Almanac

——IN BRIEF——

Forum on Irvine: A public forum on the proposal to renovate Irvine Auditorium as a music facility has been jointly announced for *Monday, September 24,* by Student Activities Director Charlotte Hamlin Jacobsen and Music Department Chair Thomas H. Connolly. At their invitation, Architect Frank Grauman will present detailed information on design, and will answer questions on the proposed renovation (*Almanac* September 11). The forum will be in Stiteler Hall B-6 (37th and Locust Walk) from 7 to 10 p.m. All members of the University are invited

Foundation Funding: The upper limit for proposals for the University's Research Foundation is now $5000. Only a small number can be awarded at this level, Dr. Eliot Stellar of the Foundation Board notes, but those submitting proposals for the fall cycle deadline of November 1 should amend the paragraph in *Almanac* September 11, page 7, where the guidelines for proposals were updated but the former funding level of $3000 erroneously appears. [Ed. Note: Almanac's error, not the Foundation's]
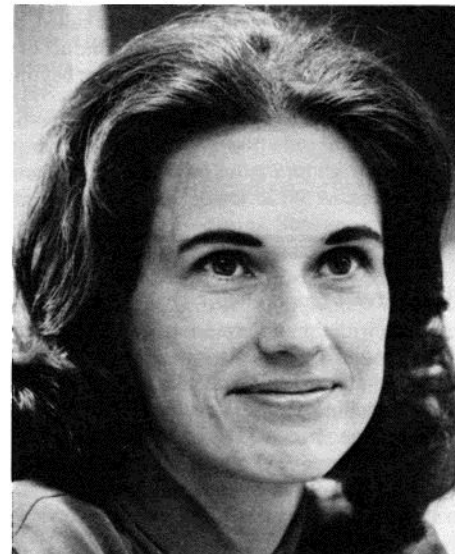
——INSIDE——

Trustees: VP for Finance Marna Whittington

The Trustees Executive Board approved the nomination Friday of Dr. Marna Whittington, Delaware's state secretary for finance, as Vice President for Finance here. Senior Vice President Helen O'Bannon proposed Dr. Whittington, along with Frank E. Claus as Treasurer and with title changes for Vice Presidents Paul Gazzero and Gary Posner (see page 3 for her summary of the resulting organizational structure in nonacademic areas outside development).

Dr. Whittington, who took her B.A. in mathematics at Delaware in 1965 and Ph.D. in quantitative methods from Pittsburgh, was budget director of the State of Delaware 1982-83, and director of administrative services for that state in 1981-82. In 1979-81, Dr. Whittington was deputy secretary of the Commonwealth of Pennsylvania, managing the budget, research, planning, computer system and physical plants for basic and higher education in Pennsylvania. Earlier, she started as a research associate at Associates for Research in Philadelphia in 1972 and rose to vice president in 1978. Dr. Whittington is a director of Jobs for Delaware Graduates, a trustee of Goldey Beacon College, and secretary/treasurer of the National Leadership Conference of Women Executives in State Government.

Mr. Claus, who joined the University in March as the first director of the new Penn Plan Agency, will continue to oversee that operation which, President Sheldon Hackney
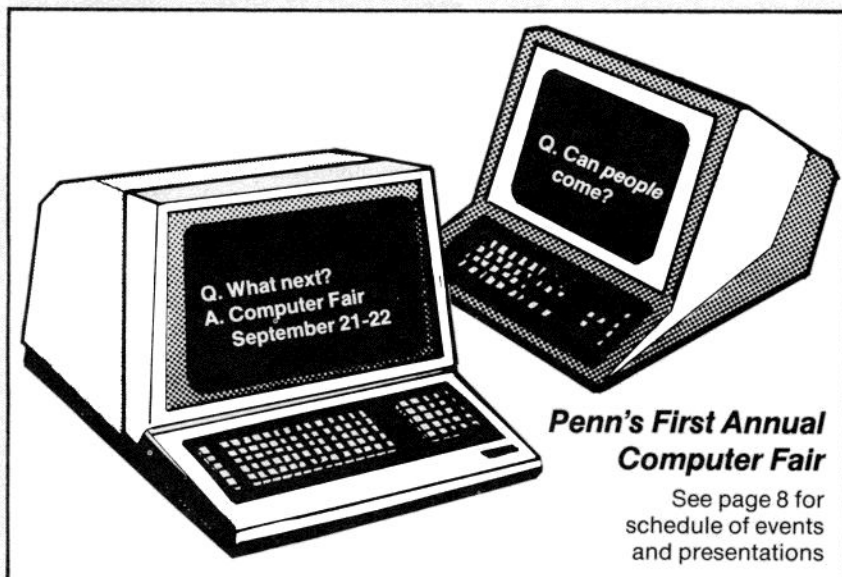
Dr. Whittington

noted, is being used by almost a thousand undergraduates' families in its first year of operation as a method of financing tuition payments. Mr. Claus, in addition to being the Treasurer of the University, will hold the title of Assistant Vice President for Finance. The 1961 Drexel graduate is a former senior vice president of New Jersey National Bank.

Faculty Trends: In proposing faculty appoint-

Penn's First Annual Computer Fair

Q. What next?
A. Computer Fair
September 21-22

Q. Can people come?

See page 8 for schedule of events and presentations

IBM's $6 Million Computer Gift

A $6 million IBM computer equipment gift announced in July—the largest corporate gift in Penn's history—will add 800 personal computer systems to Penn's massive conversion of data and word processing. They also pave the way for a new cooperative program called THRESHOLD, which will develop and test innovative applications of the PC in academic endeavors.

Academic units will compete for the IBM PC's that will arrive in three stages. (On the inside back page of this issue, see details on allocation of the donated PCs and the relationship of this phase to the DEC and Apple agreements.)

IBM is also providing peripheral hardware to enable Penn's IBM 3081 mainframe to support a broader range of research applications and users in other schools including Wharton and Engineering, according to Dr. David Stonehill, vice provost for computing.

The New Judicial System

The University has adopted a new judicial system the provisions of which were published in *Almanac* on September 4. The most significant new feature of this code is the return to a high degree of faculty involvement which is required.

