President of Carnegie Endowment for International Peace to Address Commencement Ceremonies June 9

Thomas Lowe Hughes, president and trustee of the Carnegie Endowment for International Peace with offices in Washington, New York and Geneva, Switzerland, will deliver the commencement address Saturday, June 9, it was announced this week by President Gregory B. Wolfe.

In his recent book, "The Best and the Brightest," Pulitzer Prize-winning journalist David Halberstam calls Thomas Lowe Hughes "one of the few genuine intellectuals of the Kennedy era, a funny, skeptical, almost cynical man..."

Hughes, 48, has been directing the activities of the Carnegie Endowment since November 1970. One of America's oldest foundations, it was established by Andrew Carnegie in 1910 to promote international peace and understanding through research, publications, communications and training programs.

In addition to its traditional programs in international organization, international law, the changing role of military force and the training of young diplomats from newly independent countries, the Carnegie Endowment is now collaborating with other tax-exempt organizations to reinvigorate the American domestic dialogue on world affairs issues.

Joint efforts are in progress with the Student Advisory Committee on International Affairs ("Project Dialogue"), the American Foreign Service Association's "openness program" ("Face to Face"), the arms Control Association and Foreign Policy magazine.

Writing in that publication in April 1972, Hughes described the changing dimension in foreign affairs:

"Today (the) familiar intergovernmental world is crumbling, beginning in the West where it itself began..."

"Eventually, of course, the decline of governments in the West may erode the stability and affect the continuity of government roles in the East and South. But in the period just ahead, these phenomena will continue historically out of phase. The unevenness of the change will amplify the contrasting vibrations from and between the new-style transnational relations in the West and the older-style inter-governmental relations of the East and South."

"For the time being these tendencies will remain asymmetrical and will introduce unbalancing, even destabilizing, elements in world economics and politics. The strategic implications could be unsettling, if this dichotomy applies, as it would seem to, to America in her declining super power role on the one side and to the rising or remaining power roles of China, Japan and the Soviet Union on the other."Hughes has been involved in government work since 1955. With an emphasis in foreign affairs since 1955. With a degree from Yale Law School, he started his career as legislative counsel to a fellow Minnesotan, U.S. Senator Hubert Humphrey.

Hughes spent three years with Sen. Humphrey, then became administrative assistant to U.S. Representative Chester Bowles. His nine years with the State Department began in 1961 when Hughes served as special assistant to the Under Secretary of State. He then moved into the position of Deputy Director of Intelligence and Research, Department of State. In 1963 President Kennedy appointed him Director of Intelligence and Research. He was reappointed under Presidents Johnson and Nixon.

In this position, with the rank of Assistant Secretary of State, Hughes administered a bureau of 350 people. He represented the department at weekly meetings of the U.S. Intelligence Board and conducted daily personal briefings of the Secretary and Under Secretaries of State. He was responsible for all-source analysis of current information and its rapid dissemination throughout the department and for planning and supervising both the department's internal research studies and its contractual research program with the academic community.

In recognition of his efforts, Hughes was presented the Arthur S. Flemming Award as "one of the ten outstanding young men in the federal government" in 1965.

President Nixon appointed Hughes as Minister and Deputy Chief of Mission, U.S. Embassy, London in August 1969. The American Minister is the second ranking American in Britain and is Charge d'Affaires in the absence of the Ambassador.

As executive-administrator of the embassy and its 750 people, Hughes directed all aspects of the embassy's negotiations, reportorial and representational role in London. During this time, he was personally responsible for the substantive conduct of relations with the Labour Government at Cabinet level until the 1970 British elections and the subsequent change of government.

His numerous memberships include: Board of Editors, Foreign Policy magazine; Board of Directors, German Marshall Fund of the United States; Board of Directors, Arms Control Association; Board of Governors, the Dulwich Foundation (England); Visiting Committee, Center for International Studies, Harvard University; American Political Science Association; American Bar Association; American Political Science Association; American Bar Association; American Association of Rhodes Scholars; American Society of International Law; Council on Foreign Relations, New York; and the International Institute for Strategic Studies, London.

The location for June commencement ceremonies will be announced later this spring. Parents, alumni, faculty, staff, high school students and friends of the University are invited to attend.

Published by the Office of Communication at Portland State University
Volume 5, No. 2
P.O. Box 751
Portland, Oregon 97207

April, 1973

Non-Profit Organization
U.S. Postage
PAID
PORTLAND, OREGON
 Permit No. 770
Around the Park Blocks

President Gregory Wolfe and The Honorable Masatada Higaki, the new Counsel General for Japan in Portland, discussed the new “sister university” relationship between Portland State and Hokkaido University during a mid-winter visit on campus.

A “sister university” affiliation between PSU and Hokkaido University of Sapporo, Japan, has been ratified by the president of each institution.

The university affiliation significantly complements the highly acclaimed, award-winning Sister City Program between Sapporo and Portland, according to Dr. Robert Dodge, PSU professor of business administration and chairman of the program in Portland. The new affiliation was signed by PSU President Gregory B. Wolfe and Hokkaido University President Kichizo Niwa.

Dodge said the sister university program should result in increased student and faculty exchanges and “provide considerable impetus to the expansion of present programs between Sapporo and Portland.” Currently three students from Hokkaido University are spending a year studying at Portland State.

According to Dodge, the affiliation developed from the excellent PSU summer study program which has operated since 1967 at Hokkaido University.

Revolutionary Method Tested

Marketplace, an economic simulation game described as a revolutionary method for teaching economics, was field tested recently by a PSU economics class and apparently got high ratings from the students.

The game was used by Dr. Hugh Lovell, professor of economics and a coordinator of the Oregon Economic Education Council, in lieu of two weeks of lectures. “I might spend two weeks lecturing on principles which passed over the students’ heads,” Lovell said. “But with this game, they actually experience the principles and learn them.”

If the game proves worthwhile, the Council will attempt to make several sets available to Oregon college and high school economics instructors for classroom use.

While comparing this game to Monopoly is like “comparing chess to tic-tac-toe” many principles of Marketplace are similar to Monopoly. Simply stated, the students (any number can play) are divided into separate teams of Households, Retailers and Manufacturers. The object is to gain the largest profit or most units of satisfaction as the result of shrewd buying, selling, trading, lending and borrowing of labor, services, manufactured goods and resources.

There is no gameboard, but the props include change cards, labor units, banks and, of course, paper money.

“Because it’s a total involvement sort of thing that really captures interest, many students were staying late, during regular sessions they’re out the door the instant the class ends,” Lovell said. “When you get 30 people in a room doing all this, the atmosphere becomes frenzied, frantic, loud and educational.”

Travelling Laboratory of Way

Project ARM (Auditory Rehabilitation Mobile) is expected to be on the road servicing low income older adult communities and agenies in the tri-county area by late April.

