

'73-'74

notre dame report

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September 14, 1973

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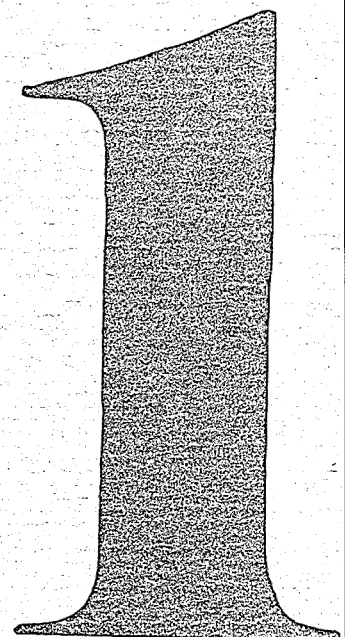
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Special notice

NOTRE DAME REPORT: This issue of Notre Dame Report is the first of Volume 3, which will cover the 1973-74 academic year. In accordance with standard practice for serial publications, issue numbers and pagination begin anew.

This year's publication schedule is as follows:

Issue	Deadline for Material	Publication Date
1	Sept. 3	Sept. 14
2	Sept. 17	Sept. 28
3	Oct. 1	Oct. 12
4*	Oct. 15	Oct. 26
5	Nov. 5	Nov. 16
6	Nov. 19	Nov. 30
7	Dec. 3	Dec. 14
8	Dec. 31	Jan. 11
9	Jan. 14	Jan. 25
10	Jan. 28	Feb. 8
11	Feb. 11	Feb. 22
12	March 4	March 15
13	March 18	March 29
14	April 1	April 12
15	April 15	April 26
16	April 29	May 10
17	May 13	May 24
18	May 27	June 7
19	June 24	July 5
20	July 29	Aug. 2
Index	--	Aug. 30

* This will be an updated version of Notre Dame Report 1972-73, No. 13, which carried University administration, University committees and the official faculty roster. The photo directory which was a part of NDR 1972-73 No. 13 will not be updated on an annual basis. Notre Dame Report 1973-74 No. 4 will, then, be a departure from the usual format.

Summer commencement

Richard T. Sullivan, professor of English at Notre Dame since 1936, spoke at the Summer Program Commencement Exercises in the Athletic and Convocation Center on August 10. (The text of his address is printed in this issue's "Documentation" section.)

Included in this year's class were 47 candidates for doctoral degrees and 263 for master's degrees. Undergraduate degrees went to 40 candidates.

Rev. Thomas McNally, C.S.C., associate director of campus ministry, was the principal celebrant at a Baccalaureate Mass in Sacred Heart Church. He was assisted by priest members of the graduating class and the homily was given by Rev. Marvin R. O'Connell, associate professor of history.

War: Its Causes

An international report on the origins of war was prepared at Notre Dame August 28-31 when more than 40 scholars from all areas of the world met in advance of the Congress of Anthropological and Ethnological Sciences in Chicago.

Researchers and teachers from all over the world discussed 44 papers on the topic "War: Its Causes and Correlates" before preparing a report for delivery at the September 1 - 8 Chicago Congress.

Dr. Irwin Press, associate professor of sociology and anthropology, was in charge of local arrangements.

"Pacem in Terris III"

Rev. Theodore M. Hesburgh, C.S.C., president, will be one of the speakers at "Pacem in Terris III," a national convocation to consider new opportunities for United States Foreign policy to be held October 8 - 11 in Washington, D.C.

The meeting, the third in a series commemorating the 1963 encyclical of Pope John XXIII, is sponsored by the Center for the Study of Democratic Institutions, Santa Barbara, Calif. Participants will discuss new avenues of American foreign policy in the wake of

the era of the Cold War and in the presence of an emerging Third World.

Father Hesburgh, who is chairman of the Overseas Development Council is scheduled to speak October 9 on "Relations with Less Developed Countries."

Art Gallery exhibits

Fall and spring semester exhibits for 1973-74 at the University of Notre Dame's Art Gallery have been announced by Rev. Anthony J. Lauck, C.S.C., director. The exhibit areas in O'Shaughnessy Hall are open from 10 a.m. to 5 p.m. daily and from 1 to 5 p.m. weekends.

Sept. 1 - 10, Preview of Works by the Art Faculty
Sept. 2 - Oct. 18, "60 Prints from the 60's" Examples in graphics by such artists as Albers, Cole-
scott, D'Arcangelo, Dine, Johns, Krushenick,
Lasansky, Lichtenstein, Motherwell, Peterdi,
Rauschenberg, Summers, Vicente and Youngerman.
Sept. 2 - Dec. 30, "Nineteenth Century Works and An-
cient and Mediaeval Objects from the Permanent
Collection."
Sept. 9 - Oct. 18, "Richard Stevens Experimental
Photography." Color, gum and silver prints.
Sept. 16 - Dec. 30, "Italian Renaissance Work from
the Permanent Collection."
Oct. 21 - Dec. 31, "New Portfolio of Josef Albers."
Oct. 28 - Dec. 30, "Portraits from the Permanent
Collection." A critical examination of the for-

gotten art of portraiture featuring works from
the Italian Renaissance to the 1950's.
Jan. 6 - Feb. 24, 1974, "Baroque Works from the
Permanent Collection."
Jan. 13 - Feb. 24, "Faculty of the University of
Minnesota." The second in a series of exhibitions
focusing on works by colleagues in other institu-
tions of higher education.
Jan. 13 - Apr. 14, "Dorothy Miner Memorial Exhi-
bition." A selection of late Mediaeval and Renais-
sance manuscripts from the McNear collection to
honor the distinguished former librarian and keep-
er of manuscripts of the Walters Art Gallery and
member of the Notre Dame advisory council.
Jan. 20 - March 8, "Don Vogl." The recent graphic
works of Notre Dame's professor of graphics and
painting.
March 1 - March 31, "Todd Walker - Photograph."
March 3 - April 14, "Paul Jenkins." Dramatic ex-
amples of color field painting as seen in the
acrylics, watercolors, and graphics of this well-
known American artist.
March 4 - April 14, "Eastern Sculpture from the Col-
lection of Lester Wolfe."
March 15 - April 24, "Studies in Iconography."
April 21 - May 19, "Student Exhibition."
April 28 - June 23, "Ivan Mestrovic." A major exhi-
bition of sculpture and drawing by Yugoslavia's
celebrated son and Notre Dame's first artist-in-
residence.
June 1 - Aug. 31, "Fifty Monuments in Miniature."
July 7 - Aug. 18, "Curator's Choice." Works select-
ed from the permanent collection by Dean A. Por-
ter, curator.

faculty notes

University appointments

Dr. Ronald Maudsley, professor at the University of London and associated with the Notre Dame London Law Program, has been appointed to serve as the Thomas J. White Professor of Law at Notre Dame during the Spring 1974 semester.

Professor Thomas J. Stritch, of the communication arts department and the Program of American Studies, has been named acting editor of *The Review of Politics* for 1974. Professor Stritch is acting for Dr. Matthew Fitzsimons, professor of history, who is on leave.

Non-university appointments

Dr. Basil Myers, professor of electrical engineering, has been appointed to the Editorial Board of the Committee on Societal Implications of Technology Newsletter of the Institute of Electrical and Electronics Engineers, New York.

Dr. Ray M. Powell, chairman of the Department of Accountancy, has been elected as Academic Vice-President of the 14,000 member American Accounting Association for 1973-1974. The election took place at the 57th annual convention of the AAA at Quebec, Canada, in August.

Miscellany

Dr. D. Chris Anderson, associate professor of psychology, gave the following addresses during the academic year 1972-73: two consecutive lectures to the South Bend Rotary Club, the Industrial Council of the South Bend Chamber of Commerce, the Supervisors Club for Wheelabrator, the Michiana Division of the American Society for Personnel Administration, the Industrial Division of the Warsaw Chamber of Commerce, and the Fort Wayne Administrative Management Society on the "Biobehavioral Effects of Stress" (Part 1) and on "Behavioral Engineering in the Natural Setting" (Part 2). Dr. Anderson also addressed the teachers at Pearley and Muessel Schools on "Token Economics in the Classroom" and established a denomination token economy in a sixth grade Pearley School class. Dr. Anderson also delivered a lecture entitled "Potpourri of Research Implications for the Guidance Counselor" to all counselors and principals of

the South Bend School Corporation, Feb. 27. He also gave the closing address of the Purdue University Management Conference, March 31, "How to Succeed in Business Without Really Dying." Dr. Anderson also spoke on Stress and Behavioral Management to the Indiana State Association Executives in Indianapolis, June 15. He also addressed the Marquette University Student Body in Milwaukee, Wisc., on March 18 as part of an ongoing symposium on human sexuality. The talk was entitled "College Student, Love and Sex." Dr. Anderson delivered three scientific papers, entitled "Method and Theory in Avoidance Learning: A Rebuttal," and "Proactive Interference and Context Effects in the Acquisition of Connected Materials" at the meeting of the Western Psychological Association in April at Anaheim, Calif.; and, "Subject-paced Extinction of Learned Fear: Systematic Desensitization Revisited" at the Midwestern Psychological Association, Chicago, 1973. Finally, Dr. Anderson was asked to referee three scientific papers submitted to the international journal, *Physiology in Behavior* and one scientific paper submitted to the journal, *Learning and Motivation*.

