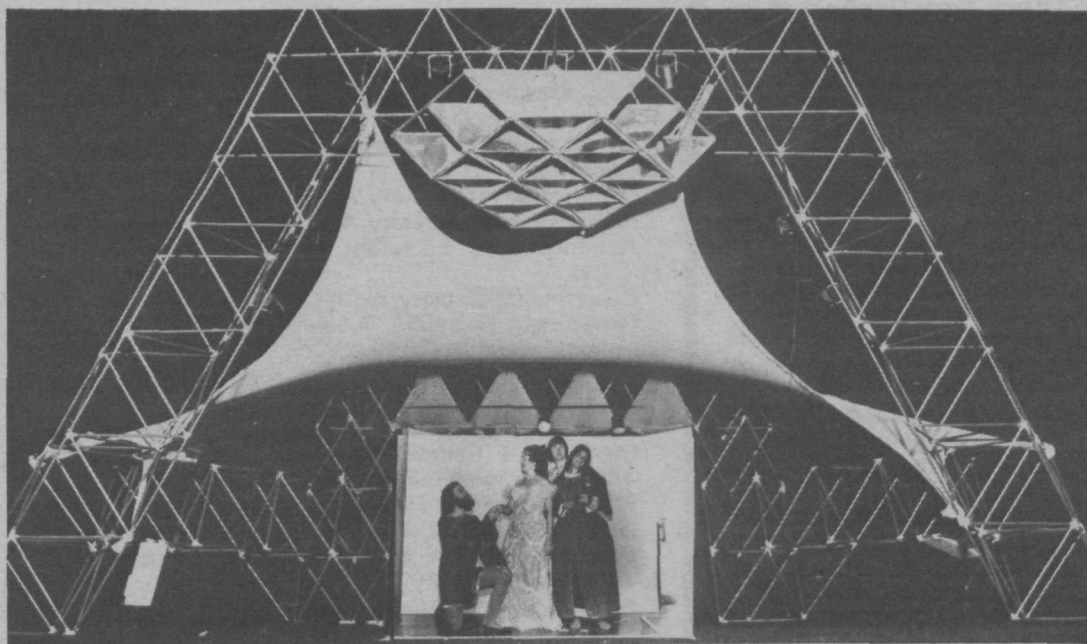




CORNELL CHRONICLE

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A "stress-skin roof" theater, made by students in the College of Architecture, Art and Planning, will be used for several Risley Fair festivities.

Admissions, Financial Aid

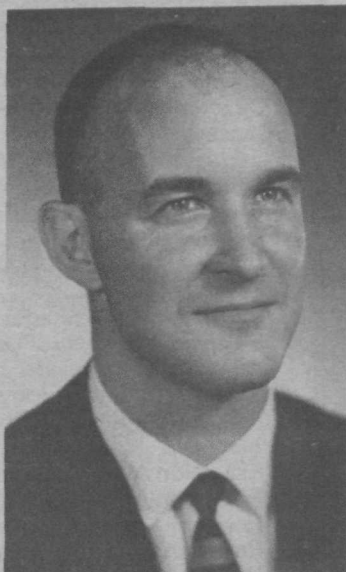
Dickason Elected as Dean

The election of Donald G. Dickason as dean of Admissions and Financial Aid will be recommended to the Executive Committee of the Cornell University Board of Trustees at its May meeting by University President Dale R. Corson.

All college and University offices related to the undergraduate admissions process were invited to recommend names of candidates for the dean's position, according to Vice Provost Mark Barlow Jr. These offices then interviewed the candidates and submitted their comments and evaluations to the Provost's office.

"It is clear that Don Dickason's nomination enjoys the support of all the college and University offices," Barlow added.

Dickason, if elected, will as-



Donald G. Dickason

sume responsibilities as dean of the newly reorganized office

of Admissions and Financial Aid on or before July 1. The Office of Admissions and Financial Aid will be moved from Day Hall to 410 Thurston Ave., a former fraternity house now owned by the University, as soon as renovations are completed.

Dickason, who received his B.A. in economics in 1953 and his master's degree in education in 1968 from Cornell, presently serves as assistant dean in the College of Engineering. From 1966 to 1973, Dickason was director of Engineering Admissions.

As director of admissions relations from 1963 to 1966, Dickason administered Cornell's 235 Alumni Secondary School Committees which help to provide information about Cornell to high school seniors and to recruit applicants.

Dickason also served as president of the National Association of College Admissions Counselors (NACAC) for 1973-74. He was also president and treasurer of the New York State ACAC.

Cornell Engine Patented Page 2

Concerts, Shows Pages 4-5

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Soccer Exhibition Game Page 13

'Primavera'

Risley College Celebrates Spring

"Anything goes" at the annual spring festival held by Cornell University's Risley Residential College the first weekend in May, or so say the students, who are planning the event, called "Primavera." The dates run from Thursday, May 1, through Sunday, May 4, with continuous activities from 1 p.m. to midnight Saturday and Sunday.

The "Primavera" idea, devoted to the celebration of "all the fine and performing arts," will break away from Risley's medieval fairs and the "Rain Fair" of recent years, according to Duo (cq.) Dickinson, coordinator for the festival.

Entertainments range from the esoteric to the comic to the profane, including music: country, contemporary, bagpipe, chamber and "Bean and the Windbreakers;" drama: one- and two-act plays, opera, classical readings, puppet shows; dancing: modern,

belly, folk, Renaissance, Polish and Lithuanian; and lectures and a film series.

"Wandering musical, theatrical and creative improvisations are encouraged," said Dickinson, "for a truly eclectic atmosphere." Potential participants should call 256-1548 if they need some help in performing, he added.

Many of the festivities will be held under an outdoor theater with "stress-skin roof" made by students of Cornell's College of Architecture, Art and Planning. Risley's recently completed theater, built in a converted ballroom, will be the setting for other activities. The remainder will be scattered around the red brick Risley building located on Thurston Avenue near Triphammer Bridge. All events are free and open to the public.

A schedule of events is listed in the Calendar, Page 12.

Sheff Off to Oxford U. On Keasbey Scholarship

Any undergraduate who thinks his course in physical chemistry is also a course in philosophy and that Marxism is related to Newtonian physics would appear to have problems, big problems.

But that certainly isn't the case when the undergraduate is Richard A. Sheff, a straight-A premedical student in the College of Arts and Sciences' College Scholar Program and winner of a two-year full scholarship to Oxford University from the Keasbey Memorial Foundation. While discussing his four years at Cornell and the meaning of a liberal education in an interview with the Chronicle, Sheff said he felt it was "very important to get an understanding of different disciplines and to feel the unity that exists among scholars in different disciplines dealing with similar questions. They look at



Richard A. Sheff

the same questions in a different light and, hence, get different answers to the same kinds of questions."

For example, he said he was overpowered with the interconnections between the concept of time he found in his course in physical chemistry with Professor Michael Fisher and Hegel's conception of time which he was studying during the same semester: "Fisher was practically a philosopher in the way he dealt with scientific data. Once he was talking about the second law of thermodynamics and the idea of the irreversible arrow of

Continued on Page 10

Computer Usage Report

The Faculty Subcommittee on Computer Usage has prepared a comprehensive report on how the Cornell community uses the main University computer, how much this usage costs and what its usefulness is as compared with more conventional systems.

The report, reprinted on pages 5-7, outlines and evaluates the use of computers for research and instruction at Cornell and for such administrative tasks as payroll, admissions, student registration, library acquisitions and filling requests for information by government agencies.

The subcommittee raised a number of questions about administrative computing, and expressed the belief that some control is needed in the proliferation of complex computer systems on campus. The subcommittee recommended that possible mechanisms be explored to involve the faculty in the formulation of such controls.

The group also suggested a joint faculty-administration investigation into government requests for information about the University. It stressed that ultimate solutions to the problem would require the understanding and cooperation of government and suggested that joint action by a number of universities might be an effective way to deal with the problem.

Sugarman Unofficial Winner Of Student Trustee Election

Steven L. Sugarman was declared the unofficial winner of the student trustee election on Tuesday, April 22, by the University Senate Credentials Committee. Total voter turnout in this special election was 20 per cent.

The election must now be certified by the Credentials Committee and approved by the Senate. The Board of Trustees will then decide whether to seat Sugarman. Challenges to the election must be delivered by 5 p.m. today to the Senate or Ombudsman's office. The Credentials Committee will meet Friday afternoon to rule on the challenges.

Two More Task Forces Added Macneil Announces

Cornell University priorities study director Ian R. Macneil has announced the formation of two additional task forces, one to study public affairs, and one to study University Unions. Francis E. Mineka, professor of English, emeritus, will chair the public affairs task force, and Richard H. Penner, assistant professor of hotel administration, will chair the task force on University Unions.

Macneil said that he formed the additional task forces because of the major importance of the areas in question, both in budget and in impact on the University. Their inclusion will eliminate what he came to view as major gaps in the priorities study after reviewing the responsibilities covered by the other 24 task forces.

Serving with Mineka on the public affairs task force will be Philip J. McCarthy, professor of industrial and labor relations, and Giles F. Shepherd, former acting director of the Libraries. Macneil said one other member probably will be named. Thomas W. Leavitt, professor of art history and director of the Johnson Museum will serve with Penner on the University Unions task force. Macneil said that one or two student members would be named to the unions task force.

Learning environment task force chairperson June M. Fessenden-Raden has urged students and faculty to attend the committee's open hearing this Friday (see announcement and charge on Page 12). She said the task force's work was particularly important to students and faculty members because her committee will review the work of other task forces from the standpoint of the learning environment and determine priorities designed to protect Cornell's academic strengths.

"Because our work affects every student, teacher and staff member, we want to hear their views and opinions. We are open to ideas and reactions," she said.

The learning environment task force has been meeting

weekly since early March, with each of the nine members assigned a particular college to study, according to Fessenden-Raden. The task force has studied all reports from the past 12 years applicable to the learning environment and has sent questionnaires to each of the colleges. In addition, Fessenden-Raden said she is talking with each college dean.

"We have reached no decisions yet. We are in the process of highlighting issues of importance and identifying particular problems and strong points," she said, adding that the committee may decide to hold more open hearings after this Friday.

Those who cannot attend the learning environment open hearing may send their written

comments to Ms. Fessenden-Raden's office, 118 Stimson Hall. In addition she will be available for discussion from 4-6 p.m. every Tuesday without appointment in the Behrman Biology Center, G-20 Stimson, and other times by appointment.

Macneil said attendance at open hearings has generally not been as good as he hoped. He has asked each task force to hold at least one such hearing and to encourage community participation, either in person or in writing.

In an effort to acquire facts about areas not covered by one of the task forces, self study questionnaires have been sent to all departments likely not to be covered by a task force, he said.

Cornell Engine Receives Patent

Cornell University has been granted U.S. patent rights on a modification of the internal combustion engine, which allows efficient use of gasoline while eliminating most pollution problems.

The system, known as the "flaming muffler" or "air motor" system, was designed by E. L. Resler Jr., director of Cornell's Sibley School of Mechanical and Aerospace Engineering and the Joseph Newton Pew Jr. Professor of Engineering, and Herbert M. Kosstrin, a Ph.D. candidate in the school who tested the system as part of his doctoral work.

The flaming muffler system uses most of the cylinders in the standard internal combustion engine to burn a fuel-rich mixture of gasoline and air in the conventional way.

The fuel-rich mixture insures that production of harmful nitrogen oxides, primarily NO, will be low because oxygen in the air combines much more readily with the hydrogen and carbon atoms in the fuel than with the available nitrogen.

The same reaction which insures low nitrogen oxide pro-

duction, however, produces an abundance of two other pollutants — carbon monoxide and unburned hydrocarbons — in exhaust gas.

In the Cornell system the carbon monoxide and hydrocarbons are fed into an external combustion chamber (the "flaming muffler") where they are burned to produce harmless water and carbon dioxide.

Air to support combustion in the flaming muffler is supplied by one or more cylinders in the standard engine that have been converted into "air cylinders." These cylinders, which are still connected to the cam shaft and go through the usual four-stroke cycle, process only air (no fuel).

To improve the efficiency of the engine, Resler and Kosstrin's system recirculates waste heat from the flaming muffler through a heat exchanger and uses the heat energy via the air cylinder to provide additional power for the engine.

After the power stroke, the remaining hot air in the air cylinder is then introduced into the flaming muffler to provide the oxygen to burn the carbon monoxide and unburned hydrocarbons, and the heat energy is recycled again via the heat exchanger to the air cylinder.

Resler explained that the typical automobile engine will waste almost 50 per cent of the energy it produces through exhaust. The Cornell system, by contrast, provides for two recirculations of the waste heat.

"Perhaps most important in view of the present energy crisis," Resler said, "is the fact that we use every available BTU produced from burning the fuel before exhausting the waste heat into the atmosphere."

The modified engine, when operated with the heat exchanger, is as efficient as any internal combustion engine ever made, he added. The only thing it lacks is pollution.

Job Opportunities

The following are regular continuing full-time positions unless otherwise specified. For information about these positions, contact the Personnel Department, B-12, Ives Hall. Please do not inquire at individual departments until you have contacted Personnel. An Equal Opportunity Employer.

POSITION (DEPARTMENT)

Administrative Aide I, A-18 (Computer Graphics)
Administrative Aide I, A-18 (Secretary of the Corp.)
Administrative Aide I, NP-11 (Finance and Business)
Sr. Administrative Secretary, A-17 (Latin American Studies Program)
Administrative Secretary, A-15 (Personnel)
Administrative Secretary, A-15 (Biochemistry)
Administrative Secretary, A-15 (Applied and Engr. Physics)
Department Secretary, A-13 (A&S Dean's Office)
Department Secretary, A-13 (University Libraries - Acquisition)
Department Secretary, A-13 (Electrical Engineering)
Steno II, NP-6 (Diagnostic Laboratory)
Steno II, NP-6 (Division of Nutritional Sciences)
Steno I, NP-5 (Genetics, Development and Physiology)
Addressographer I, A-11 (Graphic Arts)
Principal Clerk, A-14 (Personnel)
Library Assistant III, A-15 (University Libraries - Music)
Library Assistant II, A-12 (Romance/Germanic) (University Libraries - Serials)
Searcher II, A-15 (German) (Univ. Libraries - Acquisitions)
Searcher I, A-13 (Chinese) (Univ. Libraries - Acquisitions (Wason Coll.))
Administrative Manager II, CPO5 (Campus Store)
Research Associate Manager (Computer Graphics)
Assistant Dean of Students Student Dev. Spec. 3, CP05 (Office of the Dean of Students)
Director, Engr. Minority Pro. & Asst. Div., Engr. Admissions, CPO5 (Engineering Dean's Office)
Manager-Financial Operations CPO5 (B&P)
Comp. Staff Spec. (Telecommunications Specialist), CPO5 (Office of Computer Services)
Coop. Exten. Specialist-Field Crops (Coop. Exten. Admin.-Alton (1 yr.))
Resident Director CP02 (3) (Dean of Student Office)
Director of Admin. Operations (College of Agric. & Life Sciences)
Assistant Editor (University Press)
Editor, CPO2 (University Publications)
Graphic Designer Visual Spec., CP05 (University Publications)
Associate Admin. (Area Manager), CPO6 (Dining Services)
Dining Service Manager II, CPO5 (Dining Services)
Business Manager, CPO5 (Dining Services (July '75))
Admissions Counselor (Div. of Academics Services NYS College of Human Ecology)
Associate Administrator, CPO6 (Physical Education & Athletics)
Extension Aide (Agricultural Engineering (1 yr))
Extension Associate (3) (Div. of Nutritional Sci. (1 yr))
Research Support Specialist (Ornithology (1 yr))
Research Associate (Poultry Science (2 yrs))
Research Technician, A-21 (Biochemistry)
Research Technician, NP-14 (Animal Science (3 yrs))
Research Technician, NP-10 (2) (Vet Pathology (1 yr))
Lab Technician, A-15 (Biochemistry (1-2 yrs))
Lab Technician, A-15 or A-17 (Biochemistry)
Postdoctoral Research Associate (STS (1 yr))
Postdoctoral Associate (2) (Genetics, Dev. & Phys. (1 yr))
Postdoctoral Associate (6) (LASSP (1-2 yrs))
Vending Mechanic, A-17 (Dining Services)
Instructor - Modern Dance (Women's Physical Education)
Instructor (Physical Education)
Cook I, A-15 (Dining)
Heating Plant Worker, NP-8 (B&P (Geneva))
Mason (B&P)

These are all permanent full-time positions unless otherwise specified.

PART-TIME AND TEMPORARY POSITIONS

(All Temporary and Part-time positions are also listed with Student Employment)

Department Secretary (University Press (perm. p/t))
Steno II, NP-6 (N.E. Regional Center (temp. f/t))
Steno I, NP-5 (Agriculture Economics (temp. f/t))
Steno NS (Coop. Ext. Admin. 4-H (temp. f/t))
Extension Specialist (NYSSILR (temp. f/t))
Research Aide (LASSP (temp. f/t))
Research Associate (Agronomy (1 yr))
Research Associate (Education (1 yr))
Research Technician II, NP-10 (Plant Breeding & Biometry (temp f/t))
Research Technician IV, NP-10 (Natural Resources (temp f/t))

Continued on Page 4

Career Center Calendar

Don't let the warm weather distract you from the more important things in life. See the Career Center now for details.

May 1: Application deadline for the HEW Management Intern Program.

May 3: Application deadline for the PCAT (Podiatry College Admissions Test). The test itself will be held May 24.

May 5: The Scotch Plains-Fanwood Public Schools will interview prospective teachers in all subjects.

May 27: Application penalty date for the GRE. The test itself will be held June 6.

The National Endowment for the Humanities has announced a Fellowship Program for Independent Study and research designed for scholars, teachers, writers and other interpreters of the humanities. The application deadline is June 2, 1975.

ATTENTION PACE APPLICANTS! The New York Area Office of the Civil Service Commission has just announced that the May PACE Exam will be conducted the week of May 5-10. Individual admission tickets will specify which day the test should be taken.

Rabbi Goldfarb Given Honorary Degree

Rabbi Morris Goldfarb, director of Cornell's B'nai B'rith



Rabbi Morris Goldfarb

Hillel Foundation, has been awarded the honorary degree of Doctor of Divinity by the Jewish Theological Seminary of America.

Goldfarb was awarded the degree at ceremonies on April 20 "in recognition of a career which has brought honor upon the Rabbinical Assembly, the Seminary, and the conservative movement," said Gerson D. Cohen, Seminary chancellor.