Professor John Stockton has agreed to serve as the administrator of the entire system; we owe him our thanks and support. The community has a choice of how to expend its energies now with respect to this matter. We could debate the various details of the policy and argue, for example, the basis for the decision on the division of the hearings panels—or we could address ourselves to the task of making the code work. I prefer the latter.

In that vein, specifically, the faculty must provide a pool of individuals from which the hearing panels will be drawn. The Faculty Senate will be nominating as diverse and competent a group of colleagues as we can identify. If you are called, please serve. Not long ago this campus was ravaged by the consequences of the outrageous conduct of some students, and the shape of the new code reflects that experience. If the faculty is to move beyond moral posturing, dedicated service on the panels is absolutely essential.

Jacob Abel

IBM Grant *(continued)*

Along with the earlier-announced Apple and DEC System agreements, the IBM gift is part of a large-scale computerization of the University for teaching, study, research and other uses.

In the first year of THRESHOLD, some 25 projects will receive a total of 346 microcomputers. These projects were selected as the most promising on the basis of an intensive review that focused on five criteria:

- curricular innovation;
- new research applications;
- innovative applications in professional practice;
- pilot projects to expand student use of computers (such as through establishing computing laboratories);
- experiments to enhance the value of computing in a distributed environment (such as experimentation with clusters and local-area networks).

The projects awarded microcomputers in the first year of THRESHOLD emphasize new approaches to the use of computer graphics, and simulation, textual analysis, database and numerical analysis in the instructional process in disciplines throughout the University. Some examples:

In the humanities, a Center for Textual Analysis will be established to coordinate new computer-based research programs and courses using IBM personal computers for departments including Religious Studies, Classical Studies, Oriental Studies, South Asia and Folklore and Folklife.

In the sciences, introductory courses in biology and chemistry will be adapted to the use of the personal computer as a tool for interactive problem-solving and data analysis. In addition, the personal computer will allow for the simulation of experiments without the need for expensive equipment or extensive time.

Medicine's combination of sophisticated computer graphics and medical imaging can make possible computer simulations of complex surgical techniques such as pulmonary bypass operations. This enables a surgeon to plan complex procedures using a personal computer terminal. Radiology will use IBM personal computers to further innovative clinical research and training.

At Wharton, the Department of Finance will develop software to enable students to familiarize themselves with large scale econometric models and learn to use these models as they would in the business world. In addition, students will be able to develop their own sophisticated programs for use in the advanced corporate finance course.

In Engineering and Applied Science, a prototype undergraduate educational laboratory will be developed with IBM personal computers to test the use of microcomputer workstations for advanced numerical analysis and sophisticated computer graphics. Such applications were formerly only possible on a mainframe computer. The pilot project will involve two fundamental courses, statics and dynamics, and, if successful, will lead to the integration of personal computers into the curricula of nine other mechanical engineering courses.

The College House Program will develop a pilot project in one of the six college houses to make structured coursework from the full range of liberal arts and professional disciplines available to students in their residences using the IBM personal computers.

"Through its generous donation," President Hackney said, "IBM has challenged Penn to identify opportunities for innovative computing that build on our comparative advantage as a uniquely interactive university. In turn, THRESHOLD enables the University administration to challenge each component within Penn to propose innovative ways of using the computer that will move forward the entire field of academic computing." added Provost Thomas Ehrlich, "As the name of our cooperative program with IBM suggests, we are on the threshold of an era when the power of the computer will transform the way we teach, do research, and learn."

Trustees *(continued)*

ments and promotions including seven that are tenure-bearing, Deputy Provost Richard Clelland (reporting for Provost Thomas Ehrlich) said the recent trend in faculty size is slightly upward. The net gain is 28 over the past four years—15 of these from 1980-81, the rest spread out over three years. This is "a sensible course to be on," Dr. Clelland said, in view of projected retirements in 1991-2000 as post-WWII Ph.D.'s complete their careers. Other schools are in the same pattern, he explained: "If we cut back our size now, we will face fierce competition in the 1990's for the limited number of Ph.D's now in the graduate pools."

As detailed for Trustees by Dr. Clelland, the seven tenure-significant actions Friday included one in SAS—*Dr. Maureen Quilligan,* a Renaissance studies specialist named associate professor of English—and two in Engineering for *Dr. Kenneth R. Laker* of Bell Labs, who becomes professor and chair of electrical engineering, and *Dr. Paul B. Weisz,* senior scientist and science advisor to the Mobil Corp., who becomes professor of chemical engineering. Four were in Medicine. Of these, glaucoma specialist *Dr. Thomas Krupin* is a newcomer to Penn, arriving from Washington University/St. Louis as professor of ophthalmology. Already at Penn were *Dr. Derek A. Bruce,* pediatric microsurgeon converted to tenure as associate professor of neurosurgery; *Dr. Michael P. Cancro,* immunobiologist promoted to associate professor of pathology and laboratory medicine, and *Dr. James Leo Mullen,* converted to tenure as associate professor of surgery; he continues to work in nutritional support for surgery, begun here under Dr. Jonathan Rhoads.

Academic Challenge: If a Penn challenge grant proposal to the William and Flora Hewlett Foundation. proposal succeeds, Hewlett will match 2-to-1 the funds to be raised during the next three years toward "an endowed discretionary fund for area and international studies at the University." The Executive Board took enabling action. (See page 6 for details.)

Guaranteed Mortgage: Penn's financial guarantee that helps faculty and staff to buy near-campus housing via 100% mortgages with PSFS was raised from $7.7 million to $10 million as Finance Chairman John W. Eckman reported that "We've never lost a nickel on a loan." Housing in University and Western Center City is eligible for guaranteed mortgages. Another financial action, for animal holding facilities improvements at Medicine's Richards Building and Medlabs, passed at $300,000. The work is to be financed by the School's Education and Development Fund.

Development, investment and budget performance reports were on the "good news" side at Friday's meeting. Returns on the AIF (pooled investment endowment) added $8,016,000 via the 1981 Spending Rule which ploughs back a portion of earnings.