Dr. Paul C. Bartholomew, professor of government and international studies, delivered a paper, "The Political Impact of the Supreme Court of Ireland," at the World Congress of the International Political Science Association, Aug. 21, in Montreal, Quebec.

Dr. Paul DeCelles, associate professor of physics, was a leader of a Community Teaching Unit on "Community Formation and Leadership" as part of the Charismatic Renewal Conference at Notre Dame, June 1-3. Also participating in the conference was Dr. Kenneth Milani, assistant professor of accountancy, who gave a workshop on "Financial and Legal Considerations as Prayer Groups Move Toward Communities." Rev. Robert Nogosek, C.S.C., assistant professor of theology, conducted a workshop on "The Holy Spirit in Marriage." Rev. Edward D. O'Connor, C.S.C., associate professor of theology, gave a talk on "Depth in Prayer and also conducted a workshop: "Common Problems in the Charismatic Renewal." Dr. William Storey, associate professor of theology, formed a panel to give a workshop: "The Charismatic Movement: Renewal or Reform?" Dr. Jill Whitney, part-time assistant professor in the Collegiate Seminar, was office manager for the conference office.

Dr. Nicholas F. Fiore, chairman, Department of Metallurgical Engineering, took part in a Gordon Research Conference on "Research for Materials for Building," from July 8 - 13 at Tilton Academy,

Tilton, N.H. He presented a paper on the topic of the teaching of Materials to architects.

Dr. Francis P. Fiorenza, assistant professor of theology, presented a paper entitled "The Security and Insecurity of Faith" at the annual convention of the Catholic Theological Society of America in New York City for its program on "American Theologians in the Service of the American Church."

Dr. Josephine Massyngherde Ford, associate professor of theology, assisted at the Mennonite Festival of the Holy Spirit at Goshen, Indiana, May 12-13, delivering three seminars on the gift of tongues and one short talk on the activity of the Holy Spirit in the Roman Catholic Church. Dr. Ford also delivered a talk on the Scriptural background to the Jewish and Christian Feasts of Pentecost at Boston Theological College, June 9. This was followed by a seminar on the Pauline teaching of women. From June 11-14, Dr. Ford attended the conference on Death and Dying at Belmont Abbey, N.C., where she delivered two lectures, "Death in the Old Testament" and "Death in the New Testament." Dr. Ford also delivered a lecture on "The Spirit and the Human Person" at the Catholic Charismatic Renewal Annual conference at Loyola University, Los Angeles, June 15-17. She gave two lectures on Roman Catholic Pentecostalism at the Pacific Lutheran Conference on the Holy Spirit, June 19-20, at Tacoma, Wash. Dr. Ford also attended the annual meeting of the Catholic Biblical Association Aug. 20-23 and lead three seminars on "Biblical Material Relevant to the Ordination of Women" and read a research report on "Some Affinities between the Lucan Infancy Narratives and the Book of Revelation." In the Spring of 1974, Dr. Ford has been asked to deliver the Schaff lectures at Pittsburgh Theological Seminary. Her subject will be "The Influence of the Revelation of John on Redaction in the Gospels of Luke and John."

Dr. William Heisler, assistant professor of management, studied the outdoor advertising medium with Central Advertising Co. of Jackson, Mich. July 30-Aug. 3. The summer internship was sponsored by the Outdoor Advertising Association of America.

Dr. Stephen D. Kertesz, director, Institute for International Studies, presented an address in an international conference jointly sponsored by the Studiengesellschaft fur Fragen mittel-und osteuropaischer Partnerschaft and the Conference on European Problems in Deidesheim, Germany, May 31-June 3. The topic of his address was "East Europe's Place in the Changing World."

Dr. Edward A. Kline, associate professor and director of graduate studies in English, presented a paper, "LINGUASLEUTH: for Computer-Assisted Studies in Literary Stylistics," at the Third International Conference on Computers in the Humanities, University of Minneapolis, July 20-22.

Dr. Lawrence H.N. Lee, professor of aerospace and mechanical engineering, attended a Board of Directors meeting at the 13th Midwestern Mechanics Conference at the University of Pittsburgh, Aug. 13-15.

Dr. John R. Lloyd, assistant professor of aerospace and mechanical engineering; Dr. Jerome L. Novotny, professor of aerospace and mechanical engineering; and Dr. Kwang-Tzu Yang, chairman, Department of Aerospace and Mechanical Engineering, were invited guests at the conference on Firesafety for Buildings: Research-Practice-Needs in Warrenton, Va. They presented a review on the current National Science Foundation contract the department has with Dr. Novotny as the principal investigator.

Dr. Kenneth W. Milani, assistant professor of accountancy, and Dr. James L. Wittenbach, associate professor of accountancy, successfully completed all parts of the Uniform Certified Public Accounting Accountants' examination. Under Indiana certification law they only need to complete the Indiana CPA Ethics Examination prior to receiving their professional licenses.

Dr. Charles Murdock, professor of law, spoke on "Civil Rights of the Mentally Retarded" during a program Aug. 24 in Indiana University Law School, Indianapolis. The program was sponsored by the Marion County Association for Retarded Children.

Dr. Jerome L. Novotny, professor of aerospace and mechanical engineering, attended the National Heat Transfer Conference in Atlanta, Ga., to present a paper entitled "Total Band Absorption Models for Absorbing-Emitting Liquids: CCl₄." He was also chairman for one of the sessions.

Dr. Wilhelm Stoll, professor of mathematics, was the principal lecturer at a Regional Conference sponsored by the National Science Foundation at the University of Wisconsin, Whitewater, Wisc., June 18-22. Dr. Stoll delivered 10 lectures on "Holomorphic functions of finite growth in several variables."

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Information Circulars

National Science Foundation Proposals for Regional Research Conferences in the Mathematical Sciences

No. FY74-6

The National Science Foundation is seeking proposals for five-day regional conferences on subjects of current research interest in the mathematical sciences. The conferences are to be held during the summer or fall of 1974. The objective of the regional conference project is to stimulate and broaden mathematical research activity, particularly in regions of the country where such activity needs further development. As in the past five years, the organization of the conferences, evaluation of proposals, and arrangements for publication of conference-related expository papers are to be carried out by the Conference Board of the Mathematical Sciences, Washington, D. C., under contract with the National Science Foundation.

About a dozen conferences per year are projected, each to take place at a host institution during a summer week, or possibly within a recess of the succeeding academic year. Topics for conferences may be concerned with one or more of the various disciplines of the mathematical sciences, including, in addition to pure mathematics, fields such as applied mathematics, statistics, computer science, operations research and management science.

Each conference should plan for a single principal guest lecturer and about twenty-five other participants, the latter to be active research mathematicians from the broad geographic region around the host institution. It is expected that the lecturer would give two lectures per day during the five days of the conference, with the remainder of the time available for study, informal discussion and exchange of ideas.

All participants in a conference receive allowances for travel and subsistence. The principal lecturer receives, in addition,

a fee for delivering his lectures and for organizing these into a substantial expository paper. The Conference Board arranges for the editing and publication of these expository papers.

Inquiries regarding details of proposals for these regional conferences may be addressed to the Conference Board of the Mathematical Sciences, 834 Joseph Henry Building, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037. Proposals are due at NSF December 1, 1973. Proposals will be evaluated by a panel of the Conference Board and awards of conference grants will be made by the National Science Foundation with the advice of the panel.

Swedish Medical Research Council Postdoctoral Research Fellowships

No. FY74-7

The National Institutes of Health has been requested to announce the sponsorship by the Swedish Medical Research Council of three research fellowships in 1974. These will be awarded to qualified biomedical scientists who are citizens of the U.S.A., and will provide support for 12 months of research training at a Government-supported training institution in Sweden. The fellowships are intended to provide research experience and training at the postdoctoral level in basic or clinical sciences related to health.

To be eligible, candidates must have an earned degree of Ph.D., M.D., D.V.M., D.D.S., or an equivalent degree, and must have been engaged in independent, responsible research in one of the health sciences for at least two of the last four years. The fellowships are intended for scientists in a formative stage of their research careers.

