

'76-'77

# notre dame report

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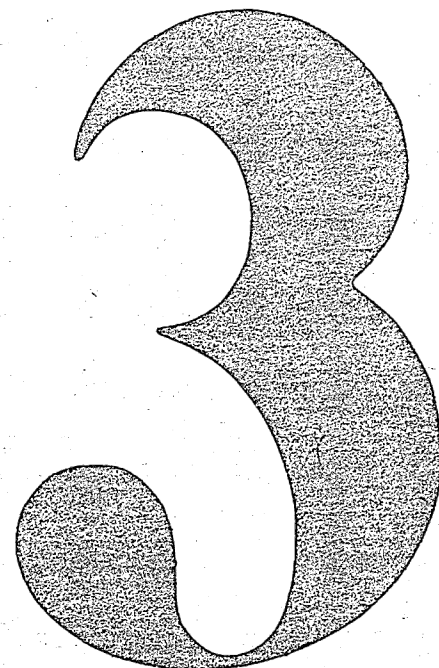
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# the university

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## Holidays and Holy Days

The Calendar of holidays and holy days for 1976-1977 is:

Sept. 6, 1976	Monday	Labor Day
Nov. 24, 1976	Thursday	Thanksgiving Day
Nov. 25, 1976	Friday	Free Day
Dec. 24, 1976	Friday	Free Day
Dec. 25, 1976	Saturday	Christmas
Dec. 27, 1976	Monday	Free Day
Dec. 31, 1976	Friday	Free Day
Jan. 1, 1977	Saturday	New Year's Day
April 8, 1977	Friday	Good Friday
May 19, 1977	Thursday	Ascension Thursday
May 30, 1977	Monday	Memorial Day
July 4, 1977	Monday	Independence Day
Aug. 15, 1977	Monday	Feast of the Assumption

## Free University

Students representing the Free University have extended an invitation to faculty and staff at Notre Dame to consider teaching a course in this program of non-traditional education.

The Free University is a system of free, not-for-credit minicourses taught on any subject or hobby. The topic could be macrame or the big band era; appliance repair or income taxes. Teachers are wholly free to determine the content and presentation of the course as well as the frequency and duration of its meetings. The approach is limited only by the instructor's imagination. Anyone interested in teaching such a course or discussing the concept with Free University organizers should call the Student Government offices at Notre Dame (283-7757) Monday to Friday from 9 a.m. to 5 p.m.

## Thanksgiving Vacation

Earlier this year, the Office of Student Affairs circulated an academic calendar which incorrectly listed the beginning of Thanksgiving vacation as 12:30 p.m. Wednesday, Nov. 24. The vacation actually begins after the last class on Wednesday, as noted in the most recent academic calendar published in Notre Dame Report, Vol. 5, No. 16 (page 369). Faculty members should make note of this correction if they are consulting the Office of Student Affairs calendar.

## Computer Minicourses

The University of Notre Dame Computing Center is offering a series of non-credit, tuition-free minicourses in computer processing. Courses in IBM Job Control Language and in VSBASIC have already been offered. Minicourses for the remainder of the semester will be:

FORTRAN--Nov. 1, 3, 5, 8, 10, 12.  
Command Procedure (CLIST) Programming in MVS--  
for the experienced TSO user only--Nov. 9, 11,  
16, 18, 23.  
PL/1--Dec. 1, 3, 6, 8, 10, 13.

All classes are open to the public and will be held from 3:30 to 4:30 p.m. in Room 115 of the Computing Center/Mathematics Building on campus. Additional information is available from Stephen J. McNally at the Computing Center, 283-7784.

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Vol. 6, No. 3

Oct. 15, 1976

Notre Dame Report is an official publication published fortnightly during the school year, monthly in summer, by the University of Notre Dame, Department of Information Services. Application to mail at second-class postage rates is pending at Notre Dame, Indiana. © 1976 by the University of Notre Dame. All rights reserved.

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## Nieuwland-Reilly Lectures

The Department of Chemistry has selected Mildred Cohn, a biochemist from the University of Pennsylvania School of Medicine to be Rev. Julius A. Nieuwland Lecturer in Chemistry. Cohn, whose research concerns the role of metal in enzyme function will discuss enzymatic reactions in three lectures Oct. 25-29.

The department's Peter C. Reilly lecturers for the academic year will include:

- Jerome A. Berson, professor of chemistry at Yale University, Nov. 15-18;
- A.D. Buckingham, professor of chemistry at Cambridge University, Dec. 6-10;
- Clinton E. Ballou, professor of biochemistry at the University of California at Berkeley, March 7-11, 1977;
- Richard H. Holm, professor of chemistry at Stanford University, April 18-22, 1977.

All lectures will be delivered in room 123 Nieuwland Science Hall at 4:30 p.m. The Nieuwland Lecture-ship was established in 1943 to honor the Rev. Julius A. Nieuwland, C.S.C., a Notre Dame chemist who developed the basic formula for the synthetic rubber neoprene. The Peter C. Reilly Lecture-ship was established in 1954 in honor of the late Indianapolis industrialist.

## Art Gallery "Open House" Series

The Notre Dame Art Gallery has begun a series of Thursday evening "open houses" in order to make the cultural center available to greater numbers. The 7-9 p.m. talks and programs are open to the public without charge. The schedule for the remainder of the semester is:

- Oct. 21--Informal discussions with Art Department faculty.
- Oct. 28--Mrs. Marilyn Reed Holscher, educational director, "A Preview of Art in Indiana, 1776-1976" an in-depth look at an exhibition in preparation for three years and scheduled to open in January.
- Nov. 4--Stephen Spiro gallery curator, "Drawings: Form and Function" with examples from the permanent collection.
- Nov. 18--Richard Stevens, associate professor at art, "Photography from the Permanent Collection.
- Dec. 2--Stephen Spiro, "French 19th Century Draughtsmen," an exploration of drawing techniques.
- Dec. 9--Dean Porter, gallery director, "John Grandisson, Bishop of Exeter Cathedral and the 14th Century Patron of the Arts."
- Dec. 16--Rev. Richard J. Conyers, C.S.C., "A Christmas Message from the Permanent Collection."

There will be no programs on Nov. 11, Nov. 25 (Thanksgiving Day) or on Dec. 23, on which day the gallery will be closed for Christmas vacation.

## Swine Flu Vaccine

Immunization for swine flu will be available from 8 a.m. to 4 p.m., Oct. 28 in Stepan Center for faculty, staff, students and members of the immediate family over 18 years of age. Those who wish to receive the flu shot will be asked to read and sign a registration form which will be available at the vaccination site. The form lists symptoms of the flu and notes the special danger of complications from the flu for people with diabetes, or heart, lung or kidney diseases.

Possible side effects of the vaccine are also listed along with precautions necessary for certain people; those with a known allergy to eggs; people with a fever at the time of the vaccination program; and those who have received another type of vaccine in the 14 days prior to the immunization date. The statement notes that, as with any vaccine or drug, the possibility of severe or potential fatal reactions exists but that flu vaccine has rarely been associated with severe or fatal reactions. This flu vaccine, it says, causes fewer side effects than flu vaccines of the past and, in contrast to some other vaccines, can be safely taken during pregnancy.

One shot will protect most people from swine flu during the next flu season. However, either a second shot or a different dosage may be required for persons under age 25. Those under age 25 will be provided with special information and instructions at the immunization site.

## Financial Aid

More than six of every 10 undergraduate students at Notre Dame are either receiving scholarship or other types of financial assistance, or are borrowing to meet current tuition costs, according to a preliminary report from the Office of Financial Aid. A total of \$8,335,208 is being used by 4,249 students or 61.5 per cent of the current undergraduate enrollment of 6,914.

Requests for assistance traditionally increase as the academic year progresses. Last year's final report showed 62.3 per cent of the 6,846 enrollment receiving \$8,325,331. The average amount of aid provided increased slightly from \$1,951 last year to \$1,960 this year.

