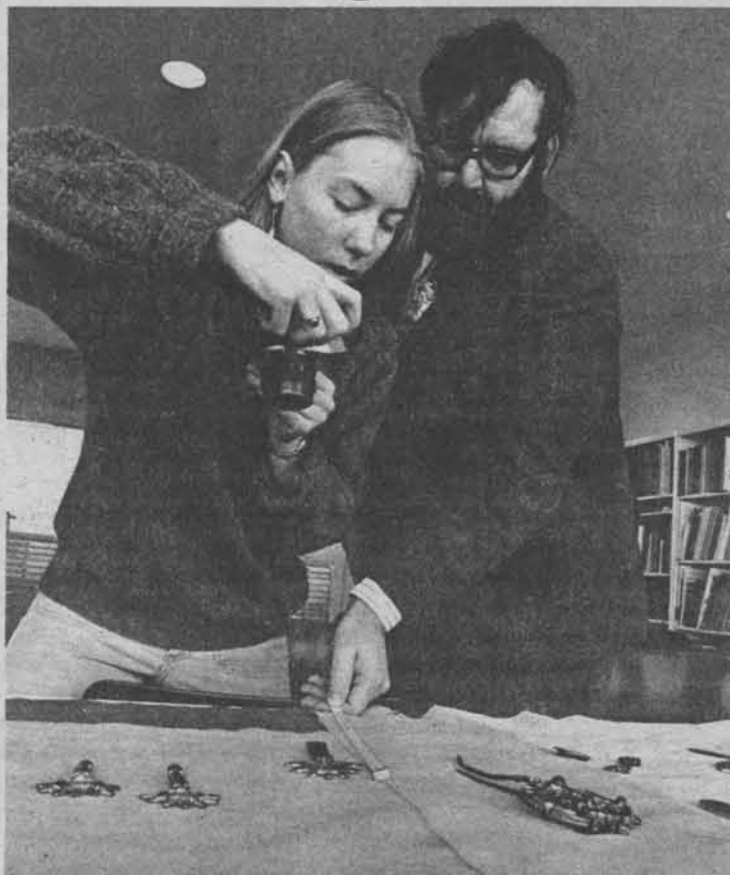
Wilson, holder of the Weeks chair, has done extensive theoretical research on high energy particle physics, phase transitions in liquids and solids, and impurities in metals. He received his bachelor's degree in 1956 from Harvard, where he was elected to Phi Beta Kappa. In 1961, he was awarded a doctor of philosophy degree from the California Institute of Technology.

Weeks, for whom Wilson's chair is named, received his bachelor of science degree in

mathematics and physics from the University of Akron in 1921. He received his legal training at the Franklin Thomas Backus Law School of Western Reserve University, graduating in 1923. He has been an associate and partner with the firm of Thompson, Hine and Flory of Cleveland since 1923.

From 1926 to 1948, Weeks was general counsel and financial advisor to the Allied Oil Co., Inc., serving from time to time as president, director or other officer of Allied and its various subsidiaries.

A Teaching Museum



ARTIFACT — Professor Robert T. Farrell, an authority on underwater archaeology, instructs Susan E. Kruse, '77, in measuring and photographing a Frankish brooch. On loan from New York City's Metropolitan Museum of Art to the Herbert F. Johnson Museum of Art and Cornell, the brooch is one of a number of artifacts which serves the museum's dual purpose as a place to exhibit fine art and as a teaching facility. The museum is used for teaching aspects of various courses on campus including history of art, architecture, and archeology.

Cornell Receives \$1 Million From John Watzek Estate

The University is the recipient of a \$1 million bequest from the estate of the late John W. Watzek Jr., a retired Chicago-based businessman who received his master of engineering degree from Cornell in 1915.

The funds will be used to establish a memorial fund in honor of Watzek's parents, John W. and Helen H. Watzek. Watzek's will stipulated that the income from the fund was to be used for the general purposes of the University. Watzek died Oct. 29, 1973.

Watzek, who was born in Davenport, Iowa, in 1892,

Mackesey, Key Planner, To Retire Next Month

Thomas W. Mackesey, instrumental in planning nearly \$200 million worth of construction at Cornell since taking over as the administration's chief planner in 1964, will retire June 30, as professor of regional planning and vice president for planning.

Mackesey, who reached his mandatory retirement age of 65 last Nov. 28, has been a member of the Cornell faculty since 1938 and, in addition to University planning, is an authority on city and regional planning.

University President Dale R. Corson said, "Tom Mackesey has given Cornell long and distinguished service as dean of the College of Architecture, as dean of the University faculty and as vice president for planning. His strong sense of design quality has created a positive atmosphere in which individual planning decisions have been made. His work with the Campus Planning Committee, a joint Senate-Presidential committee, will have a major beneficial impact on the University's future."

"Tom has a host of friends in the Architecture College. He gave excellent service as dean of the University Faculty. Personally, I am grateful for the help he has provided me during the last, sometimes difficult, five years."

In addition to involvement in the planning which has resulted in many material changes on campus, Mackesey has been a key factor in the development of an overall policy adopted by the Board of Trustees outlining standards for the future development of the campus. These standards are designed to integrate the University's past and present characteristics with its continuing development.

After serving three years as dean of the University Faculty, 1961 to 1964, Mackesey was named vice provost and then vice president for planning in 1971.