For 26 years, Goldfarb has directed the B'nai B'rith Foundations both at Cornell and Ithaca College. He was ordained a rabbi in 1944 by the Jewish Institute of Religion, where he also obtained an M.A. He holds undergraduate degrees from the Teachers Institute of the Jewish Theological Seminary and from Teachers College of Columbia University.

Timmer Succeeds To Babcock Chair

Charles P. Timmer, an associate professor at the Stanford University Food Research Institute, has been named to the Howard E. Babcock Professorship of Food Economics in the Division of Nutritional Sciences at Cornell, by the Board of Trustees.

Timmer will assume his new position on August 1, succeeding Professor David L. Call, who is now the Director of Cooperative Extension.

The prestigious Babcock Chair was founded in 1950 to honor the late Howard E. Babcock, chairman of the Cornell University Board of Trustees from 1940 to 1950 and a former general manager of G.L.F., the predecessor of Agway, Inc. Funds supporting the chair were raised from contributions from farmers and industries throughout the Northeast.

The holder of this professorship has the responsibility for promoting the importance of a better diet as a matter of public policy, for the mutual benefit of agriculture, the food industry, consumers and the national economy.

As an economist with experience in studying the food

problems of this nation and the world, Timmer will explore the relationships of economics and nutrition at both the domestic and international levels.

A native of Ohio, Timmer received his B.A. degree in economics from Harvard University and studied at the Royal College of Science and Technology in Glasgow before joining W. R. Grace and Company as a commodity analyst.

He returned to Harvard in 1966, where he received his M.A. and Ph.D. degrees. Since his appointment to the Stanford University faculty in 1968, he has served as an economic adviser and consultant to the Indonesian Planning Agency and to a variety of commercial farm and food organizations.

Timmer has completed extensive studies on a variety of commodities.

He is the recipient of a John Harvard Honorary Scholarship, a Fulbright Scholarship, a National Science Foundation Scholarship, the Goldsmith Prize of Harvard University and he is a lifetime member of the American Economics Association.

Profile Provine: Curious Variety

Curiosity, which in this updated version didn't kill the cat but got the snake, recently led Marie Provine to inquire of the woman sitting beside her in the Cornell Veterinary College's waiting room, "What do you have in that box?"

The reply? An ailing anaconda, which for Cornellians unfamiliar with exotic snakes, is a South African boa able to reach some 20 feet in length. The conversation might well have ended there but Provine, and her husband, Will, happened to be snake enthusiasts who have raised a number of these reptiles as pets over the past several years.

Since its owner was having difficulty keeping it healthy, Provine offered to take it, and now Sylvia the anaconda lives in the Provine's kitchen, warmed to at least 70 degrees by a cast iron stove and fed occasionally on a young chicken. It's a snake's life.

This habit of curiosity may account for a number of other relatively unusual facts about Provine. She is now working on a Ph.D. degree in Cornell's Government Department — a few years after earning a law degree from the Cornell Law School in 1971. Nor is her involvement in Cornell purely academic. Together, the Provines were head residents for students of the former six-year Ph.D. program, and for Risley Residential College a few years ago.

Then, after graduating from law school, Provine researched environmental law for the Science, Technology and Society Program, while also teaching a course in Communication Arts on "the kind of law journalists are interested in." Her law background then led to President Dale R. Corson's nomination of her in 1972 as Cornell's first part-time judicial advisor to defendants charged with violating the campus judicial system. She balanced all this until the fall 1974 when she became a graduate student.

Curiosity comes into play again: "I have interests," she said, "which are quite different from most government grad students' ... or from most lawyers, for that matter. Provine's curiosity led her to question the interface of law and the social sciences, and in turn, she became interested in American politics, a place where law and society meet.

"Law school," according to Provine, "aims to develop analytic skills; it's not designed to grope with the social forces causing litigation and statutes, and or with their social effects." She feels not enough people have been interested in both law and American political science. "The legal system is not a given," she said.

The "givens" in the Provines' lives include their 11-month-old son, Charlie, "who really lights up our lives; he's much more important than the kayaks," she joked, referring to their eight, yes eight, kayaks of which seven are homemade fiberglass hulls "built for flexibility and lightness" for white water competition.

But curiosity and homemade kayaks were not enough to make Provine a winner in Et-



Marie Provine is shown about ready to compete in Etna's annual White Water Derby held on Fall Creek earlier this month.

na's annual spring rite, the White Water Derby held in Fall Creek April 12. "It served her right not to win," chided Will, who had stayed out of the race this year in order to hold Charlie. He contended she hadn't practiced in two years.

The Provines' first "date" in 1966 in Chicago, when both were students, was kayaking. Prior to this year at least, "Will is the only one who beats me in competition," Marie said.

That Provine had not time to practice, however, seems hardly unusual under a few of the circumstances: being a mother, being a graduate student preparing for her "A" exams, writing and taking photographs for The Newfield News, a local weekly, keeping Sylvia and other snakes "which we really admire," being a "serious vegetable gardener," as well as both a swimmer and tennis player. Then this summer, she is co-teaching a Cornell Alumni Workshop on "Justice for Women: Rhetoric or Reality."

Yet Provine is quick to say she couldn't manage without the help of Mrs. Martha Catter, the Newfield woman who cares for Charlie weekdays, along with nine other children under 4 years of age. "I don't know how she does it," she said. Provine was so impressed with her she wrote one of her first Newfield News articles on her a few months ago.

Now she knows what it's like to have the shoe on the other foot, and be the interviewee rather than the curious interviewer. Curiosity finally got the best of Marie Provine.

—Margaret Condon

CORNELL CHRONICLE

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COSEP Discussions To Be Continued

Discussions on the organization of COSEP have continued over the past few weeks. During this time David C. Knapp, provost, has met with several minority groups and individuals concerning COSEP and minority education in general at Cornell.

These discussions have been initiated by members of the minority community and some constructive suggestions are emerging, according to Knapp.

Among the conversations

Knapp has had was that with a "fact finding group of the Ithaca Black Caucus," which is made up of black students, faculty, staff, and Ithaca residents, Knapp said.

Knapp has reiterated that he is flexible about the 60-day moratorium. He said he "is not interested in setting time limits but in pursuing constructive discussions on minority education at Cornell, but without undue delay."

Award Given Student Engineering Society

Cornell's student chapter of the American Institute of Chemical Engineers (AIChE) has received an award of excellence from the national AIChE for its 1973-74 program of activities. Senior officers in the chapter were Stephen M. Glick, president, and Thomas Rienzo, treasurer.

James Stevenson, assistant professor of chemical engineering and the chapter's advisor, was one of two faculty members nationwide to receive the AIChE "outstanding

counselor award" for his work with the chapter.

During the 1973-74 academic year, the student group made field trips to an artificial kidney clinic and a large paper plant. It featured guest speakers from Corning Glass Co., Proctor & Gamble and other industries at eight of its meetings.

The student chapter of the AIChE is a technical society designed to expose student chemical engineers to various aspects of the profession.

Chronicle Comment

Chronicle Comment is a forum of opinion for the Cornell community. Comment may be addressed to Elizabeth Helmer, managing editor, Chronicle, 110 Day Hall.

'Need Better Candidate Biographies'

Editor:

Would the committee on nominations and elections kindly explain how the faculty is to make an intelligent choice among sixty-odd candidates for nearly forty positions on the basis of biographical sketches

that reveal nothing about the candidates' conception of the university, much less their reasons for wanting to serve on particular policy-making committees? Are we expected to divine their politics from their departmental affiliation or

years of teaching at Cornell, etc.? I suggest the committee either provide us with some relevant information or transform the *de facto* lottery into a formal one, thereby ending this charade.

Eldon Kenworthy
Associate Professor

'Historical Variables Frustrating'

Editor:

Over the last decade, the nation has witnessed one of its greatest challenges of moral rectitude in its institutions of higher education. The brunt of change in these institutions has been in the area of Admissions. Tradition-laden policies and anachronistic assumptions had, from the very first establishment of colleges in America, effectively limited the access to higher education to the wealthy, privileged, and male caucasian members of the national populace. Even the Morrill-Act of 1862, which established many government subsidized institutions, failed to reconcile the character of such institutions. (Save, its obvious use in establishing "separate but equal" institutions in several states.)

By and large, the Blacks and other minorities were systematically excluded from the educational impact of the industrial and post-industrial revolution in the nation. From primary to secondary levels, opportunities for meaningful education were limited at best, more often than not, virtually non-existent. Post-secondary education was, for the most part, generally limited to male caucasians of the privileged class. As egalitarian principles of education began to expand opportunities, and national needs for more highly trained managers for industry and commerce gave greater importance to post-secondary education, an increase in students and institutions became necessary. Without belaboring the point, suffice it to say that with the increased and varied national needs came corresponding efforts on the part of educational institutions. These efforts only minimally increased minority representation in higher education.

Traditional views which have consistently prevailed in admissions offices have had to give way to expanded access to institutions throughout the nation on the part of minorities. With the realities of campus turmoil, street rebellions, and Black student demands for increased enrollment has come a reactionary backlash prompted by an economic depression and rising price spiral. Those candidates from the privileged and middle class elements of society are finding it difficult to accept the requisite nature of admissions procedure which

views candidates of traditionally underrepresented minorities in higher education with broadened criteria, and provision of support services never previously an aspect of these institutions.

With increased access to post-secondary institutions for the victims of racism and educational disfranchisement has come the problem of adjusting the student and institution to the expectations and perspective of each. The task has been complicated by the reactions of conservative, traditionalist faculty who have viewed the increase of minorities as a lessening in the quality of their institutions (generally ascertained from SAT scores).

Whether one views higher education institutions as having a moral responsibility to non-traditional students or not, the truth of the matter is that the failure of the society to provide adequate opportunity for all to acquire the requisite skills for meaningful lives and optimum alternatives for their progeny, has forced a first aid approach on the part of these

institutions. Obviously, the many historical variables operating to frustrate racial minorities actualizing their intellectual potential have not been of their making, and as artificial as the concept of race is, unfortunately, many of the prescriptions for rectitude must begin with mechanisms which, during the interim, shall have to be designed to overcome the relative disadvantage that the non-traditional student brings with him. The challenge to higher education is to recognize the dilemma, its origins and requisite prescriptions and to alter the institutional perspective in accordance with the national needs. These institutions have historically adapted themselves to changes in national needs e.g. ROTC programs initiated in World War II, and sciences needs in the late 1950's. They should not allow the racist traditions of this society to disallow their meeting the very real human needs of the nation today.

Jim Garrett
Comm. on Status of Blacks

Campus Bus Boarding System Lightens Load

The University's newly established system of bus boarding from the front door and exiting from the rear door "has resolved many of the problems" of overcrowding, according to David W. Brown, director, Office of Transportation Services.

Students and staff are also reminded that various bus stops are exclusively pick-up or drop-off points. Specific information on these stops appears at the end of this article.

In instances where overcrowding occurs the bus driver, as a University official, may request that persons disembark the vehicle, Brown said. Unless

such requests are complied with, the person may be in violation of University rules and/or of the Campus Code of Conduct, Article II, Section II(j) which makes it a violation "to refuse to comply with any lawful order of a clearly identifiable University official acting in the performance of his duties in the enforcement of University policy," and alleged violators may be referred to the appropriate authorities, according to Brown.

Bus stop information includes these atypical pick-up and drop-off situations:

Campus buses do not transport staff or students from B lot to Vet School or from Vet School to B lot.

Vet School Bus Stop: East side of Tower Rd. is a pick-up point only for lower campus. West side is a drop-off point only from lower campus.

Jessup Rd. and Triphammer corner: South side is for drop-off only for dorms and Africana Center. North side is for pick-up only for campus.

North Campus Stop: (coming out of A lot) pick-up point only for campus.

Comedy, Musical Are Final Theater Offerings

"The Miser," Moliere's classic comedy about avarice, will be the final offering of the 1975-76 Cornell University Theater. Performances at 8:15 p.m. will run from May 1-4 and 8-10 at the Willard Straight Hall Theater.

"The Miser" is directed by Marvin Carlson, with stage design by Joan Churchill, lighting by Donald Davis and costumes by Doug Marmee.

The musical comedy "Mame" will be presented by Cornell Broadway Stage (CBS) at 8:15 p.m. Thursday, Friday and Saturday, May 1-3, at the Alice Statler Auditorium.

CBS, a student-organized

theater group, produced its first show last fall with "The World of Carl Sandburg." Membership in the group is open to all interested persons.

More than 100 persons have been involved in the production of the forthcoming "Mame." Cast members include Sheera Boris as Mame, Carla Schiller as Vera Charles, and nine-year-old Marc Herrmann as Patrick, Mame's nephew.

Dramatic direction is by William A. Storrer with music direction by Greg Pearson.

Tickets for "Mame" are available at the Willard Straight Hall ticket office, Ithaca College Record Store and at the door.



Sheera Boris (left) and Carla Schiller (right) are featured in the Cornell Broadway Stage production of the musical "Mame."

Two New Employee Training Programs Set

Two new training and development programs on "Communicating with Your Public" and "Teaching Strategies for Supervisors" will be offered this month or in May, according to Gerald S. Thomas, director of training and development in the Office of Personnel Services.

"Communicating with Your Public" will be held from 9 a.m. to noon, Tuesday and Wednesday (April 29 and 30), in Conference Room 2 of the North Campus Union. The program is designed to provide exposure to effective communication skills; new techniques on Transactional Analysis prin-

ciples will be presented and practiced, Thomas said. The cost is \$10 charged to sponsoring departments. The seminar is limited to 20 participants; for reservations call Linda Tewes, 256-4869.

"Teaching Strategies for Supervisors" is designed for supervisors and others responsible for job instruction and training. The five half-day seminars will be held from 9 a.m. to noon, May 12 through May 16, in Conference Room 2 of North Campus Union. The program is limited to 12 participants; for reservations call 256-4869.

Job Opportunities

Continued from Page 2

- Lab Technician - Hourly (Biochemistry (temp f/t or p/t))
- Lab Technician II, NP-11 (Animal Science (temp f/t))
- Research Technician (Natural Resources (temp f/t))
- Temporary Lab. Assistant (Food Science (temp p/t))
- Coop. Extension Specialist (Coop. Ext. Admin. - Chazy, N.Y. (temp f/t))
- Technical Aide, NP-9 (2) (Natural Resources (temp f/t))
- Pest Management Scout, NP-6 (2) (Entomology (temp f/t) (Geneva))
- Clerical/Coding (SASS (temp f/t))
- Visual Aids Operator (Clinics Adm.-BioMed. (permp/t))
- Keypunch Operator (SASS (temp p/t))



Free, Open to Public

Three Concerts Planned

Music for wind instruments, new music by Cornell composers and chamber music for organ, oboe, soprano and bass will be presented in three free public concerts this week at Cornell.

The Cornell University Wind Ensemble under the direction of Marice Stith, will present the Concertino for clarinet and orchestra by Carl Maria von Weber, Shostakovich's "Festive Overture," Sam Hammond's Symphony for Band (first performance) and other works at 4:30 p.m. Thursday, April 24, at the Memorial Room of Willard Straight Hall.

The Wind Ensemble consists of some 50 brass, woodwind and percussion players. In 1969, Stith instituted the Cornell University Wind Ensemble Record Series which now numbers some 15 different recordings. Many of the works included in this series are available only on these records.

"Music from Cornell, Program I" at 8:15 p.m. Saturday, April 26, in Barnes Hall will include compositions by Cornell composers James Gibson, Paul Rosenbloom, James Marra and Brian Israel. "Program II" will be held at the same time and place on the following Saturday, May 3. Included on that program will be compositions by Fred Maus, Fred Thayer, Ann Silsbee and Christopher Rouse.

Performers for "Music from Cornell" include Cornell faculty members, students and musicians from the Ithaca community.

Chamber Music for organ, oboe, soprano and bass will be presented at 8:15 p.m. Sunday, April 27, at Sage Chapel as one in a series of concerts to commemorate the 100th anniversary of the chapel.

Jerry Davis, oboe, and Donald R.M. Paterson, Cornell University organist will perform George F. Handel's Concerto for Oboe in E flat Major, No. 4. Davis will also perform

"Arioso" by Gioseffo Fiocco. Soprano Linda Paterson and bass David Neal will present five arias from Bach cantatas, accompanied by organ, oboe and oboe d'amore.

"To my knowledge, the Handel concerto has never been performed in Ithaca before," said Davis, adding that the concerto manuscript was discovered in 1935 in a library in Uppsala, Sweden.

"Handel was an accomplished oboist and

violinist, as well as organist, and this piece was well known in its day," he continued.

This concert also marks the first performance on oboe d'amore by Davis since 1972.

"The oboe d'amore is a very rare instrument," said Davis. "It has the qualities of an oboe and an English horn combined. It was first built in about 1722, and Bach used it frequently in his cantatas, Mass and passions."

Brewster to Relate Parable At Sage Chapel Convocation

J. Gurdon Brewster, senior Episcopal chaplain at Cornell, will relate "The Parable of an Extraordinary Tightrope Walker" at the Sage Chapel Convocation at 11 a.m. Sunday April 27.

A graduate of Haverford College and Union Theological Seminary, Brewster came to Cornell in 1965. He currently directs a continuing education program for area clergy and is training to become a Gestalt therapist.

Brewster is also an accomplished sculptor, with a number of works on permanent public display.

Third Evensong Celebrates Sage Chapel Centennial

The last in a series of three choral Evensong Services to celebrate the 100th anniversary of Sage Chapel will be offered at 8:15 p.m. Friday, April 25, in the chapel.

This last evensong falls on the feast of St. Mark the Evangelist, who wrote one of the gospels of the New Testament. This feast day also falls within the extended observance of Easter, according to the Rev. David M. Talbot, rector of St. John's Episcopal Church in Ithaca, who will deliver a brief sermon at the evensong.

"As a reflection of the joyous nature of the Easter season, this evensong will be much more festive than the two previous ones," said Talbot. "The festivity will be shown primarily in the music, but also in the

vestments of the officiating clergy and the use of incense in the service."

The "Magnificat" and "Nunc Dimittis" from the "Short Service" by Orlando Gibbons will be sung by the Sage Chapel Evensong Choir, as well as the 16th-century motet, "O Quam Gloriosum" by Tomas Luis de Victoria.

The choir will join the Rev. Culver L. Mowers, priest-in-charge of the Tompkins/Tioga Mission Field of the Episcopal Church, in singing the prayers, psalm and festal responses.