Scholarships administered by the University from endowed funds and current contributions went to 954 students and totaled \$1,153,165 this year, compared to 949 students and \$1,104,786 last year. Scholarships brought to the University by the student from state or private funding declined slightly, but the ROTC awards increased from \$1,128,705 to \$1,186,230.

Federal assistance programs in the form of grants, loans and/or jobs are aiding 1,489 students this year, an increase over last year's 1,346, with the average award increasing from \$1,622 to \$1,716. The number of students receiving loan assistance from other sources dropped from 1,035 last year to 829 to date this year.

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# faculty notes

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## Appointments

Mrs. Marion Beckman has been named to the new position of foundations relations coordinator in the University's Office of Public Relations and Development.

Thomas G. Marullo, assistant professor, has been appointed assistant chairman of the Department of Modern and Classical Languages.

Thomas R. Pilot, Jr., and John J. Smith have been named regional directors in Notre Dame's Office of Public Relations and Development.

## Honors

Thomas P. Bergin, dean of continuing education, has been selected to represent the State of Indiana on the newly organized Advocates for the Arts Committee, a national organization concentrating its efforts on securing a higher level of funding for the National Endowment for the Arts.

James J. Carberry, professor of chemical engineering, was presented the R.H. Wilhelm Award in Chemical Reaction Engineering by the American Institute of Chemical Engineers at the Society's annual meeting in Chicago, Nov. 28-Dec. 2. The award is the highest honor given in the field of chemical reaction engineering. It is sponsored by the Mobil Oil Corporation and consists of a certificate and \$1,000. The citation reads, "For his sustained and distinguished contributions to the art and science of chemical and catalytic reaction engineering." Carberry is the author of a book, Chemical and Catalytic Reaction Engineering, published this year by McGraw-Hill Book Company. Since 1974, he has been coeditor of the international journal, "Catalysis Reviews - Science and Engineering."

Frederick J. Crosson, O'Hara Professor of Philosophy, has been appointed to the Committee on Qualifications of the United Chapters of Phi Beta Kappa.

Jay P. Dolan, assistant professor of history, has been appointed by the Arno Press, Inc., as advisory editor for a reprint series in The American Catholic Tradition. The series, scheduled to appear in 1977 and including approximately 50 titles, will include reprints of works representative of the American Catholic tradition currently out of print as well as new manuscripts specifically prepared for this publication.

Alan K. Dowty, associate professor of government and international studies, has been elected to the National Executive Committee of American Professors for Peace in the Middle East.

Nicholas F. Fiore, professor of metallurgical engineering, was installed as the president of Alpha Sigma Mu, national metallurgical and materials engineering honor society, at the Society's September meeting in Niagara Falls, New York.

Rev. Theodore M. Hesburgh, C.S.C., President of the University, received a number of awards over the summer. Among them: the Justice Award of the American Judicature Society (Father Hesburgh was the first non-lawyer to receive this award); induction in the Order of Vasco Nunez Balboa, rank of Grand Cross, from the Republic of Panama; the Distinguished Service to Higher Education Award of the Stony Brook Foundation; and the distinguished service awards of the Council for the Advancement and Study of Education (CASE) and the American Institute for Public Service. Father Hesburgh received honorary degrees from the University of Denver, Davidson College in Davidson, North Carolina, and the College of New Rochelle, New York. The University President also was appointed to a three-year term as director of the Council on Foreign Relations.

Sr. Madonna Kolbenschlag, assistant professor of American Studies, has been elected secretary-treasurer of the Qualitative Studies division of the Association for Education in Journalism.

Edward Mayo, associate professor of marketing, was reappointed co-chairman of the Educators' Committee of the Travel Research Association of America at the Association's Annual Conference in Boca Raton, Florida, June 20-24.

Ken Milani, assistant professor of accountancy, has been appointed manuscripts director of the Michiana Chapter of the National Association of Accountants.

James W. Pattillo, Peat, Marwick, Mitchell Professor of Accountancy, has been appointed to the research committee of the National Association of Accountants; the research committee of the Institute of Internal Auditors; and director of chapter activities of the National Council of Beta Alpha Psi (national scholastic and professional fraternity).

Ray M. Powell, professor of accountancy, has been appointed by the president of the American Accounting Association to serve on a seven-man Resource Allocations Committee.

Norlin G. Rueschhoff, associate professor of accountancy, has been appointed to the American Accounting Association's Committee on International Accounting, Operations, and Education for 1976-77.

John A. Weber, associate professor of marketing, has been reappointed to the Panel on International Investment of the U.S. Chamber of Commerce, Washington, D.C. He has also been reappointed to the Chamber's Task Force on Technology Transfer.

Stephen T. Worland, associate professor of economics, was elected president of the Association for Social Economics at the 35th annual convention held in Atlantic City on Sept. 16-18.

## Activities

Dennis Bamber, adjunct instructor in music, joined in a performance of Leon Stein's Quintet for Saxophone and String Quartet with the Elkhart Symphony String Quartet in Elkhart, Indiana, Oct. 17.

Rev. David B. Burrell, C.S.C., chairman of the Department of Theology, was a member of a National Catholic Educational Association committee which judged grant applications for projects focusing on services to the local church.

William Cerny, chairman of the Music Department, joined the Chicago Symphony String Quartet as guest pianist during a public concert Sept. 27 in the Memorial Library Auditorium. Rev. Patrick Maloney, C.S.C., associate professor of music, presented a voice solo during the concert. The group performed Haydn's "String Quartet No. 1 in G Major," Leon Stein's "String Quartet No. 5," a piece inspired by the poetry of Dylan Thomas, and "Piano Quintet in c minor" by Ernest Von Dohnanyi.

Carvel Collins, professor of English, gave a lecture, "Sherwood Anderson and William Faulkner: Some Confusions Examined," at Michigan State University, Sept. 9.

Alan Dowty, associate professor of government and international studies, delivered a lecture in Danville, Illinois, on "Recent Developments in the Arab-Israel Conflict," Sept. 12 and was the keynote speaker at the Midwest regional conference of American Professors for Peace in the Middle East in Champaign, Illinois, Sept. 17. His topic was Nuclear Proliferation and U.S. Policy in the Middle East." Professor Dowty also testified before the Foreign Relations Committee of the U.S. Senate on proposed arms sales to Saudi Arabia on Sept. 21.

William F. Eagan, associate professor of management, presented a paper entitled "Holder in Due Course and the Consumer: The Situation Today" at the 53rd Annual Meeting of the American Business Law Association at Michigan State University in East Lansing, on Aug. 22-26. At the same conference he chaired a workshop entitled "The Place of Values and Ethics in the Business Law Program."

Msgr. John J. Egan, assistant to the President of the University and director of the Center for Pastoral and Social Ministry, spoke on "The Challenge of Social Justice" at the Convocation on Social Justice of the diocese of Toledo, Oct. 2-3.

Robert Eikenberry, professor emeritus of aerospace and mechanical engineering, presented a paper entitled "Improvements in Version II of the NDFOR Fortran Compiler," at the General Automation Computer User's Group Meeting held in Chicago, Sept. 15-16.

Moirra Geoffrion, assistant professor of art, has four sculptures on exhibit in a group invitational, "Artists in Indiana: Then and Now," at Ball State University Art Gallery in Muncie, Indiana, Sept. 12-Oct. 31, and has five sculptures in the Faculty Art Show on display in the Notre Dame Gallery from Sept. 5-Oct. 24. Professor Geoffrion served as coordinator of a workshop entitled "Women Artists in Residence" at Notre Dame June 21-July 2 and exhibited one work in the accompanying exhibition, "Women Artists, Here & Now," at the Notre Dame Art Gallery from June 28-Aug. 28.

Alexander J. Hahn, assistant professor of mathematics, gave a lecture entitled "Isomorphisms of orthogonal groups over integral domains" for the mathematical colloquium at the Illinois Institute of Technology on Sept. 23.

Rev. Tjaard Hommes, associate professor of theology, has been elected a member of the Commission on Education Strategy and Planning of the Association of Theological Schools.

