



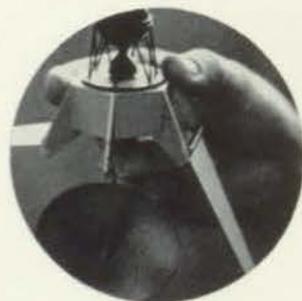
 *Notre Dame*

 **nsight**

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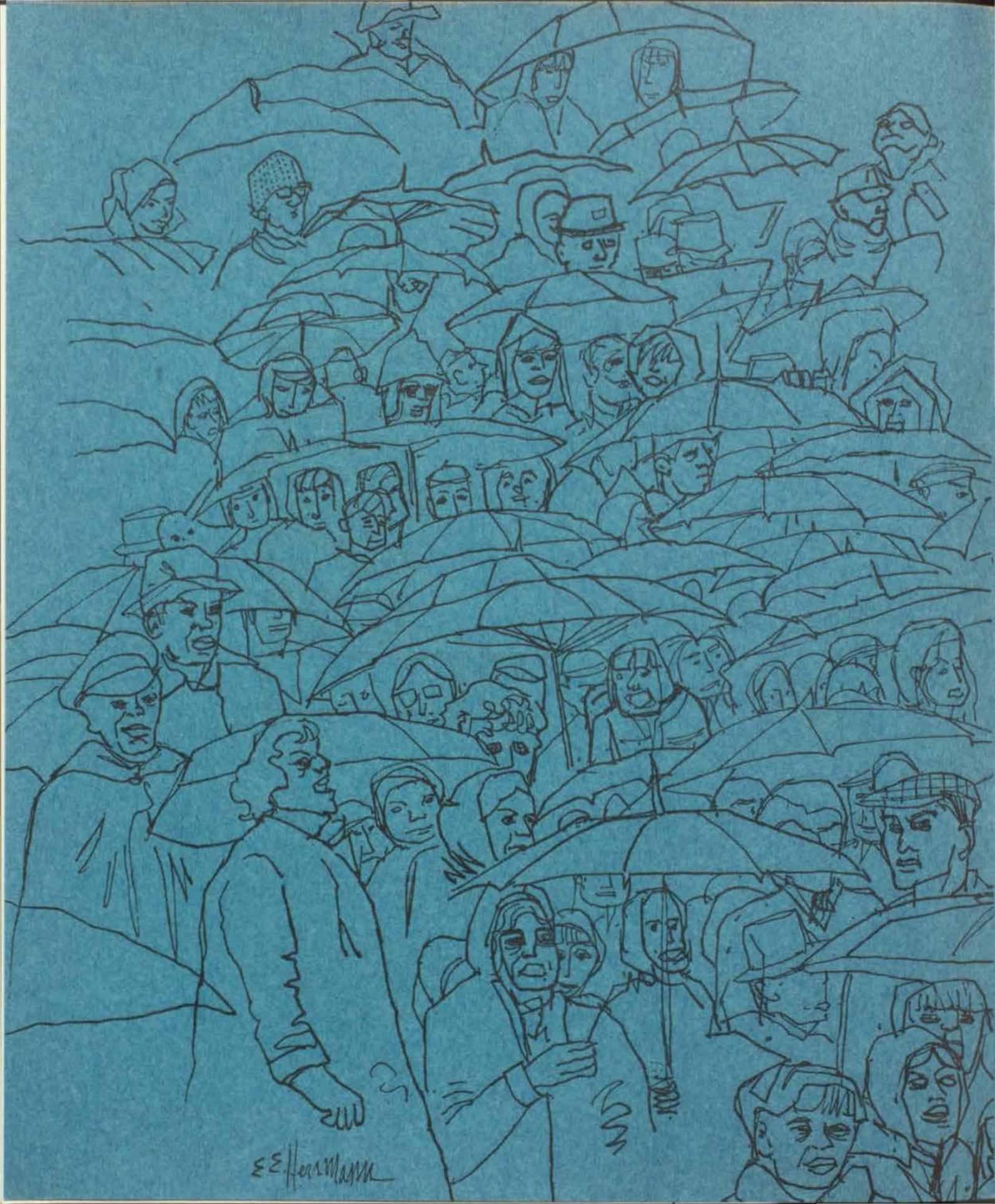


insight

Within the panoramic cavalcade of university life, the everyday stories of individuals and programs evolve, forming the very marrow of an institution. Such are the stories, of narrow and well-defined scope, that exist in much the same matter at Notre Dame and that are now captured, developed and presented in this, the University's new magazine.

Hopefully, this medium will cultivate a sharper perception of this particular university, focusing on segments of the educational programs, penetrating the maze of campus research and development, and narrating the University's involvement in world problems.

This, then, is *INSIGHT: Notre Dame*—the continuing story of a great University.





Today, it's called Notre Dame by more than 7,000 students, the same name given it by its founder some 124 years ago, and the name remains, mostly because its every breath has been dedicated to Our Lady.

insight "TENOR"

Everything else about Notre Dame has been transformed — by time if nothing else. From a log cabin beside a lake in the Indiana wilderness, Notre Dame has grown into a university of 83 campus structures enveloping the St. Joseph and St. Mary's lakes. Many of the trees that surrounded that first cabin now tower over walks criss-crossing the sprawling, 1,200 acre campus of today.

Four undergraduate colleges, the nation's oldest Catholic law school, a rapidly expanding graduate school and a prominent university press are a few of the qualities that have placed the \$28-million-a-year institution in the forefront of higher education.

Its tenor, indelibly marked and exemplified by its dynamic president, is a total commitment to the pursuit of excellence in all its human forms — the spiritual, the intellectual, the moral, the cultural, the physical.

Continuing now into the Spring of 1966, that tenor pervades the University's every activity. And whether it be in exciting new educational programs, in dramatic research and development or in daily public service, its character and allure are uniquely the same — always Notre Dame.

BIOLOGY:

war on disease

The University's research programs which gave the world synthetic rubber in the 1930's and later became a pioneer in germ-free life research, now have assumed a leadership position in the field of mosquito genetics.

More than \$400,000 in research support has gone into the project from such sources as the U.S. Department of Public Health, the World Health Organization, the U.S. Atomic Energy Commission and the U.S. Army Biological Laboratory.