The evensong, sponsored by the Sage Chapel Choir under the direction of Donald R.M. Paterson, is open to the public.

Tour Company Bringing 'Hair' To Campus

"HAIR", the rock musical that ran on Broadway for more than five years, will come to Cornell's Bailey Hall at 7:30 p.m. Saturday, May 3.

This production of "HAIR" is by the Rock Talent Company, a touring company from New York City. Tickets, priced at \$3.50 advance sale and \$4 at the door, may be obtained at Willard Straight Hall ticket office, Mayers Smoke Shop and Egbert Union.

In the past four years, more than 26,000,000 people in 22 countries throughout the world have seen productions of "HAIR," which has been translated into 14 languages.

Graduate Record Examination

Graduate Record Examination - Saturday, April 26, 1975.

Report 8:30 a.m. as follows:

ABBUHL-JAWER: Hollister B14

JENKINS-TANNENBAUM: Phillips 101

TEBOR-YOUNG: Hollister 110

All taking Advanced Test report 1:30 p.m. to Hollister B14.



Print Sale at Straight

Print collectors will have the opportunity to purchase original prints of old and modern masters and of contemporary artists at a cost of from \$5 to \$5,000 on Monday, April 28 from 9 a.m. to 1 p.m. in the Memorial Room, Willard Straight Hall, Cornell University. The over 1,000 prints will be on display from the Lakeside Studio, Lakeside, Michigan, under the auspices of Cornell's University Unions. Area artists represented are Beale, Breverman, Eckmair, Marx and O'Connor. Other artists included in the collection are Durer, Callot, Blake, Roualt, Whistler, Peterdi and Richard Hunt, as well as a number of Japanese woodcuts from the Ukiyo-e School. Pictured above is Albrecht Durer's "A Peasant and His Wife."

Barenboim to Present Final Bailey Concert

Pianist Daniel Barenboim will present a program of Beethoven sonatas and Chopin preludes at 8:15 p.m. Friday,

May 2, at Bailey Hall on the Cornell campus.

This concert marks the final event in this year's Bailey Hall concert series. Free bus service will be provided between parking lot B, the Dairy Bar and Bailey Hall on the night of the concert. Ticket information may be obtained at the Lincoln Hall ticket office (256-5144).

An accomplished conductor as well as a pianist, Barenboim received early piano training in Buenos Aires, where he was born. When he emigrated to Israel with his parents at the age of 10, he became the student of conductor Igor Markevitch.

Barenboim gives more than 200 concerts annually as pianist, conductor or both. He has performed with such orchestras as the Israeli Philharmonic, Los Angeles Philharmonic, Cleveland Orchestra and New York Philharmonic.

Barenboim has made more than 40 recordings for Angel Records. He has also recorded for Deutsche Grammophon.

He is married to cellist Jacqueline Du Pre.



Daniel Barenboim



TV Becomes Museum Art

Intimate television closeups of monumental statues such as this one of a Civil War soldier is part of an exhibition exploring various functions of television in a museum taking place through Sunday, April 27 at the Herbert F. Johnson Museum of Art. Four programs are being run continuously on the second lower level of the museum.

'Hands Off COSEP Now' Rally Held

A "Hands off COSEP Now" march from the Africana Studies and Research Center culminated in a noon rally on the steps of Willard Straight Hall last Friday (April 18). Some 400 predominantly black minority students attended the rally, listening for 45 minutes to several minority group speakers articulate their stand on the current controversy over COSEP's organizational future.

The rally and march, sponsored by the Ithaca Black Caucus and supported by other minority groups, came in response to events of the past two months. The initial disagreement between the supporters of COSEP and the University administration arose in February when David C. Knapp, provost, met with some 300 minority students to discuss plans which included incorporation of COSEP's admissions and financial aids functions into a central University-wide office, and the placing of Learning Skills Center (LSC) courses in subject-matter departments within the College of Arts and Sciences.

At a subsequent meeting with several hundred minority students the following week Knapp agreed to a 60-day moratorium on his reorganizational proposals for COSEP; the moratorium was recommended by the University Senate. In the intervening weeks Knapp has asked for proposals on COSEP's organizational structure from a group representative of all the minority community on campus. Although Knapp has met or exchanged communications with several groups representing different components of that community, he said he has not yet found a representative group. (See story page 3)

Opening the rally, a black spokesman for the Coalition of Minority Students listed the Coalition's demands: removal of the 60-day moratorium; withdrawal of all proposals submitted to Knapp which did not have the support of the Coalition, and that COSEP remain intact as it existed in the fall 1974 until the Coalition could make its own proposal. He also demanded the Coalition be recognized as the only representative of minority students on campus.

Other speakers included representatives of the Asian and the Latino students; these minorities are participating in the Coalition, although Native American students, also included in the COSEP program, have not specifically joined and did not address the rally.

William Cross Jr., assistant professor, Africana Studies and Research Center, described "the making of the minority student." He emphasized the need for the COSEP program's academic and nonacademic support services because "most Cornell professors don't give a damn" about entering minority students. Such professors form "the silent majority," Cross said.

Cross said Cornell's minority

community would not be rushed into an evaluation of COSEP, that the administration would have to deal with the Coalition, and that "we will evaluate COSEP" and not "give our lives to the hostile, silent majority."

Preston Wilcox, a speaker from Harlem said the fact

Cornell has to have a COSEP program "is a measure of its racism." Two former Cornell students then described the early days of the COSEP program and the quality of life for Cornell minority students in the mid-1960s.

Several speakers made reference to the "Straight

Takeover" on April 19, 1969, which made national news media coverage because of the presence of guns acquired after the takeover.

The march and rally were billed by Ujamaa Residential College earlier last week as a "show of support" for the

COSEP program. Placards bearing slogans such as

"Hands off COSEP," "Leave COSEP Alone" and "Knapp,

Meet our Demands" were carried by the orderly marchers on their walk from the Africana Center. Some 200 students participated in the march.



COSEP supporters gathered on the steps of Willard Straight Hall last Friday noon (April 18) to protest proposed changes in the COSEP program and to make demands of the University administration. Approximately 200 predominantly black minority students marched from the Africana Studies and Research Center prior to the rally, attended by about 400 persons.

Bulletin Board

Ex-Convicts to Give Talk

Two representatives of the Fortune Society, Rodney Taylor and Bob Brown, will speak on "The Crime of Punishment" at 7:30 p.m. Sunday, April 27, in the Founders' Room, Anabel Taylor Hall.

The Fortune Society was established in 1967 as an organization of ex-convicts and other interested persons to assist released prisoners and to create public awareness of the existing prison system. The talk is sponsored by United Ministry, the Cornell Lutheran, Catholic and Episcopal ministries, campus parishes and the Human Affairs Program.

Fellowship Applications Due

Applications for a post-doctoral fellowship for 1975-76 in the program "Humanities, Science, and Technology," (HST) are due by May 15. Detailed information may be obtained at the program's office, 624 Clark Hall. The 12-month fellowship, which includes a stipend of \$11,000 plus certain expenses, is open to "young scholars with special training in economics, game theory, systems analysis, political theory, ethics, social and political philosophy (or, preferably, some combinations of these fields). Special weight will be given to projects involving criticism of formal patterns of decision-making."

CEQM Fellowships Available

The Center for Environmental Quality Management has obtained funds from the Rockefeller Foundation to support two graduate research assistants for a one-year period. The research assistants will work on a program to assess environmental impact statements of proposed projects for small communities; clarify and translate into lay terms the technical issues addressed in the statements; and explain the consequences of the projects so that communities will have a better basis for making decisions.

The procedures developed by the research assistants will enable communities to conduct their own independent reviews of environmental impact statements. One of the researchers will begin work on June 5; the other will begin on July 1.

Criteria for selection will be:

1. High degree of technical competence in the field of study;
2. Ability to communicate with the lay public on technical issues;
3. Ability to carry on independent work by defining the scope of the research task;
4. Ability to organize a modular research effort and supervise

undergraduate assistants;

5. Sufficient presence to present their findings to local communities in the form of written or oral reports.

Applications may be obtained from the Center for Environmental Quality Management, 468 Hollister, extension 6-7323. Deadline for submission is May 2.

Carpenter Lectures Announced

A lecture on "Multinational Corporations and American Foreign Policy," part of the Carpenter lecture series, will be given by Professor Robert Gilpin of Princeton University at 8 p.m., Friday, April 25, at 110 Ives Hall.

Another Carpenter lecture, "America in the World Economy," will be given by Leonard Silk, a member of the editorial board of the New York Times, at 8 p.m. Monday, April 28, at 110 Ives.

Gilpin is author of the forthcoming book, "The Multinational Corporation and American Hegemony: The Political Economy of Foreign Investment." Reversing the typical Marxist argument, Gilpin asserts that the world political context determines the world economic context.

Silk was editor of the editorial page of the magazine "Business Week" for 15 years before joining the staff of the Times. He has written several books including "Nixonomics" and "Capitalism: The Moving Target."

Standing Committees Elections

Open meetings to present candidates for membership on the college's Standing Committees will be held at 12:30 p.m. on Wednesday, April 30 in Morrison 146, and at 4:15 p.m. in Bradfield 101.

Voting will occur at these meetings and will continue all day Thursday, May 1, in the lobby of Mann Library.

In order to obtain a place on the ballot, candidates must submit a petition to the Office of Resident Instruction, 192 Roberts Hall, by April 29. Petition forms are available in the Office of Resident Instruction, 192 Roberts Hall.

Sociology Lecture Scheduled

John Rex, professor of Sociology at the University of Warwick will give a public lecture on "The Classical Sociological Tradition and Some Modern Heresies" at 3:30 p.m. on Monday, April 28 in Uris 202. This lecture is co-sponsored by the Western Societies Program of CIS, the ILR School and the European Sociology Seminar.

Faculty Committee Reports On University Computer Use

FORWARD

This subcommittee was formed in December 1973 as the result of a resolution of the Research Policies Committee:

"Be it resolved that the Dean of Faculty will appoint a committee to provide an outline of the various uses of the Cornell University Computer."

This resolution arose as a side issue while the Research Policies Committee was considering another resolution on December 3, 1973, "Governance structure respecting computer operations." The subcommittee took as its charge the concerns expressed in the following quotation from the comment relating to the latter resolution.

"Specifically, the need for a new computer has arisen from extensive increases in usage. There appears to be a general lack of information on the scope and character of these increases. It is important that such information be made available."

COMPUTER USAGE AT CORNELL

The Office of Computer Services (OCS) supports both academic and administrative computer work at Cornell. Figure 1 a) shows the expenditures on these two activities from 1968 to 1974. During the first three years shown, OCS received an annual NSF subsidy of about \$3 million. In addition, there was an annual University subsidy of about \$2 million during the first, second and fourth year. The main feature to note in Figure 1 a) is the large relative increase of administrative computing expenditures as compared to academic computing expenditures. The latter include research and instruction, as well as expenditures labelled "special projects," "departmental," "enterprise," and "outside." In 1967-68, administrative computing expenditures were about 35 per cent of "academic" ones, while in 1971-72, this figure had risen to over 70 per cent. Since that time, both types of expenditures have remained relatively constant (see also Table I). The trend to constancy after 1971-1972 contrasts with estimates in a report which the Subcommittee encountered early in its study.¹ This report projected administrative computing expenditures to about \$1.6 million in 1974, and

about \$2.6 million in 1980, representing a growth rate of about 24 per cent per annum from 1972 to 1974, and of about 8 per cent per annum from 1974 to 1980.² Academic computing was projected to remain relatively constant, reaching \$1.25 million by 1980. For completeness, it should be noted that these projections never were authorized by the University Computing Board (UCB). In its July 1973 report, the UCB projected an annual growth rate of roughly 14 per cent in use of general purpose funds for instructional and research computing, and of 5.3 to 9.5 per cent for administrative computing.

The dollar amounts represented by Figure 1 a) can be plotted in still other ways. One such way is shown in Figure 1 b), which provides a more accurate reflection of the cost of academic and administrative computing, but is limited to the fiscal years 1971-1974. The main difference with Figure 1 a) is that the items "special projects," etc. have been subdivided into academic and administrative expenditures, as appropriate in each case. Furthermore, subsidies and profits have been omitted. For the limited number of years shown, Figure 1 b) again indicates a relative increase of administrative versus academic computing.

Confronted with the data shown in Figures 1 a) and b), our task seemed clear: to understand the relatively stable OCS expenditures on academic computing and the relatively rapid increase in these items for administrative computing.

Academic Computing

Academic computing costs are divided between research and instruction. The total computing expenditures for research at Cornell are much larger than those shown in Figure 1, since those shown reflect only monies paid to OCS in either real or allocated dollars. There are a number of independent computing centers on the Ithaca campus which are devoted to academic research. The operational costs of these centers are borne by research contracts and do not constitute a financial burden to Cornell. There are also some research projects which rent time on very large computing systems at other places (such as Berkeley, Brookhaven and Argonne) via remote terminals and

TABLE I

OCS INCOME FOR THE FISCAL YEARS 1972/73 AND 1973/74.
ALL FIGURES IN THOUSANDS OF DOLLARS.

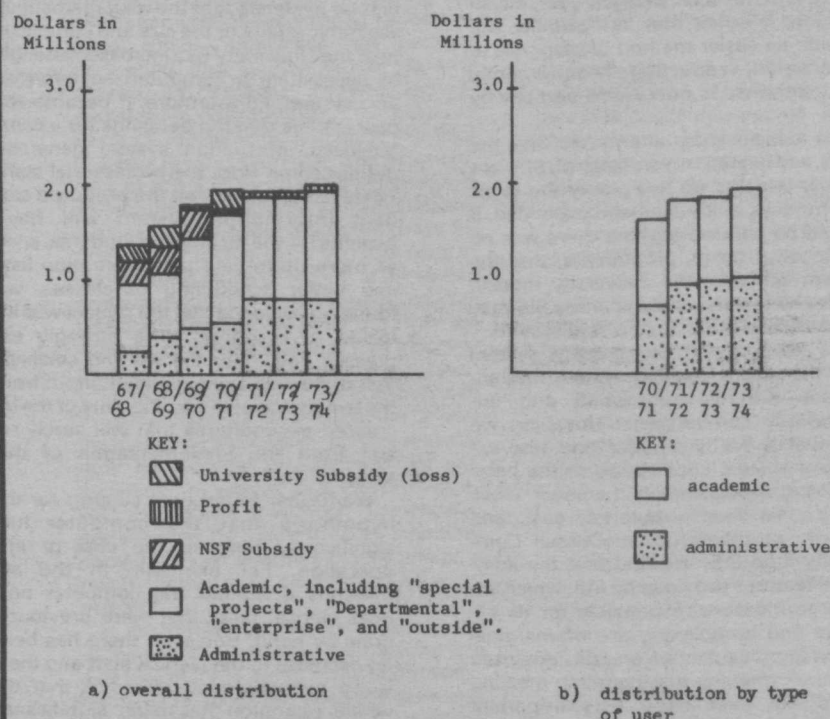
	1972/73			1973/74		
	Real Funds (1)	Univ. Funds (2)	Total	Real Funds (1)	Univ. Funds (2)	Total
Research	507*	90	597	457	86	543
Instruction	7	257	264	23	377	400
Total academic	514	347	861	480	463	943
Administrative (3)	985	combined	985	1006	combined	1006
Outside (4)	58	-	58	63	-	63
Total (5)			1904			2012

- * Includes instruction supported by Statutory Colleges, estimated at \$15,000.
- (1) Real Funds are convertible Funds; i.e. they could have been spent on something other than computing.
- (2) University Funds are funds allocated by the University to be used only on computing.
- (3) Only the combined figures are available for 1973/74
- (4) Income derived from off-campus users.
- (5) This figure represents total income including income from computer services as well as from personnel services, charges for materials and miscellaneous rentals.

Source: Exhibit C, March 10, 1975, provided by S. A. Lawrence

Source: Exhibit C, March 10, 1975, provided by S.A. Lawrence

Figure 1. OCS Income: 1967-68 through 1973-74



Source: a) Exhibit A, February 20, 1975 } provided by
b) Exhibit C, March 10, 1975 } S.A. Lawrence

telephone lines, and at a much lower total cost than available through OCS.³ Researchers in the physical sciences have been the main users of these alternative sources of computing capability.

A very important part of academic computing at Cornell involves instructional computing. Expenditures required for introductory instructional computing have risen from \$257,000 in 1972-73 to \$377,000 in 1973-74 (see Table I), largely because of a substantial increase in student jobs run under the new IT (Instant Turnaround) classification.⁴

Such increases were strongly advocated as a means of improving the quality of teaching by an ad hoc committee established to review the decision to move up to a more powerful computing system at OCS.⁵ The expansion considered by this committee could double the University's expenditures on instructional computing. It would clearly require changes in the relative amount allocated by the University to OCS for administrative, instructional and research computing. We did not have time to explore this potential additional increase in the usage of OCS facilities for instructional purposes. Nevertheless, we feel the OCS facility generally accommodates the student needs well, and at reasonable cost.

Administrative Computing

While a detailed examination and understanding of administrative computer usage was beyond the scope and resources of this subcommittee, it did seem necessary to attempt a general understanding of the reasons for the rapid increase in OCS administrative expenditures and an evaluation of their benefits.

Wherein are the pressures for this large increase in administrative computing? Explanations for them are:

1. Cornell is growing rapidly in size and complexity.
2. There is a need for increasing the efficiency of planning and managing of the enterprise.
3. Externally mandated demands for accurate summary reports based upon information which is not now kept in computer files have increased.

The argument is then made that these factors create a demand for more detailed information and this information can only come from data stored in computers. To quote from the report previously mentioned⁶, "Pressures from within for better understanding and management of the University's increasingly complex resources and responsibilities will provide an additional demand for information which can best be stored, manipulated, and retrieved by computerized management information systems."

In order to assess the extent to which these pressures have influenced the present and future status of administrative computing, we examined several of the major administrative computing expenditures (see Table II). In order of size, the major components in 1973-1974 were Payroll (\$306,000), Student registration (\$251,000), Public Affairs (\$198,000), Admissions (\$121,000), and Library (\$74,000). Together these components are responsible for more than 75 per cent of the administrative computing budget. The committee attempted to understand roughly the nature of the work being done in each of these areas with the exception of Public Affairs (fund raising). In each, we tried to understand the ways in which increasing size and complexity, internal demands for academic planning, and externally mandated demands have necessitated computerized systems. We furthermore tried to assess the extent to which computerized systems have increased the efficiency and lowered costs of the tasks they perform and have made possible better academic planning.