Interested scientists should request the necessary application forms from the International Fellowships Section, Fogarty International Center, National Institutes of Health, Bethesda, Maryland 20014. The forms must be completed and returned to the International Fellowships Section, Fogarty International Center, NIH, on or before

January 1, 1974. Final selection will be made at the May 1974 meeting of the Swedish Medical Research Council, and nominees will be notified of the results shortly thereafter by the Council.

Applicants must present evidence of aptitude and promise in basic science or clinical research, with an active interest in pursuing a research career in a health science field. This evidence may be presented in the form of a scientific bibliography, reports of scientific publications and references from individuals who are familiar with the applicant's background, ability and promise for a research career.

The applicants must also provide evidence of acceptance by a training institution and preceptor. It is the applicant's responsibility to arrange for his research training with the preceptor under whom he will train. Arrangements may be made either through direct correspondence between the applicant and a scientist in Sweden, or through correspondence initiated in the applicant's behalf by a senior scientist in his country with a Swedish Colleague. It is expected that such correspondence will lead to the development of a plan for research training which will be presented clearly and explicitly in the application. The affiliation is documented in the Facilities and Commitment Statement; this Statement is a required portion of the application and no application may be reviewed without it.

The starting date of the Fellowships will be set by mutual agreement of the applicant and the institution, provided it is within the ten-month period immediately following the date of the award. The Fellowships will normally extend for 12 months after the starting date but exceptions may be considered if recommended by the training institution and approved by the Swedish Medical Research Council.

Stipends will be at two levels: the more senior fellows will receive \$6,000 per year; the less senior fellows will receive \$5,500. In addition, each fellow will be granted \$500 per year for each dependent listed in the fellowship application, whether or not they accompany the fellow to the training institution.

In addition, the Swedish Medical Research Council will reimburse Fellows for costs of travel of themselves and members of their families (wife and dependent children) from the point of origin in the United States to the Swedish Training institution and return in an amount not exceeding the tourist class air fare between terminal points. Fellows may obtain advance payment of travel costs before departure from the United States. No reimbursement will be made for any other expenses en route, nor for costs of transporting personal or household effects. However, Fellows may seek supplemental support from other sources for these expenses. They may also accept sabbatical salary, concur-

rent royalties, or other income from past services if reported in the application.

ACLS Fellowships

NO. FY74-8

The American Council of Learned Societies (ACLS) fellowship application deadline is October 15, 1973. (Forms must be requested before October 9th.) Fellowships are intended to provide scholars with an opportunity for full time research in the area of the humanities for a period of six to twelve months. Scholars may use their awards within a period of one and one-half years beginning in July following the award. Grants carry a maximum stipend of \$12,000 each and may include allowance for travel, dependents, and other necessary, related expenses. Applicants must be fifty years of age or less at the time of application. Forms from: Office of Fellowships and Grants; American Council of Learned Societies; 345 East 46th Street, New York City, New York 10017.

ACLS Grants-In-Aid

NO. FY74-9

September 30, 1973 is the application deadline for the American Council of Learned Societies (ACLS) Grants-in-Aid program for this year. The program is intended to provide support for "essential personal expenses" necessary to advance specific significant humanistic research projects. Stipends will not exceed \$2,500 each. Information from: Office of Fellowships and Grants; American Council of Learned Societies; 345 East 46th Street, New York City, New York 10017.

National Endowment for the Arts Conservation Program

NO. FY74-10

The conservation program provides matching grants to American museums in support of conservation activities. Assistance is available within the following areas:

1. Training in Conservation
 - a. Support for existing training centers
 - b. Assistance in establishing new training centers
 - c. Support for short-term training workshops for museum staff
2. Regional Conservation Centers
 - a. Assistance for existing regional centers to increase capacity (equipment, staff, space)

- b. Assistance for new regional centers
- 3. Assistance to Museums for Conservation Work on Collections
 - a. Technical consultation for planning programs for museum conservation works
 - b. Implementation of conservation treatment

Applications must be postmarked no later than October 1, 1973.

National Endowment for the Arts Renovation Program

NO. FY74-11

This program is designed to assist American museums in preserving collections of aesthetic and cultural significance. The program seeks to encourage renovation of facilities for climate control, security and storage in existing structures. Funds will not be available for new construction or for renovation of exhibition spaces except for climate control and/or security systems in these areas. Assistance is available within the following areas:

Survey

Priority will be given to requests for consultation services to assess renovation needs in the areas of climate control, security and storage and to suggest concrete measures to alleviate those needs. All grants for consultant's services will be awarded on at least a dollar-for-dollar matching basis.

Installation

In a few instances, where surveys have already been completed, including a projected plan of renovation and cost estimates, the Endowment will consider funding renovation projects during the current fiscal year. Please submit a copy of the survey.

NOTE: All such grants will be awarded on the basis of at least three dollars from non-Federal sources for every dollar of Endowment funds, i.e. the National Endowment for the Arts will be providing no more than 25% of the total project costs, and in most cases, much less. Many grants will be made through the Treasury Fund Method.

Deadline:

Applications for this program must be postmarked no later than October 1, 1973.

Grant Period and Notification:

Projects should not be scheduled to begin earlier than April, 1974. The grant period (installation projects only) may exceed 12 months. Notices of approval or rejection will not be sent earlier than April, 1974.

National Endowment for the Arts Program for Wider Availability of Museums

NO. FY74-12

This program is directed toward encouraging full community participation in the activities of museums. Although the program is broadly conceived, and includes the means of taking the museum to its audience or of bringing the audience to the museum or programs to heighten awareness in the audience, each proposal whether from a single museum or a cooperating group of museums must clearly indicate in what way or by what means the museum is to be made more widely available to its public. Proposals containing provisions for long-range continuity and effective evaluation will be given special consideration. The program does not support the creation of a new museum, operating expenses, acquisition or construction.

Deadline:

Applications for this program must be postmarked no later than October 1, 1973.

Grant Period and Notifications:

Projects should not be scheduled to begin earlier than April, 1974. Notices of approval or rejection will not be sent before April, 1974.

General Range of Grants:

Up to \$60,000.

National Endowment for the Arts Museum Purchase Plan

NO. FY74-13

The Museum Purchase Plan program provides matching grants of \$10,000 or \$5,000 to museums for the purchase of works by living American artists. The objectives of the program are to encourage museums to add to their collections of contemporary American art, to create and expand public response to works by living artists through display of their works, and to provide direct financial assistance for artists.

The enabling legislation of the National Endowment for the Arts states "The term 'the arts' includes, but is not limited to ... painting, sculpture, photography, graphic and craft arts, industrial design, costume and fashion design...."

The terms of the grant will be as follows:

1. The grant and matching funds must be used for the direct costs of purchasing two or more works by living American

artists. Insurance, crating, shipping, installation, salaries and travel costs are not to be included.

2. Museums may apply for a \$10,000 grant or a \$5,000 grant. The funds must be matched on a dollar-for-dollar basis from new money raised during the grant period specifically for this purpose. Matching funds must not come from already budgeted funds and must be from non-Federal sources.
3. The grant period will be from September 1, 1974 through August 31, 1975.

Deadline:

Applications and Supplementary Information Sheets must be postmarked no later than February 4, 1974.

Notification:

Notices of approval or rejection will not be sent before July, 1974.

National Aeronautic and Space Administration Opportunities for Participation in Space Flight Investigations Associated with the Pioneer Venus 1978 Orbiter Mission

NO. FY74-14

The National Aeronautics and Space Administration (NASA) is announcing an opportunity for participating in the scientific investigations to be made on the Pioneer Venus orbiter mission to Venus planned for the May 1978 launch opportunity. Although this mission has not been authorized, this invitation is being issued to continue scientific participation in the mission definition phase and to determine the flight payload in anticipation of formal authorization.

The Pioneer Venus program is planned as a set of two missions to Venus launched during the 1978 launch opportunities. The first mission, launched during the May 1978 launch opportunity, will be an orbiter about Venus. The second mission, launched during the August 1978 launch opportunity, will be atmosphere entry probes. Both missions will arrive at Venus within a few weeks of each other during December 1978.

The scientific objective of the Pioneer Venus program is to study the planet Venus and its immediate environment.

The objectives of the 1978 orbiter mission will include:

1. Studies of the upper atmosphere and ionosphere.
2. Investigation of the interaction of the solar wind with the Venus atmosphere.

3. Studies of global characteristics of the surface and atmosphere by remote sensing experiments.
4. Determinations of gravitational field harmonics.

For your information, the payload which has been selected for the 1978 probe mission will perform the following:

1. Investigation of the composition and structure of the atmosphere to surface.
2. Investigation of the nature and composition of the clouds.
3. Investigation of the circulation pattern of the atmosphere.
4. Investigation of the radiation field in the lower atmosphere.
5. Investigation of the physics of the upper atmosphere and its interaction with the solar wind.