Before assuming his administrative duties with the University's central administration, Mackesey was dean of the College of Architecture, Art and Planning from 1951 to 1960. He was assistant dean from 1945 until becoming acting dean in 1950.

Mackesey organized the Department of City and Regional Planning at Cornell, one of the first in the country. That department has grown from one professor and one graduate student to two departments with a faculty of 14 and more than 120 graduate students.



Thomas W. Mackesey

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Corson Addresses Senate on Civil Rights Issues, Student Housing

President Dale R. Corson addressed the fifth University Senate last month on a number of issues relating to the Senate and its role as policy-maker for the Division of Campus Life.

Major issues mentioned in Corson's 20-minute presentation included the proposed student apartment complex in Cayuga Heights and the status of Cornell's position on civil rights issues raised by H.E.W. and by the New York State Regents.

Corson considered as "on-going problems" several additional issues such as the continued lack of a Bill of Rights mandated in the Senate's constitution four years ago, the 40 per cent clause pertaining to the valid election of student trustees, and a third issue Corson called "territoriality." Here he cited two conflicts involving the limits of Senate jurisdiction, first, the Senate's inability to mandate University subpoena policy vis a vis the courts, and secondly, the "schism" Corson feels is developing between the faculty and the Senate over jurisdiction in areas such as physical education and the Bill of Rights.

Concerning student housing, he stated he believed September 1975 occupancy of the student apartments "is still possible if the zoning matters with the (Cayuga Heights) Village board can be satisfactorily resolved."

"There are still some unresolved issues, which are not major..." Corson said, in reference to the University's protracted correspondence with H.E.W.'s Office of Civil Rights. The issues still under discussion "can be resolved in an equitable manner," he said.

Corson said the State Board of Regents' concern with segregation at Cornell specifically at Ujamaa Residential College, continues. Regents Paper 15 guidelines specify that membership in university residence units or university-sponsored programs "could not be restricted for reasons of race..." Corson said, noting that each of the five special project units at Cornell — Ujamaa, Ecology (Hurlbutt) House, Sperry Hall, International Living Center and Risley Residential College — "are all organized on a strictly non-restrictive basis."

Cornell's position was challenged on Ujamaa, resulting in discussion between the University and the Regents.

Corson commended the Senate on the work of the Joint Planning Committee under the chairmanship of Ian R. Stewart, instructor of city and regional planning. "This is the type of cooperative effort between the Senate and other parts of the University that I would like to see expanded."

Shifting to problems currently facing the Senate,

Corson stated progress toward a campus-wide Bill of Rights "was something less than startling. We're operating with a semi-bill, The Statement of Student Rights, which will be superseded by a Bill of Rights that will apply to students and everybody else." He felt such a bill will be difficult to achieve, and he urged the Senate to consult the faculty, administration and the trustees ahead of time.

Under the rubric of "territoriality," Corson reminded the body that "the Senate cannot legislate policy with respect to the relationship of the University to a court." He cited, as an example of the Senate's stepping outside of its policy-making jurisdiction a subpoena notification bill discussed on the floor March 26 which, Corson said, "mandated that the University, as a corporation, take a certain position with respect to a court action."

"We have a subpoena policy which I think is a good one... It is important for the University to notify any member of the community where relevant records are subpoenaed but the Senate should be in a recommendatory stance, in my opinion, in talking about the relationship of the University to the court."



Mandatory P.E. Kept; Program to Be Studied

The University Senate's concern with the two-year physical education requirement for undergraduates has led to a study of the matter by the Faculty Council of Representatives (FCR), ordered at its April 17 meeting.

Completion of the physical education requirement is prerequisite to graduation.

The FCR put discussion of the requirement on its agenda following passage of a bill by the fourth Senate in October 1973. The bill recommended the abolition of the physical education requirement and placement of that recommendation on the agenda of the FCR. This action represents the first time the Senate's initiative placed a bill on the faculty agenda.

The Senate bill also recommended academic credit toward the Cornell degree be granted for designated physical education courses.

The FCR action April 17 leaves the physical education requirement unchanged. At

that meeting, however, the FCR authorized "the election of a standing committee to study and assess the quality of the physical education program, and that the committee shall report to the FCR before December 1974, and at least every two years thereafter."

The FCR defeated three alternate proposals developed by its executive committee pertaining to the issue of discontinuing the requirement. The first proposed repealing the requirement and asking the physical education and athletics department to develop "appropriate physical education courses to be considered by college education policy committees for academic credit." The second proposed merely repealed the requirement. The third proposed reducing the requirement from four academic terms to two and asking the physical education and athletics department to develop courses for academic credit.

Basketball Team

Bluitt to Be Coach

Ben Bluitt, who has coached for the last 14 years in high schools in Detroit and Chicago and at the University of Detroit, was named head basketball coach at Cornell last month.

Bluitt, 49, is the first black head coach in Cornell's 110-year athletic history and the second in the Ivy League. Tom Sanders was named head basketball coach at Harvard last year.

"We had an excellent group of candidates for this job and we are indeed pleased that a man of Ben's caliber, experience and demonstrated capability is joining our staff," Anderson said.

During the 1973-74 season, Bluitt was head coach at St. Mary of Redford High School in Detroit. His team was 17-10, advancing to the semi-finals of the State Class "B" Tournament, the best showing ever by a team from that school.