Payroll

This area of administrative processing should more properly be entitled payroll-personnel. There is a commitment to maintain a large centralized data base for payroll and personnel information on all employees in the endowed and State colleges. This centralized data base and its associated computer programs were established in 1971 using a file management system of IBM called Information Management System (IMS).

The developmental and operational costs of this new payroll system are substantially higher than originally estimated.

ed. Also the weekly payroll run (normally starting on Tuesday evening) tied up the resources of the IBM 360/65 computer so much that other users were often denied use of the computer facility when payroll was being run. Installation of the new IBM 370/168 apparently has solved this problem. Dividing the computing production expenditure for payroll (approximately \$210,000 per year) by the total number of checks written (approximately 332,000 per year) yields a cost of about \$.63 per check.* According to the few outside experts that the subcommittee contacted informally, a typical commercial cost would be about \$.25 per check. It is difficult to establish the applicability of such estimates to the situation at Cornell University without entering into a much more detailed investigation.

As far as providing information to outside agencies is concerned, Messrs. Willers and Arthur of the Personnel Department are of the opinion that the computer is not serving their departmental needs well. For example, much of the information requested by HEW is not available from the computer. Also, good cumulative data are not available on health and automobile insurance programs or on vacation and sick leave plans. Generally, they feel that the filing of information using IMS is cumbersome.

Admissions

In 1973-74, the central admissions office spent \$92,000 on production. These funds were used to prepare listings for the college offices for each applicant (approximately 20,000 per year total). This listing contains a computer print-out sheet for each applicant to the college, giving information such as college applied to, high school, name, rank, activities, Cornell relatives, information on parents, social security number, and also the names and information on all current candidates from the same high school. Complete, cumulative listings are prepared at periodic intervals; during the busiest part of the year they are prepared as often as twice a week.

In discussions with personnel at the College of Engineering and the College of Arts and Sciences, it appeared that these listings were useful but that they had not materially affected the operation of the admission offices. In one of them the net effect was that the hand filing system could be kept more up to date; there was no reduction in clerical staff coincident with or following the introduction of these listings.

The committee did not have time to make a detailed cost-benefit analysis of this computer application. However, it has the feeling that there is an increase in administrative costs, without proven benefits arising from the computer listing in terms of a better student selection.

Student Registration (Student Information System)

The Student Information System (SIS) is a computer program that has been written by a programming firm specifically for Cornell. It will store information about a student in a data file which will be continuously accessible to the computer. The actual information stored will be biographical and academic. Typical biographical information includes the student's name, address (e.g., permanent, Ithaca, billing, grade reporting, etc.) and social security number. Typical academic information consists of courses taken and grades obtained, current course registration, and, at appropriate times, pre-registration information including desired section assignment. This list is not complete, but is representative of the information contained. The file will not contain medical information or advisor or counselor reports. The information to be contained in the data file is roughly equivalent to the sum of the information that is now stored about students in the registrar's office, and in the departmental or college office.

SIS is costly and difficult to implement. It has been delayed two and one-half years, and will be very costly to the University once it is operational. Many of the tasks that will be carried out by SIS are already being done by the computer. However, it is anticipated that computer charges for running SIS will be from \$150,000 to \$250,000 annually which is to be compared with \$102,000, the registrar's computing charges for production in 1973-1974. In its initial version, all information will be entered either by means of IBM cards or by specially marked paper forms, and all outputs from SIS (such as a particular student's record, or the pre-registration figures for a particular course) must be obtained by running a program at an OCS terminal. In the future, however, it is foreseen that there will be many terminals around the campus which are "on-line" to the computer, and which will be able to gain instantaneous access to the SIS file, either to change the information stored therein or to read information written there. It is

to be expected that an "on-line" system will increase the computing costs dramatically. It is also clear that an "on-line" system increases the security problems greatly. At present, the data file containing the registrar's data is written on a disc that is normally not connected to the computer. The entry and retrieval of information to and from that disc is done at prearranged times, and only at these times is the disc attached to the computer. No computer programmer, no matter how clever, can communicate with a disc that is not attached to the computer. However, when the SIS system has its full "on-line" capability, the information will be always accessible to the computer, and it would not be surprising to find out that a non-authorized programmer had discovered a means to break the codes that protect the files from an unauthorized user.

We attempted to trace the history of the decision to implement SIS, and to assess the probable benefits of SIS to Cornell. A number of people told us that the decision to implement SIS was in response to needs expressed by the teaching faculty. Although the University Faculty Committee on Registration and Schedules (now the Committee on Academic Records and Instruction) was kept informed of developments concerning SIS, and participated in some of these developments, we concluded that the demand for SIS was generated in the offices of the University Administration and of the Deans of several Colleges. Direct faculty input was in the main limited to the acceptability of SIS. All questions about the need for a new system, its worth and desirability and its place in the University priorities were resolved without significant direct faculty input.

The anticipated benefits to Cornell of SIS fall into two categories. It is stated that certain tasks that are presently being done will be done better and that other tasks that are now done by hand or not done at all will be done by the computer. In the first category are a list of bookkeeping tasks that are familiar to every faculty member. In particular, it is said that pre-registration lists, registration packets, and course enrollment lists will be produced more quickly and more accurately than is now possible. Course grades will be entered more quickly into a student's permanent file than is now done. SIS will be more flexible than the present system and will allow greater freedom in the introduction of new grading schemes.

At present, the assignment of course meeting times and classrooms is done by hand in departmental and college offices. When the number of students that can be accommodated in a particular course is limited, the selection of students for that course is also made by hand. SIS was designed to be capable of scheduling meeting times in such a way as to minimize conflicts, although such use is not immediately planned. The system also has the capability to select students for courses on the basis of objective criteria, such as a major, year, etc. In addition, it is felt that its flexibility will provide an easier method of response to government reporting requirements. Such response is now made partially by hand.

Our conclusions, after reviewing the costs and stated advantages of SIS, are that its benefits do not justify the effort and moneys that have been expended. It should be pointed out that there was no claim, even by its proponents, that the system will save the University money. We found that in some instances SIS may be less flexible than the present system.

We believe that the present system (i.e., the record keeping system that antedates SIS) is out-moded and unnecessarily cumbersome. However, we feel that a vastly simpler and less expensive system could perform the basic academic bookkeeping function while causing far less turbulence, cost, and security problems at the Cornell Community than SIS. We find that the additional features provided by SIS, which are in large measure responsible for its expense and complexity, are of marginal utility. In particular, we are not convinced that the capability of scheduling meeting times will ever be a very important benefit, and we believe that the on-line capability is of dubious value. Indeed, even when SIS becomes operational, we believe that the on-line capability should not be implemented because of the additional expense.

We further question the advisability of completely abandoning the hand filing systems at the departmental and college levels. The ability of a human being to respond to the special needs of small numbers of students is difficult to match with a computer. Jobs such as mandated government reporting and scheduling class hours to avoid conflicts may be done as efficiently by clerks at the departmental level as by a centralized computing system.

Library

The experience of the library is instructive in several ways. It is a very good example of the optimism which almost certainly is inherent in estimates of the cost and time required to develop, program and install a new system. It also suggests that well developed, reasonably priced, commercial systems are available for special purposes.

The library has a locally developed computerized acquisitions system, installed in the late '60s. In 1967, the cost was estimated to be \$12,000 per year extra over manual processing. Actual cost to the library in 1972-1973 was \$74,000. Not surprisingly, the library management is disappointed by this difference. The main benefit of computerizing the acquisitions system has been that better service can be provided to library users. The library management is now looking into the purchase of a small computer recently developed specifically for handling library acquisitions. The computer hardware costs about \$120,000, while the estimated annual maintenance is \$5,000.

The library also has a computerized cataloging system shared with the Ohio College Library Center, Columbus, Ohio. The costs have been those anticipated and the service is judged satisfactory. Some decrease in the size of the library staff (roughly 10 per cent over the last three years, mostly in the central processing department) has been effected by this particular computerization.

The point here is that small special purpose computers, designed for particular jobs, with proven performance are becoming available in many areas. For many problems, this may be a less expensive and more satisfactory solution than using a large central computer for which programs have to be developed for each application.

Administrative Computing-Evaluation

Administrative Computing-Evaluation

Our examination of the major components of the administrative computing budget did not lend much support to the previously mentioned reasons for an increased administrative computing budget. The increase in size and total budget (in constant dollars) of the University in the last 20 years has been a modest factor of two. Professors still teach, advise and grade students and engage in research much as they did a generation ago. While the subject matter may have increased in complexity, we find no evidence that the management of academic affairs or the size and complexity of the University has increased enough to necessitate a computerized information system. Furthermore, it became apparent to us that the demands for a computerized information system generally did not come from the professorial staff. While it is possible that the proposed student information system will have benefits for the faculty and students, such as more up-to-date pre-registration lists and better scheduling of classes, we found no evidence that the project was initiated in response to a strongly expressed need. Nor did we find evidence that there was any significant input from the faculty about the advisability of the increased expenditures that will surely result from the implementation of this system.

We further found little support for the hypothesis that the computer had significantly reduced the cost of any operation. For example, in the admissions operation the computer now does clerical tasks that were previously done by hand. However, there has been no decrease in the clerical staff and there is no overwhelming evidence that the whole operation has been significantly improved by the introduction of a computerized system. We further found no evidence that academic functions had been seriously improved by the introduction of a computerized system. While there is no question that a fully com-

TABLE II

ADMINISTRATIVE COMPUTING EXPENDITURES, INCLUDING PRODUCTION AT OCS, NON-PRODUCTION (MAINTENANCE AND DEVELOPMENT) AND MSA (MANAGEMENT AND SYSTEMS ANALYSIS) MANPOWER

	1971-1972	1972-1973	1973-1974
Student Registration (old & new)		170,221	251,036
Student admissions	312,915	97,564	120,934
Student financial		30,803	28,812
Endowed payroll	191,038	180,539	179,809
State payroll	163,557	154,636	126,168
Public affairs	169,767	218,731	198,144
Library	75,371	78,460	73,864
B & P, + Communications	35,118	59,675	62,747
MSA (Exec Staff etc.)*	6,101	39,188	47,649
College Stores	54,717	55,579	47,062
Personnel	26,907	40,836	39,959
Other	72,465	47,941	67,806
Total	1,107,956	1,174,172	1,244,070
MSA manpower*	218,666	199,059	219,283
OCS subtotal	889,290	975,113	1,024,787

* Does not include all gross salaries and wages, fringes and general expenditures, which amounted to \$514,230 during 1972-1973, and to \$566,704 during 1973-1974.

puterized system can give precise and quick answers to many questions that can only be known approximately without a computerized system, we did not find evidence that academic operations had been impeded by lack of that precise information.

A complicating and expensive feature of the planning for future administrative use in the payroll and student information systems is that an attempt was made to design these systems so that they satisfy not only present needs but are flexible enough to provide for anticipated future needs. In addition, the goal was an "on-line interactive system," which provides instantaneous access to data from remote locations. Again, quoting from the same report⁽¹⁾, "If industrial experiences are relevant to higher education, on-line, interactive entry and retrieval will present an excellent vehicle to provide the needed flexibility to administrative users with a minimum of day-to-day support of OCS and MSA" (Management and Systems Analysis).

In addition to the internally generated pressures for increased administrative computing, there are also external pressures arising from the reporting requirements imposed by various government agencies. In fact, in our conversations with members of the administration, this subject was a very important one. Not only were the requirements judged onerous now, but it was feared that the task would become increasingly more demanding. Cornell is now required by law to respond to approximately 50 questionnaires annually from various governmental agencies. Some of these requests for information require detailed analyses of such data as the makeup of the student body, course enrollments, or faculty commitments. While some of the requests for information are identical from year to year, new requests arise periodically which require data to be sorted in new ways. One way to respond to these requests for information is to have a computerized information system that contains enough information to enable the administration to respond to every conceivable request for information from the government without further contact with college and department offices. Such a procedure was generally favored by those involved in preparation of the responses. While it insulates and protects the faculty and the student body from external interference, it can only be implemented at the high costs of maintaining a sophisticated computerized information system. On the other hand, it would be possible to answer these requests for data without a computer by asking the departmental and college offices for the information needed. The problems raised by these mandated requests for information are not simple, and need further study by both faculty and administration.

Thus, growth in size and complexity, good management practices and government reporting requirements all contributed to the present and anticipated growth in administrative computing. We have examined these various aspects in some detail, and have not become persuaded that Cornell would be well served by a large growth in administrative computing. We question some of the reasons given for the past growth; we question the cost effectiveness of some of the major administrative computing applications; and we question the desirability of providing the possibility of instant access to a very large body of information, much of which, to us, seems irrelevant to the functioning of the University. In fact, we even question the wisdom of storing some of this information.

Though we believe there is some need for administrative computing, we believe the elaborate, expensive, on-line systems now planned or in existence are unnecessary. In view of past performances, we also doubt that such complicated systems can be made to work smoothly except at much greater expense and on a much longer time scale than now anticipated.

In the following lines, we discuss some of the reasons for these conclusions. We examine in more detail some of the assertions made about the need for increased administrative computing, and about the benefits to be reaped.

UNIVERSITY GROWTH

How rapidly has the University grown? One measure might be the increase in the

number of people employed by the University. In the last 25 years the number of students, of faculty, and of support staff, all have increased by a factor of two. This seems to us a rather moderate growth, not necessarily requiring radically new management techniques. We also note that some universities (Berkeley, for example) were larger 30 years ago than Cornell is today.

Another indicator of growth is the total budget. In 1950, the University budget was about \$30 million. In 1974 the budget is about \$200 million, an increase of about a factor of seven. Part of this increase is simply due to inflation. If the University did not grow at all, the budget would increase at the inflation rate. If we assume an inflation rate of 4 per cent per year, the budget would have grown from \$30 million in 1950 to \$80 million in 1974. Thus, the true growth is approximately a factor of two and one half. It is not clear that the rapid growth in research contracts reflects itself in a proportional growth in the need for central administration. Much of the administration of these contracts is done locally, by the researchers. In any case, the budget reinforces the picture of a moderate real growth in the last twenty-five years.

Increased Complexity of the University

There is a rather generally held opinion that Cornell is a much more complex organization than it was in 1950. The reasons for the added complexity are generally not so clear. The academic functions of teaching, learning, and research have changed rather little. Of course, there has been the modest increase in numbers previously noted, but the nature and style of the activity hasn't changed. It is no more complicated to teach or study now than it was 25 years ago. If in general professors spend more time on research, this is compensated for by lighter teaching loads. Being a professor is a demanding job. Competing demands of teaching, research, not to mention a myriad of secondary tasks, such as writing this report, can be very trying. However, the problems and rewards seem to us about the same as they have always been. If there has been an increase in the complexity of the University, as seen by students and professors, it seems to us to have been generated largely by increasingly complex administrative procedures. Frequently cited reasons for the increased complexity are the enactment of Federal Legislation such as the Fair Labor Standards Act, and also the increased number of centers and special programs at the University. Furthermore, there is a new burden imposed by Government reporting requirements, which we will discuss in some detail later in this report.

Directions of Increasing Computer Usage

We would like to discuss the benefits derived from the increased use of computers in various areas from our point of view.

Increased use is being made of the computer for storing and processing various academic records. We have not been aware of any great benefits to either students or faculty from this practice. Grades are not processed any more rapidly, possibly less so. For example, some years ago, mid-term grades were available for advisors at pre-registration time; this has not been true for some years now. It is our subjective impression that the various computer outputs we are provided with from time to time have not been particularly useful to us.

As mentioned before, the new direction in administrative computing envisions, eventually, a complicated, expensive, on-line system with capabilities which we believe to be of dubious usefulness. The system has rather disturbing implications with regard to privacy and confidentiality of records. It imposes on future generations of students the burden of frequent updating of records in order to keep the system operating.

The student information system is already several years behind schedule and its completion is certainly several years away. These long delays have involved substantial additional costs. We wish to emphasize that our reservations about this system stem not only from the technical difficulties and the expense of developing it, although we do believe

these have been grossly underestimated, but also from our doubt that the benefits will outweigh the disadvantages even when the system is fully developed.

Burden of Government Reporting Requirements

We have found this to be a rather elusive topic. It is difficult to get an quantitative feeling for the dimensions of the problem. However, there is no doubt that the problem looms very large in the eyes of the staff having to deal with it. There is also much uneasiness that the demands will increase greatly in the future.

In an attempt to get some feeling for the present problems, we have looked at a number of the forms Cornell is required to fill out. It is our general impression that rather simple methods for adequate compliance can be found. For example, some of the information required could rather easily be obtained from department offices. One of the arguments for rejecting this kind of approach is the desire to shield the faculty from nonessential problems. However, it is not clear that the faculty isn't paying too high a price for this protection. In any event, we are not convinced that comprehensive data banks capable of instantly responding not only to the questions now asked, but to all foreseeable questions, provide either a feasible or desirable way to respond to the problem. We are skeptical that an acceptable approximation to such a system can be devised in reasonable time, at reasonable expense, and without intolerable invasion of privacy.

We believe that intrusion of the government into the affairs of the University poses a very serious problem. We believe that the issues it raises go beyond the question of how to respond to onerous and occasionally foolish questionnaires. We believe that the problem requires very careful study, in which the faculty has an obligation to participate.

Summary, Recommendations

1. This report raises a number of questions about administrative computing. Generally, we question the validity of the almost automatically made assumption that more is better where data storage and retrieval is concerned. We believe that some control in the proliferation of complex systems such as SIS is necessary. We do not wish to make specific suggestions for such control, although we believe the faculty should be intimately involved in their formulation. We recommend that the Dean of the Faculty explore possible mechanisms to this purpose.

2. We believe the faculty has an obligation to understand and help solve the problems arising from various legal and reporting requirements imposed by the government. As a start, we suggest a joint administration-faculty investigation into these problems so that concrete and quantitative ideas about their nature can be formulated. Eventually, the solution requires the understanding and cooperation of the government. For this purpose, joint action by a number of universities might be effective and we urge investigation of this possibility.

Acknowledgments

Of the many people who have made themselves available for discussions with members of the subcommittee or who provided help in other ways, we should like to mention Mr. S.A. Lawrence, Mr. H.G. Vaughan and the staff of MSA, Mr.