The Pioneer Venus program is planned as a low cost program to use spin stabilized spacecraft launched by an Atlas/Centaur launch vehicle. A common spacecraft will be designed and used for the orbiter mission and as the bus for the probe mission.

The Pioneer Venus Project will be managed by the Ames Research Center of the National Aeronautics and Space Administration.

The nature and goals of the Pioneer Missions to Venus require that the experiments and spacecraft be integrated and coordinated. The investigators selected for participation will be expected to function as a coordinated team and to share and exchange data and results among themselves freely and promptly. Several methods of participation are possible within this framework.

Proposals may be submitted for participation in the following modes:

1. Theoretician or interdisciplinary scientist not associated with hardware responsibility for a particular experiment or instrument. To work with data obtained from one or more experiments. Indicate areas of main interest and type of data required.
2. Principal Investigator and Co-investigators for a specific experiment with a specific instrument being proposed.

Anyone interested in proposing for these missions should send a letter of intent addressed to:

Dr. Robert F. Fellows
Program Scientist
Pioneer Venus Program, Code SL
NASA Headquarters
Washington, DC 20546

The letter of intent to propose should include the name, address, and phone number of all individuals involved, the experiment title or subject, and a brief statement of the objectives.

Letters of intent should be received by NASA

by September 28, 1973. Shortly thereafter, NASA will provide the intended proposers detailed information on how to prepare the proposal and relevant background material. It is essential for a potential proposer to have this additional information in order to prepare an appropriate proposal.

Proposals for participation will be required by close of business November 16, 1973.

The Commission of the European Communities VIIIth European Communities Prize

NO. FY74-15

The Commission of the European Communities has announced competition for the VIIIth European Communities Prize. The prize will be awarded for university theses making an important and original contribution to the knowledge of problems relating to European integration in order to encourage young researchers in one of the three following groups of disciplines:

Law

Economics

Political science - Sociology - Social psychology - History.

A prize of BFrs. 150,000 will be awarded to the best candidate in each group.

Regulations:

1. Theses may be submitted for which the candidate has obtained a doctorate or equivalent degree not earlier than 1 January 1972 from an institution entitled to award higher degrees in one of the Member States or in a State maintaining diplomatic relations with the European Communities.
2. A thesis may be submitted only once for the European Communities Prize.
3. Candidates must be nationals of a Member State of the European Communities or of a State maintaining diplomatic relations with the European Communities. They cannot be older than 35.
4. Staff of the Institutions of the European Communities, their spouses and children are not eligible.
5. The three successful candidates must place 50 copies of their work at the disposal of the Directorate-General for Press and Information of the European Communities' Commission for distribution to Universities and to Institutes specializing in European affairs.
6. The Prizes will be awarded by an international panel of judges composed of P. Pescatore, Professor in the Faculty of Law at the University of Liege (Chair-

man); J. De Meyer, Professor in the Faculty of Law at the Catholic University of Louvain; I. Gasparini, Professor in the Faculty of Economics and Commerce at the Commercial University < L. Bocconi > of Milan; C.D. Jongman, Professor in the Eruopa-Instituut of the University of Amsterdam; J.D.B. Mitchell, Professor in the Faculty of Law at the University of Edinburgh; P.-H. Teitgen, Professor in the Faculty of Law and Economics at the University of Paris; G. Ziebur, Professor in the Otto-Suhr Institute at the Free University of Berlin. The judges may consult any experts of their choice; they will announce their decision in December 1974.

7. The award of a prize does not imply agreement with the views put forward by the author.
8. Theses, written in one of the official languages of the European Communities (Danish, Dutch, English, French, German, Italian) must be accompanied by an indication of the author's birthday and nationality, a document certifying the date of presentation of the thesis and a presentation-report by the supervisor of the thesis. Candidates are requested to state the discipline within which they have chosen the subject of their thesis. Four copies of the thesis, as well as the candidate's file, must be submitted not later than 15 November 1973 to the following address:

European Communities Prize
Commission of the European Communities
Directorate-General for Press
and Information
200, rue de la Loi
1040 Brussels (Belgium)

Manuscripts will not be returned.

National Science Foundation Scientists and Engineers in Economic Development Program

NO. FY74-16

Background

The Agency for International Development (AID) has for many years supported the activities of U.S. universities in technical assistance projects in developing countries. The National Science Foundation, through a special program funded by AID, will provide support for individual U.S. scientists and engineers to apply their experience to problems of development in the following countries:

Afghanistan	Guyana	Pakistan
Bangladesh	Haiti	Panama
Barbados	Honduras	Paraguay
Bolivia	India	Peru
Brazil	Indonesia	Philippines

Chile	Jamaica	Tanzania
Colombia	Jordan	Thailand
Costa Rica	Kenya	Trinidad & Tobago
Dominican Rep.	Korea	Tunisia
Ecuador	Liberia	Turkey
El Salvador	Morocco	Uganda
Ethiopia	Nepal	Uruguay
Ghana	Nicaragua	Venezuela
Guatemala	Nigeria	Zaire Rep.

Objectives

The program's objectives are to (1) enable U.S. scientists and engineers to share experiences with their counterparts in developing countries who formulate and conduct specific research and education programs contributing in a direct way to economic development in their countries; (2) establish long-term collaborative relationships between U.S. and foreign institutions; and (3) increase the capability of scientific and technical institutions in developing countries.

Types of Projects

Research/Teaching Grants - An individual may apply through his institution for support to enable him to conduct research or teach (or both) for nine to twelve months in an academic institution of a developing country. Grants may provide up to \$15,000 plus economy class air travel, 22 lbs. excess baggage allowance, 100 lbs. air freight, and economy class air travel for dependents not to exceed the equivalent of two full round-trip fares. The actual stipend will be determined on the basis of the applicant's academic salary minus any salary contributions from the home and host institutions. Local costs in the foreign country must be met by the host institution.

International Travel Grants - An individual may apply for an International Travel Grant to engage in research or teaching (conduct seminars, give lectures, review specific research projects, or survey progress in curriculum development) in institutions of developing countries for a period not to exceed nine months. Visits to more than one institution may be included in an itinerary provided that no visit is less than one week in duration. Grants will provide the cost of economy class air travel plus a small amount for incidental expenses en route. Per diem and local costs must be provided by the host institution. Travel of dependents will not be covered.

Eligibility

Applicants are limited to scientists and engineers from U.S. academic institutions with at least five years of postdoctoral or equivalent experience in teaching or research and who will return to their institutions on completion of the project.

Proposals will be considered in the following fields: engineering, physical sciences,

earth sciences, biological sciences, social sciences, and science education.

Criteria

Proposals will be judged according to the following criteria:

1. Technical soundness and relevance of the proposed activity to developmental priorities established by the host country. Preference will be given to projects that will contribute to a more effective application of science and technology to the industrialization process and to the better management of natural resources.
2. Evidence that the applicant's activity or project has been discussed with the prospective host institution(s), that he would be welcome, and that the host institutions will share costs, provide local supporting services including space and equipment, and make logistic and administrative arrangements. The applicant is responsible for obtaining this evidence.
3. Likelihood of continuing linkages between the host institution and home institution of the U.S. participant.

Submission of Proposals

Proposals should include the following information:

1. A description of the proposed project and a work plan.
2. A statement of the applicant's professional background and experience.
3. Evidence of the host institution's support for the proposed project.
4. A budget.
5. Applicant's Social Security Number.

The proposals should be submitted in ten copies to:

Central Processing Section
Scientists and Engineers in
Economic Department
National Science Foundation
Washington, D.C. 20550

One copy of proposals for research/teaching awards should be signed both by the applicant and an official authorized to commit the institution in financial matters. Applications for International Travel Grants require only the signature of the applicant.

The closing date for submission of proposals is December 1, 1973. Awards will be announced during April 1974.

For additional information, write or call:

Office of International Programs
National Science Foundation
Washington, D.C. 20550
Telephone: (202) 632-5806.

National Science Foundation Cooperative Science Program in Latin America Cooperative Research, Joint Seminars, Scientific Visits

NO. FY74-17

The National Science Foundation has established a new Program (Latin American Cooperative Science Program) to foster and support mutually beneficial scientific and technological cooperation between the United States and Latin America. The present ongoing Programs with Argentina, Brazil, and Mexico will become part of this new effort. Other countries in Latin America may also be considered. The Program encourages collaboration and exchange of information between scientists, engineers, scholars, and institutions of research and higher learning of the United States and the cooperating countries.