President Sheldon Hackney's report highlighted improvements in move-in and services to freshman in a restructured New Student Week, with praise for VPUL James Bishop and his staff and that of Financial Aid Director George Koval and aide Kevin Vaughan.

The Senior Vice President's Area

This summer, a number of organizational realignments were announced in the administrative areas within the University of Pennsylvania. With a number of personnel changes occurring throughout the spring and summer, there was an opportunity to realign certain functions to obtain balance and efficiency, with a minimum of disruption.

The chart below shows the new structure. This structure brings more balance to the vice presidents' responsibilities, and it focuses needed attention on financial planning and long-range asset management.

With the departure of Arthur F. "Bud" Hirsch, we are recruiting for a Vice President for Facilities Management. This individual will oversee the planning, design, construction, renovation, maintenance and utility management of the University's buildings and grounds. An appointment will be made by the end of October 1984.

Gary J. Posner, Vice President for Human Resources since September 1982, is now responsible for Dining Services, Public Safety, Parking, Purchasing, Mail and Telephone Services and The Book Store as well as Human Resources. His new title is Vice President for Administration.

Paul Gazerro, Jr., Vice President for Finance since August 1982, moves into a new position, Vice President for Financial Planning and Analysis. He will lead a small group of analysts who will develop long-range financial strategies for the University. This office supersedes the Office of Management.

Dr. Marna Whittington, Secretary of Finance for the State of Delaware, will join us shortly as Vice President for Finance.

Frank E. Claus was named Treasurer of the University. In addition to his duties as Treasurer, he continues to direct The Penn Plan Agency.

Roderick M. Fancher, Jr. was appointed Director of Internal Audit, effective September 17, 1984. Mr. Fancher had extensive audit experience with the Sun Company.

These organizational changes, occurring as they did in July, have given us a chance to realign units and to initiate searches for new personnel during a less pressured time of the fiscal year.
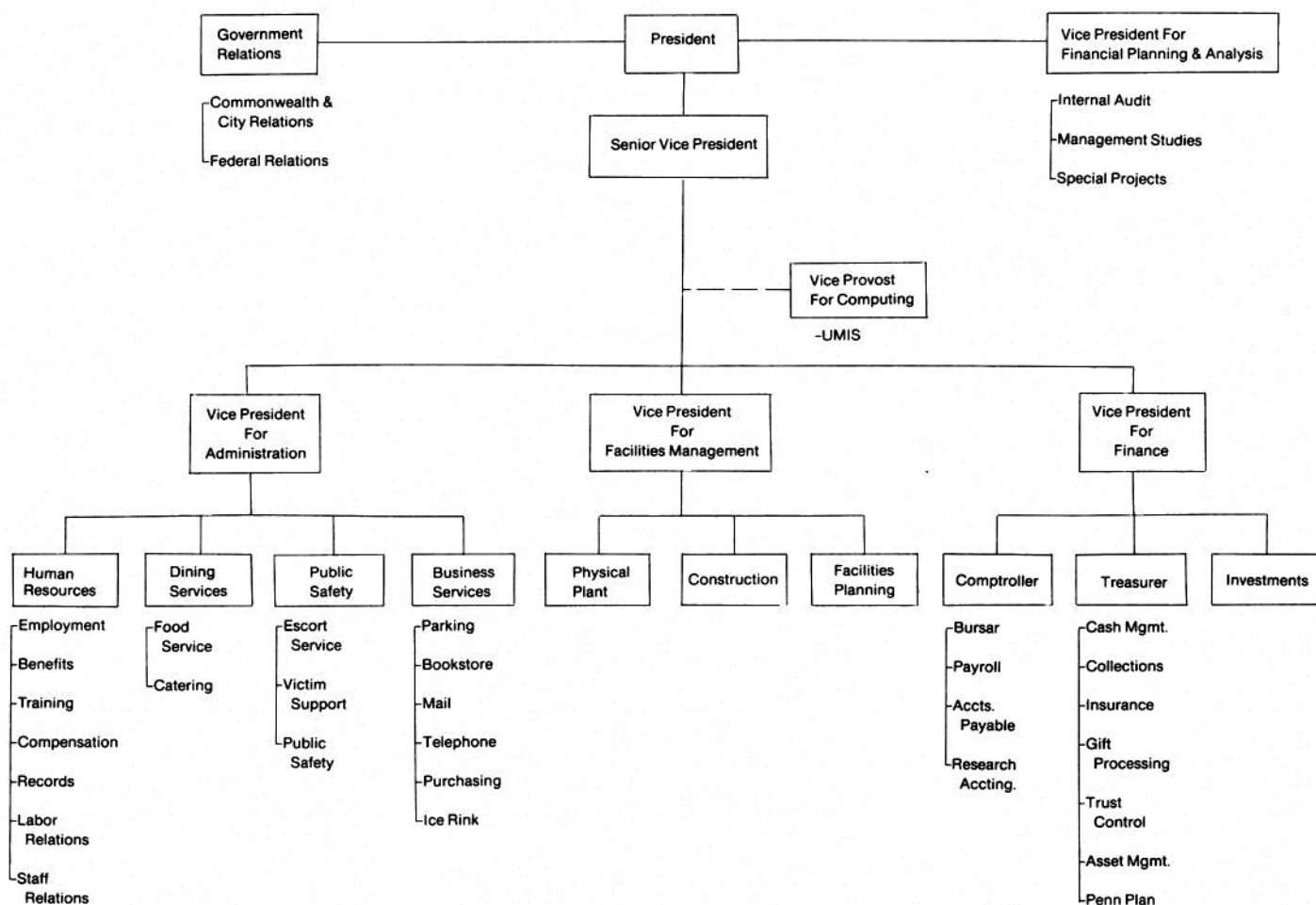
Arthur Gravina, Director of Physical Plant, joined the University on August 1, 1984. He is a graduate of Lehigh University and has had a distinguished career with U.S. Steel.

Robert Michel began as Director of Purchasing on July 1, 1984. Mr. Michel spent nine years with Chilton Publishing, and a year as head of Purchasing for Time, Inc.