Sr. Madonna Kolbenschlag, assistant professor of American Studies, presented a paper on "The Evening News: Qualitative Assessment and Systematic Analysis," at the national convention of the Association for Education in Journalism at the University of Maryland, College Park, Maryland, Aug. 3.

Sophie Korczyk, assistant professor of finance, served as a discussant at a session on "Economics of Taxation" at the Western Economic Association meeting in San Francisco on June 26.

John Lyon, chairman of the General Program of Liberal Studies, has been awarded a grant for research in "French Philosophy and Natural History in the 18th Century" at the Lilly Library at Indiana University, Bloomington.

Jerry J. Marley, associate professor of civil engineering, presented a paper on "The First Summer Program in Civil Engineering for Minority High School Students" at the American Society of Civil Engineers (ASCE) annual convention and exposition in Philadelphia, Oct. 1. He also met with the national ASCE Committee on Student Services, of which he is chairman.

Thomas G. Marullo, assistant professor of Modern and Classical Languages, was a participant in a NEH College Summer Seminar, "The Roots of Russian Literature: The Formation of a Modern Literary System" at Yale University from June 21-Aug. 13.

John W. Mihelich, professor of physics, delivered a seminar on "In-beam  $\gamma$ -ray Spectroscopy on Rare Earth Nuclei with  $Z \geq 55$  and  $N \leq 88$ " at the International Symposium on Selected Topics in Nuclear Structure at the Joint Institute for Nuclear Research (JINR), in Dubna, USSR, on June 16.

James H. Seckinger, associate professor of law, served as teaching team leader at the National Institute for Trial Advocacy in Boulder, Colorado, June 13-July 7. He was also co-director of a Trial Advocacy Seminar, co-sponsored by the Institute for Continuing Legal Education of the University of Michigan and the Grand Rapids Bar Association and held Aug. 3-5 in Grand Rapids, Michigan.

William P. Sexton, associate professor of management presented a paper, "Work Value Identification as a Mediator of the Structure - Performance Relationship," at the International Research Institute, Oct. 13, in West Berlin, Germany.

James R. Stock, assistant professor of marketing, was the keynote speaker at the second quarterly membership meeting of the Downtown Mishawaka (Indiana), Association on July 31. He spoke on "Consumerism - Impact on Retailing."

Wilhelm Stoll, professor of mathematics, delivered an invited lecture on "Recent developments in value distribution" at the Complex Analysis Conference of the Mathematical Research Institute, Oberwolfach, West Germany, Sept. 5-10. Professor Stoll also gave invited lectures at the Colloquium of the University of Tübingen, West Germany, Aug. 20 and at the University of Konstanz, West Germany, Sept. 2. His topic was entitled "Konstruktion holomorpher Funktionen zu gegebenen Nullstellen mit Wachstumsbedingungen" (Construction of holomorphic functions to given zeroes with growth conditions).

James I. Taylor, chairman and professor of civil engineering, gave a report entitled "Development of Procedures for Identifying Hazardous Location" and served on research panels on "Use of Accident Records in Safety Studies" and "How Can the Effectiveness of Delineation Treatments be Determined?" at the Federally Coordinated Programs (FCP) Review sponsored by the Federal Highway Administration in Charlottesville, Virginia, Oct. 4-6.

Anthony M. Trozzolo, Huisking Professor of Chemistry, was a Session Chairman for the "Symposium on the Chemistry and Structure of Carbenes and Silylenes" at the 172nd National Meeting of the American Chemical Society in San Francisco, Aug. 31. He also presented a lecture entitled "Cyclic Photochemistry" at the Department of Chemistry Colloquium, Illinois Institute of Technology, Chicago, Illinois on Sept. 15.

Edward R. Trubac, associate professor of finance, presented a talk entitled "The Short and Intermediate Term Outlook for Iron Castings Shipments" at the Annual Meeting of the Iron Castings Society in White Sulphur Springs, West Virginia on Sept. 21.

R. Brian Walsh, director of the Computing Center, presented an invited seminar on "University Experiences with Data Base and On-Line Systems" to college and university executives at an IBM Customer Executive School in Poughkeepsie, New York, Oct. 5-8.

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# office of advanced studies

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## Information Circulars

### Inter-American Foundation The Latin American and Caribbean Learning Fellowship on Social Change

No. FY77-24

To provide opportunities for scholars to learn from Latin American and Caribbean social change programs, the Inter-American Foundation is making available again a small number of pre- and postdoctoral research fellowships. The Learning Fellowship is designed to enable the Fellow to study the change process through affiliation with a host country institution. To this end, the Foundation arranges such an affiliation in collaboration with a Foundation supported development project.

The objectives of the Learning Fellowship on Social Change are:

- 1) to contribute to research and scholarship on social change in Latin American and the Caribbean;
- 2) to provide an opportunity for scholars to learn from Latin American and Caribbean initiated and operated social change programs;
- 3) to involve the academic community in learning about social change from a multidisciplinary perspective; and
- 4) to advantage academic-practitioner cooperation.

#### Eligibility

The Learning Fellowship on Social Change is open to doctoral candidates and postdoctoral scholars in the social sciences and professions who evidence knowledge or experience in Latin America or the Caribbean. They must have a multidisciplinary academic and experiential background with specialization in at least one academic discipline or problem area (e.g. rural credit, producer and consumer cooperatives, nutrition, housing, regional planning, nonformal education, and so on). Candidates should be concerned with social change from a problem-oriented perspective. They must be able to write and speak a language of the Caribbean or Latin American area. Doctoral candidates must be enrolled in higher education institutions in the United States and have fulfilled all degree requirements other than the dissertation at the time of the award.

#### Financial Arrangements

Stipends vary from country to country but average about \$550 a month. Allowances are provided for maintenance, transportation, health and accident insurance for the fellow and dependents (spouse and children). Limited research related expenses are also available.

#### Duration of Fellowships

Research will be supported for a minimum of six months, and up to a maximum of twenty-four months.

Examples of projects funded by the Inter-American Foundation, and to which a fellow might be affiliated include: rural marketing and credit cooperatives; community action programs; legal aid and legal reform; child care and nutrition; technical/ vocational and managerial training; housing cooperatives; workers' self-managed enterprises; and cultural awareness programs, as well as a host of other social process and social change-oriented organizations and movements.



### Orientation for Fellows

Several months before the effective date of the award, the fellows are invited to participate in an orientation session at the Foundation offices in Virginia.

### Applications

Application forms may be obtained by writing to:

Learning Fellowship on Social Change  
Inter-American Foundation  
1515 Wilson Boulevard  
Rosslyn, Virginia 22209

Applications must be post-marked on or before December 10. Awards will be announced within four months.

For further information contact the Office of Advanced Studies, extension 7378.

### **Lyndon B. Johnson School of Public Affairs The University of Texas at Austin Graduate Fellowships for 1977-78 Leading to the Degree of Master of Public Affairs**

#### No. FY77-25

The problem-oriented program of the LBJ School is dedicated to the training of skilled policy analysts whose practical and theoretical background will prepare them for positions of public responsibility. The two-year Master's program offers a series of courses in formal problem-solving that include:

- . Interdisciplinary research seminars directed to such problems of immediate concern as energy and water quality policies, the status of women, vocational education, transportation, and a variety of other public-policy problems.
- . Training in the application of research and management skills to public-policy decision making.
- . Practical experience working with government agencies in the development and administration of public policies and programs.

The LBJ School invites applications from students in any academic discipline or profession - the life, physical, or social sciences, humanities, arts, or any professional field - who have an interest in public-policy study, analysis and research leading to a career of public service. Students currently enrolled represent a broad spectrum of interests including the social sciences, mathematics, engineering, and business and public administration.

Fellowship funds are awarded on the basis of the individual student's merit and need. Applications must be received by the School before March 1, 1977.

To secure an application and to obtain additional information about the School, its program, and the availability of financial assistance, write to:

Director, Office of Student Affairs  
Lyndon B. Johnson School of Public Affairs  
The University of Texas at Austin  
Austin, Texas 78712

For further information contact the Office of Advanced Studies, Extension 7378.