"I'm eager to get started at Cornell," Bluitt said. "The first thing I want to do is meet the players and let them know my coaching philosophy. I'm not making any great promises about turning the program around quickly, but we'll have a comprehensive program that stresses detail and defense."

"Basketball should be enjoyable for the players and they should be able to look back on it as a good experience. It's always more enjoyable to win and we're going to do everything we can to win."

Bluitt succeeds Tony Coma, who took over as Cornell's head coach in 1972 and resigned last February. Cornell finished with a 3-23 record last season, the worst in the University's history. The Big



Ben Bluitt

Red had not had a winning season since 1967-68.

Prior to last season, Bluitt was an assistant coach and freshman coach at the University of Detroit for four years.

Al McGuire, head coach at Marquette whose teams played against Detroit while Bluitt was there, refers to Bluitt as "a Park Avenue person. He'll do the job within the image of the university. He's an excellent coach and, above all, he's a gentleman."

George King, director of athletics and former basketball coach at Purdue, called Bluitt "one of the most knowledgeable coaches in the game today. However, the area in which he has impressed me the most is in his association and relationship with young men. He can understand and cope with their problems."

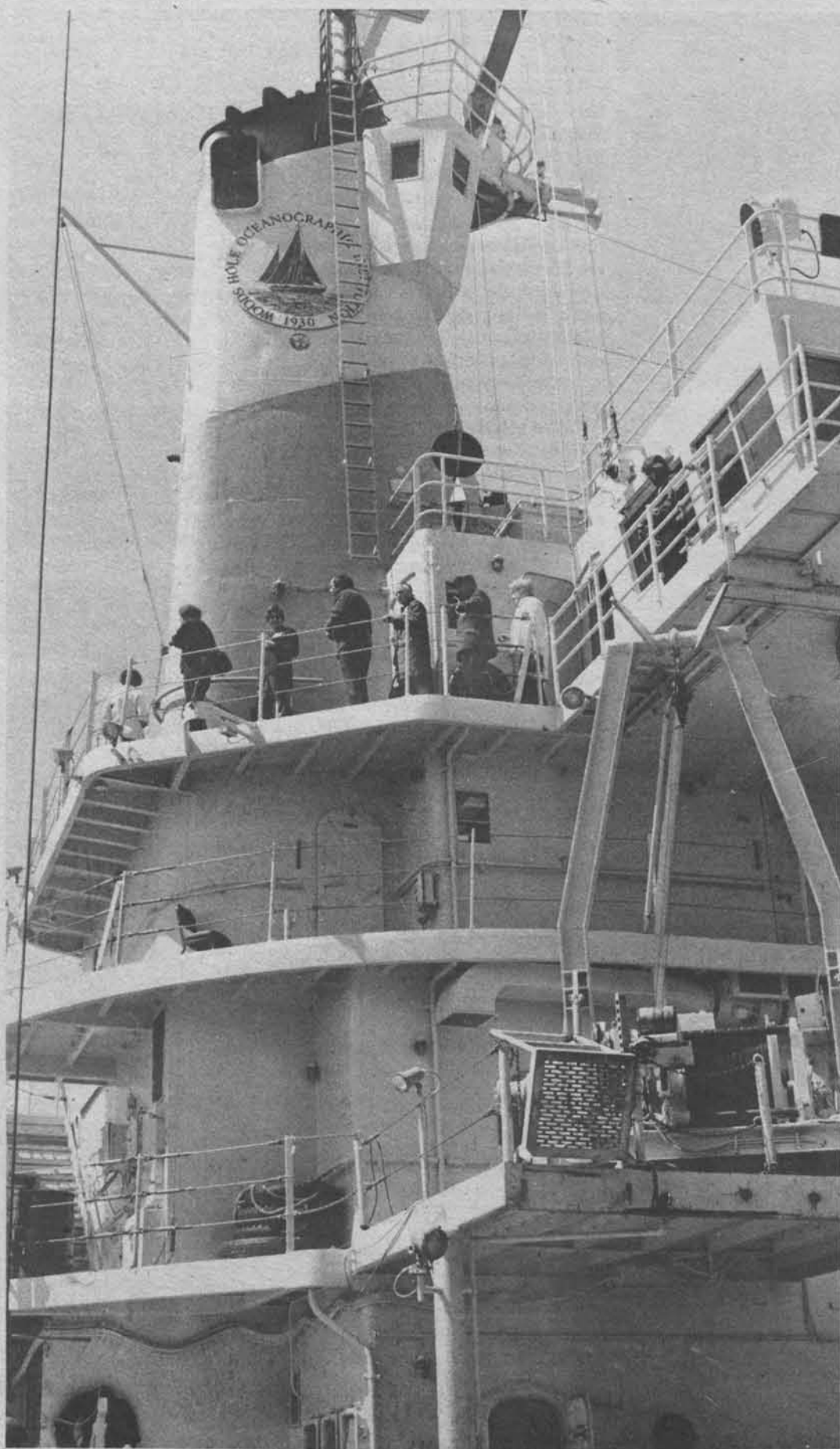
Course Has Western Field Trip



A PROFESSOR OUT OF THE CLASSROOM — Bill Travers (above) of the Department of Geological Sciences in the Engineering College rowed down rivers and climbed mountains last summer to plan the itinerary for his western field course. One of the requirements for the eight men and two women in the class is a 38-day field trip that entails mountain climbing, camping, surveying and shooting rapids.