Dr. James Maurer, director of the project and coordinator of PSU’s audiology program in speech and hearing sciences, reports the traveling laboratory is now under construction. Housed in a van, it is designed to take diagnostic and rehabilitative facilities where they are needed. Funding for the project totals $100,000 – $50,000 from the Kresge Foundation and $50,000 from the Oregon Program on Aging.

Maurer said the project also will provide training experience for students in speech and hearing sciences and in PSU’s Institute on Aging. Under staff supervision, students will provide older adults with free hearing tests, hearing aid evaluations, rehabilitative counseling, and medical and agency referral.

PSU’s audiology clinic on campus is providing these services on a limited basis until the Project ARM van is ready.

Evening Advising Continues

Special evening academic advising for community adults seeking a college degree will be offered on a continuous basis at PSU, according to Dr. LeRoy Pierson, associate dean of continuing and international studies.

The adult advising program, for non-admitted “special students” wishing to pursue a degree in day or evening courses, will be by appointment with Dr. Pierson from 5 to 7 p.m., Monday through Friday in 115 Francis Manor, 614 SW Montgomery.

Pierson said the evening advising program is directed at “over 50” adults who have “cut their niche elsewhere in life and would row like a college degree.” He said many people who have never been to college or consider returning after a long absence are apprehensive about how they will fare.

Initially, adult students will start as “special students” not formally admitted to PSU and not taking more than seven credit hours. “This way they will not have to fill out long forms or take college entrance tests, but can experiment with college without making a formal commitment,” he said.

“All we want them to do is see an advisor first and get set at ease about attending the University,” Pierson said.

Ambassador Visits Campus

Nobuhiko Ushiba, Japanese ambassador to the United States, visited the campus Feb. 19 in an appearance arranged by Pacific Rim Studies Center Interim Director C. Easton Rothwell.

Ushiba talked with members of the news media and later met informally with a group of Portland State faculty, staff and students at Zehnbauer, the president’s residence. He was guest of honor at a dinner party for Portland business and community leaders that evening. Earlier in the day, he addressed both houses of the Oregon Legislature.

Ushiba said Oregon’s commerce with Japan represents a “unique partnership” and that the very strong bonds which exist between the two countries are a result in part of the very great volume of two-way trade that travels through Portland and from Japan. He told a Vanguard reporter that he was pleased with the recent opening of the Pacific Rim Studies Center at the University.

Ushiba has been Japan’s ambassador to the United States for three and one half years.

Eye Research Advances

A Portland State University psychology professor has received a $22,000 grant from the U.S. Department of Health, Education and Welfare to continue research on a theory that a secondary color perception system in the human eye, and not only receptors in the eye’s retina, are involved in receiving, translating and transmitting color signals to the brain.

Research by Dr. Gerald Murch, PSU Associate Professor of Psychology, has “opened up a whole new can of worms” in the field of visual color perception. He feels enough evidence has been gathered to disprove a widely accepted 200-year-old theory that only three receptor types, or color sensitive cones in the eye’s retina, distinguish color shades for the brain.

According to his research, the secondary system is located in a group of cells in the Lateral Geniculate Nucleus, between the retina and visual centers of the brain’s cortex. These cells allow a more accurate distinction between middle color shade combinations and “are the ones which actually permit a person to perceive combinations of both colors and shape,” Murch said.

“Though my work is primarily trying to understand how the eye perceives color, I am not yet sure what ramifications my findings might have in regard to color blindness,” Murch said. “But I am sure they will help explain some heretofore unknown aspects of color perceptual research.”

Murch began his research in 1969 under a $22,000 National Science Foundation grant and continued the project on sabbatical leave in Germany last year.

He recently authored a textbook titled Visual and Auditory Perception in which he devoted an entire section to the same classical theory of color perception his research has seemingly disproved. "Unfortunately the book has gone to press and it’s too late to change it,” he said. “But at least all other books on the subject will be wrong, too, if my theory is correct.”
The Eight-Legged Imposter

Unlike the real kind, the pseudoscorpion lacks the capability to cause human injury... it is, however, deceptively similar in appearance.

By Janine Wolfe and Stephen Nicholls

When most people think of scorpions, they visualize a small, but toxic beast with lobster-like pinchers crawling across a sweating James Bond's chest.

When Ellen Benedict thinks of scorpions, she contemplates a non-toxic creature that looks like a poisonous scorpion but is not dangerous to man (least of all James Bond)—a benign specimen which seems to thrive throughout Oregon, happily consuming insects and mites and thereby lessening the number of less desirable pests.

Ms. Benedict is studying a sort of non-real scorpion, or pseudoscorpion, as part of her research program for a Ph.D. in environmental science from Portland State University. Unlike the real kind, the pseudoscorpion lacks the capability to cause human injury, as it lacks a tail tipped with a venomous sting. It is, however, deceptively similar in appearance.

Pseudoscorpions are also characterized by their small size (ranging from .05 to .06 of an inch) and are pale reddish-yellow to dark brown in coloration. Lacking not only a stinger but wings as well, the pseudoscorpion travels great distances by attaching itself to the legs of flying insects.

Out of 2,000 known species of pseudoscorpion in the world, at least 30 can be found in Oregon, of which only 10 have been described. Currently Ms. Benedict is attempting to describe and apply scientific designations to the remaining Oregon species. "Some species have never been classified," she said. "Others have moved to new localities along the Pacific coast, extending their range and affecting different ecological situations."

She began working with pseudoscorpions (a member of the Arthropod group of eight-legged organisms) seven years ago because of her interest in anthropods and because "so few other scientists were knowledgeable about them." After completing her master's degree research program, she elected to continue the project because of the field study opportunities involved.

But why spend so much time on a relatively obscure animal?

The implications of Ms. Benedict's research, as with similar activities of other scientists, are more far-reaching than one would suppose, especially in terms of environmental science. By the use of insecticides, man indiscriminately has killed off many insects which are beneficial to him and essential to his area's ecosystems.

Not all pseudoscorpions are predators. Unfortunately, most of the 2,000 species are hard to identify and so are lumped together, when in fact the differences are immense, Ms. Benedict said.

"If man is looking for ways to control undesirable insects biologically, pseudoscorpions could prove most valuable as they feed on other insects and anthropods (such as mites), some as large or larger than themselves," she said. "Most insecticides do not discriminate between animals and by using them, man may destroy something useful."

Perhaps by learning which insects and anthropods are beneficial and in what specific areas they thrive, less drastic pest control methods could be developed that would spare ecologically essential non-pest animals, Ms. Benedict added.