### **Business and Professional Women's Foundation 1977-78 Lena Lake Forrest Fellowships**

#### No. FY77-26

Each year, the Business and Professional Women's Foundation offers fellowships to doctoral candidates, preferably at the dissertation level, whose proposed research bears on the problems and concerns of employed women. The emphasis is on research - in the fields of economics, political science, sociology, psychology, and education - which holds promise for action programs or practical solutions.

The Foundation is particularly interested at this time in the following areas:

1. Increased participation of women in political life and community action;
2. Development of women's potential for management in education, government, business and industry;
3. Encouragement of women in non-traditional career choices.

The Foundation also has a continuing interest in research related to underlying societal trends. As examples, recent awards have included subjects such as "Voluntary Childlessness," "Commuting Marriage," "The Divorced or Separated Woman: Combining the Roles of Breadwinner and Mother," and "Innovative Support Services for Women in Higher Education."



### Eligibility:

Doctoral candidates or post-doctoral scholars whose proposal for research has been approved by academic authorities in an accredited graduate institution or a person able to demonstrate that the proposed research will be conducted under standards of scholarship recognized at the doctoral level.

Applicants must be citizens of the United States.

### What is required:

Work is expected to be done during the forthcoming academic year, approximately September 1977-June 1978.

Complete summary of the proposed work. A graduate school transcript. The names of four references to be contacted by us.

### Deadline:

Applications must be received before January 1, 1977.

### How to apply:

When making an inquiry, please include a brief statement about your research subject and academic level.

Applications must be made on BPW Foundation standard form. Write to Research/Projects Director, Business and Professional Women's Foundation: 2012 Massachusetts Avenue, N.W. Washington, D.C. 20036.

For further information contact the Office of Advanced Studies, Extension 7378.

## Current Publications And Other Scholarly Works

The list below includes works completed in Academic Year 1975-76 and not previously reported to the Notre Dame Report.

### SCIENCE

#### Biology

- Bender, Harvey A.  
H.A. Bender. 1975. Fruit fly genetics: ELF field exposure. Navy Sponsored ELF Biological and Ecological Research Summary 1:3-4.
- Craig, Jr., George B.  
G.B. Craig, Jr. 1975. Genetic variability in vector competence in mosquitoes. Pages 11-16 in, Proceedings of the African Mosquito Conference. Smithsonian Institution, Washington, D.C.
- M. Trpis, W. Hausermann, and G.B. Craig, Jr. 1975. Demonstration of differential domesticity of Aedes aegypti (L.) (Diptera, Calicidae) by mark-release-recapture. Bulletin of Entomological Research 65:199-208.
- N. Lorimer, W. Lorimer, and G.B. Craig, Jr. 1975. ICIPE-mosquito biology unit. Insect World Digest 24-27.
- Duman, John G.  
Y. Lin, J.A. Raymond, J.G. Duman, and A.L. DeVries. 1976. Compartmentalization of NaCl in frozen solutions of antifreeze glycoproteins. Cryobiology 13:334-340.
- Fuchs, Morton S.  
W.-F. Fong and M.S. Fuchs. 1976. Studies on the mode of action of ecdysterone in adult female Aedes aegypti. Molecular and Cellular Endocrinology 4:341-351.
- Gordon, Robert E.  
R.E. Gordon. 1976. Numbers, selectivity and the publication system. Bioscience 26(2):83.
- McIntosh, Robert P.  
R.P. McIntosh. 1975. H.A. Gleason - Individualistic Ecologist 1882-1975: His contributions to ecological theory. Bulletin of the Torrey Botanical Club 102(5):253-273.
- Morgan, David W.  
D.W. Morgan. 1975. More about the white whale. Maritimes 19(1):14-15.

Rai, Karamjit S.

G. Mathew and K.S. Rai. 1976. Fine structure of the malpighian tubule in Aedes aegypti. Annals of the Entomological Society of America 6(4):659-661.

G. Mathew and K.S. Rai. 1976. Ring canals in the ovarian follicles of Aedes aegypti. Annals of the Entomological Society of America 69(4):662-665.

Ross, Quentin E.

P.R. Grimstad, G.B. Craig, Jr., and Q.E. Ross. 1976. Geographic variation in ability to transmit La Crosse virus by Aedes triseriatus; A preliminary study. In, Proceedings of the 1976 Annual Meeting of the American Mosquito Control Association. Boston.

R.L. Irvine, T.L. Theis, Q.E. Ross, and R.W. Greene. 1975. The use of fly ash in lake restoration. In, Proceedings of the National Conference on Environmental Research, Development, and Design.

### Chemistry

Basu, Subhash C.

S.C. Basu, F. Besancon, and H. Ankel. 1976. Interaction of interferon with ganglioside. Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie 357:251.

S.C. Basu, J.R. Moskal, and D.A. Gardner. 1976. Scanning electron microscopic and glycosphingolipid biosynthetic studies of differentiating mouse neuroblastoma cells. Biochemical Function: Biochemical and Pharmacological Implications 71:45-64.

Bush, Robert L.

\*R.L. Bush. 1976. Dielectric screening in one-dimensional disordered systems. Solid State Communications 18(9/10):1189-1192.

Castellino, Francis J.

J.E. Bell, F.J. Castellino, I.P. Trayer, and R.L. Hill. 1975. Modification of bovine  $\alpha$ -lactalbumin with N-bromosuccinimide and 2-hydroxy-5-nitrobenzyl bromide. Journal of Biological Chemistry 250:7579-7585.

F.J. Castellino, L.A. Schick, W.J. Brockway, and J.M. Sodetz. 1975. The activation and inhibition of fibrinolysis. Advances in Experimental Medicine and Biology 63:233-243.

Creary, Xavier

X. Creary. 1975. Foiled electrocyclic rearrangement of cyclopropyl cations. Journal of Organic Chemistry 40(23):3326-3331.

J.F. Bunnett and X. Creary. 1975. On fragmentation of aryl sulfide radical anions during aromatic SRN1 reactions. Journal of Organic Chemistry 40(25):3740-3743.

J.F. Bunnett and X. Creary. 1976. SRN1 reactions of vinyl halides with thiophenoxide and acetone enolate ions. Journal of Organic Chemistry 41:1707-1709.

Funabashi, Koichi P.

\*I.-Y. Cheng and K.P. Funabashi. 1975. Some aspects of electron dynamics in solid alkane. Pages 415-425 in, O.F. Nygaard, H.I. Adler, and W.K. Sinclair, eds. Radiation Research, Biomedical, Chemical and Physical Properties, Proceedings of the 5th International Congress of Radiation Research. Academic Press, Inc.

Hamill, William H.

\*C. Stradowski and W.H. Hamill. 1976. The role of  $H_2O^-$  and  $D_2O^-$  in competitive electron trapping by the matrix and by  $Cd^{2+}$  in  $NaClO_4$  aqueous glasses. Journal of Physical Chemistry 80(12):1350-1354.

\*C. Stradowski and W.H. Hamill. 1976. The role of  $H_2O^-$  and  $D_2O^-$  in competitive electron trapping by the matrix and by cadmium (II) in sodium perchlorate aqueous glasses. Journal of Physical Chemistry 80(13):1431-1435.

Hong, Gilbert H.K.

G.H.K. Hong. 1975. Green's functions in the theories of radiationless transitions, complex molecular spectra and resonant Raman cross-sections. Chemical Physics 9:1-15.

Kozak, John J.

K.U. Co, J.J. Kozak, and J.D. Luks. 1976. Comments on the behavior of the Yvon-Born-Green equation for the square-well fluid near the critical point. Journal of Chemical Physics 64:2197-2201.

Labinger, Jay A.

T.F. Schwartz, J.A. Labinger, and J. Schwartz. 1975. Hydrozirconation. IV. Oxidation of alkylzirconium (IV) complexes to alcohols. Tetrahedron Letters 35:3041-3044.

J.A. Labinger, D.W. Hart, W.E. Seibert, and J. Schwartz. 1975. Electrophilic cleavage of the carbon-zirconium (IV) bond. Comparison and contrast with other transition metal alkyl systems. Journal of the American Chemical Society 97:3851-3852.