Carlton H. Baker, '58, of Elma, N.Y. presses a point during the final session of the three-day conference.



Alumni inspect the Ernest R. Knorr, one of the world's most advanced oceanographic research vessels.

Aristotle Onassis and some 100 Cornell alumni and spouses have something in common: an uncommon understanding of the ways of New England and, in particular, the New England town meeting. Onassis's knowledge came as a rude awakening last March when the townspeople of Durham, N.H. nearly unanimously turned down his bid to construct a \$600 million oil refinery in their midst. On the other hand, the Cornell alumni understanding was developed during a three-day conference, sponsored by Cornell Alumni University (CAU). It took place in late April at the conference center of the Marine Biological Laboratory at Wood's Hole on Cape Cod.

During a series of lectures, six members of the faculty from the Ithaca campus provided the alumni with a many-faceted look at New England and its social, political, religious and ethnic heritage. The faculty of historians and scientists approached the overall theme, "The Nature of New England" from both the physical and the metaphysical standpoints. The convergence of these two elements in the past and present, emphasized frequently during the conference, was dramatized in an episode during the Onassis venture in Durham. John M. Kingsbury, professor of botany at Cornell and director of the Shoals Marine Laboratory near Durham related the episode:

"The Onassis people," he said, "were trying to obtain options on all the land along a proposed pipeline. A key parcel included the home of a widow and a spinster. They turned down offer after offer. The last offer made before the whole project fell through was for \$200,000. Their response was, 'Now, what would we do with all that money?'"

How much of the vote was concern over the refinery's threat to the environment and how much of it was against big-government and corporate

arrogance was one of many points of discussion.

In addition to the background information provided by the faculty during lectures and discussions, participants in the conference had been sent copies of the book, "Peaceable Kingdoms," a discussion of 18th Century New England life. They were asked to read the book in preparation for the conference. Mary Beth Norton, a member of the history faculty, outlined a number of questions to be taken into consideration while reading the book, and expanded on these points during the conference. Other members of the conference faculty were Bruce T. Wilkins, professor of natural resources, Fred Somkin, professor of history, and Robert F. Morris and Glen C. Alschuler, doctoral candidates in biology and history, respectively.

The conference was the second of three "education vacations," staged this spring by CAU. The first, at the Airlie House, near Warrenton, Va., in early April, also was attended by more than 100 persons. The theme, "Our Technological Future: Can We Control It?" was covered by faculty members including chemist Franklin A. Long, former vice president for research and now the Henry R. Luce Professor of Science and Society at Cornell.

The third conference was held May 10-12 at Raquette Lake in the Adirondacks on the theme "Can the Adirondacks Remain Forever Wild?"

The New England conference had two added attractions: an unscheduled tour of the research vessel Ernest R. Knorr, operated by the Wood's Hole Oceanographic Institution, and a conference-ending, pre-season tour of Heritage Plantation of Sandwich. The special tour was arranged by Josiah K. Lilly III, a 1939 graduate of Cornell, who is a founder and sponsor of the educational facility.



E. Ronald (Elizabeth) Durand of Rochester, N.Y. examines early timber shaping tools during visit to museums at Heritage Plantations of Sandwich.



Cornell Trustee Joseph P. King, '36, of Rochester leads a mounted parade of alumni on a restored 1912 merry-go-round in crafts museum at Heritage Plantation.

Alumni Education Vacation on Cape Cod

Photos & Story by Martin B. Stiles



Cornell professor of natural resources Bruce T. Wilkins conducts small discussion group on patio of conference center overlooking Eel Pond at Wood's Hole.

Chair for a Woman

Jorden Elected Alger Professor

The Mary Donlon Alger Professorship was established by the Executive Committee of the Cornell Board of Trustees at their meeting April in New York City. Eleanor Harz Jorden, professor of linguistics, was elected to the chair, with the title of the Mary Donlon Alger Professor of Linguistics, effective July 1.

Established to be filled by a woman in the College of Arts and Sciences, the professorship is part of a gift to the University from Mary Donlon Alger, of Tucson, Ariz., a senior judge of the United States Customs Court and Cornell Trustee emeritus. University President Dale R. Corson reported the gift of the professorship; and of scholarships for women, to the Executive Committee in January.

The gift is in the form of a

Morris Bishop Honored Posthumously

Morris G. Bishop was posthumously honored at the World Petrarch Congress in Washington, D.C. last month for his contributions to Petrarchan and Italian Renaissance scholarship.

He was one of six American "Italianisti" awarded especially-struck Petrarch Medals commemorating the 600th anniversary of the death of the Italian poet and man of letters, Francesco Petrarca. Another recipient of the medal was Thomas G. Bergin, professor emeritus of Yale University and a former member of the Cornell faculty and curator of Cornell's famed Petrarch Collection from 1941 to 1948.

Bishop, who died last November at the age of 80, opened an undergraduate lecture on Petrarch with the following ideas from his neatly typed notes:

"I assume you know nothing about Petrarch. In brief, one of the great originators of intellectual history. Poet; set theme of sighing swain hopelessly wooing an obdurate lady, couching his woe in mellifluous sonnets. The theme & style dominated European lyric to our time, when it was transformed into crooner's whine. Great scholar, in love with Roman past; initiator of humanism inspiring Renaissance. First recorded Alpinist; one of first celebrants of wild nature; mild archaeologist. And thanks to his taste for self-analysis and confession, profoundly interesting man."