The National Science Foundation coordinates activities undertaken under this Program in the United States and maintains liaison with participating foreign agencies of the cooperating countries. The Argentine Government has designated the Coordinating Commission for Scientific and Technical Affairs of the Ministry of Foreign Affairs and Worship to coordinate Program activities in that country; the Brazilian Government has designated its National Research Council; and Mexico manages the Program through the National Council of Science and Technology. The following general guidelines have been established for the administration of the Program:

- The responsible agencies in both the United States and the foreign country must approve each project.
- Scientists of both the United States and the foreign country concerned must participate in each project approved under the Program.
- Contributions to the Program by the United States and the cooperating foreign country should be on an equitable basis. However, it is not necessary that each country's contribution to individual projects be equal or of the same kind.
- Each country will support the cost of its own nationals.

Cooperative activities under this Program may be conducted in most fields of science and engineering, including the interdisciplinary and applied sciences, unless the collabor-

ating country chooses to limit activities to certain fields.

The Program provides financial support for three different types of activities: cooperative research projects, joint seminars, and scientific visits. Similar activities funded from other sources may be incorporated into the Program by agreement between the coordinating agencies. U.S. institutions eligible to participate in this program include universities and colleges, professional societies, academies of sciences, and other nonprofit scientific organizations of the private and public sectors. U.S. scientists employed by profit-making organizations are not eligible for support under this program.

Other details and guidelines for the program are available in the Office of Advanced Studies, Division of Research and Sponsored Programs, Extension 7378.

National Science Foundation Science Education Programs

NO. FY74-18

Details on the National Science Foundation's education programs and a schedule of program deadlines are now available from NSF.

Announcement of the redirected science education programs was made in an NSF publication (E 74-1) and the leaflet, "Schedule of NSF Programs for Education in Sciences -- Fiscal Year 1974." NSF will shortly release 12 individual program guides, covering all the program activity of the Foundation's Education Directorate, which should be used for proposal and application submission.

NSF science education activities are structured around five major themes:

1. Improvement of Education for Careers in Science, which includes a Secondary School Program, Alternatives in Higher Education, continuing Education for Scientists and Engineers, Student-Oriented Programs, and Programs for Ethnic Minorities and Women in Science;
2. Development of Science Literacy, programs for the development and implementation of materials for elementary and secondary school use;
3. Increasing Efficiency of Educational Processes, which includes activities for Technological Innovation in Education and Educational Program Restructuring;
4. Experimental Projects and Problem Assessment, research and problem assessment activities designed to increase the effectiveness and impact of science education; and

5. Graduate Student Support, which includes Graduate Fellowships and two post-doctoral programs funded by the North Atlantic Treaty Organization and administered by NSF for U.S. citizens and nationals.

The new, more sharply focused NSF science education activities are designed to reach and interest a broader segment of the population and continues the program reorientation begun two years ago.

NSF seeks to improve the effectiveness of science education through the application of improved programs, modern educational technology, and new instructional strategies and methods.

The new NSF science education emphasis includes:

Elementary and secondary school programs using the problem solving approach, oriented towards the practical rather than the theoretical;
College level programs incorporating self-paced, self-directed study in interdisciplinary and traditional discipline areas, placing more responsibility on the student for learning; and

Alternative degree programs aimed at developing scientists capable of doing research on the pressing problems facing the country.

NSF science education programs will emphasize getting newly developed materials and techniques tested and into actual use in a sample of schools. Instructional projects for teachers will deal directly with specific new teaching materials and modes rather than with a general upgrading of substantive knowledge. College teacher programs will be targeted toward evaluation and development of materials not only for classroom use but for direct use by students.

For additional information and details on specific experimental projects and problem assessment studies, submit inquiries to:

Office of Experimental Projects and Programs,
AD/E
National Science Foundation
Washington, D.C. 20550

U.S. Department of Interior, OWRR Proposals for Fiscal Year 1975 Funding

NO. FY74-19

The Office of Water Resources Research, U.S. Department of the Interior, is now accepting unsolicited research proposals in the field of water resources for consideration for fiscal year 1975 support, beginning July 1, 1974, pursuant to Title II of the Water Resources Research Act of 1964, as amended.

Title II of the Act authorizes the Secretary of the Interior to make grants, contracts, and matching or other arrangements with educational institutions, private foundations or other institutions, with private firms or individuals whose training, experience, and qualifications are, in his judgment, adequate for the conduct of water research projects, and with local, State, and Federal Government agencies to undertake research into any aspects of water problems related to the mission of the Department of the Interior which he may deem desirable and which are not otherwise being studied.

Within the broad research program authorized by Congress, the Office of Water Resources Research desires to encourage and support research investigations which hold promise of contributing to the solution of important water problems. In its fiscal year 1975 program, the Office of Water Resources Research proposes to emphasize support of research in the following major subject fields:

1. Improvement of Water Resources Planning, Managerial, Financial, Operating and Regulatory Policies.
2. Water Resources Policy and Political Institutions.
3. Hydrologic Systems Analysis.
4. Urban and Metropolitan Water Resources Problems.
5. Ecologic Aspects and Environmental Consideration of Water Resources Planning and Management.
6. Evaluation of Economic Importance of Various Uses of Water, Cost Allocation, Cost Sharing, Pricing and Payment.
7. Analysis and Evaluation of Water Resources Projects.
8. Ground-Water Supply, Management, and Protection.
9. Protection and Rehabilitation of Estuarine Resources.
10. Thermal Loading Problems.

11. Water Demand Considerations.

In addition, any technical approach or idea which holds promise of contributing to the solution of the Nation's water problems will be given every consideration. To allow sufficient time prior to July 1, 1974, for proposal review, contract negotiations, and transmittal to Congress for a 60-day period as required by Title II of the Act, proposals should reach the Office of Water Resources Research by January 11, 1974. Although special proposals may be submitted to OWRR at any time, primary consideration for FY 1975 support will be given to those received by January 11, 1974.

OWRR Procedures Memorandum No. 73-2 giving detailed instructions and forms for the submission of proposals will soon be available in the Office of Advanced Studies, Division of Research and Sponsored Programs.

National Institutes of Health National Heart and Lung Institute Pulmonary Research Grant

NO. FY74-20

The National Heart and Lung Institute is inviting young scientists and physicians nationwide to compete for grants to conduct pulmonary, or lung-related, research in projects of their own design and direction.

The new program--the "Young Investigator Pulmonary Research Grant"--is being launched this month by Dr. Claude J.M. Lenfant, Director of the Institute's Division of Lung Diseases. Dr. Lenfant explains that, by providing them with modest independent support for projects of their own design, this program will help young scientists and physicians who are on the lower rungs of the professional ladder, while encouraging them toward pulmonary research, where new knowledge and diverse professional talents are greatly needed.

The Division is inviting applications from young professionals across a broad, basic-clinical spectrum of fields, ranging from biochemistry and engineering to surgery and pediatrics. Each applicant must be under 35, with a doctorate in some relevant field.

Grant applications must be returned before December 1, to be reviewed in time for next fiscal year's funds. Other information about this program may be obtained from:

Jay Moskowitz, Ph.D.
Acting Chief, Special Programs and Resources Branch
Division of Lung Diseases
National Heart and Lung Institute
Bethesda, Maryland 20014

Graduate School

Japanese Government (Mombusho) Scholarship for 1974 (Research Student)

NO. FY74-GS3

A program, completely funded by the Japanese Government, for non-Japanese students wishing to study, as research students, at a Japanese University for the 1974 academic year.

Available to any non-Japanese graduate student in the sciences, humanities, law or medicine, in his own or a related field.

Funding includes monthly stipend, transportation to and from Japan, arrival and field study allowances, school and living costs.

Tenure: Either (1) two years from April, 1974 to March, 1976 or (2) one and one-half years from October, 1974 to March, 1976.

Application to Consulate General of Japan, 625 North Michigan Avenue, Chicago, Illinois 60611, not later than September 26, 1973.

Further details: available in the Office for Advanced Studies, Room 316, Administration Building, Notre Dame, Indiana.

National Endowment for the Humanities, Fellowships in Selected Fields, 1974-1975

NO. FY74-GS4

Fellowships are offered in:

1. Historical, social and cultural studies of U.S. ethnic minorities; and
2. Studies of the interrelationships between human values and science and technology.

Eligibility: For promising young scholars and teachers who have completed their graduate or professional training by October 15, 1973. Advanced degree not required. Degree candidates or persons seeking support for work leading toward degrees are not eligible.

Requirements: Recipients must devote full time to proposed study and may hold no simultaneous major fellowship or grant other than a sabbatical or grant from their own institution.

Application: Directly to the NEH postmarked no later than October 15, 1973.