She cited the work of the late Joseph Chamberlain, entomologist for the USDA, who conducted most of the research on pseudoscorpions and gathered an extensive collection. After his death, the collection was given to Dr. David Malelaus, former PSU science professor now dean of the Division of Science at Pacific University. Malcolm interested Ms. Benedict in pseudoscorpions and holds a temporary "adjunct" professorship at PSU to supervise her research.

Ms. Benedict has traveled all over Oregon plotting the distribution of pseudoscorpions. Western Oregon, however, was picked as the primary research territory for several reasons.

Unlike the typical poisonous scorpion, the pseudo variety is usually found in moist places—beneath tree leaf litter or bark, or in caves or damp soil. Also, the western area of Oregon—from the coast to the Cascade crest and from the Columbia River to the California border—provides a diversity of elevations, a variety of plants and other conditions favorable to the pseudoscorpion. It is an area which should accommodate a wide variety of pseudoscorpion species," Ms. Benedict said.

(Continued on page 11)
PSU Grants First MS in Geography

If one Portland State University winter term graduate, the first to receive a Master of Science degree in geography, John Pyrch, has had the chance to catch his breath in the last few months, it has been a rare moment indeed.

Within the past year, John Pyrch has been a research assistant in the Yukon, a student intern for the Western Intersate Commission on Higher Education (WICHE), a graduate assistant in the PSU geography department, and has conducted extensive research in north central Oregon for his master’s thesis. Even though he is the first student to receive his Master of Science in the geography post-baccalaureate program (which started at PSU in 1970) and was granted his degree at PSU’s March 15 commencement, Pyrch didn’t have time to attend the ceremonies. On March 10, he and his wife Gerri became members of the Peace Corps and left for a two-year stay in the Philippines.

John Pyrch takes a broad background in geography with him. He became interested in geography while an undergraduate student at Oregon State. Pyrch originally speculated in involved himself in OSU’s then new oceanography program. “But at the time I was there,” he said, “the program offered little encouragement. I was led to graduate school in a program with a broad base which is particularly helpful in dealing with environmentally related problems.”

He received his BS in physical geography at OSU in 1968. After his discharge from the Army in 1970, Pyrch decided to come to Portland State and involve himself in the new graduate program in geography. The program was his major reason for choosing PSU, but there were others.

“The University was convenient to where my family lived and I had the opportunity to experience an urban setting which provides a major attraction for physical geographers these day,” he explained. “Also, my family had switched from being PSU oriented to being PSU directed.”

Mrs. Patricia Pyrch, his mother and a resident of West Linn, was the first student to receive a certification in Intermediate English as a Second Language Program and is currently working on her MA in intercultural communications in the speech department. She is now an MA in general science from Portland State. Mrs. Pyrch is presently teaching English as a Second Language at Portland Community College.

John Pyrch’s sister Melinda is a graduate student in biology at PSU and his brother Kelly did some of his undergraduate work at the University.

In the summer of 1972, Pyrch received an international fellowship from WICHE to conduct an investigation into pollution problems caused at the individual and family levels and how they affect Oregon’s environment quality for the state’s Natural Resources Program.

In his study, Pyrch surveyed air, water, land and energy problems, noise pollution and solid waste production. “In Oregon,” he said, “it is not so much the sheer number of people that are creating problems, but rather the manner in which they live and the location in which they choose to live.” He noted that rising standards of consumption and the changing uses of technology, which Oregonians steadily incorporate into their life styles, contribute significantly to the decline in the state’s environmental quality. “This consumption is far out of proportion to the growth in population,” Pyrch said.

The graduate cited statistics which demonstrated that, while Oregon’s population increased 18 percent during the 1960’s, consumption increased 70 percent during the same period, electricity consumption was up 40 percent and gasoline sales showed a 13 percent increase. John Pyrch

“Young people must realize that their contribution to environmental degradation is very substantial,” Pyrch added. During the same summer Pyrch worked for WICHE, he spent a month in the Yukon Territory aiding PSU associate geography professor Larry Price in conducting geographical field research, measuring temperature in the layer of earth directly on top of the rock-like permafrost.

For his master’s thesis in physical geography, Pyrch studied “The Characteristics and Genesis of Stone Stripes in North Central Oregon.” Pyrch has endeavored to measure the stone stripe slopes and study their formations. “Those found in north central Oregon are of such a size and magnitude that they cannot be explained adequately by contemporary geomorphic processes,” he said. He speculates that they were formed during a cooler, damper phase of the late Pleistocene age, when frost action probably exerted much influence on their development.

He recently presented a paper on the rates of mass wasting in north central Oregon to the Oregon Academy of Science during their 31st annual meeting in Corvallis.

PSU Seeks Big Sky Membership

Portland State University athletics are expected to receive a major boost in May when the Big Sky Conference holds its spring meeting. One of the principle items on the agenda will be PSU’s application for acceptance as the ninth member of that established league, which now includes Idaho, Idaho State, Montana, Oregon State, Boise State, Weber State, Gontaga and Northern Arizona.

“It is nearly impossible to survive any longer as an independent,” said Athletic Director Roy Love. “There are a few universities not affiliated with a conference that proper scheduling is all but impossible. Conference affiliation also presents the advantages of post-season play, recognition for the University, and the financial remunerations that accrue to NCAA league members from television rights and Bowl games.”

President Gregory B. Wolfe, officially announcing PSU’s plan to apply, stated on Feb. 10, Two factors weighed heavily in my decision: first, the opportunity to assure continuation of a balanced, moderate program of athletics at a reasonable cost; and second, the imperative need for program solvency.”

Wolfe continued, “This course of action was recommended to me by all who studied our athletic options over the past year and a half. This included the coaches, Intercollegiate Athletics, composed of faculty and students, which voted unanimously for application; Professor Scott Durall, the faculty athletic representative; Athletic Director Roy Love; Vice President E. Dean Anderson; and the principal administrative officer for the Athletic Department, Dean for Students John Evans.

Viking Club Launches Drive

Portland State’s sports booster group, the Viking Club, has announced the start of its 1973 fund drive to raise $70,000 to assist the growth of PSU’s athletic program through scholarship contributions.

Last year, the club raised $47,000 in its first year of operation and President Roger Yost is optimistic that with this base, plus the excitement generated by the University’s announcement that it is applying for Big Sky Conference membership, this year’s drive will easily reach the $70,000 goal.

Six fund-raising teams have been formed, with contributions now being sought from civic-minded boosters who wish to put major college sports back into the Portland sports picture. A promotional “Viking Country” campaign will soon be launched to help further this year’s support.

Yost emphasized that any donation of $100 or more, which is completely tax deductible, will entitle the donor to an all-sports family pass to all home athletic events for 1973-74. This represents a $50 value, at the minimum, for a couple attending football and basketball, if they were to buy season tickets only for those sports. Wrestling, swimming, gymnastics and baseball are included under the all-sports pass.