J.W. Rudan, Mr. G.F. Shepherd, Mr. R.M. Ross, Mr. D.K. Willers, Mr. P.C. Arthur, Mr. B.G. McCalmon, Ms. J. Failing, Mr. R.A. Scott, Mr. A.R. Seebass, Mr. L. Mench, Mr. D.A. Huff and Mr. G.V. Chester.

FOOTNOTES

¹Excerpts from the Future of Administration Computing at Cornell, prepared for the University Computing Board by J.A. Campbell, Management Systems and Analysis, February 1973.

²These costs, actual and estimated, do not include all of the expenses involved in administrative computing; there are considerable expenses in the administrative offices themselves for preparing information for the computer and digesting information spewed out from it.

³During the fall term of 1974, OCS has instituted a discount scheme, offering a reduction of 30 per cent for an annual computing commitment between \$5000-\$10,000, of 50 per cent for a commitment between \$10,000 and \$20,000, and of 70 per cent for commitments over \$20,000. These discounts apply to research computing, only, and are subject to the condition that 80 per cent of the work be done on the third shift, or on weekends. While availability of the scheme improves the competitive position of OCS with respect to outside computing systems, the latter still have not lost their attraction to large scale computer users.

⁴IT resulted from coordinated efforts between OCS, the Programming Language Cornell (PLC) development, and academic units, and provides free access to the computer for jobs with a duration of one second or less. A small fraction (12 percent) of the capacity of the new IBM 370/168 computer is reserved for IT at all times, and turnaround time (which is the time between loading the program and receiving the output) usually is a few minutes or less. When there are many IT users during a given period, the turnaround time becomes larger (typically about ten to twenty minutes), because of limitations on the rate at which output can be printed. During such periods, input loading may be suspended.

⁵Report on the University Computing Board's Recommendations to increase the computing capacity of the Office of Computer Service (University Computing Board, July 1973), an ad hoc committee appointed by the Dean of the Faculty; no date, but appeared September 1973; page 3.

⁶Including non-production and MSA (Management and Systems Analysis) manpower raises the figure of \$210,000 to \$306,000 (see Table II), and the cost per check to \$.92.

⁷During the last month or so there have been developments with respect to SIS that are left out of account in this discussion.

Faculty Subcommittee on Computer Usage:

P.C.T. de Boer, Chairman
N.R. Lyons
W.L. Maxwell
A. Silverman
P.C. Stein

Lawrence Letter to Computer Use Committee

Thank you for the opportunity to comment on the report relating to Computer Usage at Cornell being presented to the Research Policies Committee and for incorporating the data relating to trends in computing expense developed by OCS in the appendix tables to the report.

I believe that these data properly reflect the trends in computer use by administrators over the past six years. During the late sixties and through 1971-72, several significant extensions were made in the application of computers to payroll preparation, admissions, and library procedures. Over the last

three years, under the pressure of University-wide budget restrictions, administrative computing expenses have levelled off. Some new capabilities have been added but concurrently steps have been taken to improve running times and efficiency of existing programs. On net, charges to general purpose funds for administrative computing have accordingly held approximately level over the past three years. Use of the OCS computer by the SIS contractor and to test SIS products, financed through a special one-time appropriation of

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Lawrence Responds To Computer Report

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capital funds, has resulted in a modest growth of total administrative computing.

It does need to be emphasized in any treatment of computing costs that the very large proportion of the reported figures reflect necessarily arbitrary assignments of the so-called "joint cost" of operating the large Langmuir computer. Also because the computer is owned and much of the peripheral equipment is on long-term lease, these joint costs are not easily modified. Many users feel that the billing algorithms which are used to distribute these joint costs place an unduly high proportion of the costs on those users whose data processing requires manipulation of large files or who use large core regions — conditions that characterize many administrative applications. It should also be recognized, however, that revising the rate structure to be acceptable to everyone is a time-consuming and almost impossible task, and further that any "savings" realized may not result in any reduction in OCS' expense budget.

I hope that readers of your report also will recognize that the discussion of Student Information Systems has been overtaken by events. Computer charges in the \$200 to \$250 thousand range to run the programs developed by the SIS contractor were clearly disproportionate to the benefits of the program and work under the contract has accordingly been suspended. An "on-line" operation and use of the computer to assign class times and rooms never were elements of the approved project plan although the software was designed to permit shifting to this type of operation should the basic system prove fully successful and "stage 2" development project be approved. At this point it is clear that "on-line" operation is not likely to be approved within the foreseeable future and it is doubtful that centralized room and class-time assignment by the computer will ever come to pass.

I would also like to emphasize that most of our large administrative computing systems fulfill a variety of purposes. Your committee's report properly emphasizes the concern of the administrative group for being able to meet our external reporting requirements in ways which minimize the already heavy workload in departmental offices. The payroll-personnel system offers a striking example. An MSA tabulation shows this system to be the basis for 134 special reports and listings each year, totalling some 667,000 pages of computer output. Much of this relates to internal financial controls, bank reconciliation procedures, and certifications to federal and state auditors. However, the system also is the source of all computer-based personnel reporting (including most affirmative action reports), of all reporting necessary in the administration of fringe benefit programs, and of all social security and other tax deductions. Furthermore, there is at Cornell an unusually high volume of short-term student and other employees working under a variety of arrangements. In total, during 1974, 23,500 employees appeared on the payroll. Dividing this number into the total computing expense, including non-production costs, yields a figure of under \$9.00 per annum per employee for all computer records and reports, including payrolls — a dramatically different perspective on the program than the 62¢ per check figure cited in the report.

The library example cited in the report illustrates several other aspects of administrative comput-

ing, which often are misunderstood. First, most systems grow incrementally. The system developed for the Library in 1967 was a system of significantly different content and scope than that now being run for \$74,000 per annum. Second, the use of such systems often creates new personnel costs which may offset and thus negate anticipated savings in personnel. (This factor appears to have contributed substantially to the Library's concerns inasmuch as the Library's plan for covering an initially estimated \$34,000 computing expense assumed that certain typing, filing, and bookkeeping tasks could be curtailed to reduce net costs to \$12,000.) Finally, costs to the user have been significantly influenced by changes in the computing environment and billing algorithms. The doubling in computing costs experienced by the Library between 1968 and 1975 reflects both the impact of changes in OCS pricing structure, a roughly 50 per cent expansion in the status file, and a variety of other adjustments in the Library program. These latter include both an increase in print volume and decrease in rate of new entries to the file.

Also, as noted in the Library comment, specialized mini-computers often appear to offer an attractive alternative to individual users, who feel that such equipment might be assumed at minimal additional cost by their organizations. Direct equipment costs, however, are only a portion of the total costs, including software development, production control, maintenance, and overhead. At least some degree of centralization accordingly has been adopted in administrative computing in virtually all colleges and universities. At Cornell, the acquisition of the 370/168 was premised on continuation of a high degree of centralization in computing activities.

Your committee has concluded that although "there is some need for administrative computing, we believe the elaborate, expensive, on-line systems now planned or in existence are unnecessary." Undoubtedly different judgments will continue to be reached by different people as to proper levels of expense and elaboration, but I can assure you that no administrative systems are now on-line, that no on-line systems are planned (though there is a possibility of introducing direct data entry for library acquisitions), and that our objective is to deal with large, complicated processes in as simple, straightforward, and economical manner as possible.

S. A. Lawrence

Sheff Assesses Cornell

Continued from Page 1

time: that we experience time in a progressive sense because molecules move in accordance with the second law of thermodynamics. It tied in so beautifully with Hegel's concern with history and the flow of time."

Sheff, who confesses a penchant for synthesis, says that whenever he writes a paper he always seeks to make connections and parallels among various thinkers. One example is a paper he wrote this semester on Marx and his thesis of historical materialism. Using information from two other courses, one in the history of science and the other in psychotherapy, he related Marxist historical materialism both to Newtonian materialism and to Freud's understanding of individual motivation in history.

"Here were three great minds," he explained, "all dealing in some sense with history or with experience. Although the concepts were divided into three different courses they weren't in me. I found their interrelation and underlying unity exciting."

Sheff feels there is a great fragmentation of knowledge on campus through overspecialization and a plethora of departments but that there is still a great unity of knowledge and ordering of chaos to be found at Cornell in the minds of the individual faculty.

"I look at Cornell as an almost unlimited resource to be taken advantage of by the student. One of the most valuable resources around is the professor. The professors who have really turned me on to their areas of study have not been limited to the disciplines they happen to fall under. For instance, (Dominick) LaCapra is under history, but he's an intellectual historian and deals with the social sciences, literature and philosophy as well. (L. Pearce) Williams is in history of science tying together science, philosophy and history. They may fall under narrow disciplines in a catalog or in a title, but as men and as minds they range over very broad areas of thought in a very exciting way. Those are the types of men and women I have been attracted to."

"In my first term at Cornell," he said, "I was looking at

courses and a real strange quirk of fate got me into (Werner) Dannhauser's course on political philosophy. I was going to take Soc. 101, but my resident adviser came down the hall and said, "You don't want to take that, it's a lousy course. Here's a good course: Dannhauser's political philosophy." Right, what's that. I didn't know, but I took it. I was also taking a freshman humanities course in philosophy in the Philosophy Department. But I really didn't like the philosophy course I got from the department and I very much enjoyed Dannhauser's course in political philosophy, but that was taught in the government department. So if I wanted to study philosophy the way I wanted it I had to go to the government department. Suddenly I began to look at all the departments as being split up in sometimes absurd ways. What I wanted to study wasn't necessarily along strict departmental lines."

As a result, at the end of his freshman year, he applied for the College Scholar Program which permits select students to design their course of studies through a faculty adviser during their sophomore, junior and senior years, without complying with any of the requirements of a set major. He has pursued concentrations in intellectual history and psychology in this program.

In his junior year he decided upon a medical career, now delayed because of the Oxford opportunity. He felt medicine was the best way to satisfy his interests in theory and practice. It combines the intellectual challenge of a technical discipline with the practical art of a healer.

His concern for doing things for and with people is evident in the variety of his extracurricular activities. In the words of one of his recommendations for the Keasbey scholarship: "Rick Sheff shatters the stereotype of the premed as the grade-grubbing grind who only emerges from the chemistry lab long enough to take another course in biology." He has been a member of the University Senate; is president of MED (Cornell's Pre-medical Society); serves as a student adviser to premed students, is co-founder and co-coordinator of the new Health Careers Service

Organization; has done volunteer work at Willard State Mental Hospital; was active in campus drama groups; played intramural sports; worked actively in the Ski Club; and is an instructor in mountain climbing and survival during the summers.

One of his greatest concerns has been the problem of the premed student and the great pressures under which he works. "Here they are, trying to get into a field where they have to help people, and right now they are cutting each other's throats," he said.

One of the biggest problems is the lack of concrete information about what exactly is required to get into medical school, he said. "There is a realistic selection pressure but this combined with a lack of information creates an ambiguous situation that leads to a lot of paranoia."

The health career student adviser service is aimed at dealing with problems of just plain information as well as attitudes among premeds: "We try to help them think in broader terms than just medicine because they have a wonderful opportunity for a liberal education at Cornell that will equip them for a lot of things. Many will not get into medical school and others will not be happy when they do get there. We want to encourage students to look at medicine as just one of a number of possibilities for a career. 'Sure, you're premed but you're also here, you're a human being, you've got other academic interests and should follow whatever your interests are at Cornell because the education you get here will be a resource that you can draw on for the rest of your life.' To me that's an attitude that gets lost among premeds and most pre-professionals."

Sheff said he came to Cornell with a questioning attitude and is leaving Cornell with the same questioning attitude but with the all-important factor of a broader and deeper perspective towards life developed over the past four years.

"I've established a background in a lot of different areas to raise intelligent questions in an educated way. I can now deal with them with a little more sophistication and assurance than a high school student asking 'what is life?' or 'who am I?' The questions are still there but I have a lot more knowledge about what some of the great thinkers have thought about these questions."

"At Cornell I've found that a lot of professors are grappling with experience which is inherently chaotic and yet somehow they make sense out of it. They are doing this both intellectually and personally. Professor Williams calls it wisdom, and I believe I've tapped some of that wisdom during my four years at Cornell."

"How thinkers and people in general make sense out of the chaos of experience," he said, "is a crisis kind of question. I think it's probably the question of the 20th century; it's the question for me in terms of my education and how I live my life."

Martin B. Stiles

Farm Manure: Fuel of the Future?

The use of bio-gas from farm manure as a fuel for a typical gasoline engine results in very poor engine performance, Cornell researchers have found.

The power output of the engine may drop as much as 50 per cent. On the other hand, if pure methane from the bio-gas is used and if the engine is modified, the efficiency may equal or exceed that obtained with gasoline as a fuel.

Sergio Neyeloff, a graduate student at the New York State College of Agriculture and Life Sciences, reported the finding in a talk at the Cornell University Agricultural Waste Management Conference in Syracuse.

The conference was sponsored jointly by the College of Agriculture and Life Sciences and the National Science Foundation.

In a study conducted under the direction of Professor Wesley W. Gunkel, agricultural engineer at the college, Neyeloff found that the performance of methane gas is best at the compression ratio of 15 to 1. This compares with the compression ratios of 7½ to 1 and 8 to 1 for gasoline engines in automobiles and farm tractors.

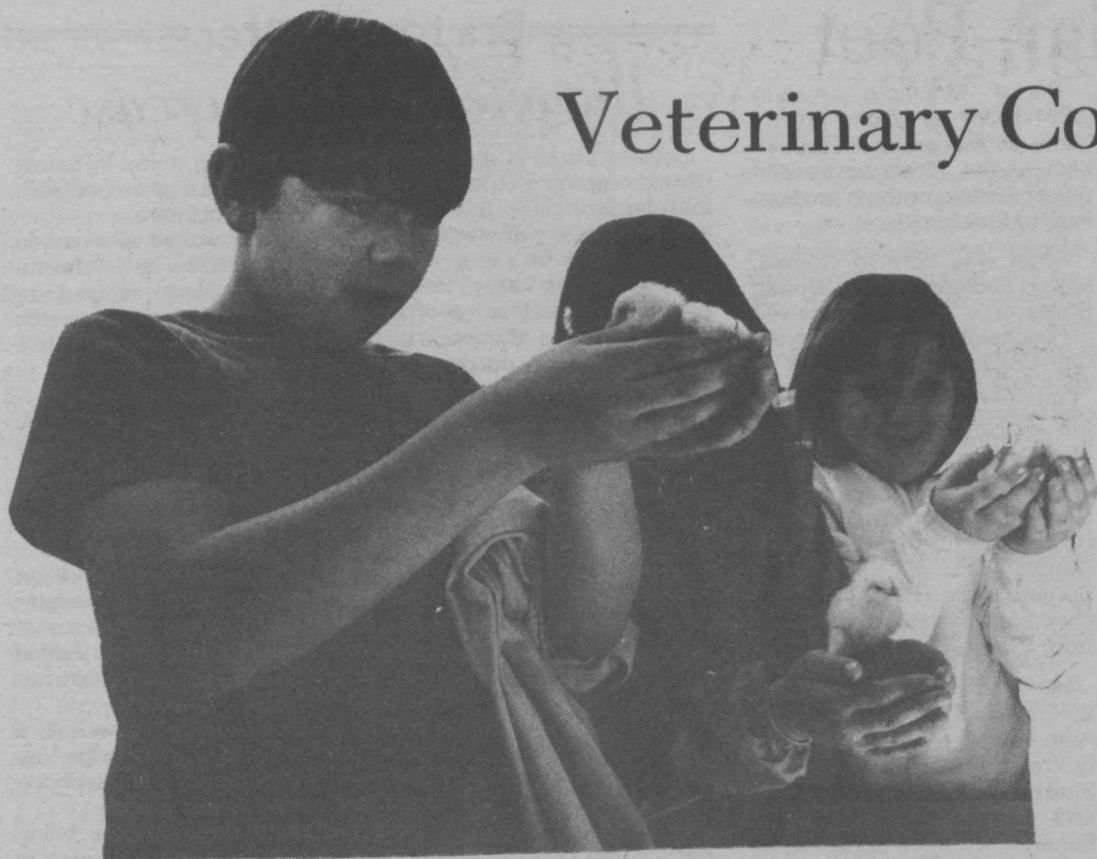
The study was conducted to gain a better understanding of the usefulness of methane as a fuel for internal combustion

engines and of the possible design changes that could be expected, Neyeloff said.

Another problem with methane gas for cars or farm tractors is that the gas has to be liquified or highly compressed so that it can be stored in a small gas tank. Since extremely high pressure is required to compress methane into a liquid form, methane in its gaseous form may not be practical as a fuel.

The Cornell engineers, however, see the possibility of using methane as a fuel for stationary engines and mobile farm machinery within a confined area where frequent refueling poses no problem.

Veterinary College Open House



When the doors of the New York State Veterinary College at Cornell opened to the public early Saturday morning, excited children and their parents were already waiting outside—eager to learn more about the field of veterinary medicine, pick up pointers on pet care and find out what it takes to become an “animal doctor.”

The open house, an annual event organized and run by Veterinary College students, attracted more than 7,500 people this year — some from as far away as Canada, New Hampshire and Alabama.

Children listened to the heart beat of guinea pigs; watched baby chicks hatch from their eggs; saw how cows and sheep use their four-parted stomachs to digest hay that would throw the human stomach for a loop.

At regularly scheduled times, veterinary students put on demonstrations of animal care for large and small animals. A particularly popular demonstration featured Christy, an amiable Irish setter who was given a physical examination by her veterinary student owner. The student also demonstrated pet care techniques — nail clipping, shampooing, brushing — which the pet owner can do at home.

Films on the field of veterinary medicine, on the birth of a foal and on aseptic joint surgery in the horse, were presented during the day. Every half hour buses took visitors from the main campus to the school's Equine Research Park.

Other exhibits covered physiology, pharmacology, pathology, radiology and other aspects of veterinary medicine.



Photos by Russ Hamilton

Fogel Talk on Russian Poet

Ephim Fogel, faculty fellow at Cornell University's Society for the Humanities, will deliver a lecture, under the auspices of the society, at 4:15 p.m. today,

in Kaufmann Auditorium, Goldwin Smith Hall. The subject of the lecture is "The Odyssey of Osip Mandelshtam: 1913-1925."

Osip Mandelshtam (1891-1938) is regarded by many as the greatest Russian poet of the 20th century and one of the two or three greatest in all of Russian literature.