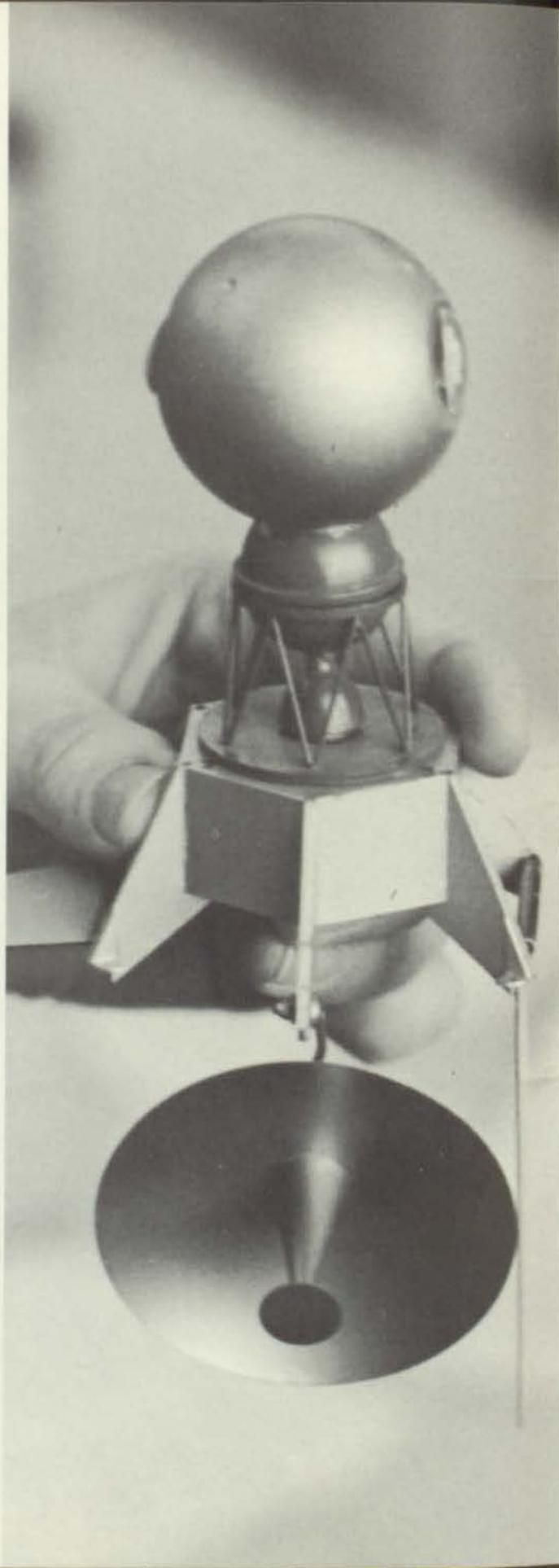
Only recently, the World Health Organization designated the Notre Dame facility an international information center on *Aedes aegypti*, the mosquito known to carry yellow fever, malaria, dengue, Asian hemorrhagic and lesser known diseases.

Housed on the second floor of the biology building and directed for the past eight years by Dr. George B. Craig Jr., the University's mosquito-genetics laboratory concentrates on insect control through breeding practices. For example, the Notre Dame team of biologists — including Craig, Doctors W. A. Hickey and K. S. Rai, and graduate students from around the world — have found that certain strains of yellow fever mosquitoes breed predominantly male offspring. They believe that this finding might be used to advantage in controlling pest populations by breeding hordes of the male-producing mosquitoes, and loosing them on native mosquito populations.

Theoretically, this might cause such a population to die off generations later for lack of females. This would also halt the spread of disease, since only the female can spread the micro-organism causing the disease.

The researchers have learned they can turn males into females by exposing the mosquito larvae — an insect's earliest stage of development — to a temperature of about 95 degrees Fahrenheit for a period of four to five days. They have not yet learned, however, how to change female mosquitoes into males.

By following the course of this transformation and relating it to the insect's genetic material responsible for sex



determination, the scientists hope to increase the knowledge of the ways insect heredity can be manipulated for the good of man.

AEROSPACE:

project "green cheese"

"We're just preparing ourselves to play if we get the invitation," explained Dr. John D. Nicolaides, head of Notre Dame's department of aerospace engineering.

And prepared the University is, with initial plans formulated to design, construct and test a space satellite that could measure the exact shape and gravitational field of the moon and other planets.

"We only need the approval of NASA (the National Aeronautics and Space Administration) for the project," said Dr. Nicolaides. A few years ago such interplanetary probe flights were being canceled, with an eye toward a future, all-new program. "But you can't leave the field when the enemy is always there and will play the game without you," Dr. Nicolaides commented. Faced with increased Russian activity in this area, NASA decided to resume flights of the Atlas-Agena rockets carrying Mariner satellites.

The Notre Dame proposal has an eye for economy, one factor Dr. Nicolaides hopes will appeal to the Government agency. No new vehicle will be needed for the Notre Dame device, since it would consist of a modified instrument package mounted on an existing Mariner structure, or "bus."

Such a modification technique was first presented by Dr. Nicolaides in a book published in 1963 which gave the results of a similar gravitational study of the earth. Dr. Nicolaides was director of the NASA program for the study of earth, and has incorporated much of that data in his proposed project for the moon.

This would be an interdepartmental effort by Notre Dame, the scientist said, listing the mathematics, physics, mechanical and electrical engineering, geology and metallurgy departments as participants, along with the University's computer center and its UNIVAC 1107.

"The formulae are already known," said Dr. Nicolaides. "The satellite would radio data back from a lunar orbit, and the information would be fed to the University's computer and processed."

With a total cost of about \$1.5 million, the project would produce a satellite prototype and two launchable vehicles. With the cooperation of several industries, much of the



The major elements involved in the University's local fund-raising campaign for the Athletic and Convocation Center are symbolized on the victory plaque presented to the University's president at the conclusion of the drive. From the top are: the emblem of the "Valley of Vision" drive; the contour of the St. Joseph River which

flows through Elkhart, Mishawaka, South Bend, Niles (Mich.) and Buchanan (Mich.)—the five key cities participating in the campaign; and the silhouette of the University's Athletic and Convocation Center.

modification and fabrication, as well as testing, would be done at Notre Dame, believes Dr. Nicolaides.

If the University gets the nod, Notre Dame might be in the game by the early 1970's.

CHALLENGE II:

up and over plus four

Challenge II, the University's \$20 million capital fund drive, was pushed over the top of its goal in February by more than \$1.25 million with the successful completion of the St. Joseph Valley campaign conducted in five cities in the immediate vicinity of the campus.

Rev. Theodore M. Hesburgh CSC, Notre Dame president, announced that the University's second major campaign in less than six years reached its goal more than four months ahead of the June 30 deadline, with gifts and grants totaling \$21,350,276. Fr. Hesburgh made the announcement at a dinner on the campus marking the close of the "Valley of Vision" campaign in the cities of South Bend, Mishawaka and Elkhart in Indiana, and Niles and Buchanan in Michigan.

Comparative figures available at that time indicated that the average alumnus gift in Challenge II has been in excess of \$450 as opposed to \$345 for Challenge I. Also, it was noted that the average non-alumnus gift in Challenge II has been over \$2500, an approximate same amount as that in Challenge I. A final, detailed report of Challenge II will be made at the conclusion of the campaign.

O. C. Carmichael, Jr., general chairman of the "Valley of Vision" drive, chairman of Associates Investment Co., South Bend, and a Notre Dame lay trustee, presented Fr. Hesburgh with a plaque emblematic of gifts and pledges totaling \$1,820,051 or \$570,051 more than the \$1,250,000 goal. The funds were raised in three counties surrounding the University to help build an \$8,000,000 Athletic and Convocation Center on the campus. Construction of the twin-arena 12,500 seat facility will begin in May.