Football season tickets will be $25 for a family. Basketball and wrestling season tickets will be $150 only on an individual ticket basis, at $15 per seat.

Big Sky membership should also help coaches recruit higher caliber athletes, due to upgraded competition; possible post-season playoffs, all-star prestige and television appearances, and the guarantee of playing against universities in Idaho, Montana, Utah, Washington and Arizona.

Portland State is one of the new disbanded Oregon Collegiate Conference from 1955 to 1964, but has competed as an independent since then.
Early American Shorthand and Drafting

Served as assistant to the dean of the University, Dr. Donald Parker, this is in contrast to the situation at other universities in the nation.

The report, published by University of Pennsylvania's Business Education magazine, states that while most business schools are relatively young, they are "already caught up in the shackles of the academic world," turning out accountants, many of whom are specialists, even though they are not enrolled in business schools.

According to Dean Parker, PSU's School of Business Administration has deliberately avoided over-specialization, and consequently escaped many of the problems new confronting business schools elsewhere. "We have no accounting majors or marketing majors here," Parker said. "Only business administration majors.

PSU business administration students are required to take a variety of BA courses, often involving intern or field work. But that work may not exceed 40 per cent of their course work counting toward graduation. "While our students must take a broad range of business administration courses, we also require courses in the sciences, social sciences and humanities beyond the minimal requirements of the University," Parker said.

Business students are attracted to PSU by its urban setting and accessibility to Oregon's largest business community, and by its faculty, all of whom have been businessmen or consultants to business or government.

Parker noted that the current employment situation has led many students to return for post-graduate work in business administration, even though they hold a bachelor's degree in another, usually unrelated, discipline. And even though fewer college graduates are being hired today, many PSU BA students obtain jobs and establish strong career contacts before they graduate.

The increased enrollment in business administration coincides this year with a 20 per cent enrollment reduction in teacher training courses being phased out of the BA program. Courses in basic technical skills like typing, stenography and business machines have been reduced in an effort to eliminate duplication of courses offered by community colleges.

Parker emphasized, however, that several of these courses will remain on the schedule for next year, with open enrollment on a first-come, first-served basis. He said arrangements are being made with community colleges for PSU students to take basic skill courses there and have the credit transferred back to PSU.

"We cannot entirely eliminate basic skill courses at this time because state certification requires that high school business education teachers take, type shorthand and the like," Parker said. "So lower division skill classes will be phased out, but "we will retain upper division courses to accommodate the needs of future business education teachers."

Enrollment Continues Upward

For the second straight year the School of Business Administration at Portland State University has substantially increased its enrollment while the University as a whole has suffered a decrease.

BA's enrollment is up 19 per cent over winter term 1972 despite a reduction in the number of office supply courses. According to the school's dean, Dr. Donald Parker, this is in contrast to the situation at other universities in the nation.

A recent article in Business Week magazine concurred, and suggested the educational system of the future be designed to turn out fewer specialists and more generalists—"young people able and willing to shift among a number of different positions."

According to Dean Parker, PSU's School of Business Administration has deliberately avoided over-specialization, and consequently escaped many of the problems new confronting business schools elsewhere. "We have no accounting majors or marketing majors here," Parker said. "Only business administration majors.

PSU business administration students are required to take a variety of BA courses, often involving intern or field work. But that work may not exceed 40 per cent of their course work counting toward graduation. "While our students must take a broad range of business administration courses, we also require courses in the sciences, social sciences and humanities beyond the minimal requirements of the University," Parker said.

Business students are attracted to PSU by its urban setting and accessibility to Oregon's largest business community, and by its faculty, all of whom have been businessmen or consultants to business or government.

Parker noted that the current employment situation has led many students to return for post-graduate work in business administration, even though they hold a bachelor's degree in another, usually unrelated, discipline. And even though fewer college graduates are being hired today, many PSU BA students obtain jobs and establish strong career contacts before they graduate.

The increased enrollment in business administration coincides this year with a 20 per cent enrollment reduction in teacher training courses being phased out of the BA program. Courses in basic technical skills like typing, stenography and business machines have been reduced in an effort to eliminate duplication of courses offered by community colleges.

Parker emphasized, however, that several of these courses will remain on the schedule for next year, with open enrollment on a first-come, first-served basis. He said arrangements are being made with community colleges for PSU students to take basic skill courses there and have the credit transferred back to PSU.

"We cannot entirely eliminate basic skill courses at this time because state certification requires that high school business education teachers take, type shorthand and the like," Parker said. "So lower division skill classes will be phased out, but "we will retain upper division courses to accommodate the needs of future business education teachers."

ARTS AND CRAFTS FAIR

April 13 — The student chapter of the Council for Exceptional Children will sponsor an Arts and Crafts Fair between 9 a.m. and 4 p.m. in the Smith Center Ballroom. Crafts made by young handicapped artists throughout Oregon as well as PSU students will be on sale. A ten-cent donation will be collected at the door.

BASEBALL

Home games only, Civic Stadium
April 3 — OSU, 3 p.m.
April 7 — U of Portland (2), 1 p.m.
April 8 — Lewis and Clark (2), 1 p.m. Gabriel Park
April 13 — Seattle University (2), 1 p.m.
April 17 — OSU, 7:30 p.m.
April 21 — Alumni, noon, Skavone Field
April 23 — U of Portland, 3 p.m. Farley Field
May 1 — U of Oregon, 7:30 p.m.
May 4 — U of Portland, 3 p.m. Farley Field
May 12 — U of Puget Sound (2), 1 p.m.

CABARET

Every Friday evening, 9 p.m., Science II Lounge, free, programs of dance, mime, short plays, etc.

April 6 — Nancy Cole performs a one woman show, "Gertrude Stein's Gertrude Stein."

CONFERENCES

April 14 — Final workshop on "Man and the Land: Is a Human View Possible?" conference focusing on land development, planning practices and the prospects for change, "Human Values and Land Development: Are They Compatible?" at 10 a.m. in the Smith Memorial Center Ballroom. The conference is free and open to the public.

FILMS

All at 7:30 p.m., 75 Lincoln Hall, $1.
April 6, 7 — "Black God/White Devil" directed by Glauber Roche and "Burn!" directed by Marion Brando.
April 8 — "Jamming the Blues" with Bafney Kessel and Jacques Joaquim, "Basie's Boogie" with Count Basie, "Lenny Bruce at Basin Street West," and "She Done Him Wrong" featuring Mae West.
April 13, 14 — "Red Desert" directed by Michelangelo Antonioni and "End of August" directed by Jan Schmidt.
April 15 — "The Seagull" directed by Sidney Lumet and "Act of the Heart" directed by Paul Almond.
April 16 — "My Night at Maud's and "Clair's Knee" both directed by Eric Rohmer.
April 22 — "Early American Animation III," "Lifeboat" directed by Alfred Hitchcock and "Nothing Sacred" featuring Carole Lombard and Frederic March.
April 27 — "Un Chien Andalou," "L'Age D'Or" and "Land Without Bread." Friday night only, two showings at 7:30 and 9:30 p.m.
April 28 — "The Milky Way" — Luis Bunuel, Saturday night only, two showings at 7:30 and 9:30 p.m.