Helen B. O'Bannon

—*Helen B. O'Bannon, Senior Vice President*

Ed. Note: In this sporadic series on how the University works, an earlier column (*Almanac* November 16, 1982) described the structure and assignment of responsibility areas of the Provost's Office. That structure still stands, with one significant update: The addition of a Vice Provost for Computing as recommended in the Academic Computing Committee's report published November 29, 1983. Dr. David Stonehill of Rochester was named to the new position in April, 1984

In the People's Republic of China, Penn's Delegation was greeted by a welcome banner on Shanghai Jiao Tong's equivalent of Locust Walk, and banqueted in Chinese style with academic counterparts. Turning tourists, the President and Mrs. Hackney visited the Great Wall.

Academic Ambassadors of Penn

In the summer of '84, Penn sent some two dozen scholars on special visits to nations where academic linkages are being strengthened.

Two of the academic ambassadors were the President and the Provost, each visiting a part of the world where large-scale cooperation is breaking new ground.

In the Far East, President Sheldon Hackney told Trustees on his return in June, "Penn is very much ahead of other institutions," partly because of the founding of the Wharton-Engineering tie with Shanghai Jiao Tong University in 1981. Professor Lawrence Klein of Wharton, and Engineering Dean Joseph Bordogna and Professor Noah Prywes were part of the delegation to the People's Republic. President Hackney went on to Japan, where mostly-Wharton alumni dating back to 1925 were his hosts, and he met some young Japanese students headed for Penn this fall.

Later in the summer, Dr. Hackney logged more air miles as he visited Israel to receive an honorary degree from Hebrew University.

At the University of Ibadan—whose late Vice-Chancellor S. O. Olayide came here in 1981 to help launch the first and most comprehensive exchange program ever set up between any U.S. and African higher educational systems—Provost Thomas Ehrlich gave a seminar on human rights for the law school, plus an all-University lecture, [see box below]. The highlight of his week in June, however, was serving as self-styled "assistant bag-carrier" to Penn and Ibadan anthropologists as they spent three days in tribal villages, and "seeing how such a superb anthropologist as Sandra Barnes studies a culture and its response to change."

Elsewhere around the globe, faculty members in a wide range of fields spent anywhere from a few days to weeks making visits to many of the other exchange sites where Penn has linkages—

reviewing recent exchanges of faculty and/or students, solidifying joint research, and setting up new ventures either here or in the host country. Among these:

Four visitors to Belgium's Katholieke Universiteit Leuven: *Drs. James M. Sprague* of Anatomy, *Martin Morad* of Physiology, *Joshua Aizenman* of Economics and *Paul Ducheyne* of Bioengineering;

Dr. Daniel Wagner of Education to Morroco's Mohamad University;

Dr. William Pierskalla of Health Care Systems to the University of Delft in The Netherlands and to the Stockholm School of Economics in Sweden; and

Dr. Peter Lorange of Management to the Stockholm School as well.

Making Connections

Penn now has some ninety Chinese scholars and exchange students in residence, said Dr. Joyce Randolph of International Programs, and has contingents large and small from many

M.F.M.

In Nigeria, the legal educator gave scholarly talks, the "assistant bag-carrier" trailed anthropologists to tribal villages, and the modern-art buff gathered carved and woven handicrafts for his collection.

The African Scene

In his address at the University of Ibadan, Provost Thomas Ehrlich prefaced a review of legal education with this reaffirmation of the Penn-Ibadan exchange:

The University [of Pennsylvania] has many academic ties throughout the world, but none are more important than our links to the University of Ibadan. Our joint programs have developed because each institution—yours and mine—saw a set of needs that could be best met by collaboration. The Universities of Ibadan and Pennsylvania both recognized that exchanges of faculty and students, and joint efforts in an extraordinarily wide range of academic endeavors, could strengthen both institutions.

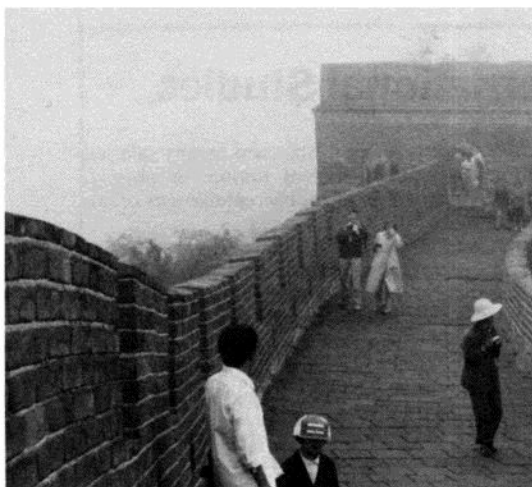A few years ago, when our partnership was first proposed, there were skeptics—at Pennsyl-

vania and, I suspect, at Ibadan as well. Many questioned whether two universities that are not only on different continents, but emerged from different cultures with different problems, could work together in the collaborative mode that was projected. Skepticism is endemic in an academic environment, so we should not be too critical of those who urged caution.

The results to date, however, exceed the dreams of even the most optimistic. In fields ranging from anthropology to veterinary medicine, our colleagues are collaborating. Our students are studying at each other's institutions. Most important, I know that the University of Pennsylvania has gained immeasurably from our partnership, and so many here at Ibadan have echoed similar sentiments that you obviously have reached similar conclusions.

A partnership is a continually evolving, constantly changing arrangement. There are, and will continue to be problems. You have our undertaking, however, as I know we have yours, to work together in making opportunities out of those problems and in constantly expanding our vision

and *Elizabeth Knutson*, of Romance languages (Penn-in-Tours); and

Ana Börger-Reese, Barbara Brunner and *Angel Louiero* of Romance Languages (Penn-in-Salamanca).

These are but a few of the Penn faculty who are helping form the growing international network, Dr. Randolph points out. "Our office continuously updates a roster of those carrying out our various international cooperation agreements, teaching in Penn programs abroad, and doing individual research overseas.

"We would especially like to hear from members of the faculty whose work abroad is not yet known to us and to have the faculty let us know when they are bringing foreign scholars to campus." Dr. Randolph can be reached at the Office of International Programs, 133 Bennett Hall/D1, Ext. 4661.