In addition to the construction of the Athletic and Convocation Center, other projected Challenge II goals are \$6,500,000 for new academic programs and faculty development; \$5,500,000 for student scholarships and fellowships; and \$3,000,000 for the construction of two undergraduate residence halls.

Fr. Hesburgh pointed out that a matching grant from

the Ford Foundation accounted for \$6,000,000 of the national total. Notre Dame was one of the first five universities chosen in 1960 to participate in the Foundation's "Special Program in Education" and now has received matching grants totaling \$12,000,000 since that time.

ENGINEERS:

bridge classic gap

The University's "Great Books Collegiate Seminar" will mark the academic common ground where faculty and students of both the engineer and the arts and letters schools will develop the long sought-after dialogue between the disciplines each represents.

The University's two colleges this fall will embark on the experimental intercultural program that will explore the ideas and ideals gained from a reading and discussion of the "great books" from Greek times to the present. More than 500 juniors from the arts and letters college and 200 seniors from the engineering school will be involved. In addition, five professors will be drawn from the engineering faculty to moderate the integrated classes of 20 to 24 students.

Representing the faculty of both colleges and heading the project are James L. Massey, associate professor from the engineering department, and John A. Oesterle, professor of philosophy and chairman of the collegiate seminar program.

Massey in a letter to next year's engineering seniors sees the new program as a "rare adventure in engineering education... an opportunity that will breathe new life into the humanities program for engineering students."

In December, the Esso Education Foundation presented the University with a \$25,000 grant to implement the program. The financial obligations during the first year will result from the addition of ten sections of the seminar and from the desirability of a summer training session for the engineering faculty who will direct the seminar section.

University President Rev. Theodore M. Hesburgh CSC, in accepting the Esso grant, noted that the industrial firm's assistance will provide, "a special program that will aid engineers greatly in their total education as men, as well as engineers. It will also help bridge the classic gap between science, technology, and humanities in our day."

UNIVERSITY THEATER:

know well the territory

Drama, comedy and an operatic first, backed by a solid troop of veterans and liberally sprinkled with the talents of a promising crop of freshmen, have brought another well-balanced season of student stage productions to Notre Dame.

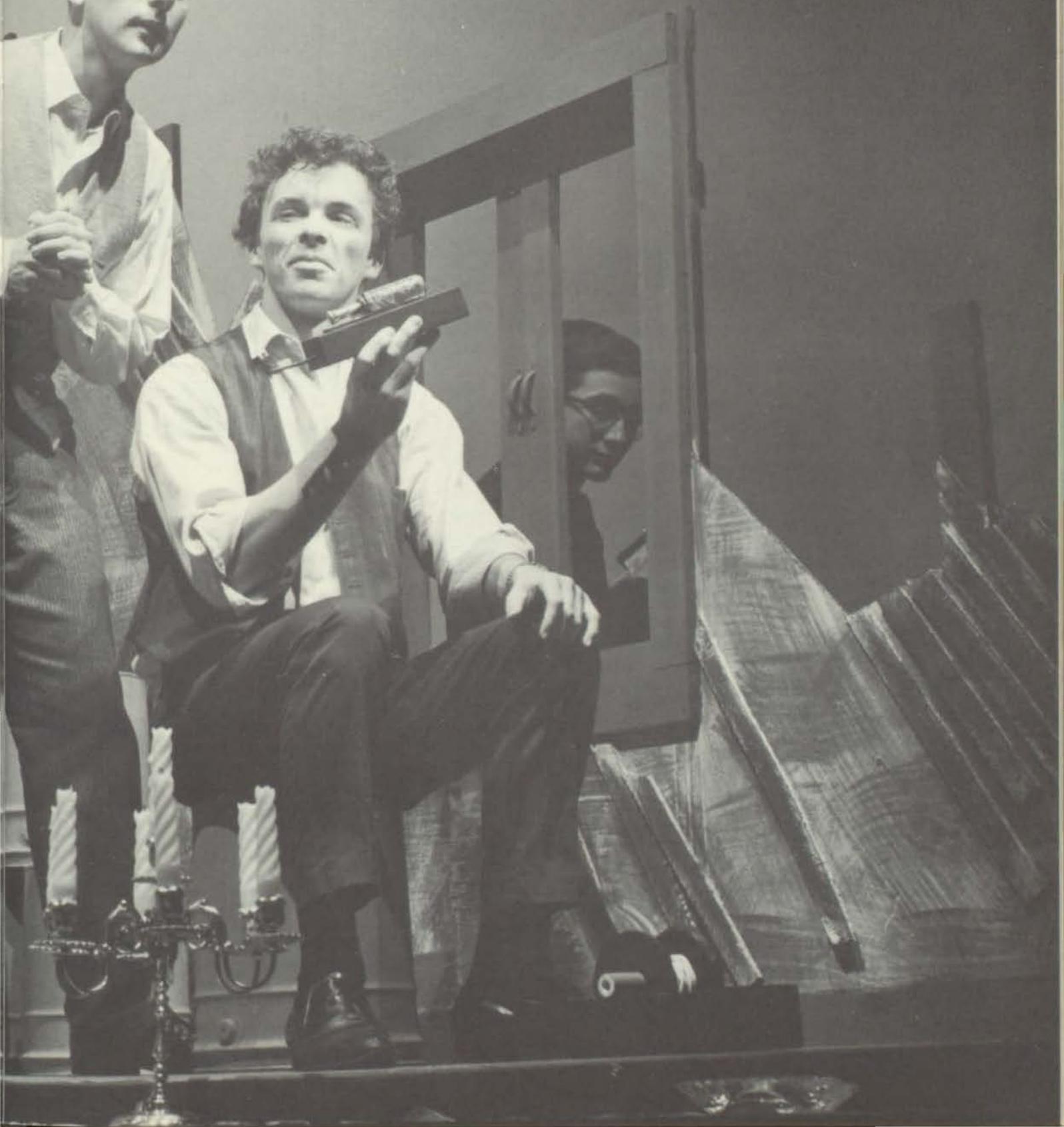
This year's three-production schedule began with Robert Bolt's *A Man for all Seasons*, a two-act drama that pits Saint Thomas More's unyielding love of truth and integrity against the self-styled life and reign of King Henry VIII. Starring veteran performer Terry Francke as Thomas More and presenting the fresh talent of Michael Wingerter as the Common Man, the performance magnificently captured the ageless dilemma of conviction versus consensus, set in 16th Century surroundings, but with meaning for our contemporary world.

February marked the appearance of the University Theater's second production, the fast-moving, two-act comedy by Swiss playwright Max Frisch, *The Firebugs*. The story, created for an half-hour radio show in 1953, tells of sheepish people trying to talk wolfish people out of their tendencies—unsuccessfully. First presented on the stage in 1958, *The Firebugs* is a parody of the medieval morality play, complete with a chorus of firemen. The response of G. Biedermann, a modern Everyman, to the gradual encroachment of the firebugs in many respects reflects the response of a nation to the cowardice and moral flabbiness of its people. Featured were two well-known University Theater performers, David Garrick and Carolyn Jaskunas, with the new faces of freshmen Patrick Dray and John Dooley as the firebugs.