MUSIC

April 30 — The Friends of Chamber Music present the Borodin Quartet at 8:30 p.m. in Lincoln Hall Auditorium. General admission $4.50 and student admission $1.50.

BROWN BAG SERIES: Every Tuesday, noon, 75 Lincoln Hall, free, programs with local and national musicians.
April 18 — Lewis and Clark College music students (exchange)
April 21 — Harp duo featuring Kathy Kienzie

THEATER

April 6, 7, 13, 14 — The PSU Players present "Abelard and Heloise," one of the greatest tragic love stories based on Helen Waddell's novel Peter Abelard and 12th century letters from Abelard to his lover Heloise, 8 p.m., Lincoln Hall Auditorium. General admission $2.50 and students and senior citizens $1.50.
April 6, 7 — The final performance of "Rosenkrantz and Guiderstein Are Dead" by the Portland Shakespeare Company at 8:30 p.m. in Shattuck Hall Auditorium, $2. For reservations call 223-2256.
April 20, 21, 27, 28 — The Portland Shakespeare Company performs "The Merchant of Venice" at 8:30 p.m. in Shattuck Hall Auditorium, $2.
April 26, 27, 28, 29 — The PSU Players present Eugene Ionesco's retreat from the absurd, "Exit the King," at 8 p.m. in the Studio Playhouse, Lincoln Hall. The play deals with the last one and one-half hours of a 500-year-old king who believes he is immortal. General admission $2.50 and students and senior citizens $1.50.

LUNCHBOX THEATER SERIES: Every Tuesday, Wednesday and Thursday, noon, Room 12 Lincoln Hall, free. One and two-act plays performed and produced by students.

WHITE GALLERY EXHIBIT

April 17 — Children's art exhibit in conjunction with Portland State University's Education Department, second floor, Smith Center.
By Stephen Nicholls

B

e the time a child starts school he has watched over 5,000 hours of instruction television. By the time he finishes high school he has spent 2,000 more hours looking at the television screen than he has in the classroom.

One national news magazine predicts college enrollments during the 1970's will experience substantial growth with more students staying longer in school. Because of this increased pressure will be placed on obsolete college facilities with a consequent decrease in standards, and a search for new and more efficient teaching methods to cope with a main society is underway.

Instructional television (ITV) presents itself as a possible alternative in the search for new, more efficient teaching methods to cope with this impending educational crisis.

Most students now in United States high schools and colleges are children of the Television Age. They are citizens of an electronic era who have been bombarded, mesmerized, and socialized all their lives by the medium which critics refer to as the "boredom bomb." But for many students of this generation, television is an acceptable a communication and education medium as the book.

It is potentially "the most persuasive and powerful of the modern instructional tools" available to educators and students, providing new, exciting and promising avenues to the college classroom.

Potential of Educational Television Being Fully Explored at Portland State

It is potentially "the most persuasive and powerful of the modern instructional tools" available to educators and students, providing new, exciting and promising avenues to the college classroom.

Line drawings courtesy of The Vanguard

Stephen Nicholls, a regular contributor to Perspective while a member of the University Office of Communications, is now travelling in Mexico.

By the time a child starts school he has watched over 5,000 hours of instruction television. By the time he finishes high school he has spent 2,000 more hours looking at the television screen than he has in the classroom.

One national news magazine predicts college enrollments during the 1970's will experience substantial growth with more students staying longer in school. Because of this increased pressure will be placed on obsolete college facilities with a consequent decrease in standards, and a search for new and more efficient teaching methods to cope with a main society is underway.

Instructional television (ITV) presents itself as a possible alternative in the search for new, more efficient teaching methods to cope with this impending educational crisis.

Most students now in United States high schools and colleges are children of the Television Age. They are citizens of an electronic era who have been bombarded, mesmerized, and socialized all their lives by the medium which critics refer to as the "boredom bomb." But for many students of this generation, television is an acceptable a communication and education medium as the book.

It is potentially "the most persuasive and powerful of the modern instructional tools" available to educators and students, providing new, exciting and promising avenues to the college classroom.

Line drawings courtesy of The Vanguard

Stephen Nicholls, a regular contributor to Perspective while a member of the University Office of Communications, is now travelling in Mexico.
working with ITV on this basis than others. One such is Dr. David Willis, director of the PSU School of Education's Triple T Program for training future school teachers. Videotaping is an integral part of his program as attempts to give students and professional educators opportunities to look critically at their own teaching performance.

Willis takes portable TV units into public school and college classrooms to record actual teaching practices. This way he provides immediate feedback on their performance to students and teachers interested in improving themselves.

Willis can also bring reality into class for his students. "In learning, it is necessary for the student to relate his own experiences to those of others. By watching examples on videotape, the student teacher can place himself in the position of—and thereby identify with—the teacher on the tape," Willis said. "Shouting is better than words."

Willis does some videotape production himself with help from the TV Services staff. He agrees the principle barrier for most teachers is lack of understanding of what ITV should and could be used for. "The user must understand what the medium can do and how selective he must be to prevent boredom, the biggest danger of ITV," he said. "He must be assured, it will never replace the teacher. It will only be a tool for him," Willis said.

With ITV, the teacher need no longer fill the traditional role of conducting a lecture-style class. It can free him for concentration on individual students, and to direct learning activities rather than leaving students to collect information from his speeches.

With ITV the teacher can involve his students in everything the learning environment can provide—from taping their performance on a football field or theater stage to recording psychological counseling sessions.

For the student, one of the biggest fears of ITV has been its "Big Brother" aspect—that the teacher has exchanged himself for something which will watch the class while he is gone. But for PSU junior Bill Carey the technology presents an opportunity for a "self-learning experience."

Carey often checks out an ITV port-a-pack set and travels around on his own to learn about both TV and people. "I set my own pace and learn at my own level with the TV equipment," he said. "It's an interesting tool and people should get more interested in it for themselves, rather than having it pipped passively to them. Just watching yourself on videotape is one of the more shocking experiences you can have."

Several students who have taken TV production courses at PSU's Center for the Moving Image or been checked out on equipment by TV Services are earning college credit making videotape programs. But for most people, the equipment is hard to get because there is not enough of it.

Because the PSU-ITV operation is largely a service function, Carey suggests the Portland area community colleges are better equipped to train students in the technical aspects of TV. But he does see PSU as ideal for the "guerilla television" concept, wherein students experiment with television as an art form.