Martinez-Carrion, Marino

M. Martinez-Carrion, J.C. Slebe, B. Boettcher, and A.M. Relimpio. 1976. Fluorine-19 as a covalent active site directed NMR probe in aspartate transaminase. Journal of Biological Chemistry 251:1853-1858.

Schwartz, Maurice E.

\*M.E. Schwartz. 1976. Theoretical studies of excited states of  $H_2O$  and of core-excited  $NH_3$ : Comparisons with equivalent core analysis of  $NH_3$  core-excitation spectra and implications for the radiation chemistry of aqueous systems. Chemical Physics Letters 40(1):1-4.

Thomas, J. Kerry

- \*J.K. Thomas. 1976. Production of excited states by ionizing radiation. International Journal of Radiation Physics and Chemistry 8:1-12.
- \*K. Kalyanasundaram and J.K. Thomas. 1976. On the conformational state of surfactants in the solid state and in micellar form. A laser-excited Raman scattering study. Journal of Physical Chemistry 80(13):1462-1473.
- \*J.K. Thomas, M. Chen, and M. Gratzel. 1975. Kinetic studies in bile acid micelles. Journal of the American Chemical Society 97:2052-2057.
- \*J.K. Thomas, M. Wong, and C. Kulpa. 1976. Laser induced kinetic studies in E. Coli membranes. Biochimica et Biophysica Acta 426:711-722.

Trozzolo, Anthony M.

- A.M. Trozzolo. 1976. The image of chemistry. The Chemist 52(7):6-8.

-----  
\* Under the Radiation Laboratory  
-----

#### Earth Sciences

Brehob, Kenneth R.

- V. Nelson and K.R. Brehob. 1975. Tornadoes in the Southern Plains. Texas Journal of Science 26:373-377.
- Gutschick, Raymond C.
  - R.C. Gutschick, M.J. McLane, and J. Rodriguez. 1976. Summary of late Devonian-early Mississippian biostratigraphic framework in Western Montana. Tobacco Root Geological Society Field Guidebook, Montana Bureau of Mines and Geology. 40 pp.
- Winkler, Erhard M.
  - E.M. Winkler. 1975. Weathering of stone in urban atmospheres. Earth Science 287-291.

#### Mathematics

Nadel, Mark E.

- M.E. Nadel. 1975. On models  $\aleph_\omega$  to an uncountable model. Proceedings of the American Mathematical Society 54:307-310.
- V. Lee and M.E. Nadel. 1975. On the number of generic models. Fundamenta Mathematicae 90(1):105-114.
- Nagano, Tadashi
  - T. Nagano and B. Smyth. 1975. Sur les surfaces hyperelliptiques dans un tore. Comptes Rendus de l'Academie Sciences Paris 280:1527-1529.
- Phan, Kok-Wee
  - K.-W. Phan. 1975. A characterization of the finite groups PSU (n,q). Journal of Algebra 37:313-339.
- Rallis, Stephen J.
  - S.J. Rallis and G. Schiffman. 1976. Distributions invariantes par le groupe orthogonal. Springer Lecture Notes Series 497:494-643.

Smyth, Brian

- T. Nagano and B. Smyth. 1975. Sur les surfaces minimales hyperelliptiques dans un tore. Comptes Rendus de l'Academie Sciences Paris 280:1527-1529.
- Stoll, Wilhelm
  - W. Stoll. 1976. Review of L.I. Ronkin's, Introduction of the theory of entire functions of several variables. Bulletin American Mathematical Society 82:214-218
- Taylor, Laurence R.
  - L. Kauffman and L.R. Taylor. 1976. Signature of links. Transactions of the American Mathematical Society 216:351-365.

#### Microbiology

Burleson, Gary R.

- G.R. Burleson and M. Pollard. 1976. Chemotherapy of spontaneous transplantable prostatic adenocarcinomas in Lobund Wistar rats. Federation of American Societies for Experimental Biology 35:624.
- Jones, SC, John Miriam
  - J.M. Jones, SC. 1975. The faithful woman-free for the church. Hospital Progress 47-50,69.
- Kulpa, Charles F.
  - T. Tinghitella and C.F. Kulpa. 1976. Enhancement of antiviral activity of polyuridylylate upon encapsulation in liposomes. Proceedings of the Annual Meeting of the American Society for Microbiology 76:8.
- Madsen, David C.
  - D.C. Madsen, L. Chang, and B. Wostmann. 1975. W-muricholate: A tertiary bile acid of the Wistar rat. Proceedings of the Indiana Academy of Science 84:416-420.
  - D.C. Madsen, M. Beaver, L. Chang, E. Bruckner-Kardoss, and B.S. Wostmann. 1976. Analysis of bile acids in conventional and germfree rats. Journal of Lipid Research 17(2):107-111.
- Pleasants, Julian R.
  - J.R. Pleasants. 1975. A Father's (Day) reflection. Commonweal 102:331-334.
- Pollard, Morris
  - M. Pollard. 1975. Why germfree animals. Laboratory Animal 41-45.
  - M. Pollard. 1975. Spontaneous prostate adenocarcinomas in aged germ-free Wistar rats. Pages 630-631 in, R.L. Clark and R.W. Cumley, eds. Yearbook of Cancer.
  - M. Pollard and R.L. Truitt. 1975. Applications of germfree technology to experimental problems of clinical significance. Proceedings of the First Intersectoral Congress of IAMS 3:250-259.
  - M. Pollard and P.H. Luckert. 1975. Transplantable metastasizing prostate adenocarcinomas in rats. Journal of the National Cancer Institute 54:643-649.
  - M. Pollard and P.H. Luckert. 1976. Chemotherapy of metastatic prostate adenocarcinomas in germfree rats. I. Effects of cyclophosphamide. Cancer Treatment Reports 60(5):619-621.

Teah, Bernard A.

\*B.A. Teah, ed. 1974. Bibliography of Germfree Research 1885-1963. 18 pp. Wostmann, Bernard S.

D.C. Madsen, L. Chang, and B. Wostmann. 1975. W-muricholate: A tertiary bile acid of the Wistar rat. Proceedings of the Indiana Academy of Science 84:416-420.

D.C. Madsen, M. Beaver, L. Chang, E. Bruckner-Kardoss, and B.S. Wostmann. 1976. Analysis of bile acids in conventional and germfree rats. Journal of Lipid Research 17(2): 107-111.

### Physics

Bishop, James M.

P.T. Go, W.D. Shephard, V.P. Kenney, J.M. Bishop, N.N. Biswas, and N.M. Cason. 1975. Production of positive particles in GeV/c  $\pi \pm p$  single-particle inclusive reactions. Physical Review D 11:3092-3098.

N.N. Biswas, J.M. Bishop, N.M. Cason, E.D. Fokitis, V.P. Kenney, W.D. Shephard (Notre Dame-Duke-IPP Canada Collaboration). 1975. Two-particle correlations in inclusive and semi-inclusive  $\pi$ -p reactions at 200 GeV/c. Physical Review Letters 35:1059-1062.

V.A. Polychronakos, N.M. Cason, J.M. Bishop, N.N. Biswas, V.P. Kenney, W.D. Shephard, and J.M. Watson. 1975. Measurement of the cross section for the reaction  $\pi$ -p $\rightarrow$  (all neutrals) from 4.0 to 8.0 GeV/c. Physical Review D 11:2400-2404.

W. Morris, W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney. 1975. Study of the energy and charged multiplicity dependence of inclusive  $\pi$ - production in  $\pi$ -p interactions up to Fermilab energies. Physics Letters 56B:395-399.

N.M. Cason, V.A. Polychronakos, J.M. Bishop, N.N. Biswas, V.P. Kenney, D.S. Rhines, W.D. Shephard and J.M. Watson. 1976. Observation of a new scalar meson. Physical Review Letters 36:1485-1488

Biswas, Nripendra N.