Opera will make its first appearance in the University Theater's repertoire when Gian-Carlo Menotti's *The Medium* is presented in May. Traditionally, a musical has been the spring production but *The Medium* was secured as a replacement for *How to Succeed in Business Without Really Trying* when it was learned that there would be delays in receiving orchestration and rehearsal material for



Taken from the University Theatre's production of "The Firebugs," the scene is Gottlieb Biedermann's attic (David Garrick, left) where the archdemon Willi Eisenring (John Dooley) prepares his detonators and stores his gasoline.



FINANCIAL REPORT HIGHLIGHTS

the latter. Tryouts for the opera were completed in late February. The singers will be under the direction of Rev. Patrick Maloney CSC, while Fr. Harvey handles the stage direction.

MEDICAL SCHOOL: politicos' challenge

The University extended the invitation, and the 1967 session of the Indiana General Assembly just might accept. At stake: a \$100 million state-owned and -operated medical center that may eventually be located on the Notre Dame campus.

A volunteer citizen group, the Committee on Higher Education in Northern Indiana, has been campaigning to have the center located in northern Indiana. O. C. Carmichael Jr., chairman of the board of Associates Investment Co., is head of the committee. He also is a member of the University's Board of Lay Trustees.

The University soon joined the campaign with an offer of land, an entire floor of the new Memorial Library, and computer and science facilities if the state were to select the University as the site. Educational and research exchanges also were hinted at, with contractual arrangements offered for use of the new Center for Continuing Education.

Although a special committee of the legislature will review the proposal this year, final action awaits next year's session of the General Assembly.

"The most direct effect on the University would be to stimulate our College of Science," explained Associate Vice-President for Academic Affairs Dr. Thomas Stewart, looking toward Notre Dame's selection as the site.

Beyond that, and even more important, would be a two-fold community effect. First, the influx of more than 200 professional persons would widen the cultural horizons of the area. Secondly, the economic boom would be tremendous. Commented Dr. Stewart regarding the latter, "the University wants to cooperate in developing the community in which it exists."



More than a medical school, the center would offer medical education from preprofessional levels to graduate research programs. Cooperating with area hospitals, and eventually with a hospital of its own, the center would furnish internships and residencies for doctors, develop new medical techniques, and set up clinics in surrounding counties.

In active cooperation with Notre Dame, but in no way a part of the University, the center conceivably might bear the name Northern Indiana Medical Center at Notre Dame.

FINANCIAL REPORT:

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Inevitably, the hard realization of what it costs to operate an institution such as Notre Dame becomes ubiquitous. Often staggering, but nonetheless manageable, the year-end figures in particular reflect the upward trend confronting all similar institutions.

In its financial report for the 1964-65 school year, the University remarks that the cost of a quality education has accelerated rapidly and, undoubtedly, will continue in an upward trend. Just how rapidly it has risen, and how the University has managed to keep abreast of this growing cost, can be discerned in the study of the University's financial development in the last five years.

The point is best illustrated, perhaps, in the increased

1964-1965

Financial Operations

Revenues and other additions for combined operations	\$27,045,149
Revenues for educational purposes— Current General Fund	12,504,944
Revenues from student fees	8,005,277
Gifts, contracts and grants—all funds	13,131,595
Expenses and other reductions for combined operations	27,018,451
Expenses for educational purposes—Current General Fund	12,413,566
Student aid, including loans	1,976,808
Cost of additions to properties	3,122,131

Financial Condition

Endowment at book value	\$34,988,586
Endowment at market value	41,832,141
University retirement plan funds at book value	963,968
University retirement plan funds at market value	1,062,809
Properties at book value	41,826,415
Properties at insured replacement value	75,563,000

cost of operations. Within the five-year period it has risen 50 percent, an average annual increase of \$1.8 million. During the same period, the plant fund—additions to and renovations of physical properties — has increased 70 percent, student loans 200 percent, and faculty and staff wages 50 percent.

For the year ended June 30, 1965, the University's total revenues for current operations amounted to \$27,045,149. In 1959-60 it was \$18,650,763. The increase of \$8,394,386 represents an expansion of 45 percent in five years.

All factors of current revenues have shown increases thus far in the decade of the sixties. There have been gradual increases in revenue from student fees as a result of moderate advances in both enrollment and tuition. These increases, however, have been outstripped by a sharp rise in contracts and grants, especially from agencies of the federal government. The latter have recorded an advance of 211 percent since 1959-60.

In the five years since 1959-60, the Endowment and Retirement Fund of the University has maintained a pattern of consistent growth. From a level of \$23,682,322 in 1960, this fund's assets have increased to \$35,952,554 book value at June 30, 1965, an increase of 52 percent. The market value of the securities at June 30, 1965 was \$41,245,000.

The University's general, unrestricted fund — subdivided into educational and auxiliary activities — incurred expenses in fiscal year 1964-65 of \$21,672,754 as opposed

to revenues of \$21,699,452. Educational activities — including teaching, University-supported research, library services, student advisory services, student aid, Computing Center, University Press publications, student publications, services of Rockne Memorial athletic building, student infirmary services, physical plant operations and maintenance, general and administrative services — cost \$12,413,566 against revenues of \$12,504,944.

The auxiliary enterprises — those activities providing special non-instructional services to students and staff, supported largely with revenues from their own operations, such as dining halls, residence halls, laundry, intercollegiate athletics, bookstore, Morris Inn, golf course, etc. — cost \$9,259,188 against revenues of \$9,194,508.

Higher education undeniably has become big business, a fact known no better to anyone than to the University administration.

Appreciation for its financial support extends well beyond the circle of its immediate family, a reality readily noted in the prefatory remarks of the financial report: "We are keenly aware that Notre Dame's progress will depend on the generosity not only of its alumni but also of many other individuals, corporations and foundations throughout the country. To all who have contributed to the present status of the University and to all future benefactors, we wish to take this opportunity of expressing our heartfelt thanks."



population explosion

Notwithstanding controversy, Notre Dame — its people, its programs and its publications — has plunged resolutely into the international issue of the

by Donald N. Barrett

As recently as five years ago, comparatively little was being done at Notre Dame regarding the many problems resulting from the population explosion. The University's efforts were confined almost entirely to participation in the Population Association of America, offering of an undergraduate course, and the development of a graduate seminar in the sociology department. However, as the problems became more insistent, Notre Dame's contribution expanded.

From several research papers presented to professional audiences — on such questions as rapid Catholic popu-

lation growth and its high fertility — the focus was broadened to include the explosion of world population and its related issues of food limitations, resources, cultural differences and barriers, fertility regulation, and the like.