Bishop's own interest in Petrarch continued through his long career.

trust agreement. In making the gift, Judge Alger noted that there had been, in many American universities, less than equal opportunity for women scholars to hold distinguished professorships. It was her purpose, Judge Alger said, "to overcome this prevailing discrimination against women and afford them, in at least this one instance, equality of opportunity with men for academic service."

Judge Alger was appointed to the United States Customs Court in 1955. She was the first woman appointed to the Federal bench by the late President Dwight D. Eisenhower, and the first New York State woman ever appointed a Federal judge.

She is a 1920 graduate of the Cornell Law School who began her law career in New York City in that year and became in 1928, a partner in the firm of Burke and Burke. She continued actively in that partnership until she was appointed chairman of the New York State Industrial Board in 1944 by Governor Thomas E. Dewey. The following year she was named chairman of the State Workmen's Compensation Board and continued at that post until her judgeship appointment.

The annual Mary H. Donlon Lectures in Cornell's New York State School of Industrial and Labor Relations were endowed in her honor by leaders in industry, labor and the professions. A scholarship fund was established at Cornell by the judge following the uprising in Hungary in 1956 to provide scholarship aid to young women refugees who had been University students in Hungary.

She has long been active in Cornell and civil activities. She has been a member of the University Board of Trustees since 1937 — at that time she was the only woman trustee. She served from 1946 to 1963 as vice chairman of the Board's executive committee. In June 1966 she was elected trustee emeritus, and, in October

1966, a Presidential Councilor.

Before becoming a University trustee she was president of the Federation of Cornell Women's Clubs and director of the Cornell Alumni Association. As a student she was the first woman to serve as editor-in-chief of the Cornell Law Quarterly.

A women's dormitory at Cornell, completed in 1961, is named Mary H. Donlon Hall in her honor.

Corson, in recommending Jorden for the Alger professorship, noted she "has had a distinguished career, and has a world-wide reputation in the field of the Japanese language. Her various books in this field are recognized as landmarks, as the standard works, and as major contributions to the teaching of Japanese all over the world."

Jorden came to Cornell in 1969 as a visiting professor. She received indefinite tenure the following year and was elected professor on an annual basis until early 1973 when she was named professor of linguistics with tenure.

While at Cornell, Jorden was instrumental in the development, in 1972, of an experimental language training program. It was designed to test the feasibility of offering, within Cornell's regular academic year, a full-time intensive language program of the kind offered in some University summer sessions and by the United States government in its military and diplomatic language programs. The program, known as Full-Year Asian Language Concentration (FALCON) is nearing the end of its second year.

Univ. Announces Votes On Shareholder Issues

The Investment Committee of the Cornell University Board of Trustees last month announced how the University would vote its shares at upcoming stockholder meetings of International Business Machines Corporation (IBM), Southern California Edison and the Pittston Co. The announcement was made following the committee's regular April meeting. In making its decisions the committee took into account recommendations of the Joint University Senate-Trustee Investment Advisory Committee which met in New York the day before.

The University, it was decided, would vote for shareholder proposals requesting Southern California Edison and IBM to publish in their annual reports information concerning equal employment opportunities. It was decided to vote against a shareholder proposal that IBM establish a committee to evaluate the corporation's performance in South Africa on the ground that such an evaluation should be conducted by the corporation. It was decided to vote against shareholder proposals requesting the Pittston Co. to reveal cost and profit figures of a competitive nature and to establish an outside committee to report on potential hazards which may exist in the company's mining operations and on the effectiveness of its corrective measures.

The committee is sending letters to IBM and Pittston Co. management, signed by Nelson Schaenen, Jr., its chairman, expressing its reasons for taking this action.

The Southern California Edison proposal asks the company to disclose the contents of its EEO-1 form, filed annually with the Equal Employment Opportunities Commission, giving a breakdown of minority and female employment data. The IBM proposal asks, in addition, for employment data for each of the past three years, for a statement of the corporation's policy concerning equal employment opportunities, the company's Affirmative Action Program Guidelines to implement this policy, and an explanation of the achievements of, and the problems encountered by, IBM's Affirmative Action Program.

Commenting on the committee's decision to vote against the IBM South African proposal, Richard B. King, a Cornell investment officer and Secretary of the Investment Committee, said that committee members agreed in principle to a review of IBM's operations in the Republic of South Africa, but were concerned about the proposed procedures for establishing the review committee. The committee's letter to IBM, King said, will request that the corporation compile and release such information.

Regarding the proposal that Pittston release competitive cost and profit information, King said that the committee felt the proposal required an accumulation of data so extensive that it would be unreasonable to require the company to carry it out. As far as the proposal to release information on the company's mining operations was concerned, the committee felt that much of the information requested was reasonable and should be made public, but again opposed establishing an outside committee to study these areas of the company's operations. The committee's letter to Pittston management requests the release of information similar to that requested in the proposal directly by the company.

Ye Olde Risley Fair



A FAIR DAY — Folk dancers perform on the lawn at Risley's third annual Medieval Fair, April 27. Risley Hall, built in 1913, towers in the background. Dancers, jugglers, jesters, lords, ladies, craftsmen and musicians — and summer weather — made the fair a success.