Dilys Winegrad

In Israel, a model of ancient Jerusalem was one of Dr. Hackney's stops.

other nations. Members of the University who would like to meet or entertain visitors from specific countries or disciplines—or simply offer American hospitality to visitors from abroad, can call Ext. 4661 to get in touch.

Those particularly interested in Nigerian exchanges can reach Dr. Robert Rutman, coordinator of the Exchange, at Ext. 8869. The Penn-Israel Project, which keeps up ties with all 7 universities there, is headed by Dr. Norman Oler, who can be reached at Ext. 8469.

Those interested in exchanging information with members of the University who went overseas under the "Penn In ..." series can look up:

Maria A. Cowles of Romance languages for Penn-in—Sao-Paolo;

Flora Cornfield of the College Advising Office (Penn-in-Compeigne); *Francis B. Brevart, Doris Kirschner-Loser* and *Marilyn Murphy* of German (all three Penn-in-Freiburg);

Joanne Gowa of political science (Penn-in-Delft);

Rebecca Bushnell and *John Anderson* of English (Penn-in-London); *Angelica Lewis* and *Linda Armao* of Italian (Penn-in-Florence);

Jean Alter, Michelle Alter, Barbara Freed

of ways in which our two Universities can work together.

The Provost traced legal education and legal development strictly from the American perspective, but underscored his view that "legal development can be understood only in terms of a country's legal culture.
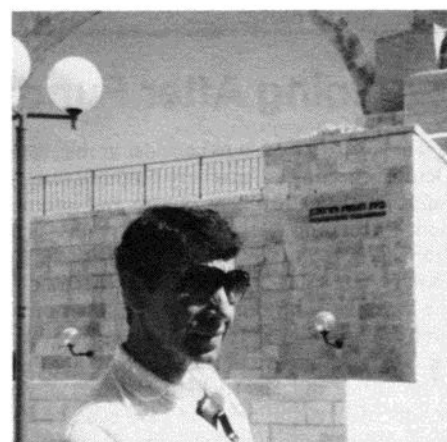
"Americans are often accused of thinking that their culture is exportable and should be exported around the globe," he said. "I have no such illusions in the field of law, or in other realms as well." Then he fleshed out his thesis that "American history and the American legal system have developed with a dominant focus on the individual, as opposed to the public generally, and that American legal education has followed that focus. My prognosis for the future, a mixture of hopes and expectations, is that there will be an increasing shift to what I will call public justice and that shift should be matched in our law schools." The lecture is available in printed form from Ms. Betty Richardson at 102 College Hall.

International Notes

Edinburgh Institute Fellows

Applications for Visiting Research Fellowships for 1985-86 at the University of Edinburgh Institute for Advanced Studies in the Humanities are invited from scholars of established reputation, and also from younger scholars holding a doctorate or offering equivalent evidence of aptitude for advanced study. Fellowships of between one and three months and occasionally of up to twelve months are available. About 15 Fellows in all (Honorary and Stipendiary) are usually elected each year in February. Fellows are required to live in or near Edinburgh, being expected to make use of the facilities for research.

The Institute was founded in 1969 to promote advanced studies in the Faculty of Arts. The principle departments in the Faculty are those concerned with archaeology, art, history, language, linguistics, literature, and philosophy. Applications should be made as soon as possible. *The last day for the receipt of all applications and references is December 21, 1984.* For further information call the Office of International Programs at Ext. 4661.

Coming: Governor's School

Teachers and resident assistants will be sought for next year's encampment of the Governor's School for International Studies, whose new site will be the University and International House. Modeled on the existing State programs sponsored by the Governor, the Governor's School for the Arts and Sciences at Bucknell University and the Governor's School for the Arts at Bucknell University and the Governor's School for the Sciences at Carnegie-Mellon University, this school adds a third to the partially State-funded experiment in education for talented high school students.

Between 80 and 100 selected juniors and seniors from throughout the Commonwealth will live here for five weeks during the summer to study Pennsylvania and its relationship to the world, some rudiments of a foreign language—one less commonly taught—and

issues of global concern; in addition, the Hindi language will be added to the curriculum, with a partial focus on South Asia regional studies.

Established in 1984, with its first session held at the University of Pittsburgh, the Governor's School for International Studies is sponsored by a consortium of over 50 colleges and universities in the state.

The Office of International Programs will be interested in learning of activities scheduled for July and early August that could be coordinated with the Governor's School program. For further information about the Governor's School call Ext. 4661.

Memorial to Dr. Ship

Creating a Penn fellowship to Hebrew University is the memorial chosen by friends and colleagues of the late Dental School Professor Irwin Ship—who not only led his school's clinical research program and fostered its linkages with basic biomedical research, but also gave long and productive service to the Penn-Israel Exchange.

Dr. Ship, who died suddenly in his sleep last April at the age of 51, is "sorely missed in our school," said Dr. Irving Shapiro, who co-chairs the memorial fund committee with Emeritus Dean D. Walter Cohen. "A considerable number at the University expressed a need to establish an appropriate memorial to this unique man.

"After lengthy discussion, we concluded that a most fitting memorial would be one related to Irwin's interest in the Penn-Israeli affiliation. As many will recall, Irwin was co-founder of the Hebrew University-Hadassah School of Dental Medicine in Jerusalem. It seems most fitting to have a program in his name for Penn students and faculty to pursue scholarly activities in Israel."

The School will have a committee to select recipients who will be designated Irwin I. Ship Fellows. Colleagues may send tax-deductible gifts, making checks payable to the *Trustees of the University of Pennsylvania-Irwin I. Ship Memorial Fellowship*, to Dorothy Otani-Smith at the Dental School/A-1.

5

Going After Funds to Enhance Area and International Studies

The Trustees expect to consider at their late-October meeting a University proposal to seek funds for the endowment of area and international programs (University programs programs geographically defined, such as Middle East, South Asia, etc.). Since the invitation by the William and Flora Hewlett Foundation to submit a proposal under its challenge program, Dr. Joyce Randolph of the International Program Office and Dr. Richard Lambert of the School of Arts and Sciences have been principle coordinators of the document Penn will set before the Trustees.