For many years Rev. John A. O'Brien, author-in-residence at Notre Dame, has written incisively on such issues. His original books and articles during the 1930's and 1940's contributed much to our general knowledge of rhythm and called for re-evaluation of the rigorous restrictions placed on the legitimate use of rhythm by Catholics. This was no

easy task at a time when the weight of theological and authoritative thinking was to the contrary. His original view has now won out within the Church.

In more recent years Fr. O'Brien and several other professors at Notre Dame have made solid contributions regarding the birth control controversy. Even before Vatican Council II and the appointment of the Papal Commission on Population, these writings stressed the importance of a complete re-examination of the entire question of personal, Christian sexuality. Further, there was stress upon the need to understand and



ART/E. E. Herrmann

appreciate the quality of marital relations as a framework for interpreting the moral and canonical principles governing sexuality.

Within this viewpoint, Professor John Noonan's scholarly endeavor over several years resulted in the publication of his volume, *CONTRACEPTION: A History of its Treatment by the Catholic Theologians and Canonists*, by the Harvard University Press. This is unquestionably the best work on the historical evolution of moral and canonical thinking of the Church on the subject in any language. A copy of this

volume was requested by high Vatican authorities as soon as it was published in 1965.

Within the climate of opinion that all grounds for development of sexual moral principles should be explored, Dr. George Shuster, assistant to the University's president, obtained a Ford Foundation grant so the University could sponsor a number of conferences on the issues. At these meetings, theologians of many different viewpoints, demographers, sociologists, family counselors, pastoral officials, and the like were put into direct confrontation

on the disputed questions.

In the words of moral theologian and conference participant Stanley Kutz CSB of St. Michael's College, Toronto: "Discovery and experience must replace indoctrination and memorization. Principles and cases can indeed be taught and learned, but values must be apprehended in an act of personal discovery." This philosophy depicts the approach, the concern, the responsibility of the participants in these conferences.

Three paperback books came out of these meetings, and were published by



the problem

by George N. Shuster

Providing the inspiration and organizational impetus to Notre Dame's population research and study programs is George N. Shuster, assistant to the University's president. Author and editor of numerous books and articles in the fields of education and religion, Dr. Shuster returned to his alma mater in 1961 after serving for 20 years as president of Hunter College.

the University of Notre Dame Press under the common title, *The Problem of Population*. Volume I concentrated on "Moral and Theological Considerations," Volume II focused on "Practical Catholic Applications," and Volume III took up the basic issues of "Educational Considerations."

In recent months the involvement by other members of the University's faculty has quickened in pace. The point is not that Notre Dame's contributions are all of the same position and philosophy, but it becomes important for Notre Dame to help clarify the difference between demography and demagoguery. It is now well understood that labels, such as liberal and conservative, shed little light on intelligent argument, and that our love for the Church promotes adherence to principles, but not simple rigidity that closes off constructive inquiry.

Professor William D'Antonio of the sociology department has made several contributions along these lines, such as his chapter in the book, *Contraception and Holiness*. In another way, Dr. Shuster has developed, from the three previously-mentioned population con-

ferences, a plan for a number of monographs on specific aspects of the issues. Professor William Liu of the sociology department is now directing this project, which involves possibly several conferences but is directed primarily toward the publication of scholarly monographs, written by respected experts, on such subjects as abortion, sterilization, rhythm, contraception and public policy problems. This is now moving forward, hopefully toward an early conclusion.

As can be ascertained from Catholic

journals and secular news sources, Notre Dame involvement is expressing itself in conferences and debates outside the University circle. Recently, an UNESCO-sponsored meeting in Kansas City included population issues on its agenda, and Professor D'Antonio's participation was notable. Professor Donald N. Barrett of the sociology department attended the White House Conference on International Cooperation in November, and more recently participated in the Second International Symposium on rhythm, outlining the

There is complete agreement that a population problem exists and that it is a gravely challenging one.

This can be shown on the basis of projections which all demographers accept. First, the population of the earth reached one billion in 1830, two billion in 1920, three billion in 1962, and will make a momentous leap to six billion in the year 2000. It is obvious that a continuation of this rate of increase is wholly out of the question.

We may add that the birth rate would be still higher were it not for widespread recourse to measures, notably infanticide and abortion, which are rightly viewed by Catholic and other moralists as criminal. Infanticide is far less common in Western countries than it once was—in times chronicled by Goethe's Faust and Scott's Heart of Midlothian. Abortion is, however, now widely practiced not only in Japan, where it has become an accepted method of birth control, but even in the so-called Catholic countries of Europe and Latin America. Reliable evidence likewise

indicates that in spite of legal prohibition it is now more frequently resorted to in the United States than is generally assumed.

The population problem, therefore, has two aspects, one of them statistical and the other moral. All demographers, whether they be Catholic or not, are agreed that mankind must henceforth limit its power to procreate. Even if we assume that the world's food supply can be vastly increased and that economic productivity will reach hitherto undreamed of levels, simple arithmetic plainly points to inevitable disaster if the population growth from two billion to six billion in 80 years were to be maintained. It is likewise utterly impossible to reverse the trend by ceasing to lower the death rate or to maintain welfare services. Accordingly, it must be assumed that intervention by governments to introduce birth regulation as a matter of public policy will become more and more the rule.

Already, Mao's China is reported to have decreed that marriages cannot be contracted before the parties have reached a stipulated age, and that the number of children born to any couple must not exceed a legalized number. This is, of course, a very drastic policy. But we must anticipate on the part of the state, generally, an ever increasing interest in education about family regulation and a sanctioned widespread use of methods designed to bring such regulation about.

Since Catholics now live in a world-wide diaspora, their demographers and moral theologians have a two-fold task. The first is to make it possible for the faithful to confront the inescapable task of regulating birth with means which are sanctioned by the Church. These means now include rhythm and abstinence from sexual intercourse. Since the second is of necessity limited to a very few, it is the first which, for the time being at least, must be advocated not as only a safeguard against sin, but as a positive contribution to the solution of the population problem. This means a drastic change in basic attitudes, of course, but it also implies a vigorous endeavor to study rhythm scientifically and vastly to increase its use. Unfortunately, research has lagged far behind, and efforts to disseminate an understanding of the method through a world-wide network of

rhythm clinics have scarcely begun. The second task of the Catholic demographer and moral theologian is to oppose, as successfully as he can, the use of methods which, like infanticide and induced abortion, give an added dimension to the moral issues involved.

The population problem is, of course, most serious in countries like Egypt, India, Brazil, and some of the Caribbean countries, where mounting overpopulation is associated with dire poverty. But the United States itself is not without difficulties of its own. The population of this country is certain to increase from the 192 million of the present to 320 million by the year 2000. This probably means that the larger cities will nearly double in size 50 years hence. Even if we assume that automation will not have more effect on employment than is at present predictable, and that through education youth can be kept out of the labor force in a manner comparable to that presently in effect, the depressed urban areas of the year 2000 may be at least twice as large as they are now.