Reunion

(Continued from Page 1)

— 2,475 bachelor's and some 639 master's and doctoral degrees.

In accordance with Cornell tradition, no honorary degrees will be awarded. Cornell has awarded only two honorary degrees in its history, both in 1886. They went to Andrew Dickson White, Cornell's first president, and David Starr Jordan, an alumnus who became the first president of Stanford University.

New Discoveries Made *How Birds Navigate*

Cornell researchers have found a partial answer to a question that has baffled scientists for years. What subtle sensory cues enable a bird to navigate its way to an unseen site and then home in with spectacular accuracy?

Researchers at the New York State College of Agriculture and Life Sciences, have found for the first time that birds can sense small changes in air pressure, equivalent to a drop in altitude of less than 20 feet, and can "see" polarized light. (Polarized light is characterized by having all its energy waves vibrating in one direction).

William T. Keeton, professor of neurobiology and behavior, and Melvin L. Kreithen, a post-doctoral associate, also stressed that their work adds evidence to the idea that birds live in a sensory world unknown to man.

Although Kreithen and Keeton have not yet determined to what extent birds use their newly discovered sensory powers, they speculate that the ability to sense polarized light and barometric pressure changes would be of major value to birds, both when flying and on the ground.

They explained that migration takes place on relatively few nights of each season. In general, a falling barometer reading, indicating dropping pressure, implies favorable winds for all migration, and a rising barometer is a sign of winds suitable for northward migration in the spring.

If birds can detect changes in barometric pressure while still on the ground, they can judge the best time for committing themselves to marathon migration flights.

"Barometric information could also be of value to birds for predicting a night's weather, such as the passage of a cold front," Keeton and Kreithen said.

The Cornell researchers also said that the ability to sense polarized light would be a prime navigation aid to birds, since the plane of polarized light in blue sky is related to the position of the sun. The detection of sky polarization could be used as a navigation cue when the sun, which provides compass cues, is obscured by clouds.

'Red Tide' Kills Experimental Fish

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has not been studied, people near affected areas have noticed varying degrees of respiratory distress, watery eyes, skin rashes, nausea and loss of physical coordination, all attributed to the airborne particulates associated with *G. breve* — either fragments of dead cells, or toxins released by them which adhere to salt particles in the air.

The MML Red Tide Program began in 1971, under the direction of H. David Baldridge, senior research associate. The program is a cooperative effort with the University of South Florida (USF), and is aimed at determining the environmental factors which trigger or destroy a *G. breve* bloom, the precise nature of the toxin's effect on marine life, and possible predators on *G. breve* which could be useful in developing control measures.

"Attacking this problem on a continuing basis is like fixing a leaky roof when it's not raining," Baldridge said. "Most people seem to lose their concern about the red tide as soon as the beaches and the air are cleared. But if we're going to figure it out, we have to keep up a steady program of water sampling, chemical analysis, data analysis, toxicity studies and experiments." Lack of funds has hampered the research effort. The program receives no public support; all its income is from private sources such as the Selby Foundation, the William Vanderbilts and MML member ships.

Baldridge works in a trailer-laboratory on the MML site. One wall is lined with a series of charts depicting the daily temperature changes in the Gulf waters over a 25-year period. Temperature, he reasons, should be a factor in red tides simply because it is a primary determining factor for the speed of most chemical and biological processes. The

fact that red tides have occurred in Florida waters ranging in temperature from 60 to 80 degrees does not discourage him.

"All sorts of organisms have been known to survive different temperatures," he said, "but not rapid change. It's the pattern and rate of change that is significant."

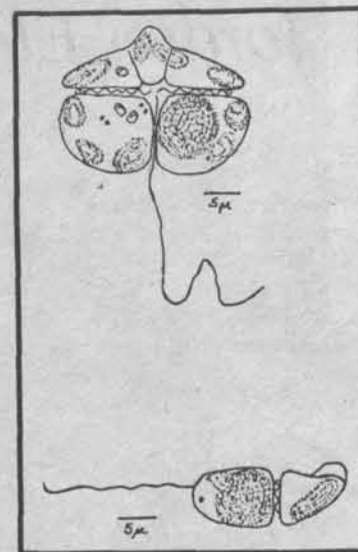
For hours at a time, Baldridge sits facing his wall of empirical data, scrutinizing the curves and bar graphs for a repetitive theme that might tie temperature change to red tide. He has found that red tide outbreaks are invariably preceded by periods of stable water temperatures.

Baldridge will now subject other data to the kind of analysis he has been using on the temperature charts. The portent of the red tide may be a combination of factors such as temperature, salinity, nutrient concentrations and the acidity of the water. But, although he is investigating all the standard oceanographic data measurements in the hopes of finding such a sign, he says he is really looking for a "coal mine canary" — some living organism which will respond quickly and dramatically to the onset of red tide.

"Coal miners always kept a canary in the tunnels with them," Baldridge explained. "When the canary fell off his perch, that was a sure sign that the atmosphere was becoming toxic and the men should evacuate the mine."

"Right now, our indicators are dead fish on the beach — which is too crude and too late. In addition to the sharks, we lost many other experimental fish. We haven't a single living specimen left at the lab," he concluded. "Except, of course, *G. breve*. We've got plenty of those."