Additional information Senior Fellowships and Fellowships for Younger Humanists available at:

Division of Fellowships
National Endowment for the Humanities
806 15th Street, N.W.
Washington, D.C. 20506

Current Publications and Other Scholarly Works

SCIENCE

Biology

- Bender, H.A. 1973. Is there intelligent life on planet earth? Pages 125-129 in, R. Palotti, editor, Selected Readings: Genetic Engineering and Bioethics, MSS Information Corporation, New York.
- Poulson, T.L. 1972. Bat guano ecosystems. Bulletin of the National Speleological Society 34:56-60.
- Rai, K.S., and P.T. McDonald. 1972. Application of radiation-induced translocations for genetic control of Aedes aegypti. Proceedings of the World Health Organization/ICMR Seminar 20:77-94.

Chemistry

- *Curran, C., D.V. Naik, and J.C. May. 1973. Mössbauer studies of tin (IV) complexes with anionic ligands having oxygen donors. Journal of Coordination Chemistry.
- *Hentz, R.R., and R.M. Thibault. 1973. Concentration and temperature dependence of the lowest triplet state of benzene in the liquid phase. Journal of Physical Chemistry 77(9):1105-1111.
- *Magee, J.L., and M. Burton. 1972. Editors. Advances in radiation chemistry. Wiley-Interscience 3:ix and 297 pp.
- *Thomas, J.K., and S. Wallace. 1973. Reactions in micellar systems. Radiation Research 54:49-62.
- *Thomas, J.K., and T. Gangwer. 1973. Radiolysis of aromatic liquids. Radiation Research

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Mathematics

- Goetz, A. 1972. On the algebraic structure of the process of forming subsequences. Colloquium Mathematicum 26:313-322.
- Hahn, A.J. 1972. On the homomorphisms of the integral linear groups. Mathematische Annalen 197:234-250.
- Kronstein, K.M., and J.A. Gallian. 1972. On the breadth of a finite p-group. Mathematische Zeitschrift 126:224-226.
- O'Meara, O.T., and R.E. Solazzi. 1972. The automorphisms of certain subgroups of $PGL_n(V)$. Illinois Journal of Mathematics 16:330-348.

Microbiology

- *Pleasants, J.R., B.S. Wostmann, and B.S. Reddy. 1973. Improved lactation in germ-free mice following changes in the amino acid and fat components of a chemically defined diet. Pages 245-250 in, J.B. Heneghan, editor, Germfree Research: Biological Effect of Gnotobiotic Environments. Academic Press, New York.
- Pleasants, J.R., and M.J. Pleasants. 1973. Varicose veins, love and marriage. Notre Dame Magazine 2:19-20.
- Pleasants, J.R. 1973. Review of Yves Simon's Work Society and Culture, Worship 47:187-189.
- Pleasants, J.R., and T.J. Musial. 1972. Mendelian evolution and mandalian involution: Speculations about the foundation of cultural change. Review of Politics 34:154-171.
- *Pleasants, J.R. 1973. Meeting report. IV International symposium on germfree animal research: Biological effect of gnotobiotic environments. BioScience 23:252-254.
- *Pleasants, J.R., T. Yoshida, and B.S. Wostmann. 1972. The pH values and nitrogen fractionation of cecal contents and feces in germfree and conventional rabbits. Japanese Journal of Zootechnical Science 43(5):284-285.
- *Wagner, M. 1973. Relationship of specific antibacterial agglutinins in saliva to dental caries in gnotobiotic rats. Pages 211-216 in, J.B. Heneghan, editor, Germfree Research: Biological Effect of Gnotobiotic Environments. Academic Press, New York.
- *Wostmann, B.S., B.S. Reddy, E. Bruckner-Kardoss, H.A. Gordon, and B. Singh. 1973. Causes and possible consequences of cecal enlargement in germfree rats. Pages 261-270 in, J.B. Heneghan, editor, Germfree Research: Biological Effect of Gnotobiotic Environments. Academic Press, New York.
- *Wostmann, B.S., and H.A. Gordon. 1973. Chronic mild diarrhea in germfree rodents: A model portraying host-flora synergism. Pages 593-601 in, J.B. Heneghan, editor, Germfree Research: Biological Effect of Gnotobiotic Environments. Academic Press, New York.
- *Wostmann, B.S., E. Kokas, and H.A. Gordon. 1973. Effects of germfree rodent's cecal contents on spontaneous villus movement. Pages 585-591 in, J.B. Heneghan, editor, Germfree Research: Biological Effect of Gnotobiotic Environments. Academic Press, New York.
- *Wostmann, B.S. 1972. The gnotobiotic approach to nutrition: Experience with germfree rodents. Page 41 in, J.G. Rodriguez, editor, Insect and Mite Nutrition. North Holland Publishing Co., Amsterdam.
- *Wostmann, B.S., and H.A. Gordon. 1972. Regulation of alpha pigment to depressed cardiovascular and metabolic function in germfree rats. Clinical Research 20(4):804.
- *Wostmann, B.S. 1973. Intestinal bile acids and cholesterol absorption in the germfree rat. Journal of Nutrition 103:982-990.
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Physics

- Bishop, J.M., R. Diamond, J.T. Lynch, A. Peekna, M. Binkley, W.D. Walker, M. Dickinson, A.D. Franklin, L. Libby, J.D. Prentice, T.S. Yoon, J. Hsieh, D. Huwe, and B. Munir. 1973. Properties of KK and $KK\pi$ systems and diffraction dissociation. Physical Review D 7:1977-1985.
- Cason, N.M.; N.N. Biswas, V.P. Kenney, W.B. Madden, O.R. Sander, and W.D. Shephard. 1973. Study of the $\gamma(1710)$ at 8.0 and 18.5 GeV/c. Physical Review D 7:1971.
- Kenney, V.P. 1972. Selected review of single-particle and two-particle inclusive reaction experiments. Acta Physica Austriaca. Supplement IX:463-478.

ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

Art

- Vogl, D.G. 1973. Volunta. Collage. Competitive. Chicago Art Institute Rental Gallery, Chicago, Illinois.
- Vogl, D.G. 1973. 1973 Images on Paper. Competitive. Hill Behind. Drawing. Springfield Art Assocn., Springfield, Illinois.
- Vogl, D.G. 1973. Queen Elizabeth. Lithograph. Competitive. 38th Annual Tri-Kappa Regional Artists Exhibition, Fort Wayne Art Institute, Fort Wayne, Indiana.
- Vogl, D.G. 1973. Whisper. Lithograph. Competitive. Anderson Winter Show, Anderson Fine Art Center, Anderson, Indiana.
- Vogl, D.G. 1973. Squirrel Hill. Watercolor. Competitive, selected for annual tour. 49th Annual Hoosier Salon at Wm. H. Block, Co., Indianapolis, Indiana.
- Vogl, D.G. 1973. One man show. 51 works including 10 constructions, 5 collages, 5 watercolors, 15 paintings, 15 prints. Goshen College Art Gallery, Goshen, Indiana.
- Vogl, D.G. 1972. Birch Trees. Squirrel Hill. Watercolors. First Temple Beth-El Invitational Art Show. South Bend Art Center, South Bend, Indiana.
- Vogl, D.G. 1972. 9 lithograph and serigraph prints. Invitational Art Show. Gary Art Center, Gary, Indiana.
- Vogl, D.G. 1972. Three man show. 33 paintings and 7 prints. South Bend Art Center, South Bend, Indiana.

English

- McDonald, J.J. 1972. The Old Manse Period Canon. In, C.E. Frazer Clark, Jr., editor, The Nathaniel Hawthorne Journal, Washington, D.C. Pp. 13-39.
- Schoen, R.G. 1973. The hierarchy of the senses in A Mask. Milton Quarterly 7:000-000.

General Program of Liberal Studies

- Lyon, J.J. 1973. Review of Lord Bishop: The Life of Samuel Wilberforce. American

- Catholic Historical Review. April:108-109.
- Lyon, J.J., R.E. Burns, J.P. Gleason, C.J. Tull, and J. O'Neill. 1973. Episodes in American history. Ginn and Co., Boston. 600 pp.

Philosophy

- Chroust, A.-H. 1973. Aristotle: new light on his life and on some of his lost works. Routledge and Kegan Paul, London. 2 vols., vol. 1, xxvi, 446 pp.; vol. 2., xx, 502 pp.
- Delaney, C.F. 1973. Peirce's critique of foundationalism. The Monist 57:239-251.
- Delaney, C.F. 1973. Peirce on science and metaphysics. Archiv Fur Geschichte der Philosophie 30 pp.