Fogel was born in Odessa, Russia and came to the United States as a child. He received his bachelor's degree from the City College of New York in 1941 and served in the United States Army during World War II; he took his master's in English at New York University in 1947 and his doctorate at Ohio State University in 1958. He has been a member of the Department of English at Cornell since 1949 and was chairman of the department from 1966 to 1970.

He is co-author, with David V. Erdman, of "Evidence for Authorship" (Cornell University Press, 1966); his essays on Shakespeare, Sir Philip Sidney and other writers of the Renaissance have appeared in various learned journals and scholarly books. Fogel's original poems and translations from the Russian have appeared in *The Atlantic Monthly* and other publications.

Academic, Financial Dateline

Reminders:

—Avoid a finance charge: If your mailing address changes for the summer, please fill out a change-of-address form in the Cornellcard Office, 260 Day Hall, by May 15. Cornellcard bills will be out May 2.

—Applications for BEOG 1975-76 are available in the Financial Aid Office, the COSEP Office and the following college offices: Architecture, Art & Planning; I&LR; Hotel; Agriculture; Arts & Sciences; and Human Ecology.

If you still haven't seen Mrs. Haxby in the Financial Aid Office to have your 1974-75 award processed, you should make an appointment to see her at once. Those students who have not returned their signed BEOG receipts and/or student affidavits should do so.

—June graduates who are loan recipients: Call 6-5145 before 4:30 p.m. now to sign up for an exit interview (April 7 - May 2). Failure to do so will result in hold up of grades and transcripts.

—June 1975 Degree Candidates: Financial accounts must be checked personally with Student Accounts, Bursar's Office, 260 Day Hall, between May 12 and May 23. Candidates whose accounts are not cleared cannot be certified for a degree.

—ATTENTION SENIORS: Students who expect to graduate in June and have not received by mail a packet of commencement information material, can pick one up at the Registrar's Office, 222 Day.

Three Task Forces Schedule Open Hearings

Task force #21, University Health Services, will hold an open hearing at 7:30 p.m. Monday, May 5, in 215 Ives Hall, chairman Howard C. Kramer has announced.

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There will be open meeting of Task Force #1 on the Learning Environment, chaired by June M. Fessenden-Raden at 3:30 p.m. on Friday, April 25 in Room 117 Ives. If anyone cannot attend this meeting, please send written, signed comments to Dr. Fessenden-Raden in 118 Stimson Hall.

The charge to this task force follows:

1. Review the reports of other task forces whose subject areas have a bearing on the learning environment (most of them); evaluate the recommendations contained in those reports in terms of their impact on the learning environment. (This includes reports of task forces under the supervision of the provost.)

In carrying out this task please separate, wherever pertinent, lower division learning environment from upper division, and undergraduate from graduate.

To complete this task within the time allowed the task force should secure information from other task forces as early as possible. To that end, wherever possible it should ask for draft reports, etc., not with the idea of participating in the development of the other task force efforts (unless so requested and able to do so), but for the purpose of developing its own response.

2. Review and compile a synopsis of earlier work on the learning environment (e.g. the Kahn-Bowers Report), updating it to the extent feasible.

3. Identify and analyze any particularly acute trouble spots currently affecting the learning environment. Identify the strengths in the learning environment and how they can be further amplified.

4. Restate, using information developed in connection with the foregoing charges, the fundamental principles upon which this task force bases the specific priorities recommended pursuant to the following paragraph.

5. Establish a hierarchy of priorities for cost reductions recommended by other task forces in terms of their impact on the learning environment. These should be as precise as possible; they should present clearly and concisely the views of the task force as to what budget cuts will hurt the learning environment the least, what the most, and where in between the others lie. (Since this schedule of priorities should cover all cost reductions recommended by any of the other task forces, it will cover much more than the 15 per cent cost reduction range, and this task force should not stop lining up its priorities when it reaches what it thinks is a 15 per cent reduction in the costs attributable to providing a good learning environment.)

• • •

Priorities Study Task Force #4, Minority Programs, will hold an open hearing at 7:30 p.m. on Friday, April 25, in the Martha Van Rensselaer main auditorium.

The charge to the task force follows:

Areas: Africana Studies and Research Center; COSEP; minority financial aid throughout the University; pro-

spects for an ethnic studies program; affirmative action in both faculty and non-faculty staff; any other areas affecting minority programs.

At the request of the chairman of the Trustee Ad Hoc Committee on Status of Minorities, the director of the Priorities Study, after consultation with President Corson, agreed that the report of that committee could be used in the Priorities Study in lieu of a report by an independent task force. At the time of this arrangement, it was understood that the committee would have its report ready in time for incorporation into the final report of the Priorities Study to be made at the end of June. In mid-March, the committee voted not to make its report until October, the result being that its report could not be incorporated into the priorities Study.

Had a Minority Programs Task Force been formed early in the Priorities Study it would have had three fundamental charges:

1. Reviewing the cost-effectiveness of existing programs, the possibility of reducing costs without reducing programs, of reorganization and the like.

2. Determining how, after all other possible economies had been achieved, the costs of minority programs could have been reduced a further 15 per cent and priorities that should be used within any such 15 per cent reduction.

3. Reviewing the reports of other task forces whose subject areas have a bearing on minority programs; evaluating the recommendations contained in those reports in terms of their impact on minority programs.

Barton Blotter

Bicycle Thefts Increase

Several bicycles appeared again as missing items in Safety Division morning reports this week, as spring brought more bikes into places on campus where thieves could get to them.

They were stolen during the week from a secured spot next to Uris Library, from a spot secured to a rack next to Sibley Hall, from a locked place on Baker Plaza (two bikes, same place), secured to a railing between Upson and Thurston Halls, secured to a front porch at 228 Wait Ave. Someone also stole a padlock and chain from a bike left in the rack outside Mary Donlon Hall, but left the bike.

Other items on this week's list of thefts include:

A "Dangerous Intersection Sign" on Campus Road; an electronic counter valued at \$1,500 to \$2,000 from a room in Kimball Hall; a wrist watch left on a clothing hook in a Teagle Hall shower room; an Army jacket from the Navy cage in Barton Hall; a cassette tape player and tapes from a car parked on Kite Hill; \$20 from a wallet lost in Barton Hall during a Folk Festival.

Also, a pocket calculator from an unlocked room in Clara Dickson Hall; an IBM Selectric typewriter used in connection with computer work and valued at \$1,750, from Langmuir Laboratory; a wallet with \$15 in cash from a secured clothes basket in Teagle Hall; coffee money from a desk in Stimson Hall; a telephone from the Visitor Information desk on the second floor of Day Hall.

Also, a wallet and watch from a room in Clara Dickson Hall; a wallet from a purse left unsecured behind a desk in Martha Van Rensselaer Hall; a wallet from a locker in Teagle Hall; a telephone receiver from the lobby of North Campus Dorm 7.

Three incidents were reported of vending machines being broken into and the money stolen — one in Rand Hall, one in University Halls 1 and one in McGraw Hall.

The most unusual theft was recorded in North Campus Dining Hall, where a student manager reported observing a young man steal approximately 20 cups of soft drink by pouring them into a container he had concealed in a knapsack. When an officer arrived, the young man had already left.

Because the task force is being established very late in the study, it no longer appears feasible to charge it with the kind of global investigations that would be called for by 1 in the foregoing paragraph. That part will, therefore, have to fall within the many lacunae inevitably occurring in a study of this kind. In view of the determinations of the University administration and trustees to maintain the goals of the minority programs in spite of overall cost reductions, 2 has become largely moot inasmuch as it postulates, however hypothetically, reduction of the programs, a reduction appearing to be inconsistent with the announcements of the administration and trustees.

3 remains an achievable and needed function; indeed, in view of the delay in the report of the Trustee Ad Hoc Committee, it has become essential

that this task, which follows a pattern used by Task Force #1, Learning Environment, be performed.

Charge: Review the reports of other task forces whose subject areas have a bearing on minority programs; evaluate the recommendations contained in those reports in terms of their impact on minority programs. (This includes reports of task forces under the supervision of the provost.)

To complete this portion of its task within the time allowed, the task force should secure information from other task forces as early as possible. To that end, wherever possible it should ask for draft reports, etc., not with the idea of participating in the development of the other task force efforts (unless so requested and able to do so), but for the purpose of developing its own response.

University Costs Can Be Cut On Long Distance Calls

One of this week's suggestions for cost-cutting at the University, submitted to the Office of General Services, is that long-distance calls to the Central, Mountain and Pacific Time Zones be made whenever possible after 5 p.m.

This results in a 40 per cent saving for a three-minute call.

It was also suggested that in an effort to prepare for the start of 10-cent charges for telephone information calls in September, employees should develop, over the next five months, an inventory of long-distance numbers used.

According to Edgar A. Swart, administrative assistant in

charge of telephone services, "While the University will be allowed a limited number of 'free' information calls each month, the University's service charges will be reduced by about \$10,000 per year if we do not exceed the pre-established limit."

Below are three more numbers that may be added to the list of toll-free numbers developed by General Services. A complete list can be obtained from its office in Day Hall: Central Veterinarian Co., Fitchburg, Mass., 800-225-8020; Kindt-Collins Co., Springfield, Mass., 800-628-8967; Textronix Inc., Syracuse, N.Y., 800-962-1095*.

*Changed number

Big Red Soccer

NASL Team to Play CU

The Rochester Lancers of the North American Soccer League have agreed to play a game against Cornell to assist the Big Red in its fund-raising for its trip to Poland this summer.

The Lancers, the first pro soccer team ever to play in the Southern Tier, will meet Cornell on May 11 at 3 p.m. on Schoellkopf Field.

Tickets are \$1 in advance, \$1.50 at the gate. They are on sale at Teagle Hall, Willard Straight Hall, North Campus Union and Noyes Center on campus and Mayers Smoke Shop in Ithaca. Members of the Cornell team are selling tickets also.

"We're delighted with Rochester's willingness to help us out and with the chance to

play a truly big-league team," Cornell coach Dan Wood said. "We're shooting for a crowd of at least 2,000, which would be a great help financially. I think the opportunity to see a pro soccer team for \$1 is a great bargain."

Rochester, champions of the NASL in 1970 and semi-finalists in 1971 and 1972, is led by captain Charlie Mitchell, a league all-star for several seasons.

Cornell's soccer team will play a series of games in Poland on a 23-day tour in August. The trip will cost approximately \$17,000, with the Polish government picking up some \$6,400. The remaining \$10,600 must be financed through sources such as the Rochester game, gifts from alumni and friends, and the players themselves.

"The players are going to miss a month of summer work as it is," Wood explained, "and we hope to make the financial strain on them as light as possible. Hopefully, we can raise most of the money, but the players are prepared to make the sacrifice of paying their own way."

The entire Rochester organization — vice president John Petrossi, general manager Sal DeRosa and coach Ted Dumitru — has cooperated in making the May 11 game possible, Wood said. "Rochester's regular season starts April 26 and it's really generous of them to play us an exhibition after their schedule started," he said.

Dedication May 3

Oxley Presents Polo Arena



John T. Oxley

The John T. Oxley Polo Arena and Cornell Equestrian Center will be dedicated on Saturday, May 3 at 2:30 p.m. in a ceremony at the arena on Route 366.

John T. Oxley of Tulsa, Okla., and Boca Raton, Fla., the principal donor for the reconstruction, will present the building to University President Dale R. Corson at the ceremony.

Robert J. Kane, dean of athletics, and Dr. Stephen J. Roberts, Cornell's former polo coach, will participate in the dedication ceremony also. A polo game between the Cornell varsity and Cornell alumni will begin at 3 p.m.

The reconstruction project, which was completed in the fall of 1973, cost some \$290,000, of which Oxley pledged \$200,000. The project included re-

construction and extension of the arena, construction of a new stable and reconstruction of an existing stable and feed-barn. The arena is used for equitation as well as polo.

Oxley, president of Oxley Petroleum Company in Tulsa, Okla., became interested in Cornell polo when his son, Thomas, was a student in the New York State College of Agriculture and Life Sciences. He was a member of the Cornell polo team under Roberts, who was instrumental in the development of Cornell polo before his retirement in 1972 after 25 years as coach.



Big Red Baseball Faces Crimson And Big Green This Week-end

Cornell and Harvard, two teams that can ill-afford another EIBL loss, clash at Hoy Field in a single game Friday at 4:15 p.m. Dartmouth, featuring the top pitcher in the league, comes in for a 1 p.m. doubleheader Saturday.

The Big Red and the Crimson each have suffered two league losses, with Cornell at 3-2 and Harvard 4-2. League-leader Penn is 8-1 and appears close to wrapping up the title.

A similar situation existed last season, however, and Harvard staged a miraculous finish to win its fourth straight EIBL title with an 11-4 record. The final victory was a 5-3 playoff win over Princeton.

Cornell was one of the teams to beat Harvard last year. They split a doubleheader, with Cornell winning the first game, 3-2, and Harvard the nightcap, 6-5. Those were just the latest in a series of one-run struggles between the Big Red and the Crimson. In 1971 and 1972 Harvard beat out Cornell for the

EIBL crown by scores of 1-0 and 3-2.

Coach Loyal Park has another big winner this year at Harvard. They swept 12 games on their southern trip and are 21-3 for the season. The losses have been to Tufts, Penn and Brown, the latter a 13-12 slugfest.

Cornell figures to face one of Harvard's two top pitchers — either lefty Milt Holt or righty Don Driscoll. Holt, the All-Ivy quarterback for the Crimson last fall, has a career record of 14-3. He has a 2.25 earned run average this year. Driscoll, 15-4 in his career, has fanned 39 batters in 36 innings this season.

Harvard has four outstanding hitters in Joe Sciolla (.388), Fran Cronin (.357), Leon Goetz (.355) and Ed Durso (.350). Goetz and Sciolla each have three homers and Goetz has driven in 24 runs.

Dartmouth, 2-4 in the league, will pitch Jim Beattie, a brilliant righthander, in one of the games on Saturday. The 6-6, 200-pound junior has a 4-0 record this year and a 0.90 ERA. In the league he's 2-0 and his 0.56 ERA is the EIBL's best.

The Big Green, which relies heavily on its pitching and defense, may use Ithacan Tom Snickenberger in the other game. The 6-5, 210-pound senior has a 0.75 ERA in the league, the third best mark.

Dartmouth has only one player, Steve Mele, hitting over .300 and he's been ill lately. In 11 games the sophomore outfielder was batting .313.

Cornell coach Ted Thoren will select his three starters for the weekend series from among sophomore Bob Dutkowsky, junior John Pilato and senior Bill Hoffman. All have had some good showings in recent games, with Dutkowsky owning the best statistics thus far. He's 2-2 with an ERA of 3.86.

Pilato, Joe Guarascio, Shane St. Claire and Mike Ryan all have been hitting well lately and offense looks to be Cornell's long suit. Dave Johnson had two hits in last weekend's games, both two-run homers.



JOGGERS—Members of the Cornell family who work out in University facilities come in all sizes. For example, there's Chris Cottingham, 4, the son of a law student, Thomas Cottingham, and his wife. He often comes with his parents for a run. And, there's M. Slade Kendrick, 80, professor emeritus of agricultural economics, who is another regular. They got together for a short jog at Barton Hall.

Fraternity Sponsors Beer-drinking Race

Beer-drinking runners will make the rounds of five Collegenet bars and eateries Saturday, May 3, and all for a cause: a Cornell University fraternity-sponsored footrace to raise money for the local Greater Ithaca Activities Center (GIAC) summer day camp.

Called "The Phi Psi 500," the footrace is open to anyone old enough to drink beer, yet not too old to try running the 1.1 mile circular course linking Phi Kappa Psi, Chef Italia, Royal

Palms, The French Connection, Morrie's, then down Williams Street to the Chapter House before the final uphill run back to Phi Kappa Psi, 525 Stewart Ave. Participants must chug a class of beer at each stop before continuing the race.

Proceeds for the GIAC summer day camp will come from participants' registration fees: Fraternity, Sorority and Independent Divisions, \$25 for the first three members of any team, with each additional runner costing \$5; and \$10 for each individual. Registrations may be made at a table in the Willard Straight lobby or by calling the fraternity at 257-2525. Challenges between organizations or individuals can also be made.

James Thom, a Phi Psi fraternity member, hoped some 150 to 175 runners would race the course starting at 30-second intervals during the afternoon. All runners will receive a "Phi Psi 500" tee-shirt whether they finish the course or not, he said. Trophies will be given out in each division for those who make the best times.

Spectators are welcomed and Collegenet streets linking the bars will be closed to traffic, he said. A party will follow at 9 p.m. at Phi Psi for all runners and sponsors.

The "Phi Psi 500" was initiated at Penn State University, where last year 130 runners participated and \$2,000 was contributed to a local day care center, Thom said.

Paper Recycled At Cornell

The more than 16 tons of paper being recycled monthly by 38 Cornell University offices is the result of a three-year recycling effort by the Division of Campus Life, according to Robert Brown, administrative aide, Campus Affairs.

Brown said "the program is set up to make recycling convenient and feasible in any office. The Campus Affairs office will supply metal collection cans, plastic bags and signs to designate paper sorting by type and color. Filled bags are taken by the custodian for pick-up by Ithaca Scrap Processors. Brown also said newspaper is no longer being recycled because there is no market for it.

The Senate Page

The Senate Page is the official bulletin of the Cornell University Senate. Publication is supervised by Douglas Auer, secretary of the Senate, 133 Day Hall. 256-3715.

NEXT SENATE MEETING: Tues., April 29, 7:30 p.m., Bache Aud., Malott Hall

Proposed Agenda

April 29, 1975

Bache Auditorium
7:30 p.m.

1. Question Time
2. Minutes
3. Announcements
4. Agenda
5. Confirmation of Presidential Nomination for Ombudsman (15,2)
6. Confirmation of Presidential Nomination for Judicial Administrator (15,2)
7. F-29-a — Omnibus Judicial Amendment Act of 1975 (10,2)
8. F-30 — Confirmation of nominations to boards and committees (10,2)
9. F-27-a — Community input on Macneil task force reports (20,2)

Judicial Administrator Open Hearing

NOTICE! There will be a public hearing on the Judicial Administrator Nominee held by the Committee on Codes and Judiciary on Thursday, April 24, at 4 p.m. in Loft II, Willard Straight.

10. F-26 — Legislative Initiative Act - Bylaw Amendment (15,2)
11. F-25 — Legislative Initiative Act - Constitutional Amendment (15,2)
12. F-12-a — An alternative

loan program proposal (20,3)
13. Adjournment

Calendar

THURSDAY, April 24

Parking and Traffic Subcommittee, 12:30 p.m., 128 Olin Hall.