P.T. Go, W.D. Shephard, V.P. Kenney, J.M. Bishop, N.N. Biswas, and N.M. Cason. 1975. Production of positive particles in 8 GeV/c and 18.5 GeV/c  $\pi \pm p$  single-particle inclusive reactions. Physical Review D 11:3092-3098.

N.N. Biswas, J.M. Bishop, N.M. Cason, E.D. Fokitis, V.P. Kenney, W.D. Shephard (Notre Dame-Duke-IPP Canada Collaboration). 1975. Two-particle correlations in inclusive and semi-inclusive  $\pi$ -p reactions at 200 GeV/c. Physical Review Letters 35:1059-1062.

V.A. Polychronakos, N.M. Cason, J.M. Bishop, N.N. Biswas, V.P. Kenney, W.D. Shephard, and J.M. Watson. 1975. Measurement of the cross section for the reaction  $\pi$ -p $\rightarrow$  (all neutrals) from 4.0 to 8.0 GeV/c. Physical Review D 11:2400-2404.

W. Morris, W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney. 1975. Study of the energy and charged multiplicity dependence of inclusive  $\pi$ - production in  $\pi$ -p interactions up to Fermilab energies. Physics Letters 56B:395-399.

N.M. Cason, V.A. Polychronakos, J.M. Bishop, N.N. Biswas, V.P. Kenney, D.S. Phines, W.D. Shephard and J.M. Watson. 1976. Observation of a new scalar meson. Physical Review Letters 36:1485-1488.

V. Srinivasan, J.A. Helland, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1975.  $\pi$ - $\pi^+\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi$ -p $\rightarrow$  $\pi$ - $\pi^+\pi^+$ n data at 5 GeV/c. Physical Review D 12:681-692.

Bose, Samir K.

S.K. Bose. 1975. Generalization of Okubo's formula to four dimensional unitary groups. Physical Review D 11:2272.

S.K. Bose. 1975. Remarks on possible meson symmetries based on outer product groups. Physical Review D 12:1508.

Browne, Cornelius P.

R.L. Auble, H.R. Hiddleston, and C.P. Browne. 1976. Nuclear data sheets for A=31. Nuclear Data Sheets 17:573.

P.L. Jolivet, J.D. Goss, G.L. Marott, A.A. Rollefson, and C.P. Browne. 1976. Accurate Q-value measurements and masses in the Iron Region. Pages 133-139 in, J.H. Sanders and A.H. Wapstra, Atomic Masses and Fundamental Constants 5. Plenum, New York.

R.W. Tarara, J.D. Goss, P.L. Jolivet, G.F. Neal, and C.P. Browne. 1976. Level structure measurements with the (p, $\alpha$ ), ( $^3\text{He}$ ,d) and ( $^3\text{He}$ ,d $\alpha$ ) reactions: Energy levels in  $^{51}\text{Mn}$  and  $^{53}\text{Mn}$ . Physical Review C 13:109-117.

J.F. Mateja, J.A. Bieszk, J.T. Meek, J.D. Goss, A.A. Rollefson, P.L. Jolivet, and C.P. Browne. 1976. Energy levels of  $^{57,59,61}\text{Co}$  using the  $^{60,62,64}\text{Ni}$  (p, $\alpha$ ) reaction and level densities of cobalt isotopes. Physical Review C 13.

Cason, Neal M.

P.T. Go, W.D. Shephard, V.P. Kenney, J.M. Bishop, N.N. Biswas, and N.M. Cason. 1975. Production of positive particles in 8 GeV/c and 18.5 GeV/c  $\pi \pm p$  single-particle inclusive reactions. Physical Review D 11:3092-3098.

N.N. Biswas, J.M. Bishop, N.M. Cason, E.D. Fokitis, V.P. Kenney, W.D. Shephard (Notre Dame-Duke-IPP Canada Collaboration). 1975. Two-particle correlations in inclusive and semi-inclusive  $\pi$ -p reactions at 200 GeV/c. Physical Review Letters 35:1059-1062.

V.A. Polychronakos, N.M. Cason, J.M. Bishop, N.N. Biswas, V.P. Kenney, W.D. Shephard, and J.M. Watson. 1975. Measurement of the cross section for the reaction  $\pi$ -p $\rightarrow$  (all neutrals) from 4.0 to 8.0 GeV/c. Physical Review D 11:2400-2404.

- W. Morris, W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney. 1975. Study of the energy and charged multiplicity dependence of inclusive  $\pi^-$  production in  $\pi$ -p interactions up to Fermilab energies. Physics Letters 56B:395-399.
- N.M. Cason, V.A. Polychronakos, J.M. Bishop, N.N. Biswas, V.P. Kenney, D.S. Rhines, W.D. Shephard and J.M. Watson. 1976. Observation of a new scalar meson. Physical Review Letters 36:1485-1488.
- V. Srinivasan, J.A. Hellard, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1975.  $\pi^-\pi^+\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi^-p \rightarrow \pi^-\pi^+\pi^+n$  data at 5 GeV/c. Physical Review D 12:681-692.
- Goss, John D.
- P.L. Jolivet, J.D. Goss, and C.P. Browne. 1975. Level structure of  $^{60}\text{Co}$ . Physical Review C 12:2121-2124.
- P.L. Jolivet, J.D. Goss, G.L. Marott, A.A. Rollefson, and C.P. Browne. 1976. Accurate Q-value measurements and masses in the Iron Region. Pages 133-139 in, J.H. Sanders and A.H. Wapstra, Atomic Masses and Fundamental Constants 5. Plenum, New York.
- P.L. Jolivet, J.D. Goss, J.A. Bieszk, R.D. Hichwa, and C.P. Browne. 1976. Charged particle Q-value measurements in the iron region. Physical Review C 13: 439.
- J.D. Goss, P.L. Jolivet, C.P. Browne, S.E. Darden, H.R. Weller, and R.A. Blue. 1975. Angular distribution measurements for  $^{14}\text{C}(d,p)^{15}\text{C}$  and the level structure of  $^{15}\text{C}$ . Physical Review C 12:1730-1738.
- J.F. Mateja, J.A. Bieszk, J.T. Meek, J.D. Goss, A.A. Rollefson, P.L. Jolivet, and C.P. Browne. 1976. Energy levels of  $^{57,59,61}\text{Co}$  using the  $^{60,62,64}\text{Ni}(p,\alpha)$  reaction and level densities of cobalt isotopes. Physical Review C 13.
- Jolivet, Peter L.
- P.L. Jolivet, J.D. Goss, and C.P. Browne. 1975. Level structure of  $^{60}\text{Co}$ . Physical Review C 12:2121-2124.
- P.L. Jolivet, J.D. Goss, G.L. Marott, A.A. Rollefson, and C.P. Browne. 1976. Accurate Q-value measurements and masses in the Iron Region. Pages 133-139 in, J.H. Sanders and A.H. Wapstra, Atomic Masses and Fundamental Constants 5. Plenum, New York.
- P.L. Jolivet, J.D. Goss, J.A. Bieszk, R.D. Hichwa, and C.P. Browne. 1976. Charged particle Q-value measurements in the iron region. Physical Review C 13: 439.
- R.W. Tarara, J.D. Goss, P.L. Jolivet, G.F. Neal, and C.P. Browne. 1976. Level structure measurements with the  $(p,\alpha)$ ,  $(^3\text{He},d)$  and  $(^3\text{He},d\alpha)$  reactions: Energy levels in  $^{51}\text{Mn}$  and  $^{53}\text{Mn}$ . Physical Review C 13:109-117.
- J.D. Goss, P.L. Jolivet, C.P. Browne, S.E. Darden, H.R. Weller, and R.A. Blue. 1975. Angular distribution measurements for  $^{14}\text{C}(d,p)^{15}\text{C}$  and the level structure of  $^{15}\text{C}$ . Physical Review C 12:1730-1738.
- J.F. Mateja, J.A. Bieszk, J.T. Meek, J.D. Goss, A.A. Rollefson, P.L. Jolivet, and C.P. Browne. 1976. Energy levels of  $^{57,59,61}\text{Co}$  using the  $^{60,62,64}\text{Ni}(p,\alpha)$  reaction and level densities of cobalt isotopes. Physical Review C 13.
- Kaufman, Michele
- M. Kaufman. 1975. Initial mass function for massive stars and integrated spectral properties of H II regions. Bulletin American Astronomical Society 7(4):532.
- Kenney, V. Paul
- P.T. Go, W.D. Shephard, V.P. Kenney, J.M. Bishop, N.N. Biswas, and N.M. Cason. 1975. Production of positive particles in 8 GeV/c and 18.5 GeV/c  $\pi^+p$  single-particle inclusive reactions. Physical Review D 11:3092-3098.
- N.N. Biswas, J.M. Bishop, N.M. Cason, E.D. Fokitis, V.P. Kenney, W.D. Shephard (Notre Dame-Duke-IPP Canada Collaboration). 1975. Two-particle correlations in inclusive and semi-inclusive  $\pi$ -p reactions at 200 GeV/c. Physical Review Letters 35:1059-1062.
- V.A. Polychronakos, N.M. Cason, J.M. Bishop, N.N. Biswas, V.P. Kenney, W.D. Shephard, and J.M. Watson. 1975. Measurement of the cross section for the reaction  $\pi^-p \rightarrow (\text{all neutrals})$  from 4.0 to 8.0 GeV/c. Physical Review D 11:2400-2404.
- W. Morris, W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney. 1975. Study of the energy and charged multiplicity dependence of inclusive  $\pi^-$  production in  $\pi$ -p interactions up to Fermilab energies.
- V. Srinivasan, J.A. Hellard, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1975.  $\pi^-\pi^+\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi^-p \rightarrow \pi^-\pi^+\pi^+n$  data at 5 GeV/c. Physical Review D 12:681-692.
- Neal, George F.
- R.W. Tarara, J.D. Goss, P.L. Jolivet, G.F. Neal, and C.P. Browne. 1976. Level structure measurements with the  $(p,\alpha)$ ,  $(^3\text{He},d)$  and  $(^3\text{He},d\alpha)$  reactions: Energy levels in  $^{51}\text{Mn}$  and  $^{53}\text{Mn}$ . Physical Review C 13:109-117.
- J.F. Mateja, G.F. Neal, J.D. Goss, P.R. Chagnon, and C.P. Browne. 1976. Low-lying levels of  $^{57}\text{Mn}$  from the  $^{54}\text{Cr}(\alpha,p)$  reaction. Physical Review C 13:118-123.
- Poirier, John A.
- A.J. Lennox, J.A. Poirier, C.A. Rey, O.R. Sander, W.F. Baker, D.P. Eartly, K.P. Pretzl, S.M. Pruss, A.A. Wehmann, and P. Koehler. 1975.  $\pi^+p$  backward elastic scattering from 2 to 6 GeV/c. Physical Review D 11:1777.