There can be no doubt, then, that the United States also faces its population problem. But in general, one may certainly say that a deeper concern is with sexuality in the urban society we have created.

The desire for sexual experience is fanned by forms of mass art and entertainment. Venereal disease is now largely remediable and so no longer imposes a formidable barrier to indulgence. New and improved forms of contraception, notably the "pill," are widely used, even though the ultimate medical effects are still unknown. In large segments of the population, sexuality is also bound up with the use of narcotics.

It might, as a consequence, be relatively easy to reverse the trend. By overemphasizing the population problem, one could conceivably re-create the situation which existed not too long ago when the issue was one of declining birth rates. No Catholic demographer or moralist is unaware that in a situation which is uniquely human—that is, subject not to automatic regulation but only to the decisions made either individually or corporately by men and women living amidst the pressures of the time—mass suggestion is a factor of the utmost importance.

dire need of Catholics for both information and incentives developed through research and organization. In the next few weeks, Professor Barrett expects to give testimony before Senator Gruening's Subcommittee on Foreign Aid Expenditures which is considering extension of birth control information and materials to foreign nations.

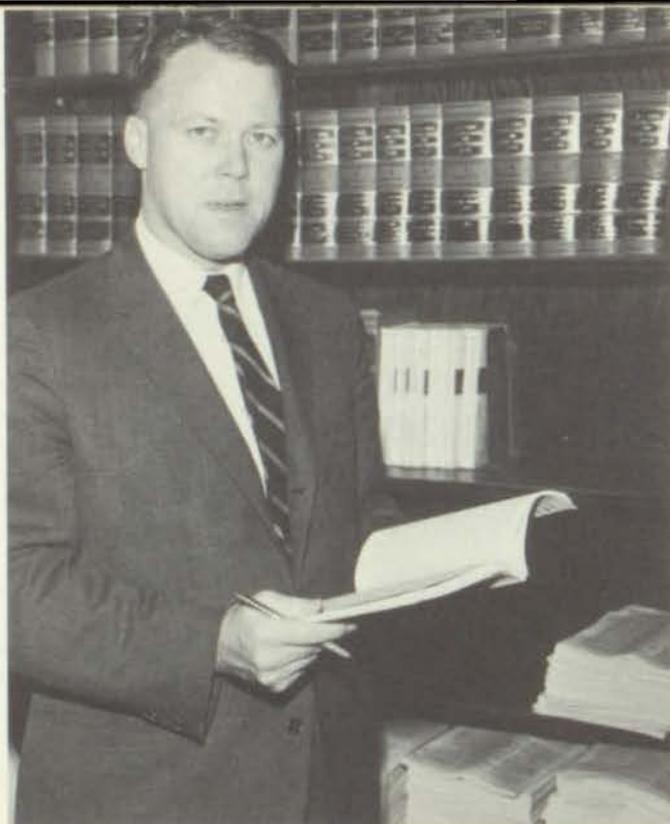
Research at Notre Dame has pursued several directions, one of which is the area of Catholic experiences with rhythm.

Under a financial grant from the Pop-

ulation Council, an inquiry into the work of the Catholic Marriage Advisory Council in Great Britain has been going on for about two years. About 9,000 couples are advised each year regarding rhythm in over 65 centers spread throughout the islands (including Ireland), and many thousands of other couples receive advice from trained marriage counselors.

Another report has been made on the basic rhythm experience of over 1,500 couples participating in the Christian Family Movement in about 13 different

countries. The significant issue, it appears, is not whether rhythm "works" technically or not, but whether it benefits or impairs the husband-wife and parent-child relationships. A similar study is being made of 1,500 couples in the United States who responded to an article in *Marriage* magazine asking for evidence from couples who have "successfully" practiced rhythm, that is, those who have found it generally helpful in their marital relations. At present, it seems that this data corroborates the initial findings that a large



John T. Noonan, Jr., possibly the single, most widely known Notre Dame scholar in population studies because of his book, *CONTRACEPTION*, came to Notre Dame in 1963 where he has been a professor of law. For the past year he has been a consultant on history to the Papal Commission on Problems of the Family, Population and Natality.

the church's turning point

by John T. Noonan, Jr.

An understanding of the slow development of Catholic thought on marriage affords a perspective from which to view the current controversy over the rule on contraception.

In terms of the moment, the latest rumor from the Vatican seems of importance; in terms of the long run, it is the force and direction of development that count. In the current controversy, each papal pronouncement seems to be a turning point. In fact, the decisive turn was taken about 1650.

For about fifteen hundred years, from 150 to 1650, the dominant theological teaching on marriage held that the sole lawful purpose for initiating intercourse was procreation. To have any other purpose in mind in seeking marital

coitus constituted sin. The only lawful, virtuous intention had to be consciously procreative. This Stoic view, adopted by the first school of Christian theology at Alexandria, had been fastened on Western theology by St. Augustine. The Stotic, Alexandrian, Augustinian rule completely excluded the possibility of considering contraception to be lawful.

At the beginning of the 17th century, the dominant Augustinian thesis underwent critical examination by the most skilled moral theologians the Church had ever had. Their leader on matters of marital morality, the Jesuit Thomas Sanchez, rejected the Augustinian approach; there were, he found, other purposes in marital intercourse which were legitimate and good.

By 1650, the rejection of Augustine, while not complete, was widespread. Never again was the Augustinian rule to command the adherence of the majority of Catholic theologians. Never again could it appear that the orthodox rule of Catholic behavior required conscious procreative intent.

This rejection of the Augustinian rule was the turning point, because to reject Augustine was to reject a necessary connection between procreative capacity and intent and virtuous marital intercourse. When the separation between procreative purpose and lawful sexual behavior was made, all the questions were posed which are now said to arise when contraception is proposed: what is the purpose of a marital act without procreative power? What is the difference between homosexual acts and marital acts? What is the measure of sexual morality?

*The 17th century theologians had uncertain answers to these questions. Only in the 19th century was it timidly proposed by a few Catholic theologians that the expression and fostering of love might be a purpose of marital intercourse. Only as recently as 1925 did the German layman Dietrich von Hildebrand express this idea vigorously, and only as recently as 1935 did the German theologian Herbert Doms, in *The Meaning and End of Marriage*, develop this ideal thoroughly and eloquently. The work of Von Hildebrand and Doms, at first received with hostility by the official theologians, became of major influence in the 1950's. In 1965, Vatican II, the first ecumenical council to speak on the subject, proclaimed the positive value of personal love in marriage, and declared that this love "is singularly expressed and perfected by the proper work of marriage." Love was now seen as a purpose and a good of marital intercourse.*

The advance from 1935 to 1965 in authoritative acceptance of the new approach is, of course, striking. The advance from 1650 to 1935, is, while less dramatically swift, even more striking. But these developments would not have been possible if the significant turn had not been taken by the Catholic theologians of the 17th century. In the light of Vatican II's teaching on the positive value of conjugal coitus, the rule on contraception, which was so largely based on the Augustinian analysis, has to be reconsidered. That reconsideration is the fruit of a development whose roots are in the 17th century.

proportion have negative reactions to the practice of rhythm. Much, however, remains to be done in the analysis.