Theology

- Ford, J.M. 1973. Pentecostal poise or docetic charismatics. Spiritual Life 19(1):32-47.
- Ford, J.M. 1973. Pentecostalism: Old and new "Catholic neo-pentecostalism". St. Andrews Review 2(2):125-127.
- Ford, J.M. 1973. The ministries and fruits of the spirit. Catholic Action Press.
- Mitchell, L.L. 1973. Four fathers on Baptism. Pages 37-56 in, J. Vellian, editor, Studies on Syrian Baptismal Rites, Kottayam, India.
- Mitchell, L.L. 1973. What does Confirmation mean? The Anglican 4(4):2-6.
- Mitchell, L.L. 1973. Christian initiation, the case for change. The Living Church 166(22):8.

ENGINEERING

Aerospace and Mechanical Engineering

- Ariman, T., M.A. Turk, and N.D. Sylvester. 1973. A microcontinuum model of blood with deformable cells. Pages 5-6 in, Y.C. Fung and J.A. Brighton, editors, the 1973 Biomechanics Symposium of the American Society of Mechanical Engineers.
- Huang, N.C. 1973. Inelastic buckling of eccentrically loaded columns. AIAA Journal 11(7):974-979.
- Novotny, J.L., D.E. Negrelli, and T. Vanden Driessche. 1973. Total band absorption models for absorbing-emitting liquids: CCl_4 . The American Society of Mechanical Engineers, Paper No. 73-HT-7:8 pp.

Electrical Engineering

- Saeks, R. 1972. Operator theory and stability. Proceedings of the IEEE Conference on Decision and Control 00:000-000.

Monthly Summary

Awards Received

IN THE MONTH OF JULY, 1973

Department or Office	Principal	Short title	Sponsor	Amount-\$ term
AWARDS FOR RESEARCH				
Microbiology- Lobund Lab.	Pollard	Effects of enviornmental pollu- tants in germfree rodents	Pub. Health Serv.	20,302 1 yr.
Sociology and Anthropology	Rubel	Sociocultural factors of Chicano drug addiction	Natl. Inst. Mental Health	113,569 1½ yr.
Philosophy	Manier	Charles Darwin: metaphysics and morals	Natl. Endow Humanities	15,000 14 mos.
History	Burns	Computer assisted instruction for a freshman history course	(Through DPRD)	112,811 2 yr.
Economics	Davisson Bonello	Computer assisted instruction for an economic course	(Through DPRD)	107,189 2 yr.
Civil Eng.	Linger	Integrated air pollution/ law training program	Environ. Prot. Agency	35,000 1 yr.
Accountancy	Powell	Faculty, development fund	Peat, Marwick, Mitchell, Fdtn.	3,000 ---
Microbiology- Lobund Lab.	Pollard	Electron microscope service	Miles Lab., Inc.	1,500 ---
Sociology and Anthropology	Press	Culture and policy: Seville, Spain	Tinker Fdtn.	5,000 3 mos.
Aerospace Mech. Eng.	Lee, Ariman	Mechanical properties of mater- ials at high temperatures	U.S. Army	3,007 1 mo.
Chemistry	Martinez- Carrion	Probes of structure and mechan- isms of heart enzymes	Natl. Inst. Health	21,067 1 yr.
Accountancy	Powell	Faculty development fund	Lybrand Fdtn.	1,000 ---
AWARDS FOR EDUCATIONAL PROGRAMS				
Administration	---	Jesse Jones professorship in management	Houston Endowment, Inc.	25,000 1 yr.
Law	Foshio	Prosecution internship program	Ind. Crim. Just. Plan. Agcy.	4,117
AWARDS FOR SERVICE PROGRAMS				
Urban Studies	Broden	Project understanding	School Theology Claremont	1,000 1 yr.

Proposals Submitted

IN THE MONTH OF JULY, 1973

Department or Office	Principal	Short title	Sponsor	Amount-\$ term
PROPOSALS FOR RESEARCH				
Metallurgical Eng.	Miller	Adhesive wear studies of some liquid metal materials	Oak Ridge Natl. Lab.	4,000 4 mos.
Biology	Craig	Genetics and reproductive biol- ogy of Aedes mosquitoes	Natl. Inst. Health	128,795 1 yr.
Physics	Johnson, DeCelles	Quantum electrodynamics applied to elementary particle physics	Natl. Sci. Fdtn.	57,894 2 yr.
Physics	Shephard, Poirier	High energy elementary particle physics (HEP/4, HEP/2)	Natl. Sci. Fdtn.	336,846 1 yr.
Physics	Marshalek, Shanley	Theoretical studies of nuclear structure and reactions	Natl. Sci. Fdtn.	54,736 2 yr.

Biology	Saz	Intermediary metabolism of helminths	Natl. Inst. Health	76,613 1 yr.
Chemistry	Pasto	Study of alkenylidene and methylenecyclopropanes	Natl. Sci. Fdn.	110,030 3 yr.
Civil Eng.	Lauer	Outdoor exposure tests for concrete durability studies	Natl. Sci. Fdn.	21,246 2 yr.
Electrical Eng.	Massey	Convolutional coding techniques for data protection	Natl. Aero. Space Admin.	36,959 1 yr.
Microbiology-Lobund Lab.	Pollard	Study of germfree buffalo rats	Natl. Inst. Health	50,000 2 yr.
Metallurgical Eng.	Cullity	Gamma irradiation on the recrystallization of steel	Amer. Iron Steel	20,565 1 yr.

PROPOSALS FOR FACILITIES AND EQUIPMENT

Physics	Blackstead	Phonon spectroscopy in rare earth ferromagnets	Research Corp.	13,100 1 yr.
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Summary of Awards Received and Proposals Submitted

IN THE MONTH OF JULY, 1973

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	7	\$ 96,869	5	\$ 341,576	12	\$ 438,445
Facilities and Equipment	-	---	-	---	-	---
Educational Programs	2	29,107	-	---	2	29,117
Service Programs	1	1,000	-	---	1	1,000
Total	10	\$ 126,986	5	\$ 341,576	15	\$ 468,562

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	6	\$ 691,843	5	\$ 205,841	11	\$ 897,684
Facilities and Equipment	-	---	1	13,100	1	13,100
Educational Programs	-	---	-	---	-	---
Service Programs	-	---	-	---	-	---
Total	6	\$ 691,843	6	\$ 218,941	12	\$ 910,784

Closing Dates for Selected Sponsored Programs

Proposals must be submitted to the Office of Research and Sponsored Programs ten days prior to the deadline dates listed below

Agency	Programs	Application Closing Dates	
Center for Hellenic Studies	Research for Young Scholars in Ancient Greek Literature, Philosophy, or History	October	31, 1973
National Institute of Education	Research in Education	Fall,	1973
	Research in Education - Small Grants	Fall,	1973
	Research in Special Areas of Education	Fall,	1973
National Science Foundation	NATO - Postdoctoral Fellowship in Science	October	23, 1973
U.S. Office of Education	Higher Education Personnel Training	Fall,	1973

documentation

Academic-Administrative Appointments 1973-1974

Dr. John G. Borkowski	Chairman of the Department of Psychology
Sister Isabel Charles, O.P.	Assistant Dean of the College of Arts and Letters
Dr. Thomas W. Fallon	Chairman of the Department of Physical Education
Dr. Bobby J. Farrow	Director of the Social Science Training and Research Laboratory
Dr. John J. FitzGerald	Assistant Vice President for Advanced Studies Instruction
Dr. Howard A. Glickstein	Director of the Civil Rights Center
Dr. Richard A. Kurtz	Acting Chairman of the Department of Sociology and Anthropology
Dr. William T. Liu	Director of the Center for the Study of Man and Associate Dean of the College of Arts and Letters
Dr. John J. Lyon	Chairman of the General Program of Liberal Studies
Dr. James L. Melsa	Chairman of the Department of Electrical Engineering
Dr. Peter R. Moody, Jr.	Director of the Asian Studies Program
Dr. Ivo Thomas	Director of the Collegiate Seminar
Dr. John Yoder	Director of the Non-Violence Program

Commencement Address Summer 1973

I don't want, this noonday, to fan your brows with the balmy winds of rhetoric. Nor do I want to blather along in an oracular tone pretending to impart to you some portentous particles of deep, solemn wisdom. I am not going to be prophetic, practical, or even statistical. I have no counsel, no advice, to offer.

Yet I do have something I'd like to say on this occasion of joy and celebration. In his most famous preface Joseph Conrad wrote: "My task....is, before all, to make you see. That -- and no more, and it is everything." He was referring of course not simply to visual or ocular sight. Rather, he was using the verb "to see" in that larger sense in which, after something difficult or strange or hitherto not understood has finally come clear, any one of us will say, with a kind of wonder, "I see." Seeing now, in this larger sense, means comprehension, understanding, illumination.

I suppose that in a very true way it is the task of a University to make people see. Surely it is the task, the purpose, of every teacher to make people see; and most -- not all but most -- of you who are graduating today either are or will be teachers.