- Rey, Charles A.  
 A.J. Lennox, J.A. Poirier, C.A. Rey, O.R. Sander, W.F. Baker, D.P. Eartly, K.P. Pretzl, S.M. Pruss, A.A. Wehmann, and P. Koehler. 1975.  $\pi^+p$  backward elastic scattering from 2 to 6 GeV/c. Physical Review D 11:1777.
- V. Srinivasan, J.A. Helland, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason, V.P. Kenney, W.D. Shephard, R.D. Klem and I. Spirn. 1975.  $\pi^-\pi^+\rightarrow\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi^-p\rightarrow\pi^-\pi^+n$  data at 5 GeV/c. Physical Review D 12:681-692.
- Rhines, Don S.  
 N.M. Cason, V.A. Polychronakos, J.M. Bishop, N.N. Biswas, V.P. Kenney, D.S. Rhines, W.D. Shephard and J.M. Watson. 1976. Observation of a new scalar meson. Physical Review Letters 36:1485-1488.
- Shephard, William D.  
 N.N. Biswas, J.M. Bishop, N.M. Cason, E.D. Fokitis, V.P. Kenney, W.D. Shephard (Notre Dame-Duke-IPP Canada Collaboration). 1975. Two-particle correlations in inclusive and semi-inclusive  $\pi^-p$  reactions at 200 GeV/c. Physical Review Letters 35:1059-1062.
- V.A. Polychronakos, N.M. Cason, J.M. Bishop, N.N. Biswas, V.P. Kenney, W.D. Shephard, and J.M. Watson. 1975. Measurement of the cross section for the reaction  $\pi^-p\rightarrow$  (all neutrals) from 4.0 to 8.0 GeV/c. Physical Review D 11:2400-2404.
- W. Morris, W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney. 1975. Study of the energy and charged multiplicity dependence of inclusive  $\pi^-$  production in  $\pi^-p$  interactions up to Fermilab energies. Physics Letters 56B:395-399.
- N.M. Cason, V.A. Polychronakos, J.M. Bishop, N.N. Biswas, V.P. Kenney, D.S. Rhines, W.D. Shephard and J.M. Watson. 1976. Observation of a new scalar meson. Physical Review Letters 36:1485-1488.
- V. Srinivasan, J.A. Helland, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1975.  $\pi^-\pi^+\rightarrow\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi^-p\rightarrow\pi^-\pi^+n$  data at 5 GeV/c. Physical Review D 12:681-692.
- Srinivasan, Vatsala  
 V. Srinivasan, J.A. Helland, A.J. Lennox, J.A. Poirier, J.P. Prukop, C.A. Rey, O.R. Sander, N.N. Biswas, N.M. Cason V.P. Kenney, and W.D. Shephard. 1975.  $\pi^-\pi^+\rightarrow\pi^-\pi^+$  interactions below 0.7 GeV from  $\pi^-p\rightarrow\pi^-\pi^+n$  data at 5 GeV/c. Physical Review D 12:681-692.

# 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
American Association of University Women	Fellowships for Women	December 15, 1976
American Council of Learned Societies	Grants for Advanced Training in Chinese Studies	December 1, 1976
American Council of Learned Societies	Grants for Research on Chinese Civilization	December 1, 1976
American Council of Learned Societies	Research Fellowships for Recent Ph.D. Recipients	December 1, 1976
American Lung Association	Research Grants	December 1, 1976
American Philosophical Society	Postdoctoral Basic Research Grants	December 1, 1976
American Political Science Association	Fellowship Program	December 1, 1976
American Society of Church History	Brewer Prize Competition	November 30, 1976
International Research and Exchanges Board	Summer Exchange of Language Teachers with the Ministry of Higher and Specialized Secondary Education	December 1, 1976
National Science Foundation	Graduate Fellowships	December 1, 1976
National Science Foundation	National Needs Postdoctoral Fellowships	December 3, 1976
National Science Foundation	NATO Postdoctoral Fellowships	November 22, 1976
National Science Foundation	Scientists and Engineers in Economic Development Program	December 15, 1976
National Science Foundation	Women in Science	November 19, 1976
Social Science Research Council	Various Programs in the Social Sciences and the Humanities	December 3, 1976



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# documentation

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## Sermon at the Mass Inaugurating the Academic Year

(Sacred Heart Church, September 12, 1976)

Fellow Scholars of the University, Brothers and Sisters in Christ:

There went walking one day, on the road bent for the city lately adorned and dedicated to Augustus Caesar by his fawning political creature, Philip the Tetrarch, a band of young folk and their teacher. And as they walked along their teacher asked them what the gossip about him in the villages might be.

"They are saying, sir," said Simon who was promptest to reply, "that you are a prophet, and possibly one of the Great Prophets--Elijah or Jeremiah or John--come back once more to harry our rulers."

"And whom do you make me out to be?" He turned the question full upon his pupils.

"Ah, sir, we believe that you are meant to rule. We look to the day when we shall have you as our anointed king: one of our own kind, at long last, to rule us and to give us liberty."

"This is good insight and shrewd learning. The Father gives you an eye that sees deep to the heart. And since you give me 'king' as rank and title, I shall give you name and title and duty, and shall take you into my service and call you 'rock', 'Peter', for on such firm and unshifting stone must my group be gathered and sheltered, safe from anything death could do, and powered to do the Father's work on mankind's earth."