Still another direction of study in the field of population problems is to be found in the new Institute for Latin American Population Research at Notre Dame. The University has received a large grant from the Agency for International Development in the State Department to pursue answers to the questions of family and fertility change in Colombia, Peru and Brazil.

The issue of population growth evokes many and varied responses in Latin America. Each country has its own unique cultural situation and generalities do not apply. It can be said, however, that in this culturally Catholic region—where a very small percentage of the population has received Catholic teaching and where pastoral care is very difficult because of the lack of priests—the subject of birth control is not a matter of public discussion. Politically, the issue is explosive, and the Church hesitates to make it a major topic for consideration. Nevertheless, the Church is concerned about literally millions who live in poverty so awesome that they do not know what they will eat tomorrow, or whether they will eat at all. The "rising level of expectations" of these people is quite visible, and their demands for some approximation of decency in their standard of living are becoming more insistent. Thus, both Church and state are far more concerned with economic devel-

opment, than with what they consider to be a negative, pessimistic policy of birth regulation.

At the same time two other factors are sociologically and culturally meaningful: the rapid movement of people from the rural farmlands to the urban slums, and the fact that abortion, as a response to excess fertility, is rapidly becoming known as a major moral and health hazard. Our research is not concerned primarily with abortion and fertility regulation, but our inquiries into the forces for qualitative family change have brought these phenomena to light as parts of the total picture. Also, there is some evidence in scattered parts of Latin America of formal programs aimed at health and birth-regulation. These are few, now present only in Chile, Colombia and Peru, but American foundations are encouraging these developments with financial assistance.

But amid the stark realities of poverty, disease, and early death of children these families possess an inner sense of Christian dignity and faith. Almost every hut in the favelas, the *barriadas*, the slum *barrios* displays a statue of San Martin, a rosary prominently displayed on the wall or a picture of the Sacred Heart. And their deep faith and earnest prayers of supplication and petition are a great testimony to the historical influence of the Church. But often a priest has not visited them for years, and the lack of priests encourages the rise of superstition, magi-

cal forms and syncretism with pagan cults. Death by lingering disease or death by violence is common in such areas, but their faith endures, so much so that in one slum the people are still talking about the visit of the bishop for about an hour, almost four years ago.

Large families are a fatalistic destiny for the women, for whom there is little thought of change or escape from the reality of the low levels of existence.

It is on this kind of inquiry into family structures, rural-urban and traditional-modern, that the Notre Dame research on family and fertility change is focused. Of course, research is done to discover effects on families made by such outward influences as community development programs, public health measures, school building innovations and road and sanitation work. Many of these programs are government-sponsored or are initiated by the Alliance for Progress or the Peace Corps. These are unquestionably important in the struggle to aid families to achieve human, Christian dignity.

The involvement of Notre Dame in this problem is expected to yield, over the next four or more years, highly useful insights into the many and complex issues of population growth. The work is exciting, and the outlook is optimistic, believing that hard-headed research will yield positive results in this controversial field, in which Notre Dame simply must make significant contributions.



William Liu, an associate professor of sociology at Notre Dame, is the director of the University's Institute for the Study of Social and Population Change, a project directed toward the publication of scholarly monographs relevant to fertility and population growth. He joined the University faculty in 1961 with a doctorate from Florida State University.

Donald N. Barrett, an assistant professor of sociology and a member of the Notre Dame faculty since 1956, received his education from Georgetown, St. Louis and Pennsylvania Universities. Currently, the demographer-sociologist is director of the Notre Dame Institute for Latin American Population Research. In addition, he is a member of the Papal Commission on Population and the president-elect of the American Catholic Sociological Society.