Red tides also killed all the laboratory's experimental animals in 1971, when Perry Gilbert made the initial proposal which launched the



G. BREVE. Sketch of a mature cell after W.B. Wilson in "Contrib. Mar. Sci.," Vol 12, July, 1967.

MML Red Tide Research. This project is only one aspect of one phase of MML's five-part program that includes Microbiology, Neurobiology and Behavior, Estuarine Ecology, Biology of Sharks and Biomedical Studies. Cornell professors and graduate students are involved in all phases of this work. The informal affiliation of the University with MML enables Cornell scientists to use its facilities without charge. In some cases, support for a single researcher may include laboratory quarters, a boat with an outboard motor, experimental animals and scientific equipment. This support represents an annual cost to the lab of several thousand dollars.

Cornell graduate students in marine biology are regular visitors at MML. Gilbert is working on a program which will enable undergraduates as well to use the research center during intersessions and vacation periods, when they do not have to attend regular classes at Ithaca. MML also provides facilities for an advanced course in neurobiology and behavior taught by members of the Cornell faculty. Graduate and undergraduate Cornell students who enroll in this course do not pay tuition.

Much of Gilbert's time is presently devoted to the Red Tide Program. His own work has helped create for MML the reputation as a world center for shark research. Now, government funding support from the National Science Foundation, the National Institutes of Health, the Office of Naval Research and the Environmental Protection Agency, plus planned physical expansion of the laboratory and heightened public interest in MML's programs may change the reputation — from "that shark place" to "that shark place that's doing a lot of other good things, too."

Scientists Identify Rocks As Pieces of Earth's Core

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geologists through the accumulation of seismic data over a period of many years. This outer core has a lower density than iron-nickel alloy, which is known to be its chief component, and a far lower density than pure iron. Analysis shows the josephinite to contain garnet.

The particular appearance of the garnet in the rocks is the strongest testimony for the core hypothesis, the Cornell group said. The garnet is aligned in strange, maze-like patterns which outline the crystal structure of the metal in the rock. The group cited this configuration as proof that the garnet has been "exsolved" from the iron-nickel alloy in the solid state. The scientists attributed the exsolution to the relaxation of pressure encountered as the materials ascended from the inner earth.

No other rocks show the exsolution of garnet from metal. It is believed that such a phenomenon could occur only under conditions of extreme pressure relaxation — as would be noticed in transit from the center to the surface of the earth.

The geologists on the team propose that this transit occurred via a "deep mantle plume." Although the theory is too new to provide all the details, some kind of convection mechanism

brought the rocks to the surface, where they were incorporated into part of the Pacific plate. Subsequent movement of this plate against the North America plate pushed the josephinite-bearing rocks to their present site near Woodcock Mountain.

In reference to the "incredible quality" of the title of their talk, "Specimens From the Earth's Core," the scientists quoted Sherlock Holmes:

"When you have eliminated the impossible, whatever remains, however improbable, must be the truth."

Rep. Robison to Teach at Cornell

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appointment, Davidson said, "B&PA and the Law School are delighted to have an individual with Congressman Robison's intelligence, experience and integrity join our faculties. He will make an invaluable contribution to the education of future public servants at Cornell. At B&PA we are particularly excited about the contributions he will make to our program in the area of general public administration and policy formulation."

Robison, who holds bachelor of arts (1937) and law (1939) degrees from Cornell, announced on Jan. 29 that he

will retire from Congress at the end of this year after serving 17 years in the House of Representatives.

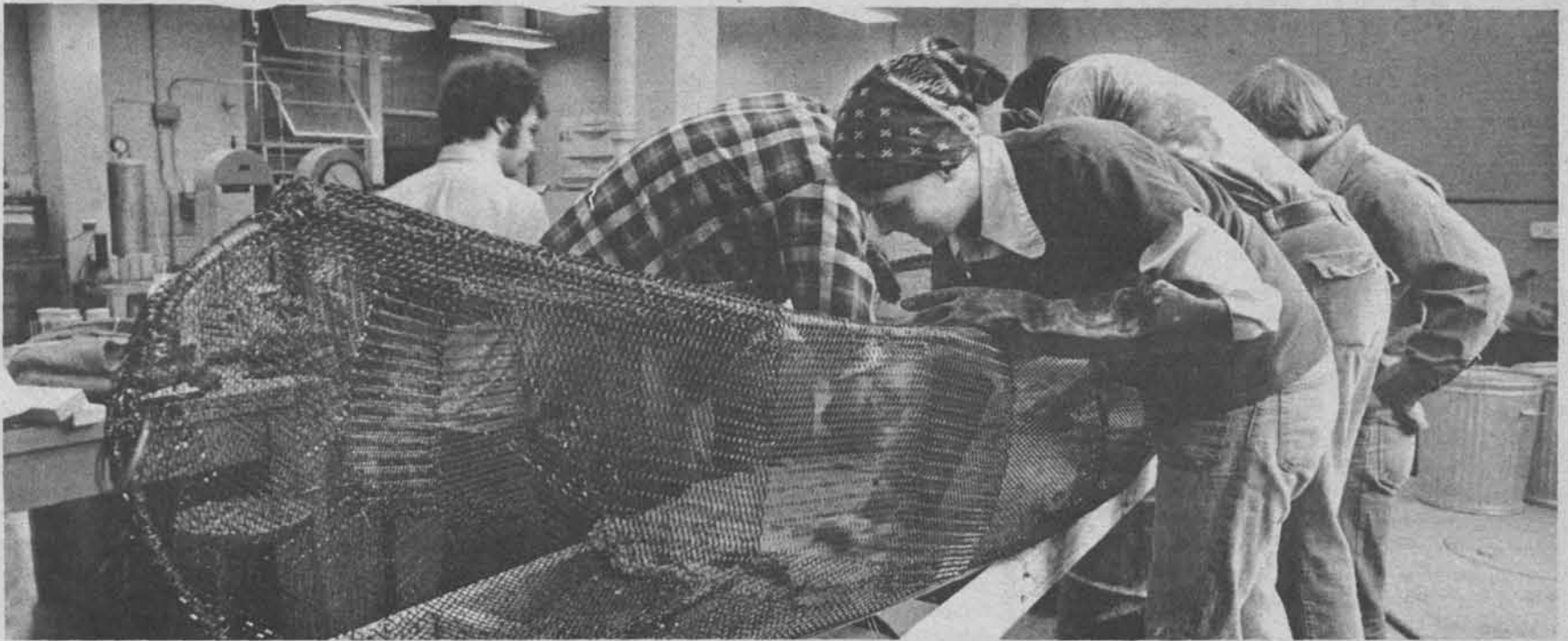
Robison said "No one graduates from Cornell University without an abiding sense of gratitude and continuing affinity towards that educational institution. Every such alumnus harbors, I suspect, the ambition to some day, in part, repay that felt debt by being of service to the University."