The guidelines to be followed are those of the Foundation, excerpted below. On the basis of these the Trustees Executive Board voted Friday, September 14:

Resolved, that the University of Pennsylvania will create with a challenge grant of $150,000 from the William and Flora Hewlett Foundation an endowed discretionary fund for area and international studies at the University ...

From Hewlett Foundation Guidelines

Background

Over the past decade, the substantial and productive investment in area and international capacity has been jeopardized by inadequate financial support. Invigorating international studies is a high priority of many universities. Federal government support is vital to maintaining universities' international research and training mission. But the role of the universities' own resources and commitment is central and inevitable. It is this internal capability the grants program below is designed to strengthen.

Program Description

Any teaching and research program is dependent upon core support for faculty and students. But discretionary money is also essential. There are always opportunities unanticipated in the budget process; morale as well as program substance are enhanced by exploiting them. All enterprises need a research and development capacity to retain responsiveness and vitality. Unfortunately, this kind of money is usually very difficult to raise from the outside, especially in small amounts, or to generate from increasingly strained operating budgets.

The Hewlett Foundation, therefore, is inviting proposals from selected universities to create endowments to make discretionary funds available to area and international programs. The program has the following characteristics:

(1) *Discretion with some limitation.* Discretionary, by definition, means the institution shall have complete control over the application of the available money each year. Participation in this program, however, requires commitment to the following principles. First, that the discretionary fund shall not substitute for any items that regularly belong in the budget. While the discretionary fund is specifically available to initiate projects or experimental programs, other sources should support them once their usefulness has been proven. To maintain flexibility, use of discretionary funds would generally be confined to short-term and relatively small expenditures. Visiting faculty or short-term teaching appointments, symposia, filling in gaps on externally funded research projects, release time for course development, student or faculty travel, and special additions to the library are examples that fit this

discretionary concept. Standard faculty salaries, program support, student tuition, or physical plant, for example, are not acceptable uses of this money.

Second, all international and area studies programs on campus should be able to compete for this money. While particular programs of organizational units of greatest priority may rightfully garner a disproportionate amount of the available money for several years, the endowment's purpose is to guarantee flexibility in all the universities' international activities.

Third, the Foundation asks that programs of the highest quality be emphasized. In allocating funds, the Foundation prefers that the maintenance of existing strength generally should take precedence over building new strength.

(2) *Management by an umbrella entity.* To make sure that competition for the money is open and informed, the allocation decision process should be managed by an office or committee in a position to make the appropriate comparisons. Authority for allocation decisions should rest with one individual, however.

(3) *Endowment matched 2 for 1 or 3 for 1.* The Foundation will consider requests for grant of $150,000 or $200,000, depending on whether the institution selects respectively a 2-1 or 3-1 challenge. These grants will be paid in $50,000 increments, subject to evidence that the matching funds have been raised. Only paid-in cash or securities will be acceptable in meeting the match. The institution will have three years to meet the matching requirements. Institutions wishing more time or flexibility, however, may be accommodated on a case by case basis.

$4.4 Million for Artificial Intelligence

A $4.4-million grant to establish a center for computer artificial intelligence research at Penn was recently awarded by the U.S. Army Research Office. The three-year grant will be used not only for research already being investigated at the School of Engineering and Applied Science but also to purchase equipment, to support faculty and professional staff, and to fund 26 graduate student fellowships.

The award will complement a recent $3.8-million National Science Foundation grant and will be used for expanding research to two main areas: interaction between humans and machines to make computers easier to use with natural language, formal language, and graphic interfaces; and interaction between machine and its environment to make more flexible computers and robots that can learn from and adjust to their environment.

The Army Research Office has an option to augment the award with another $2.8 million extending the grant an additional two years and bringing the total funding up to $7.2 million over a five-year period. In recent years there has been a revival of computer research here and the total funding for artificial intelligence research at Penn is now at least $12

million for the next five years.

Some areas already under study at Penn:

● Better natural language systems for computers that would not presume the user has the same view of the knowledge base as the system's own view. The system would recognize perceived intention and would give cooperative rather than passive answers that would correct incorrect assumptions made by the user and provide a variety of helpful responses.

● Better artificial computer languages, graphics interfaces, and interfaces that combine natural language, computer language and graphics and that would allow the user to pass from one to the other depending on which is most useful.

● Improved computer and robot recognition and manipulation of three-dimensional objects. Improved computer vision combined with other forms of sensory input, especially sound and touch. Development of natural-language, query-driven vision systems.

● Computer simulation of work situations that allow the user to specify and modify the configurations of the work stations and the procedures of the people and robots who work in them.

International Tours

The University Museum's tours to cultures far and near, organized by the Museum's Women's Committee, have been announced for the 1984-85 season. The list of destinations, dates and leaders appears below.

Scheduled for groups of 15-30 travelers, the tours range from nearby Annapolis-Baltimore to faraway places including Tunisia, Turkey and Egypt. Prices vary, costing about $1500 for the American Southwest tour and $4700 for Egypt. Non-museum members are welcome but must join the Museum before going on a trip. For additional information call Ext. 4023.

Tunisia, *October 12-27, 1984*, led by Dr. Donald White, professor of classical archaeology at the University Museum (co-sponsored by the PMA).

American Southwest, *October 21-30, 1984*, led by Ben G. M. Priest, geologist, anthropologist and friend of the Navajo and Hopi.

Egypt, *January 12-27, 1985*, led by University lecturers Diane Craig Patch and Janet E. Richards (co-sponsored by the HM and FI).

Yucatan, *February 5-18, 1985*, led by University Museum archaeologist and Maya specialist Dr. Christopher Jones.

Hawaii, *February 14-27, 1985*, led by Dr. William Davenport, curator of Oceania at the University Museum.

Annapolis—Baltimore, *Spring 1985*, (Leaders to be announced).

The Dordogne Valley, *September 12-25, 1985*, led by Dr. Harold Dibble, University Museum archaeologist.

Turkey, *September 25-October 11, 1985*, led by University Museum archaeologist Dr. Mary Voigt.

Questions and Answers on the IBM THRESHOLD

By what process will personal computers be allocated under THRESHOLD?