"This is sort of a Big Brother idea in reverse—where the student trains his camera on the outside world, exploring it with television but on a higher level," Carey said.

Many student-produced programs at PSU are televised by the closed-circuit Teleprompter Cable TV company in Northeast Portland, which places the programs before a limited audience.

"That makes it exciting for the students because they are not simply doing an exercise, but producing something that will be seen by someone," Mettler said. "It puts a little more pressure on the students to achieve a higher standard."

Should cable facilities be expanded in the Portland area, especially around the PSU campus, Mettler foresees a greatly enhanced opportunity for PSU to service the urban community. Programming developed at PSU for "life-long" community instruction purposes is one example.

"With cable hookups we could do continuing education programs at all levels in several interest areas. It would even permit two-way systems where professors and students communicate visually with each other while some distance apart," Mettler said.

The future of ITV everywhere will depend greatly upon economics. At Portland State the TV Services department operates on an $80,000 annual budget which assures free service to University departments. But, it took outside income of $15,000 from jobs contracted with non-University organizations to prevent a cutback in staff during PSU's recent financial exigency.

"So far as the overall University budget is concerned, we are cheap," Mettler said. "But we are small—really small, compared to other college and university facilities elsewhere."

PSU got off to a good early start with ITV and was one of the first colleges in Oregon to develop a studio and the realization that ITV would become an integral part of education. Now, relative to other higher education centers, "at least we are still here," Mettler said.

The ITV program at Oregon State, for example, has a much larger budget and two Corvallis cable channels providing opportunities for students in TV production. Still, much of their air time is devoted to class lectures.

"I have to admit, others have passed us by," Mettler said. "We are near the bottom insofar as other large universities are concerned. Even some community colleges have better facilities than we do."

But most of those programs concentrate on training TV technicians, directors and producers for the job market. Mettler would like to see PSU develop a level of training dealing with management, content, and possibly coordination of TV internship programs.

What does the future hold for ITV at Portland State?

The Carnegie Commission on Higher Education reported the inevitability of the technical revolution on college campuses lies in its benefits to learning. And while most educators will be slow to use it, many are beginning to realize ITV's value for demonstration and illustration, and as a time saver.

For students, the benefits lie in their opportunity to assume an active role in learning instead of a "passive role in a lecture hall." With the self-paced learning packages of ITV, they can have a greater variety of courses and teaching methods.

"I think it's going to be a valuable input to education, otherwise I wouldn't be here," Mettler said. "ITV won't replace the good parts of education as we know it, but it might replace the defective areas."

After all, if Sesame Street could pull it off at the pre-school level, why not ITV at the university level?
An afternoon of musical entertainment—plus an after-theater surprise feature to be announced in late April—are scheduled for Portland State alumni and their families. Sunday, May 20.

A special matinee performance of "The Man in the Moon," Haydn's late 18th century opera will be presented at 3 p.m., starring PSU alumni and future alumni.

The occasion will mark the final production on the present Lincoln Hall auditorium stage. Remodeling of the Performing Arts Center in Lincoln Hall will begin in late summer.

The performance and the surprise after-theater feature also mark the first major event at which Portland State alumni will be honored as special guests. Both the opera and after-theater entertainment are free to alumni and their families.

The Alumni Special is sponsored by Portland State alumni and the PSU theater and music departments. Planning the event are Ron Adams (BS '60), district commercial manager for Pacific North west Bell; Gary Robinson (BA '61), PSU director of student employment; John Wendeborn (BS '66), Oregonian staff writer; John K. (Cap) Hedges (BA '64), copy chief for Young and Roehr Inc., all members of the 1620 club, a group comprised of former University student leaders; Asher Wilson, chairman of the theater arts department; and John Jenkins, director of alumni relations.
Smith Conducts Oregon Concerts

Lawrence Smith (BS '59) has been a guest conductor at four performances of the Oregon Symphony Orchestra during the 1972-73 concert season. He is a candidate for resident conductor of the symphony.

According to his mother, Mrs. I.E. Barney of Portland, Larry began his conducting career at age five when he appeared with his kindergarten orchestra at the Elliott-White Conservatory. After his early musical debut, he concentrated particularly on the piano and was selected piano soloist with the Portland Junior Symphony when he was 15. As an alumnus of that musical organization, he was invited to perform at its 40th anniversary concert in 1963 when he was assistant conductor of the Boston Symphony. He appeared again, with the PSO in New York as the group was en route to a European tour.

While a student at Portland State, where he earned a degree in mathematics, he played with the PSU Symphony, gave many concerts and recitals on campus and off, was soloist with the Portland "Pops" Orchestra and assistant conductor of the West Coast Opera Theater.

After graduation, he went to New York where he earned a second degree in music from Mannes College of Music and stayed on to teach piano, theoretical subjects and physics. From then on his career was confined to music.

He gave his debut recital in New York in 1962 and has appeared in hundreds of concerts and recitals in the United States, including a White House concert in 1967.

In the early 1960's, he was assistant conductor of the New York Philharmonic, City Opera for three years. He won first prize in the Dimitri Mitropoulos International Conductors Competition in 1964.

He now divides his time between conducting and the piano and has guest-conducted the New York Philharmonic, Baltimore Symphony, Pro Arte Symphony, London (Cacada) Symphony and Wimipex Symphony.

During the 1971-72 season, he was associate guest conductor of the Phoenix Symphony and was associated with the faculty of the Berkshire Music Center in Tanglewood in 1972. He is presently music director of the Austin Symphony and the University of Texas Symphony. He will return to Phoenix for his second season as principle guest-conductor.

Center Services Alums

A Learning Materials Center at Portland State University is open to provide alumni and students involved in teaching with the latest educational materials in the field of education.

The materials in the center, located in 201 Lincoln Hall, include games, skill developing projects, tests, media and some public school textbooks, many of which were donated by publishers of educational materials and faculty and staff in the School of Education. William Jenkins, dean of the School of Education, said most of the materials in the center are not available through libraries, but PSU alumni and students are free to browse through the materials in the center.

Materials in the center presently are geared to elementary-age children. The directors, Dr. Joyce Anderson and Mrs. Therese Bard, hope to expand the collection to include materials in health, physical education, music and art, as well as the three R's for students through high school. A collection of teacher-made learning materials will also be developed.

Vanport Alums Plan Summer Reunion

Where have all the old Vanport grads gone? That is the big question being asked by Grant V. Mumpower, a Vanport Elevcation Center (pre-PSU) alumnus from the 1946 era.

Mumpower is heading a committee to locate and contact all alums from the years 1946 through 1956. The object is a reunion, scheduled to be held at the Portland Coliseum June 16.