The most memorable of all pedagogical principles I have ever heard is that swashbuckling one, "Lead 'em into the jungle and let 'em hack their way out." It is a principle I have tried to follow faithfully: for even behind its apparent ruthlessness I think there lies a tender concern that on the way out -- indeed, even in the leading in -- there be some clear seeing.

But Conrad, of course, was speaking not as a teacher but as a novelist, a story-teller. I'd like to place his words here on the podium as a kind of invisible peg: "My task.... is, before all, to make you see." And here, another invisible peg, I'd like to place some notice of the scrupulous practice of another most commendable story-teller, Conrad's contemporary, Henry James.

It is recorded of Henry James that whenever by the kind of chance he was always open to the germ of a story was given him, whenever the animating idea was proffered or the creative impulse stirred, he much preferred not to get a lot of details. He preferred meditation over conversation in such circumstances. Given the initial stimulus he preferred to rely upon his own imagination, his own intuition, his own inventive powers, his own faculties as a person and talents as an artist, to round and fulfill and work out and end the story which had been so happily yet casually suggested.

Between these two pegs now let me arrange -- not that I do not say stretch out -- the few remarks which seem to me curiously pertinent to this high occasion. For this is a high and traditional occasion, as story-telling is a high and ancient art.

I suppose it began in Eden, story-telling. I don't want to show any sexual partiality by attributing the first story to Adam or to Eve. But surely one or the other told it; and surely Adam did not tell it to himself, nor did Eve tell it to herself. For stories are always a kind of sharing; and this sharing must be contemporaneous with humankind. It is a thought loaded with reverberant implications that perhaps the first story was told before the enormous Fall. And in our long inheritance, as fallen but in time redeemed, in our long human continuity we have kept on with this very natural and very human activity of sharing our experience in stories.

Privately now, in a microphonic whisper, let me ask if there is any one graduating here today who has not today told somebody else, confidentially perhaps, about something revealing or amusing or embarrassing or frightening or exciting or saddening which has just lately happened? Don't raise your hands. Any display would be indecorous. But, putting the question the other way round, is there any one here who today has not heard or read some account in words of a particular human experience? No, we are all involved, by our very nature, in stories. And it is, I submit, a very good thing -- ancient, universal, and human -- to be so involved.

It is good, too, and proper, indeed beautiful, that stories are always about people. Even in those folk tales which feature animals the animals are so humanized that they themselves tell stories. Even White Fang, if you remember, is much more human than canine philosopher, of the school of Herbert Spencer.

I say stories are inevitably about people. But perhaps I should say more precisely that stories are about persona, individual persons. Stories do not treat of mankind in general, except as mankind is particularized in you, individual, and in me, and in every person, "fickle, freckled, who know how?"

And now let me pause for a moment while we all reflect upon the fact that we, right now, here, as persons -- persons in our own private, secret, individual ways -- are all participants or characters in a story.

If we could trace back far enough I suppose we'd find that all stories begin in Eden; but for practical purposes we usually have to start them at a given point in historical time. The story in which I say we are all participants began, I think -- but this is rather arbitrary -- in 1814, with the birth in a very small French village of a child, a boy. Others might say that the story really began some years later when this boy, in his teens, at a seminary in Le Mans, studying for the priesthood, heard the words of a missionary bishop named Brute, of Vincennes, Indiana.

I believe that we are all assembled here today in the high formal ceremony of commencement, August 10, 1973, because a young seminarian in France once heard a French missionary bishop talk about the arduous apostolate currently open in this region of the world. We are the participants in the story they began. The young seminarian was Edward Frederick Sorin, later to become the priest who founded Notre Dame.

At that time of course he was not planning to found this University. That early meeting was, if you like, the germ, the animating impulse, the creative stirring which years later began to lead with much eventful rounding out to today, to this moment.

Stories traditionally begin with "once upon a time." Well, then, once upon a time, something happened to a particular person in a particular place and season which led to a then inconceivable number of other things happening to all incalculable number of other particular persons, like ourselves. Stories do not necessarily proceed in strict chronology. They may weave back and forth in time. You have all, most of you many times, seen what these acres in space called Notre Dame are like today. You know people here, persons. You are aware of intellectual and creative and spiritual energies being exerted here. You know trees, buildings, prospects, views, the colors of the sky. You know the locus, with its tenants, as of now, August, 1973.

But once -- I quote from a document written by an early settler of this area -- "deer, wolf, black bear, fox, mink, otter, wild car, racoon, and muskrat abounded." I'd bet that not many of us have seen much more than squirrels and gophers, though I can speak only for myself. (Once I think I saw a muskrat back in the early 1940's.) But the point is that once this place was wilderness. At one time, historically or in temporal distance not too far away, this place was not a University but a north temperate zone jungle.

The full story of Notre Dame is too big for a set of brief remarks to handle. The story of Father Sorin is too big. The innumerable stories of all the persons, all the men and women -- priests, brothers, nun, almost always bearing the initials C.S.C. behind their names; and laymen, laywomen, carrying no such initials but sturdily contributing to the making of this place today -- these individual stories are beyond me. Perhaps individually they are beyond human telling.

But these individual stories combine, they criss-cross, into a single collective story, in which all of us here today, by the very fact of our being here, are characters, participants, involved by our presence, here, now, with Notre Dame.

I want at this point to return to my pegs. With Joseph Conrad I affirm that today, very simply, "my task, before all, is to make you see" that you who are taking degrees and we who try to honor you by our presence are all incorporated into a continuity, a story, a collective adventure of human beings in time, at a place whose purpose before all is to make you see.

This adventure began locally when the young priest Sorin came to this spot a hundred and thirty-one years ago come next November. But though we can locate its beginnings and mark many of its developments, this is a story which has yet no ending. You are leaving this place. But you are involved with it perpetually.

It is to this second peg that I now turn. It was the scrupulous conviction of Henry James that he had to work out his own stories. Given the germ, the animating idea, the essential notion, he knew that he had to rely upon himself -- upon his faculties and powers, his feelings and judgment, his intuition and logic, under the light vouchsafed to him -- for the full rounding out and development and progression of the work to which he had dedicated his life.

My general meaning, I trust, comes clear? It is important to remember that seeing is a necessity. It is important to remember that under God each solitary one of us must work out, individually, the development and progression, the rounding out and fulfillment of our own parts in our own stories -- and that collective story, unended, which has brought us here together.

My warm and abundant -- and permanent -- good wishes go to each one of you today graduating. May God's blessings swarm all over your heads. May you -- as the story-teller's phrase goes -- "live happily ever after."

Richard T. Sullivan
August 10, 1973

Equal Employment Opportunity Affirmative Action Committee

On January 28, 1970, an Equal Employment Opportunity/Affirmative Action Committee was established to implement the University's Affirmative Action Program. At that time, the Committee consisted of Dean Waldman, Dean Hogan, Professor Broden, Mr. O'Brien and Brother Kieran Ryan, C.S.C.

In order to meet the University of Notre Dame's obligations under the Program and to plan for the realization of these commitments, Father Hesburgh has expanded the Committee at this time. The newly appointed members will share with the original Committee the responsibility of assuring that equal opportunity is a vital, active part of life in the Notre Dame community. The new members are:

Sister John Miriam Jones, S.C.
Mr. Granville Cleveland
Mrs. Maureen Gleason
Dr. Ellen Ryan
Dr. Julian Samora
Dr. Joseph Scott

Formal Opening of the Academic Year

To All Members of the Faculty:

The formal opening of the Academic Year 1973-74 will take place at 10:45 a.m. in Sacred Heart Church on Sunday, September 16, 1973, with a Recited Concelebrated Mass. The Principal Concelebrant will be the Rev. Theodore M. Hesburgh, C.S.C., President of the University. The Homilist will be the Rev. James T. Burtchaeil, C.S.C., provost of the University.

All members of the Faculty (religious and lay) are expected to attend the opening Mass and will participate in the academic procession in academic robes. The Faculty will assemble at 10:30 a.m., in the main floor corridor of the Administration Building, so that the academic procession can depart for Sacred Heart Church promptly at 10:40 a.m. If the procession is cancelled due to inclement weather, faculty members will be notified to report directly to the church. Notification will be given as members arrive at the Administration Building.

Sincerely,

William M. Burke
Assistant Provost

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Miss Marie Lawrence
Memorial Library
Social Sciences
Notre Dame, Ind. 46556

notre dame report

An official publication published fortnightly by the University of Notre Dame, Department of Information Services. Individual copies are available in the Notre Dame Hammes Bookstore at 50 cents. Mail subscriptions are \$9 an academic year. Back copies are 50 cents each.

Vol. 3, No. 1

September 14, 1973



Mary Catherine Stevens, Editor
Publications Office, 209 Administration Building
Notre Dame, Indiana 46556
219:283-1234