THRESHOLD provides for the allocation of IBM personal computers by the Provost and Vice Provost for Computing in consultation with the Governing Council for Computing. This group is responsible for evaluating, on a competitive basis, proposals for IBM personal computers from schools, departments, programs, and residential colleges according to the criteria described in the text of the press release. About 290 of the first year's donation have already been allotted by this mechanism among twenty-one distinct programs, in the Schools of Arts and Sciences, Medicine, and Engineering and Applied Sciences, in the Wharton School, and in the Hill House residential college. The remainder (56) will be allotted in the near future, in response to new proposals that merit inclusion in year one of THRESHOLD.

What is the schedule for implementation of THRESHOLD?

The University will allocate approximately 230 additional personal computers in each of years two and three. A request for year two proposals will be issued by the Vice Provost for Computing in the fall of 1984, and awards are expected to be made in the spring of 1985. The year three schedule is expected to be similar. Under this system, some personal computers will be allocated to projects begun in year one as they move from the initial development stage of a project to a larger-scale stage. Others will be allocated to new projects meeting THRESHOLD criteria. A particularly important part of the plans for years two and three will be the introduction onto the Penn campus of some of IBM's newer technology in the areas of powerful personal workstations, processors, and networking.

The peripheral hardware to expand the power and versatility of the 3081 mainframe in the School of Arts and Sciences will be donated in year one of THRESHOLD.

What role does THRESHOLD play in the University's Comprehensive Computing Plan?

The ultimate objective of the Comprehensive Computing Plan is to make computing an integral part of academic programs, research, and instruction throughout the entire campus. THRESHOLD will play a key role in the Comprehensive Computing Plan by enabling the University to explore and develop new applications of the computer in those disciplines where the potential for major advances in the quality of teaching and research is the greatest. As part of THRESHOLD, the University will selectively allocate computing resources to implement pilot and developmental projects directed toward innovative uses of computing. We are confident that the energy and imagination of a great research and teaching University will advance not only these projects but will more broadly move forward the entire field of academic computing.

In addition, improvements to the 3081 mainframe will enhance the University's capability to explore the impact of large-scale computing campus-wide, a capability whose importance will continue to grow as the University community becomes increasingly sophisticated in the use of computing technology.

What is the relationship of THRESHOLD to PENNET and other elements of the Comprehensive Computing Plan?

As part of the Comprehensive Computing Plan, THRESHOLD participants will eventually be supported by a campus communications network, PENNET. In turn, the new applications and sharing of resources made possible by THRESHOLD will help to provide the foundation for a network that can more effectively serve academic programs. THRESHOLD will lead to new applications to computer graphics, simulation and modeling, textual analysis, database and numerical analysis, clustering and local area networking that will benefit users throughout the University.

THRESHOLD participants will have access to an educational development fund that provides financial support to faculty for the incorporation of computing methodology into their teaching and research. The University will also provide necessary technical support through a computing resources center for new hardware and software applications.

How is THRESHOLD distinguished from the University's agreements with DEC and Apple?

The University has entered into agreements with DEC and Apple to make personal computers generally available for purchase by faculty, staff, and students at substantial discounts. In the case of the DEC agreement, the gift of personal computers (valued at $2.5 million) and the matching grants toward the purchase of equipment are contingent upon the expectation that the University will meet certain sales targets. The Apple agreement provides for the donation of approximately twenty Macintosh personal computers.

In contrast, THRESHOLD is not based on a sales agreement. IBM has made an outright gift of personal computers valued at $6 million without a condition that the University purchase computing equipment. This is the largest corporate gift in the University's history.

At the heart of THRESHOLD is a strategy, developed by the University's administration in cooperation with IBM, to make fundamental changes in the ways teaching, research and learning take place at the University through the incorporation of computing methodology into academic programs. The University is allocating personal computers donated by IBM through a competitive process, based upon a well-defined set of criteria. This will ensure that only the most promising pilot and developmental programs are supported. Innovation is the watchword of these new programs, and the donated IBM personal computers are the "venture capital" for this process of innovation.

What are the anticipated benefits of the THRESHOLD Strategy developed by the University and IBM?

We expect that the strategic allocations of resources within the framework of the THRESHOLD strategy will have three distinct advantages. First, it will accelerate the development of educational software that will demonstrate to potential users among the faculty the versatility and power of the computer as a tool in academic programs. Second, it will lead to an increased level of computing on the part of students as the pilot and developmental projects change the instructional process and are emulated throughout the campus. Third, the enhancements to the 3081 mainframe in the School of Arts and Sciences will increase the demand for large-scale computing, as individual users become more sophisticated in computing and require greater capabilities than a personal workstation can provide.

Note: *The questions and answers above were furnished in conjunction with a News Bureau release and reflect anticipated queries on the arrangements surrounding the IBM $6 million gift. Dr. David Stonehill, the new vice provost for computing, will respond to any additional requests for information—Ed.*

Update

SEPTEMBER ON CAMPUS

FILMS

21 *1900*, Bertolucci's chronicle of social history in 20th-century Italy; 7 p.m., Meyerson B-1, $2. GSAC Friday Films.

26 *The World of Tomorrow*, by Lance Bird and Tom Johnson; a study of the 1939 Art Deco extravanganza held in New York's Flushing Meadows. Screenings: *September 26* at 7:30 p.m., *September 27* at 7:30 p.m., *September 28* at 4, 7:30 and 9 p.m., *September 29* at 2, 4, 6, 8, and 10 p.m. at International House. Admission: $3 ($2.50 for members, students and senior citizens); $1 matinee on Friday, 4 p.m. Information: 387-5125. Neighborhood Film Project of International House.

MUSIC

22 *Festive Brass*, a brass quintet, will perform a program of classical works by Bach, William Brade, Thomas Weelkes, Mendelssohn and Brahms as part of the Morris Arboretum's Bloomfield Farm Open House, 2-4 p.m., at the Arboretum. Information: 247-5777.

RELIGION

22 *Welcoming reception for Muslim students* and their families, 4:30 p.m., Rooftop Lounge, High Rise North (Muslim Students Association).