Housing Subcommittee, 4 p.m., 103 Barnes

Admissions and Financial Aids, 4 p.m., Senate Office

MONDAY, April 28

Executive Committee, 4:45 p.m., Senate Office

TUESDAY, April 29

Senate Meeting, 7:30 p.m., Bache Aud., Malott Hall

WEDNESDAY, April 30

Campus Life Committee, 4:15 p.m., 498 Uris

Current Legislative Log

BILL NO. & DATE SUB.	ABSTRACT	SPONSOR	COMMITTEE REFERRED TO
F-27 4/17/75	Recommends that decisions based on the Macneil Task Force reports not be made until opportunity for community input has been arranged for by the Senate.	Planning Review Committee	Planning Review Committee
F-28 4/17/75	Provides for a judicial review board to serve during the summer months.	Codes and Judiciary Committee	Codes and Judiciary, Committee on Committees
F-29 4/18/75	Makes procedural amendments in the current judicial legislation to aid in effective operation of the campus judicial system.	Codes and Judiciary Committee	Codes and Judiciary, Committee on Committees

Senate Actions — April 15, 1975

SA NO.	TITLE AND ABSTRACT	SPONSOR	ACTION TAKEN
SA-335	AT-LARGE CAMPUS LIFE COMMITTEE MEMBER [The Senate elected Carol Williams, Employee, for the Campus Life Committee At-Large seat.]		ADOPTED
SA-336	ACADEMIC CALENDAR FOR 1976-77	Calendar Committee	ADOPTED AS AMENDED
SA-337	SIXTH SENATE MEETING DATES - FALL 1975	Executive Committee	ADOPTED



National Volunteer Week Honored In County

This week of April 20 through 26 has been proclaimed as National Volunteer Week, to focus attention on the immeasurable service that volunteers contribute to the health of our communities.

CIVITAS, the Voluntary Action Center, and the professional staffs of the organizations with which they work recognize how valuable the activities of volunteers are. During the past decade volunteer services in Tompkins County have grown to the point where volunteers are used in more than 75 human service agencies in the community. The hours of volunteer work not only supplement the activities of professionals within these agencies, but also provide enduring services far beyond the time and scope of staff people. They provide the extra, individualized attention so vital to better results in all areas of service.

Below are some of the current requests for volunteer help. To respond to any of them, or to get information about other volunteer opportunities and needs, call CIVITAS, 256-7513, Monday through Friday from 11 a.m. to 4 p.m.; or call the Voluntary Action Center, 272-9411, Monday through Saturday from 9 a.m. to 1 p.m.

Economic Opportunity Corp. needs a volunteer to tutor a young woman preparing for the High School Equivalency examination. Help needed in math and simple algebra, preferably any time during the day on Tuesday or Thursday.

Boydton Junior High School needs a volunteer English tutor to work with a 9th grader in an accelerated grammar class. Any school day, between 8:30 a.m. and 9:30 a.m.

ITHACARE needs volunteer Friendly Visitors for two elderly residents, for a couple of hours a week, on a regular basis.

Day Care Council needs volunteers to assist with office work and program preparation, and to be on-call Day Care Mother substitutes while at the Council office. Possible shifts are: any day, Monday through Friday, 9 a.m. to 12:30 p.m., or 12:30 to 4 p.m.

Reconstruction Home needs a volunteer who enjoys fishing, to accompany a small group of residents on occasional in-city fishing excursions. Times and days can be arranged.

IACC Day Care Center needs volunteers to assist with pre-school program on Mondays from 11 a.m. to 3 p.m.

Senior Citizens need volunteers to provide transportation to and from typing class at Ithaca High School for elderly and blind participants on Monday and Wednesday afternoons, 3:30 to 5 p.m. The classes begin on April 21 and continue for 10 weeks; assistance may be offered for a portion of that time.

Dryden Head Start Program needs Big Brothers and Big Sisters for their new Friends to Pre-Schoolers program. Time commitment would be one to two hours a week on a regular basis on any day.

Drop-In Day Care Center needs volunteers to assist with their pre-school program on Tuesday, Wednesday, or Thursday, for any two hour period between 9:30 a.m. and 3 p.m.

Nutrition for the Elderly Program needs a volunteer to transport an elderly woman with wheelchair to lunch program at Titus Towers on Tuesdays and Thursdays at 11:30 a.m. All the driving would be within the downtown Ithaca area.

'Food Aid Could Reduce Birth Rates'

American food aid to Third World countries can foster long run increases in food production and reduction in birth rates even as it improves diets of the poor in the short run, stated a Cornell economist at a hearing in Washington, D.C. on April 17.

"However, such desirable effects will require a well thought out set of policies," testified Professor John W. Mellor before a committee of the United States Senate. Mellor is on the staff of the Department of Agricultural Economics at the New York State College of Agriculture and Life Sciences.

The hearing at which Mellor testified was held on "World Food Day" as part of a comprehensive review of the United States role in development assistance. It is being conducted by Sen. Hubert Humphrey under the joint sponsorship of sub-committees of the Senate Foreign Relations and Agriculture Committees.

Mellor documented the close relationship between increased incomes and employment of the poor and rising expenditure on food. When lower income people in poor countries receive more income they spend some 60 per cent to 85 per cent of the extra income on food, he said.

Mellor said that American food aid could provide the assurance of supplies in the short run while effective production policies were developed over the long run. He recommended providing food aid on the basis of a country's commitment to its own agricultural growth and to high employment policies.

He then pointed out how those may be related closely to the choice of political systems. "Obtaining needed changes in policy may be difficult," he said, "but it is on these points that a humanitarian nation would bargain with food."

Mellor drew attention to studies showing that when the

bulk of the people in a country remain very poor, birth rates fail to decline. "Thus, gaining control of the world's popula-

Employees Asked to Note Special Insurance Situation

University employees are asked to take note of an amendment to Cornell's supplementary Accidental Death and Dismemberment Program in instances where both husband and wife are Cornell employees, according to Karl D. Keller, assistant director, Office of Personnel Services.

In such instances, both spouses can not apply for family coverage. The insurers, Marsh and McLennan, Inc., have suggested "that one of the spouses apply for family coverage and the other apply for single coverage. In the event of the death of one spouse, only one principal sum

will be payable. If the employee who had single coverage was accidentally killed, the one principal sum which was applied

would be payable. Under the family coverage, it would naturally be assumed that there was no spouse and the coverage for each child will be increased from 5 per cent to 10 per cent of the principal sum in force on the life of the applicant."

Employees with questions relating to this supplementary insurance program should contact Vivian Collins at B-12 Ives Hall or by telephoning 256-4953.

growth," he said.

Mellor's testimony dealt, also, with the triage argument — a battlefield analogy that argues for leaving the most seriously wounded unattended so as to concentrate medical attention on the more responsive.

While deploring the morality of that position, he pointed out that the hundreds of millions of people in the poorest nations would not conveniently disappear if American food is withheld.

"Instead," he said, "their political systems and growth patterns will have to conform to inability to serve the mass of lower income people. The result will be complete failure to deal with the long run problem."

Mellor's statement to the Senate Committee drew heavily on a study he has recently completed for the Twentieth Century Fund entitled, "India and the New Economics of Growth."

Sage Notes

The Board of Trustees has voted to increase the thesis fee for the Ph.D. degree from \$30 to \$40 effective July 1, 1975. This increase will affect all students paying their thesis fees on or after July 1.

The deadline for submission of all degree requirements for a June 1975 degree conferral is May 16, 1975. There will be no exceptions. Submission by May 1 will assure listing in the Commencement Program.

The next degree deadline date will be Aug. 22, for degrees conferred Aug. 27, 1975.

Final commencement information is available in the Graduate Office. Caps and gowns may be ordered through Student Agencies, 410 College Ave. The deadline for ordering is May 15.

A reception for all graduate students who participate in commencement exercises and their guests will be held in Sage Graduate Center immediately after the ceremony.

Degrees will not be awarded to students who owe funds to the University. All degree candidates should check their accounts with the Student Account Section of the Bursar's Office, 260 Day Hall, between May 12 and 21, 1975. Since mistakes can be made in the rush of commencement activities, all candidates should check even if they are sure there are no outstanding charges due the University. All students with loans must set up exit interviews with the Financial Aid Office.

Information on summer fellowship and summer tuition awards will be included in next week's Sage Notes.

The Council for International Exchange of Scholars announces that applications are now being accepted for senior Fulbright-Hays awards for university lecturing and advanced research in over 75 countries during 1976-77. The booklet on the program for this period is available on request to the Council (2101 Constitution Avenue, N.W., Washington, D.C. 20418), or may be consulted in the Academic Funding Office.

Application requirements include: U.S. citizenship; for lectureships, college or university teaching experience; for research awards, a doctorate or, in some fields, recognized professional standing as demonstrated by faculty rank, publications, compositions, exhibition record, etc. Some awards are open to application by advanced doctoral candidates.

July 1, 1975 is the deadline for applying for most of the announced research awards, and it is the suggested date for filing for lectureships.

Senior Fulbright-Hays awards generally consist of a maintenance allowance in local currency to cover normal living costs of the grantee and family while in residence abroad, and round-trip travel for the grantee (transportation is not provided for dependents). For lecturers going to most non-European countries, the award includes a dollar supplement, subject to the availability of funds, or carries a stipend in dollars and foreign currency, the amount depending on the assignment, the lecturer's qualifications, salary and other factors.

Calendar

Continued from Page 16

6 p.m. Shabbat Service. Founders Room, Anabel Taylor.
6:30 p.m. Shabbat Service. Young Israel House.
7 p.m. 5th Annual Gay Festival Lecture: NYSCGO Conference, Barbara Giddings, speaker Goldwin Smith D.
8:15 p.m. *Cornell University Theatre Production: Moliere's "The Miser." Willard Straight Theatre.
8:15 p.m. *Musical: "Mame." Statler Auditorium. Produced by Cornell Broadway Stage.
8:15 p.m. *Bailey Hall Concert. Daniel Barenboim, piano. Sponsored by the Faculty Committee on Music.
8:30 p.m. 5th Annual Gay Liberation Festival Dance. Straight Memorial Room.

8:30 p.m. Shabbat Service. Hi Rise Lounge #1.
8:30 p.m. *Folk Song Club Concert. Temple of Zeus, Goldwin Smith Hall. Rae Fisher, a singer native to Scotland, sings Scottish ballads.
9 p.m. Graduate Student Party. Ivy Room, Willard Straight Hall.
9 p.m. "Power Hour." Noyes Center 308. Sponsored by the Campus Crusade for Christ.
9:30 p.m. Mini-Concert featuring Michael Lewis. First floor lounge, North Campus Union. Sponsored by NCU Board.

Saturday, May 3

8 a.m. Equine Breeding and Management Short Course: Tour of Two Outstanding New York Breeding Farms. (Choice of farms will depend on the number of persons interested.) Morrison 146.
9:30 a.m. Shabbat Service (Orthodox). Edwards Room, Anabel Taylor.
9:30 a.m. Shabbat Service (Conservative). The Forum, Anabel Taylor.
10 a.m.-6 p.m. New York State Coalition of Gay Organizations Conference. North Campus Union. Sponsored by Cornell Gay Liberation.
10 a.m. Spring Craft Fair. Straight Memorial Room. Sponsored by University Craftshops and Willard Straight Board.

1 p.m. Varsity Baseball - Navy (2)
1 p.m. Freshman Baseball - Ithaca College at Ithaca College
1 p.m. *Picture Framing (Part II). Actual construction. North Campus Union Craftshop. (Attendance limited to those attending April 30 meeting).
2 p.m. Heavyweight Crew - Carnegie Cup. Cornell-Princeton-Yale.
2 p.m. *Freshman Lacrosse - Cobleskill. Schoellkopf Field.
2 p.m. Tennis - Navy.
2:30 p.m. Music Dept. Concert; Wind Ensemble and Symphonic Band, Marice Stith, conductor. Libe Slope (Statler in case of rain).
2:30 p.m. Talmud Shiur. Young Israel House.
2:30 p.m. Dedication of John T. Oxley Polo Arena and Cornell Equestrian Center, at Oxley Polo Arena, Rt. 366.
3 p.m. *Polo: Cornell Varsity vs. Cornell Alumni. Oxley Polo Arena, Rt. 366.
5:15 & 11:30 p.m. Catholic Masses. Anabel Taylor Chapel.
7:30 p.m. *University Unions Board presents "Hair." Bailey Hall.
8:15 p.m. *Musical. "Mame." Statler Auditorium. Produced by the Cornell Broadway Stage.
8:15 p.m. Music Dept. Student Concert. Music from Cornell, Part II. New compositions. Barnes Hall.
8:15 p.m. *Cornell University Theatre Production. Moliere's "The Miser." Willard Straight Theatre.
8:30 p.m. 5th Annual Gay Festival Dance. Straight Memorial Room.

Sunday, May 4

9:30 a.m. Holy Communion Episcopal Church at Cornell. All are welcome, students, faculty and families. Anabel Taylor Chapel.
9:30, 11 a.m. & 5 p.m. Catholic Masses. Anabel Taylor Auditorium.
10 a.m. Friends Meeting for Worship. Child care provided for infants. Discussion at 11. All welcome. Anabel Taylor Forum.
11 a.m. Sage Chapel Convocation. Richard A. Baer, Jr., as-

sociate professor, Dept. of Natural Resources at Cornell.

11 a.m. New York State Coalition of Gay Organizations Conference. Multi-purpose Room, North Campus Union.
2 p.m. Cornell Track Meet - Pennsylvania.
7 p.m. Table Tennis clinic followed at 7:30 by Round Robin Singles. Barton Hall Beginners welcome.
8:15 p.m. University Theatre Production. Moliere's "The Miser." WSH Theatre.
9 p.m. Noyes Center Coffeehouse featuring piano/vocalist Michael Lewis. Third floor lounge, Noyes Center. Sponsored by Noyes Board.
4 p.m. Music Dept. Concert: Cornell Chamber Singers. A Rossini Soiree, Thomas Sokol, conductor. Rossini's Petite Messe Solennelle (1863). Sage Chapel.

PRIMAVERA - Presented by Risley Residential College.

Thursday, May 1

Theatre 8-10 Two plays. Susan Baker, Louis Massiah

Friday, May 2

Theatre 7-8 Collegium Musicum; 8-10 two plays. Baker/Massiah

Saturday, May 3

Dining Hall: All Day Community-wide Student Art Show
Courtyard: Lite Shows & Films Continuously Between All Events
1-2 Modern Dance recital (Bethany)
2-3 Cayuga's Waiters
3-4 Comings and Goings (1 act play)
4-7 Bean and the Windbreakers
4:30-5 Cornell Russian Choir
8-10 IFMAC Film Festival
Theatre: 12-1 Lecture - David Gluck "Documentary Films"
1-2 Guest Lecture
2-3 Puppet Show
3-4 Poetry Reading
4-6 Two Plays (Baker/Massiah)
7-8 Two 1 Act Plays (Mike Dingle)
8-10 Dido and Aeneas - opera
10-12 Risley Film Series
In Various Nooks and Crannies:
Rotunda: Don Sloan, Dave Romero, Guy Wells, Leslie Weiss, Julie Kedersha, Marius Panzarella, Cornell Wind Ensemble. Chamber music throughout the afternoon.
Outside: 1:30 Polish and Lithuanian Dancers
2-4 Morristown Medieval Ensemble and Renaissance Dance Group, Belly Dancing, Folk Dancing, Melody Moskowitz, Cornell Piping Society, and various and sundry spontaneous jamming

Sunday, May 4

Dining Hall: All-Day Community Wide Art Show
Courtyard: Lite shows and movies shown between all events
2-3 Trombone Concert
3-6 Country Cookin' Concert (?)
8-9 Comings and Goings (1 act play)
Theatre: 12-1 Modern Dance (Chiiko)
1-3 "The Universal Follies" Theatre Workshop of Ithaca
2-3 Puppet Show
3-4 Lecture: Karel Husa on Contemporary Music
4-6 "The Eunuch" Classics Reading
7-8 Two 1 act plays (Mike Dingle)
8-10 Dido and Aeneas opera
Wandering musical, theatrical and creative improvisations encouraged.

Exhibits

Herbert F. Johnson Museum: AARON SHATTUCK: to May 25. Shattuck was a member of the second generation of a

group of painters known as the Hudson River School, active during mid-19th c. and especially noted for their serene and charming landscapes.

GERMAN RENAISSANCE PRINTS: through May 4. Approximately 75 prints from permanent collection of graphic art to serve as examples of German printmaking from about 1500-1550. Work by Durer, Cranach the Elder, Hans Baldung Green, The Little Masters, and others are represented.

ALAN SONFIST: through May 4. Sonfist interprets nature's forms and details by abstracting their patterns of growth and decay or by actually presenting us with the "litter" of forest and field.

History of Science Collections, 215 Olin Library. Recent Acquisitions, changed monthly.

Olin Library: "Faces of Latin America." Photographs by J. Mayone Stycos, Prof. of Sociology and Director of the International Population Program at Cornell. The photographs and the books accompanying them were chosen to illustrate the changeless — and changing — face of Latin America. They were taken in Brazil, Guatemala, Honduras, El Salvador, and Colombia.

Sibley Dome Gallery. Painting and Sculpture by Barbara Cook. Open to April 26. Paintings and Drawings by Peter Berg, April 28 - May 3.

Announcements

Audio-Visual Catalogs on Campus: Depts. and organizations at Cornell that wish to buy or rent audio-visual materials (slides, filmstrip programs, films, video tapes) are reminded that Uris Library has gathered together an extensive collection of distributors' catalogs for these materials. This collection can be used in the Uris Listening Room which is open 10 a.m. to 11 p.m. Monday - Thursday; 10 a.m. to 10 p.m. Friday; 1 - 5 p.m. Saturday and 1 - 11 p.m. Sunday.

Dining at Statler: Breakfast: (Monday-Saturday) Rathskeller - 7:30-10:30; Lunch: (Monday-Friday) Cafeteria - 11:30-1:30, Main Dining Room - 12-2, (Saturday) Rathskeller - 11:45-2; Dinner: (Monday-Friday) Cafeteria 5-7, (Monday-Saturday) Main Dining Room - 6-8, (Saturday) Rathskeller 5:30-7:30, Steaks Ltd. 5-8:30, (Sunday) Pasta, Ltd. 5-7:30.