"Thus, the unexpected interest on Cornell's part in having me come back to Ithaca in a teaching role once my duties here in Washington are ended, came as a vastly encouraging and satisfying

opportunity; encouraging in a sense that Cornell believes my years of experience in active public service may be of value to those young people, who, in large part may be questioning the worth of such a career and satisfying in the sense that, after all these years, I may now be helpful to the institution that was so helpful to me in my formative years.

"Putting it simply, I couldn't be happier and my wife and I are looking forward eagerly to coming home."

Robison also said he would continue to retain his association with the Robison and Manyon law firm in Owego.



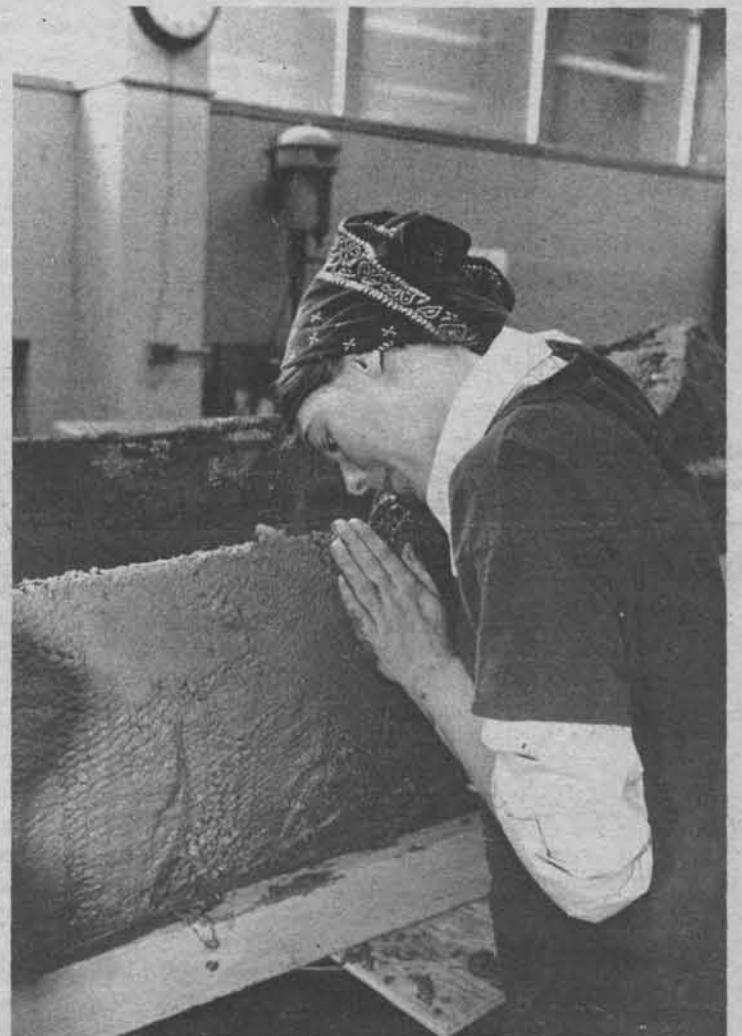
The Great Concrete Canoe Race



Civil engineering students worked feverishly in the Thurston Hall basement last month to build what may seem like a contradiction in terms: a concrete canoe.

The fourteen-by-three foot vessel joined other weighty entries from east coast engineering colleges in the Second Annual Concrete Canoe Race in Philadelphia's Schuylkill River April 13.

Cornell lost its semi-final race by one second (Princeton won the finals). A week later, the Cornell engineers took their canoe on the Fall Creek White Water Canoe Race, but not far from the finish, the boat hit a rock and sprung a leak. The gash repaired, the canoe is now resting back in Thurston.



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