And further on they walked.

"Soon, now," said the teacher-king, "we shall turn to the south, for I must go to my capital and claim my kingdom. The leaders of state and church wait for me. They are ready for me, ready to put me to a hasty death--and thus I mean to mount my throne."

"No, sir! No, my Lord!" said Peter of the flinty name, "We would never let you so be overcome."

"Oh, Peter," said an impatient teacher and a misunderstood and misanointed king, "you are gravel and sand across my path. Get out of my way. Now your name is 'Satan', for you thwart me. You see no deeper, after all, than men commonly see, and you work to defeat my defeat. I must die to live, and have the victory tortured from me for you to have."

Teacher Jesus meant to be a curious king,  
who would send no troops and extract no taxes,  
who would never defend himself nor leave a house behind him whose  
dynastic future worried him,  
who would forfeit all attempts to enforce what he knew right was,  
who would overwhelm his executioners in his dying,  
who would compel by submitting,  
and so  
be model for all who wished to pay that price--to lose their lives--  
to gain the power to teach and so to rule in minds and hearts of  
free but beholden mankind.

What kind of talk is this for us, who walk along our roads with pupils of our own, toward the proud, ambitious cities of our Caesars there on the horizon to be seen, and with thoughts in our hearts about what our vision might be, what our teaching might be, what sort of rule, if any, we might be anointed for?

Learning is our craft and calling, and the fulfillment of our students what we work for. They are bound for the city where debts must be paid, and rights enforced, and promises held up for keeping; where one's duty is to require of others the performance of their duty; where forbearance with those who disguise truth or ignore duty and eat out the substance of others will only bring loss and anger to those they promise to serve.

We are scholars, seeking and telling the truth. And all our wit and work and discipline is likely to provoke our pupils to success. What, then, does this story of a walk toward death say to us who marshal so capable and vigorous a band of young friends and learners on their way to seize life? If they learn as we would teach them, we know we are preparing them for the privileges, the power, and the greater advantages of our society. Here we are, teaching them how one could gain the whole world; can we do so without also teaching them to ruin their lives in the bargain?

Can Jesus, feckless teacher and curious king, master us in our mind's work?

We teach and goad and encourage and invite our students to know what we know--and better, we hope--and also to do what we do--and this better, too:  
to speak, to lead, to relish and create,  
to reason, to organize, to discover and persuade,  
to design and wonder and calculate.  
All of these are desirable; all are much needed by a world where ugliness and confusion and prejudice and laziness are the ruling fashions--and will ever be.

But these are not enough, and they will rot and become the compost of newly flourishing evil...if not performed by men and women who see deeply enough to stand on the rock of belief that all this good performance which learning makes possible and duty makes right--that all this performance is provisional and subsidiary and only a step toward something else.

The world calls out for talent and learning and imagination and management and enterprise. We are that world's servants and our students those who claim this service from us. And of all the hard-learned lessons we must teach and they must learn, the deepest is that life and learning spoil without love. Only reverence and respect and a caring compassion for brothers and sisters in their need will show that our younger friends have walked with us to wisdom.

The honesty we need to pry out truth, and  
the lightness of heart we need to spy and bring forth beauty, and  
the patient and stubborn tenacity we need to rally others for  
accomplishment:  
these are teachers' gifts.  
It is another teachers' gift to acknowledge and admit that  
many things we can do should sometimes not be done, and  
many things we can learn shed little light to walk by.

The greatest success, the most wonderful achievements, and the most stunning leadership so frequently are all that puny men and women have to their credit. And they can be done by puny people. Without love they are all in ruins, though. And we as teachers, the very ones who beckon our students on to succeed and to compete and achieve and lead: we owe them before all else some glimpse of that insight which sees it all as vain without love, and also sees that much real accomplishment long goes disguised as failure.

The House of Israel, for example, the Kingdom of Judah which the Hebrews had so long hungered to have, and for four battling centuries held its own, was finally destroyed by Babylon, and only then did it begin better to succeed. Only when shattered and scattered did it bring a knowledge and affection for its little-known Lord to all the peoples of the earth. Only in the retrospect of failure could the Jews know that this humiliation brought with it no shame, and that their very national destruction showed they had been rescued. This gave the first and early lesson, in the book of the Prophet Isaiah, that Israel could consider itself a suffering servant, and told them what kind of King would have to come to re-establish that kind of kingdom.

And the Letter of James drives home the lesson that faith without good deeds is dead. Would we, as scholars and teachers, wish our learning here to be any other than that which, without good deeds, is also dead?

As servants of Jesus as well as of our younger companions on the road, we owe it to all to be truly wise. But we are not so wise; and often we are truly foolish. For we are soiled and spoiled by common vanity and pride and lust and greed and those other human afflictions which we point out in others more easily than root out in ourselves. We are, even when we struggle most, unprofitable servants, yet called on still to share the ruling work of Jesus the strange king, by sharing the teaching work of Jesus the strange teacher.

And so at the start of the year--this being the 134th time we re-begin--we fall to prayer to ask for Peter's gift of sight from the Father: that our work may be well done, and that it be his work. We ought also pray that such love as our students have in even greater measure than we, not shame us but draw us more lightheartedly along the road in their company, all learning and all having things to teach, talking and arguing and even laughing.

The work of scholarship is to search for things unseen. Faith is learning's good associate because it invites us to search deepest of all, for the most unseen of truths: that truth without love is dead. Let the learning we offer not be anything our students must take in exchange for life; let it be for life's sake. For this we must both pray and study. Today we do the one, and tomorrow the other.

Rev. James T. Burtchaell, C.S.C.  
Provost

Scripture Readings:  
Isaiah 50: 4-9  
James 2: 14-18  
Matthew 16: 13-26

# Library Director Review Committee

September 23, 1976

Dear Colleague:

On Sept. 14, 1976, the undersigned committee was selected by the provost to conduct a formal review of the director of University Libraries, as mandated every five years by Article II, Section 11, of the Academic Manual. The committee is composed of both the Committee on Appointments and Promotions of the Library and the Faculty Library Committee.

The committee hereby invites you to submit to it, in written form over your signature, any information or assessment which you wish to provide and which you believe would assist it in the task of evaluating the stewardship of David E. Sparks, director of University Libraries. Such letters should be mailed to:

Library Director Review Committee  
Box 179  
Notre Dame, Indiana 46556,

by Oct. 31, 1976. The committee will maintain in complete confidence all communications which it receives. No copies will be made of letters to the committee, and the committee's files will be destroyed after the completion of its function. In its report to the provost, the committee will not include information which would identify the source unless it first receives permission from the source to do so. The committee will disregard any unsigned communications which it might receive.

The committee will conduct confidential interviews with persons whom it judges would, by virtue of their positions, be able to provide information highly relevant to its inquiry. The committee may also invite further persons for interview on the basis of the written communications it receives. Any individual who cares to may request, in writing, an interview with the committee. All interviews will be conducted by two or more members of the committee.

The committee expects to complete its inquiry and make its report to the provost within the fall 1976 semester, but will extend the duration of its inquiry should this prove necessary.

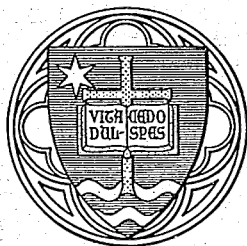
The committee believes that the complete confidentiality of its proceedings is essential to the successful execution of its task. Hence, its members will individually provide no information to any person concerning any activity of the committee. The only communications will be those made by the committee as a whole.

Michael J. Crowe  
James P. Danehy  
Maureen L. Gleason  
Joseph H. Huebner  
Theodore B. Ivanus  
Sr. Madonna Kolbenschlag

L. Franklin Long  
John J. Philippsen  
Thomas J. Schlereth  
John J. Uhan., chairman  
James L. Wittenbach

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An official publication of the University of Notre Dame, Department of Information Services. Individual copies are available in the Notre Dame Hammes Bookstore at 30 cents each. Mail subscriptions are \$6 per year. Back copies are available through the mail at 50 cents each.

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