Intramural Judo (Team Championship). The deadline on entries is Friday, April 25 at 9:30 p.m. Players must sign up with Coach Sudre either at the fencing room afternoons or wrestling room during Judo Practices in the evening Monday, Wednesday and Friday.

Cornell University Press

Rondinelli, Dennis A.: URBAN AND REGIONAL DEVELOPMENT PLANNING: Policy and Administration. Publication date was March 28, 1975. \$11.50.

O'Callaghan, Joseph F.: A HISTORY OF MEDIEVAL SPAIN. Publication date was March 28, 1975. \$25.

Kirkwood, G. M.: POETRY AND POETICS FROM ANCIENT GREECE TO THE RENAISSANCE: Studies in Honor of James Hutton. Publication date was March 31, 1975. \$17.50.

O'Meara, Patrick: RHODESIA: Racial Conflict or Coexistence? Publication date was April 11, 1975. \$10.50. Africa in the Modern World Series: General Editor; Gwendolen Carter.

Cook, Adrian: THE ALABAMA CLAIMS: American Politics and Anglo-American Relations, 1865-1872. Publication date was April 14, 1975. \$13.50.

Mai, W. F. and H. H. Lyon: PICTORIAL KEY TO GENERA OF PLANT-PARASITIC NEMATODES - Fourth Edition, Revised. Publication date was April 18, 1975. \$9.75.

Adelmann, Howard B., Editor: THE CORRESPONDENCE OF MARCELLO MALPIGHI. Publication date was April 11, 1975, \$95, five volume set.

*Admission Charged.

Attendance at all events is limited to the approved seating capacity of the hall in which they are presented.

All items for the Cornell Chronicle Calendar must be submitted to the Office of Central Reservations, 32 Willard Straight Hall (either through the mail or by leaving them at the Straight desk), or call Carol Adams, 6-3513 at least 10 days prior to publication of the Chronicle. The Calendar is prepared for the Chronicle by the Office of Central Reservations.

Calendar

April 24—May 4

Thursday, April 24

12 noon-8 p.m. Marson Galleries - Near & Far Eastern Print Sale/Exhibit. First floor lounge, North Campus Union. Sponsored by NCU Board.

2:30 p.m. European Sociology Series: "Marxism, Academic Division of Labor and the State of Sociology in Europe," Prof. Alessandro Pizzorno, University of Milan, 202 Uris Hall. Sponsored by the Department of Sociology.

2:45 p.m. University Governance and Faculty Collective Bargaining: "Faculty Collective Bargaining: The Role of the AAUP." Martin Lapidus, Director and Associate Secretary, American Association of University Professors. ILR Conference Center 300.

4:15 p.m. Society for the Humanities Lecture: "The Odyssey of Osip Mandelstam: 1913-1925." Ephim Fogel, Prof. of English, Cornell; Faculty Fellow, Society for the Humanities. Kaufmann Auditorium.

4:30 p.m. Microbiology Seminar: "Genetic Control of Cell Formation and Cell Formation of Neurospora." Dr. Adrian M. Srb, Genetics, Development & Physiology, Cornell. Stocking 124. Coffee at 4:15.

4:30 p.m. Music Dept. Concert: Cornell Wind Ensemble. Straight Memorial Room.

4:30 p.m. Materials Science Colloquium: "Yielding of Amorphous Polymers." Prof. James C. M. Li, University of Rochester, Rochester, N.Y. Bard 140. Refreshments served in Bard Hall lounge at 4 p.m.

4:30 p.m. AAUP Meeting: Speaker will be Martin Lapidus, Director, Northeastern Regional Office, AAUP. "Recent Concerns of the National AAUP." Ives 217. The public is invited.

6 p.m. Club France Table Francaise. Meet people over coffee. Ivy Room (last table) Willard Straight Hall.

6 p.m. The Cornell Christian Science Organization invites students to a Readings and Testimony Meeting in the Founders Room, Anabel Taylor.

7 p.m. Trivia Contest. Uris Auditorium. Sponsored by Alpha Phi Omega.

7:30 p.m. Cornell Bridge Club. Clara Dickson Ballroom. Students, faculty, staff welcome.

7:30 p.m. Ananda Marga weekly group meditation and informal discussion on yoga. Free instruction, beginners welcome. North Campus Dorm 5, top floor lounge.

7:30 p.m. Israeli Folk Dance. One World Room, Anabel Taylor.

7:30 p.m. Pirke Avot. The Forum, Anabel Taylor.

8 p.m. Celebracion Latinoamericana: Lecture: "Alternative Development Models for Latin America." Fernando Henrique Cardoso, Director of the Centro Brasileiro de Analisis e Planejamento, Sao Paulo. Uris Hall G94. Sponsored by Latin American Students Assoc. and Cuban Cultural and Historical Society.

8 p.m. Willard Straight Coffeehouse featuring the Cornell Jazz Ensemble. Ivy Terrace. (Memorial Room in case of rain). Sponsored by the WSH Board.

8 p.m. Cornell Linguistics Circle Lecture: "Approach to Modern Spanish." Prof. Frederick Agard, Prof. Emeritus, Dept. of Linguistics, Cornell. Morrill 106.

8:15 p.m. *Drummond Studio Production: "You Were So Nice When You Were Young," by Jean Anouilh.

Friday, April 25

12:15 p.m. Women's Studies Sandwich Seminars: "Women in Politics: An International Comparison." Mary Katzenstein, Asst. Prof., Women's Studies & Government, Arts & Sciences, Cornell. ILR Conference Center 300. Child Care provided. Bring a bag lunch; coffee available.

3 p.m. Panel Discussion on Russian Language Study Programs in the Soviet Union and U.S. Morrill 106A. Refreshments. Sponsored by Dobro Slovo.

3:30 p.m. Energy, Agriculture and Waste Management: "The Effect of Recent Energy Price Increases on Field Crop Production Cost." W. Lockeretz, Project Coordinator, Center for Biology of Natural Systems, Washington University, St. Louis, Mo. Riley-Robb 105. Refreshments will be served at 3:30 in the lounge area.

4 p.m. Cornell Tennis - Harvard.

4 p.m. Noyes Pub Happy Hour. Guitar/vocalist Steve Sugarman entertains. Sponsored by Noyes Center Board and Noyes Center Pub.

4 p.m. Spring Festival. Willard Straight Steps. Sponsored by the Cornell Rock & Roll Society and Willard Straight Program Comm. Rain date - Sunday, April 27.

4:15 p.m. Varsity Baseball - Harvard.

4:45 p.m. Conservative Club election meeting. Straight North Room.

6 p.m. Shabbat Service. Founders Room, Anabel Taylor.

6:30 p.m. Shabbat Service. Young Israel House.

7 & 9:15 p.m. *Cornell Cinema Film: "The Merchant of Four Seasons," directed by Rainer Werner Fassbinder. Uris Auditorium.

7 & 9:30 p.m. *Cornell Cinema Film: "M.A.S.H.," directed by Robert Altman and starring Elliott Gould and Donald Sutherland. Ives 120. Attendance limited to Cornell Community.

7:30 p.m. *Cornell Freshman Lacrosse - Suffolk CC. Schoellkopf.

8 p.m. Carpenter Lecture Series: "Multinational Corporations and American Foreign Policy." Prof. Robert Gilpin, Princeton University. Fourth in a series of six. Ives 110.

8:15 p.m. *Drummond Studio Production: "You Were So Nice When You Were Young."

8:30 p.m. Shabbat Service. Hi Rise, Lounge #1.

9 p.m. "Power Hour." Noyes Center Room 308. Sponsored by the Campus Crusade for Christ.

9 p.m. Dance: Presenting "Albatross." First floor lounge, North Campus Union.

Saturday, April 26

8 a.m.-9:30 p.m. Black Bio-Med & Technical Society - 3rd Annual Health Conference. Ives Hall.

9:30 a.m. Shabbat Service (Conservative) Forum Room, Anabel Taylor.

9:30 a.m. Shabbat Service (Orthodox) Edwards Room, Anabel Taylor.

10:30 a.m. Women's Intercollegiate Lacrosse - Cortland.

1 p.m. Varsity Baseball - Dartmouth (2)

2 p.m. *Varsity Lacrosse - Pennsylvania. Schoellkopf Field.

2 p.m. Lightweight Crew - Geiger Cup. Cornell-Columbia-MIT.

2 p.m. Tennis - Dartmouth.

2:30 p.m. Talmud Shiur. Young Israel House.

5:15 & 11:30 p.m. Catholic Masses. Anabel Taylor Chapel.

6 p.m. Chinese Dinner. One World Room, Anabel Taylor. Sponsored by the Chinese Student Assoc.

7 & 9:15 p.m. *Cornell Cinema Film: "The Last Detail." Uris Auditorium. Attendance limited to Cornell Community.

7 & 9:30 p.m. *Cornell Cinema Film: "M.A.S.H." Ives 120. Attendance limited to Cornell Community.

8 p.m. Music Dept. Student Concert. Music from Cornell, Part I. Barnes Hall.

8 p.m. *Square Dance. Straight Memorial Room. Sponsored by the Cornell Grange #1577.

8:15 p.m. *Drummond Studio Production: "You Were So Nice When You Were Young."

8:15 p.m. *Cornell Polo - Meadow Brook. Oxley Polo Arena.

8:30 p.m. Dance: Square Dance, "Country Cooking." First floor lounge, North Campus Union.

9 a.m.-5:30 p.m. "Third Annual Health Careers Day" Conference. Ives Hall. Sponsored by the Black Bio-Medical & Technical Association of Cornell University. The conference will include films on health care, guest speakers from the medical and allied health fields, and recruiters from several professional schools. For more information call 6-4922.

9 p.m. Film: "Dragon Inn." Goldwin Smith D. Sponsored by the Chinese Student Assoc.

9 p.m. Dance: West Campus semi-formal dance - "It Might As Well Be Spring."

Sunday, April 27

9:30 a.m. Holy Communion Episcopal Church at Cornell. Anabel Taylor Chapel. All are welcome: students, faculty and families.

9:30, 11 a.m. & 5 p.m. Catholic Masses. Anabel Taylor Auditorium.

10 a.m. Society of Friends Meeting for Worship. Child care provided for infants. Discussion at 11. All welcome. Anabel Taylor Forum.

11 a.m. Sage Chapel Convocation: J. Gurdon Brewster, University Episcopal Chaplain.

7 & 9:15 p.m. *Cornell Cinema Film: "The Last Detail." Uris Auditorium. Attendance limited to Cornell Community.

7 p.m. Table Tennis Clinic followed at 7:30 by Round Robin Singles. Barton Hall. Newcomers welcome.

8:15 p.m. Sage Chapel Centennial Concert: Linda Paterson, soprano; David Neal, bass; Jerry Davis, oboe, oboe d'amore, English horn; Donald R. M. Paterson, organ. Works of Bach, Handel, Sowerby and others. Sage Chapel.

Monday, April 28

9 a.m.-1 p.m. Print Sale. Straight Memorial Room.

1 p.m. Golf Colgate.

4 p.m. Jugatae Seminar: "Systematics of Pseudoscorpions." Dr. William B. Muchmore, prof., Dept. of Biology, University of Rochester, N.Y., Caldwell 100.

7:30 p.m. Modern Jewish History. Anabel Taylor 314.

7:30 p.m. Food Facts and Fads Lecture: "The Energy Demands of Modern Agriculture." D. Pimentel, Dept. of Entomology. Uris Auditorium.

7:30 p.m. Equine Breeding and Management Short Course: "The Realities of Marketing Horses." Ted Zornow, owner of Avon Farms, breeder of Standardbreds, and president of the U.S. Trotting Assoc. Morrison 146. Open to the public.

7:45 p.m. Ornithology Seminar. Lyman K. Stuart Observatory, Sapsucker Woods Road, Ithaca.

8 p.m. Lecture: "Kundalini Yoga - Yoga of Awareness." Multipurpose Room, North Campus Unions.

8 p.m. Carpenter Lecture Series: "America in the World Economy." Leonard Silk, member of the Editorial Board and Financial Columnist of the *New York Times*. Fifth lecturer in series of six. Ives 110.

8 p.m. Dance. Straight Memorial Room. Sponsored by the Cornell Contra Club. Beginners welcome.

9 p.m. *Cornell Cinema Film: "The Immortal Story," directed by Orson Welles. Uris Auditorium. Attendance limited to Film Club Members.

Tuesday, April 29

4:30 p.m. Dept. of Geological Sciences Seminar: "Seismotectonics of the New Hebrides Island Arc." Dr. Georges Pascal, Cornell. Kimball B-11. Coffee at 4 p.m.

4:30 p.m. Field of Physiology Seminar: "Integration of the Neurosciences, Exemplified by Clinical Demonstrations of Diseases of Specific Portions of the Nervous System." Dr. Alexander de Lahunta, Dept. of Anatomy, N.Y.S. Veterinary College, Cornell. Morrison 348.

7 p.m. Risley Backgammon Club Meeting. Risley Residential College.

7:30 p.m. Lecture/Panel Discussion: "Beyond Justice." Karen DeCrow, Big Black, Doug Dowd. Statler Auditorium. Sponsored by Ithaca-Cornell Comm. on Oppression & Justice.

7:30 p.m. Cornell University Senate. Bache Auditorium.

7:30 p.m. Fundamentals of Jewish Thought. The Forum, Anabel Taylor.

8 p.m. Sierra Club Lecture: "Canoe Tripping with the Family." John Schwartz, former chairman of the Finger Lakes Group of the Sierra Club. Ornithology Laboratory, Sapsucker Woods Road, Ithaca.

8 p.m. *Cornell Cinema Film: "M. Verdoux." directed by and starring Charlie Chaplin. Uris Auditorium.

8:15 p.m. Music Dept. Concert: D.M.A. Recital. Brian Israel. Originalworks. Barnes Hall.

Wednesday, April 30

4 p.m. Cornell Tennis - Binghamton.

4:30 p.m. Freshman Baseball - Wilkes College.

4:30 p.m. Food Science Seminar: "Controlling Obesity, a Continuous Chronic Disease and Life-Threatening Problem." David Safadi, M.D., Pathologist, Tompkins County Hospital, Ithaca. Stocking 204.

4:30 p.m. An Afternoon of Russian Interpretative Readings. Dobro Slovo presents Igor Novosilov reading 19th and 20th century prose and poetry, including works of Pushkin, Gogol, Turgenev, Maiakovski, and Voznesenski. Morrill 106A. Refreshments. The public is invited.

4:30 p.m. Music Dept. Concert: Student Chamber Music. Schubert's Trout Quintet. Barnes Hall.

7 p.m. *Picture Framing (2 sessions). A low-cost framing workshop with Mida Ballard. Introductory meeting for information and materials estimate. Second half on Saturday, May 3. North Campus Union Craft Studios. Register in advance, 256-6238.

7:15 p.m. Hebrew Instruction: Beginners, advanced. Anabel Taylor 314.

7:30 p.m. Book of Jonah (Sefer Yonah). Anabel Taylor G-34.

7:30 p.m. Film. Kimball B-11. Sponsored by La Asociacion del Caribe.

7:30 p.m. Film: "Living Theatre Films." Anabel Taylor Auditorium. Sponsored by Storefront.

8 p.m. Celebracion Latinoamericana: Lecture: "Science and Technology Policy in Latin American Studies Program, Cornell. Uris Hall G-94.

8 p.m. *Cornell Cinema Film: "The Lion Has Seven Heads," a Franco-Brazilian film. Cosponsored by the Club France. Uris Auditorium.

Thursday, May 1

2:45 p.m. University Governance and Faculty Collective Bargaining: "Grievances in the SUNY System." John Drotning, Associate Dean, NYSSILR, Cornell. ILR Conference Center 300.

4:15 p.m. Society for the Humanities Lecture: "Deceptive Words, Powerful Speech: A Mythical Eucharist in a 17th Century Tale." Louis Marin, Prof. of French Literature, Johns Hopkins University. Ives 110.

4:30 p.m. Materials Science Colloquium Series: "Quantum Chemistry and Catalysis." Prof. K. Johnson, Mass. Institute of Technology, Materials Science & Eng. Dept. Cambridge, Mass. Bard 140. Refreshments served in the Bard Hall lounge at 4 p.m.

6 p.m. The Cornell Christian Science Organization invites students to a Readings and Testimony Meeting in the Founders Room, Anabel Taylor.

6 p.m. Club France Table Francaise. Meet people over coffee. Ivy Room (last table) Willard Straight Hall.

7 & 9 p.m. Noyes Center Free Film Series: Telling it like it is - Sports Night: "Kill The Umpire," starring William Bendix and "Brian's Song," starring James Caan and Billy Dee Williams.

7:30 p.m. Cornell Bridge Club. Clara Dickson Ballroom. Students, staff, faculty welcome.

7:30 p.m. Israeli Folk Dance. One World Room, Anabel Taylor.

7:30 p.m. Pirke Avot. The Forum, Anabel Taylor.

7:30 p.m. Ananda Marga weekly group meditation and informal discussion on yoga. Free instruction, beginners welcome. North Campus Dorm 5, top floor lounge.

8 p.m. Eastman Rice Public Speaking Stage. Communication Arts Graduate Center, 640 Stewart Ave.

8:15 p.m. *Cornell University Theatre Production: Moliere's "The Miser." Willard Straight Theatre.

8:15 p.m. *Musical "Mame." Statler Auditorium. Produced by the Cornell Broadway Stage.

8:15 p.m. Music Dept. Student Concert. David Neal, bass; Elena Clancy, soprano; Works of Bach, Schumann, Poulenc and Schubert. Barnes Hall.

Friday, May 2

10 a.m.-6 p.m. Spring Craft Fair. Straight Memorial Room. Sponsored by University Unions Craftshops and Willard Straight Board.

12:15 p.m. Women's Studies Sandwich Seminars: "The Problem of Rape: A Panel Discussion." Ruth Darling, Associate Dean of Students, Cornell; Sara Pines, Psychotherapist; Betsy Kane, Rape Counselor, "Women for a Safer Community," Ithaca Women's Center. ILR Conference Center 300. Child care provided. Bring a bag lunch; coffee available.

3:30 p.m. Energy, Agriculture and Waste Management: "Feasibility of Replacement of Conventional Farm Energy Uses With Methane." Dr. D. W. Williams and T. R. McCarty, Research Associate and Research Specialist, NSF/PANN Bio-Conversion Project, Cornell. Riley-Robb 105.

4 p.m. Tennis - Princeton.

4:15 p.m. Varsity Baseball - Princeton.

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