SPECIAL EVENTS

22 *Arboretum's Annual Bulb Sale*, 10 a.m.-4 p.m., at the Bloomfield Farm Open House celebration, featuring *tulips sylvestris*, the bicentennial flower. On Sunday the sale will shift to the main entrance of the Arboretum; it will continue until *October 6*. Information: 247-5777.

25 *Volunteer Fair*, 11 a.m.-4 p.m., Locust Walk between Van Pelt Library and 36th Street.

TALKS

18 *The Practice of Reading: Some Theories of Reading and an Australian Example*; Dr. Stephen Muecke, South Australian College of Advanced Education; 12-1 p.m., Room C-11, GSE (The Literary Research Center, Graduate School of Education).

20 *Questions Relating to Precious Scrolls (Bao Zhuan)*; Dr. Guan Dedong, professor of Chinese literature, Shandong University; 11

a.m., West Lounge, 4th floor, Williams Hall (East Asian Colloquium).

Theoretical and Experimental Studies of Microstrip Fed Radiating Slots and Slot Arrays; Dr. Moshe Kisliuk, visiting professor of electrical engineering, Tel Aviv University, Israel; 2 p.m., Room 554, The Moore School (Valley Forge Research Center Seminar, Systems Engineering Department).

Terrestrial Microwave Imaging at Great Distances; Dr. Bernard D. Steinberg, professor of electrical engineering; director, Valley Forge Research Center; 7:30 p.m., Faculty Club (Valley Forge Research Center, IEEE Antennas & Propagation Society).

24 *Anaphylactoid Reactions from Zomepirac and Other Non-Steroidal Drugs: Clinical Epidemiologic Study Using Medicaid Data*; Dr. Brian L. Strom, professor of medicine, School of Medicine; noon, Pharmacology Seminar Rooms 100-101 MedLabs, Mezzanine, School of Medicine (Department of Pharmacology).

Walter Gropius, Machine Design and Mass Production; Dr. Thomas P. Hughes, professor of history and sociology of science; 4 p.m., Seminar Room 100, Smith Hall (Department of History and Sociology of Science).

25 *Moral and Political Aspects of Reading*; Dr. Frank Sutton, Ford Foundation; 12-1 p.m., Room C-11, GSE (The Literacy Research Center Graduate School of Education).

Role of Ganglioglomerular Nerve in Carotid Body Chemoreception; Dr. Shigeji Matsumoto, department of physiology, School of Medicine; 12:30 p.m., Physiology Library, Richards Building (Respiratory Physiology Seminar).

The weekly update deadline for calendar entries is on Tuesday, a week before the date of publication at noon. The deadline for the November pullout calendar is Tuesday, October 16, at noon. The address is 3601 Locust Walk/C8, (second floor of the CA).

Career Planning: Open to All

"Finding and Applying for Grants and Fellowships," the first of a series of Graduate Student Career Seminars sponsored by Career Planning and Placement, will be held Monday, September 24 from 4:30 to 6 p.m. in Room 245 of Houston Hall. The program will feature representatives from four campus offices providing information on funding sources, as well as advice from faculty in the humanities, social sciences, and natural sciences concerning how to write a successful funding proposal. Participants will be: Dr. Barry Cooperman (Vice Provost for Research), Dr. Theodore Hershberg (Director, Philadelphia Social History Project), Dr. Robert Kraft (Co-Director, Computer-Assisted Tools for Septuagint Studies), Ms. Maggie Morris (Graduate Division, Arts and Sciences), Mr. James Yarnall (Office of International Programs), Ms. Andrea Graddis (Office of the Vice Provost for Research), and Ms. Julie Miller (Van Pelt Library Reference).

Faculty and staff are welcome to attend this and other sessions in the GSCS series. Although the programs are specifically designed to help those with master's and Ph.D. degrees search for jobs and broaden their perspectives on positions in academic and alternative fields, any interested member of the University is welcome to attend. Please call Ext. 7530 to sign up for each program. Except as noted the sessions will be in the Franklin Room (235) on the second floor of Houston Hall.

October 1	Beating the Odds: Interviewing for Academic Jobs
October 8	R & D Jobs: How to Get Them
October 15	International Jobs
October 30	Technical Writing, Computer Jobs (on Tuesday, HSP Room)
November 5	Editing, Writing, Academic Publishing
November 12	Public Relations and Public Affairs
November 19	Market Research
November 26	Private School Teaching
December 3	Historical Preservation and Restoration

— *Barbara Eckman, Coordinator, GSCS*
— *Mary Morris Heiberger, Associate Director, CPPS*

Computer Fair: September 21-22

Microcomputer Services announces the First Annual Computer Fair to be held *Friday, September 21-Saturday, September 22*. Exhibits featuring Apple, DEC, IBM, Hewlett-Packard, AT&T and others will be on display in the Annenberg Center lobby, September 21, 10 a.m-5 p.m.

Panels and presentations will also be offered September 21 in the Annenberg Center. The schedule is as follows:

	Prince Theatre	Studio Theatre
10 a.m.	*Apple*	*DEC*
11:30 a.m.	*IBM*	*Microsoft*
1 p.m.	*How to Buy a Microcomputer: A Consumer Guide*	*Hewlett-Packard*
2:30 p.m.	*Buying a Microcomputer at Penn: Policies, Service and Support*	*Network Development at Penn*
4 p.m.	*Microcomputing Across the University*	*Apple*

"Hands-on Rooms" are open both days so members of the University community can see and try hardware and software and question manufacturers' representatives. (The schedule and locations will be available at Microcomputer Services table at the Exhibit area in the lobby.

A talk of special interest to faculty and graduate students is *Grant Programs For Computing in Research and Course Development*, given by Dr. David Stonehill, vice provost for computing, September 21, 1-2:30 p.m., Room B11, Vance Hall.

One of relevance to administrators and staff is *Support for Administrative Users of Computing*, presented by Francesca Seidita, microcomputer coordinator for UMIS, September 21, 10-11:30 a.m., Vance Hall. Call Ext. 1784 for room location.

More details about the schedule of events for the Computer Fair, sponsored by Microcomputer Services, will be available at the Penn Computer Shack and in the *DP*.