"Details are still being developed, but in order to make the reunion a success, we need names and addresses of all the alums from those years so we can contact them," said Mumpower. "We are going to send out mailings as plans progress and a newsletter with the help of John Jenkins, director of the PSU Alumni Office."

Mumpower invites anyone with names and addresses of alumni (including themselves) who attended Vanport during 1946-56 to contact him (666-0841) or one of the committee.

Committee members who may be contacted are Mrs. Margaret Holland Gottlieb, 656-6282; Mr. and Mrs. Monticke Trask, 244-3295; Gerald Billings, 777-2962; Bill Hilliard, 226-3121; W.T. Lemmon, 229-4444; Russell Laney, 222-2904; or the PSU Alumni Office, 229-4612.

"We promise all the alums a good time," said Mumpower, "everything will be informal and there will be no speeches. Just a chance to renew acquaintances and talk over the old days, accomplishments and defeats. We might even want to think about how we can lend a hand with alumni programs."

Grad Travels 140 Miles to Classes

If recognition were given to the student who drives the farthest to attend classes at Portland State, education major Donna Douglas would be the person honored. A winter term graduate, Mrs. Douglas has commuted 140 miles round-trip from her home in O'Dell, eight miles south of Hood River, to attend classes three days a week at PSU.

A mother of three college-age sons, Mrs. Douglas returned to college in January, 1967 after an 18-year absence. She was supported by funds from Manpower Development, a federal training program designed to provide financial assistance for people needing vocational training.

She started at Mt. Hood Community College in an accounting course, intending to get a job in that field. "As I got into school, however, I became more aware that working in an office would be a static kind of thing. Being able to teach and work with kids, especially those with reading problems, became more important to me," Mrs. Douglas said.

Donna comes from a family of teachers, so the change to education seemed natural for her. Two of her aunts worked in special education and her mother was one of the original teachers in the first one-room school at Reedsport in 1919. Donna began her education in the same classroom where her mother began her teaching career.

After obtaining more financial aid, she started her education studies at Mt. Hood, then later transferred to PSU adding another 40 miles to her trek to classes.

Attending a university involved a rigorous discipline, Donna discovered, especially when commuting from Hood River. For the past five years her day began before dawn and by 6:15 a.m. she was on the road.

Getting back into the habit of attending school after an 18-year absence was also a formidable barrier for Mrs. Douglas to overcome. But she did. "I started out as a 'C' student and didn't think I could do much better. Now I have a 3.05 cumulative grade point average and had a 4.0 GPA high-point last spring term."

Despite the long hours, Donna feels that her days as a student have brought herself and her family closer together.

ALUMNI NEWS

PSU Alumni Services

Mail to: Alumni Relations Office
Portland State University
P. O. Box 751
Portland, Oregon 97207

I am enclosing my check (or money order) for $ __________ for the following services and contributions:
(Please make checks payable to Portland State University)
  □ PSU Alumni ID Card—$1 (good until June 30, 1973)
  □ PSU Family Swim Program—$10.00
  □ PSU Swim/Gym Program—$5.00 (couples $10)
  □ PSU Alumni Parking Permit—$2.00

Prices pro-rated for spring term.
My contribution of $ __________ is to be used for:

Name
Address
City State Zip
Social Security No.
Telephone
Degree(s) Year(s)

□ I would like to be involved in fund raising programs. Please contact me. My area of interest is:

Note: If you have ideas, concerns or suggestions about PSU Alumni matters, please write, call (229-4615), or come in and talk about them (402 University Services Building, 617 S. W. Montgomery Street).
Special Certificate Awarded to Meade

A special certificate, unique at Portland State University, was presented during winter term commencement, March 15, to graduating senior James P. Meade honoring his brother David Meade who died in Vietnam wars three years ago.

The certificate of recognition was initiated at James Meade's request because, "Everything I will ever do in life, I will do and share with my brother."

In selecting the certificate to Meade, PSU President Gregory Wolfe recalled the life of David Meade as "the brave brother of a brave alumnus" and paid tribute to all war veterans who would not return.

The story of James Meade and his fight for life after he was critically wounded in Vietnam is well known to David and his family.

Doctors gave James little chance to survive and when he awoke from a coma, he had the mind of an infant. The next three years for James Meade were ones of slow, painful recovery from the state of being virtually a vegetable to eventually accomplishing the simplest of tasks, such as eating, walking and sleeping.

After James returned stateside, his younger brother David (formerly a PSU student) joined the Army's Special Forces team and immediately put in a request for Vietnam duty.

"Seeing me in my state of condition strongly affected David," James said. "He felt it his duty to go to Vietnam and complete what he saw as my mission there." Three years and one week after James was wounded, Lt. David Meade was killed.

"My brother and I were always close. There was an absolute bond that would be difficult to compare to anything else in the world," James said. "David's goodness, truth and the beauty of his spirit will always exist with me in all that I do, therefore, I feel he should share in my graduation."

When James received a diploma from Mt. Hood Community College in 1970, David's name was also on it. "He was with me at that graduation even after his death. And he is with me when I graduate," James said.

James Meade, a psychology major, graduated from PSU with honors. His plans are to attend the University of Oregon in pursuit of a master's degree in rehabilitation counseling and hopes to eventually get a Ph.D.

PSU graduate Kathleen Mahoney began her duties as secretary in the Alumni Relations and Records Office Feb. 1. She replaces Sheila Knoll, who resigned to join a Portland architectural firm. Ms. Mahoney, who graduated with a degree in foreign languages last December, says, "I was a short walk across campus from student to employee."

She was hired when she went to the Placement Services office to start her placement file.

1960's

Don Rocks (BS '60) reports he is currently president of the Regional Alcoholism Board in Portland. The board coordinates activities of all groups interested in alcoholism. Rocks previously served as administrative assistant to former Sheriff and now Multnomah County Judge Clark, and as personnel director for U-Haul Trailers.

Charles Henry Carter (BS '64) was among the May '62 graduates who received doctor of philosophy degrees from Johns Hopkins University.

John K. (Cap) Hedges, (BA '64), received an award for excellence in public service commercials from the International Broadcasting Association at a banquet in Los Angeles March 20. Hedges, who works for Young & Roehr Inc. Advertising in Portland, was one of 3,000 entries in the "Public Service" category.

He won the award for his part in the creation and production of a series of spot announcements for the Portland State basketball team last fall. Working with him on the announcements was another former PSU student, Alan Barzmn, who is now an actor-producer residing in Los Angeles.

Robert Carlson (BS '65) has been named sales vice president of Heathman-Hailland Hotels. Formerly a sales executive for Hilton Corp., he has been resident manager and sales director of the Portland Hilton Hotel.

Timme Holter (BS '66) received a Ph. D. in education from Kent State University during the summer commencement last August.

Paul Limman, who attended PSU from winter '66 to winter '79, has been named administrative assistant to Portland City Commissioner Mildred Schwab.

Limman worked for KATU-TV for the past five years, and until his recent appointment was the station's assignment editor. He will help Miss Schwab develop the city's new Bureau of Human Resources.

H.C. Massey (BS '56), director of the Ogden (Utah) Area Community Action Agency, has received the Utah Citizen Award for 1972 from Salt Lake City Elks Beehive Lodge No. 467 and Timpanagos Temple No. 48. At the banquet and formal ball in his honor, Massey's selection was said to be based on civic activity, contributions to charitable causes and leadership in work for the good of his fellow men. Massey became assistant director of the Community Action Agency in 1967 and was appointed director in 1971.

Ken Bierly (BA '67) published an article "Cultural Awareness" in the February issue of Instructor, national magazine for graduate student at University of Oregon, based on the article on his experience as a teacher in a dependent school in Germany.

Captain William C. Bristol (BS '67) has reported for temporary duty at Rhein-Main Air Base, Germany.

Captain Bristol, a pilot with the 47th Tactical Airlift Squadron, will provide airlift for U.S. armed forces, resupply U.S. embassies and support NATO training exercises while in the European theater.

Ellie Drake (BA '67) lives and works in Adana, Turkey, where she is director of the Turkish-American Association. Her experience in Turkey began in 1967 when she was an English teacher in the Peace Corps. She spent the first year of her tour in the small town of Sururk, then a year teaching in Adana's largest junior high school before returning to Portland to recruit for the Peace Corps. In the summer of 1971 she returned to Turkey in her present capacity. English, according to Ms. Drake, is one of her main interests at the Association's center in Adana "because a foreign language is required in Turkey and most students prefer English since university classes are conducted in it." The Association also sponsors tours for Turks and Americans and engages in a variety of Turkish-American activities. Ms. Drake is particularly taken with the friendly character of the Turkish people, whom she thinks value friendship more than Americans "because Turkey is a more rural country."

1970's

Richard Sand (BS '79) visited the Placement Services office at PSU recently. He is now a programmer for the Portland office of New York Life Insurance Company, where he has been employed for the past two and one-half years.

Marnie Tattersall (BS '70) was among those receiving advanced degrees at the June, 1972, commencement exercises at Harvard University.

She received a Master of Business Administration degree.

Joe A. Johnson (BS '71) visited the alumni office recently to report he enjoys teaching 8th grade at Ockley Green Grade School. The school is federally funded since it is considered to be in a poverty area.

Johnson is trained especially to recognize them and says he finds every day a challenge and a great learning experience.

Bob Watson (BS '71) is a salesman in Portland for West Coast Cycle Supply.

Steve Washburn (BS '71) is a public relations trouble-shooter for National Electrical Association, a management group of electrical companies.

Oscar A. Enriquez (BS '71) is currently a first-year MBA candidate at Indiana University.

Robert S. Josephson (BS '72) is owner of Columbia Tire Center in Portland. He reports plans to open another Portland area store soon.

John W. Merina (BS '72) is an accountant for Lester Witte & Co., certified public accountants in Portland.

The Eight-Legged Imposter

(Continued from page 3)

She collected leaf litter samples throughout the area, then devised distribution maps pin-pointing different pseudoscorpion species and identification keys to help other researchers recognize them. Currently she is recording scientific derivations of each Oregon species, listing distinguishing characteristics, mating and ecological relationships with the environment.

"The ecology is very important, as we might discover what type of pseudoscorion thrives in what area of the state, if it is restricted to a particular region, and what its particular habitat is," Ms. Benedict said.

To classify the pseudoscorpion, she dissects the animal into nine pieces and makes a microscope slide of each. After examining each slide, she classifies it according to shape and some other distinctive characteristics. Ms. Benedict collects her specimens by placing leaf litter samples into a Berlese Funnel, a screened metal funnel with a light at the top. The light's heat drives animals in the litter down through the funnel into collection jars, where pseudoscorpions can be separated easily from other specimens.

Following the dictum of "waste not, want not," Ms. Benedict, with the help of son Lyle, a Marshall High School senior, separates other animals found in the leaf litter and forwards them to researchers throughout the United States. Some of her own pseudoscorpion specimens, when she is finished with them, go to the American Museum of Natural History in New York where they are deposited for use by other scientists. She also adds to the Chamberlain-Malcolm collection at Pacific University in Forest Grove.

Spiders taken from Ms. Benedict's samples go to a researcher at the Museum of Comparative Zoology at Harvard University; millipedes and "daddy-long-legs" go to Concord College at Athens, West Va.; real scorpions are sent to the California Academy of Sciences in San Francisco, centipedes go to a biology professor at College of Wooster in Ohio; and soft ticks (commonly round around the plant roots) are used by the Vector control section of the Oregon State Board of Health in Portland.

In effect, Ellen Benedict provides hundreds of specimens for large-scale studies not previously possible with many other local invertebrates. Different researchers have responded favorably to her samples," she said. And what is even more gratifying, "many have reported finding new species never classified before!"
"Everyone's intrigued with puzzles"

Gertrude Rempfer, Portland State University physicist and noted electron optomics expert, is a master at solving puzzles—whether it’s building a house on her seven-acre farm, raising grandchildren, teaching graduate courses, shooing geese out of her corn field, or designing the optical lenses for this country’s only domestically manufactured electron microscope.

Her contributions to science and education have been many during the years since earning her Ph.D at the University of Washington; but none has been greater than her development of the powerful electron microscope which magnifies specimens 200,000 times.

Now being manufactured by Elektros Inc. in Portland, the electron microscope is used in both biological and non-biological areas, including cytochemistry, metallurgy, air and water pollution, microfractography, plant, animal, and human pathology (as illustrated in the magnified lung tissue above).

Dr. Rempfer designed the sensitive electron instrument as a tool so that there is minimal distraction in its operation. Graduate students like John Morgan (working towards his masters in invertebrate physiology) and Gail Jacobson (studying for her advanced degree in invertebrate endocrinology) find the $29,500 electron microscope, donated anonymously to the physics department, invaluable in their research.

Of her 34 years in teaching at Portland State, Mount Holyoke, Antioch, Fisk and Pacific, and her research years as a physicist at Columbia and the Naval Research Laboratory, Dr. Rempfer says that "you continue to build on top of where you were before. Research satisfies the urge to find what you want to," she points out; "for everyone's intrigued with puzzles."

For her students and associates, one of the most intriguing puzzles about Dr. Rempfer, whose husband Robert Rempfer is a professor of mathematics at PSU, is how she manages to juggle so many pursuits simultaneously. Only Gertrude Rempfer knows the answer to that puzzle.