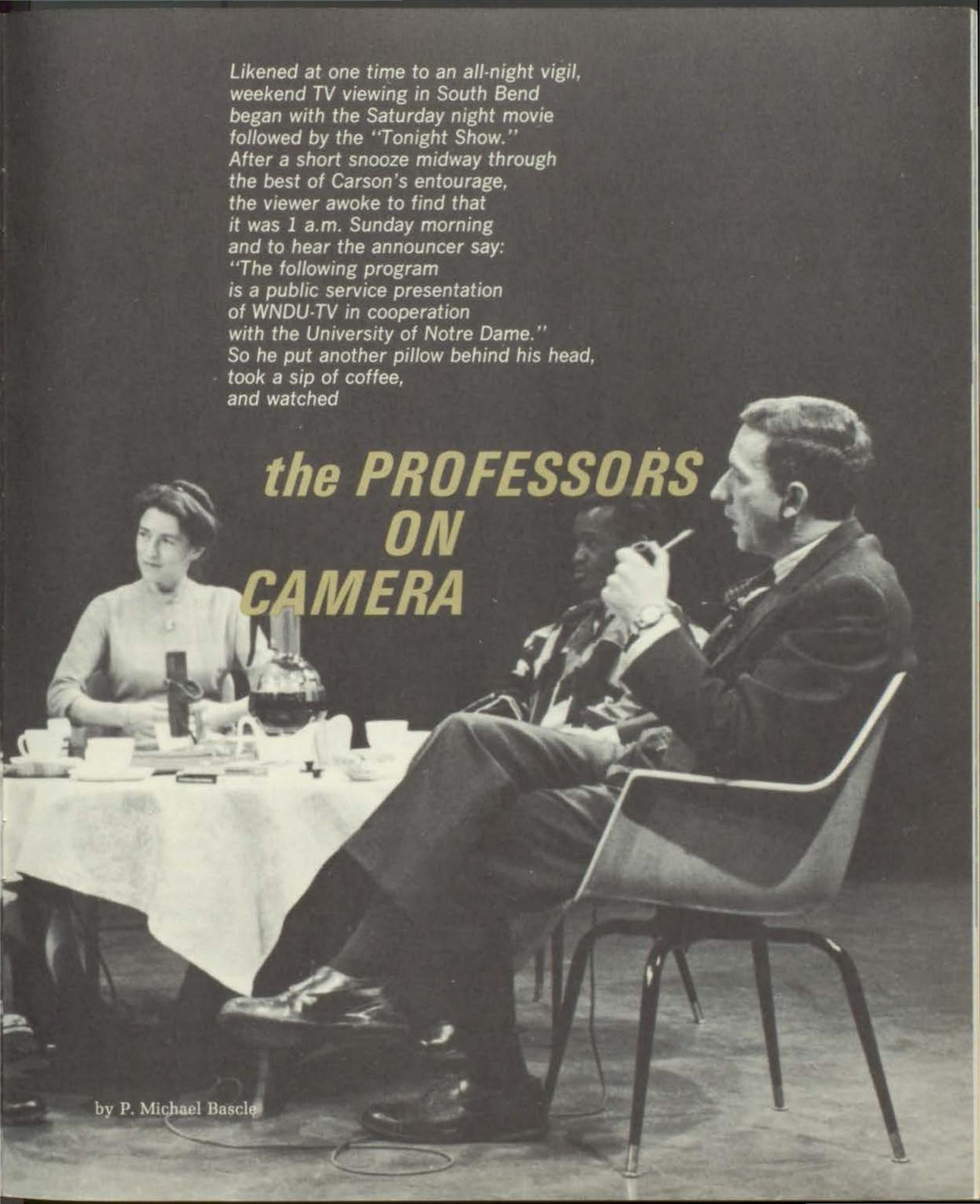
Television

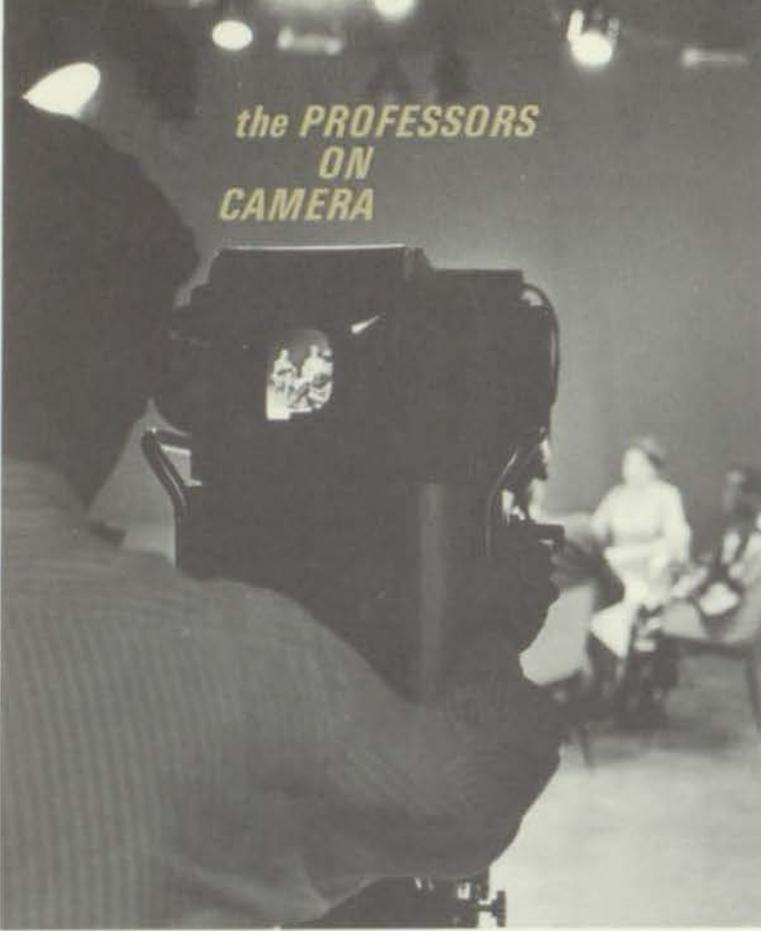


Likened at one time to an all-night vigil, weekend TV viewing in South Bend began with the Saturday night movie followed by the "Tonight Show." After a short snooze midway through the best of Carson's entourage, the viewer awoke to find that it was 1 a.m. Sunday morning and to hear the announcer say: "The following program is a public service presentation of WNDU-TV in cooperation with the University of Notre Dame." So he put another pillow behind his head, took a sip of coffee, and watched

the PROFESSORS ON CAMERA

by P. Michael Bascle





the PROFESSORS
ON
CAMERA



Members of the editorial board for THE PROFESSORS show are WNDU-TV Station Manager William T. Hamilton, TV director Paul E. Walton, Jr. and discussion moderators Edward J. Murphy, Frederick J. Crosson and John W. Houck.



It all began back in the fall of 1964.

WNDU-TV station manager, William T. Hamilton, was searching for a means of encouraging wider faculty use of the University's television facilities. The answer: have a small group of professors just sit and discuss a topic of current interest for an hour.

More than that, however, it was to become an insight for the citizens of surrounding communities into the intellectual make-up of the University.

The show's beginning came midway in the political campaigning of 1964, and that first 1 a.m. program in October, four faculty members probed, uncovered and discussed the issues of the presidential race. Associate professor Frederick J. Crosson, director of the University's General Program, was called upon to moderate the first show, and to him fell the weekly task, that first year, of selecting a topic and four discussion members for the new show called "THE PROFESSORS."

Fearing that parts of the show might have to be edited or shortened, it was decided to produce the first program on video tape. Fears, however, were unsubstantiated. Members of the show took to it like veteran performers.

As the program proceeded into its second year, more emphasis was given the selection of topics and less concern to the personalities. It prompted the creation of an editorial board made up of Hamilton, Crosson, station program director Paul E. Walton Jr., and three other moderators, who have since met monthly to plan future topics and guests. Joining Crosson in moderating the program have been Thomas E. Stewart, associate vice-president for academic affairs; John W. Houck, assistant professor of business organization and management; and Edward J. Murphy, professor of law.

Each week has brought a gradual entrance into different areas of interest, touching on numerous and diverse topics ranging from the campaign issues of 1964 to the concepts of death and immortality, from the problem of capital punishment to art and artists.

"Basically," explains Crosson, "the show's topics fall into three areas: first, strict discussions of public interests, such as elections, government budgets or political reform; second, subjects of an informational nature without immediate overtones, such as genetic studies, future uses of computers and aims in education; and third, academic or scholarly topics, such as works of literature or specific sociological or political theories."

Among the specific topics discussed have been: The American Economy in 1965; Capital Punishment; The Neighborhood School Concept; The Welfare State and Human Freedom; and FDR and

World War II. The latter topic was the most popular show, as measured by viewer response. However, another show concerning the need for a medical school and center in Northern Indiana was shown a second time because of the immediate area interest.

Station Manager Hamilton has now realized his original goal. The faculty has grown in enthusiasm for the weekly forum for current, academic discussions. And despite the early hour of the show, a hard-core, enthusiastic class of viewers has been developed, as the letters and calls received indicate.

On one occasion, after watching THE PROFESSORS, an engineering student from another college, home in South Bend for the holidays, called the University to inquire about how he could transfer to Notre Dame.

On still another occasion, a Michigan City (Ind.) priest denounced one of THE PROFESSORS shows from the pulpit because of several remarks one professor made about parish priests and the quality of parochial education. After receiving a reply from Crosson, which mentioned that the comments were only one man's opinion and they had been refuted by another professor on the show, the priest indicated he now gladly publicizes the show on Sunday, and advises his parishioners of future topics to be discussed.

Additional audiences have been gained recently when the time of the show was changed from 1 a.m. to 2 p.m. on Sunday, resulting from the close of the professional football season. A lack of sponsorship, however, still relegates the show to non-prime viewing hours.

Since its inauguration, THE PROFESSORS has been produced more than 50 times—shown only during the academic year—and has involved more than 120 members of the faculty and administration. Occasionally, visiting dignitaries or area personalities have participated when the subject warranted it.

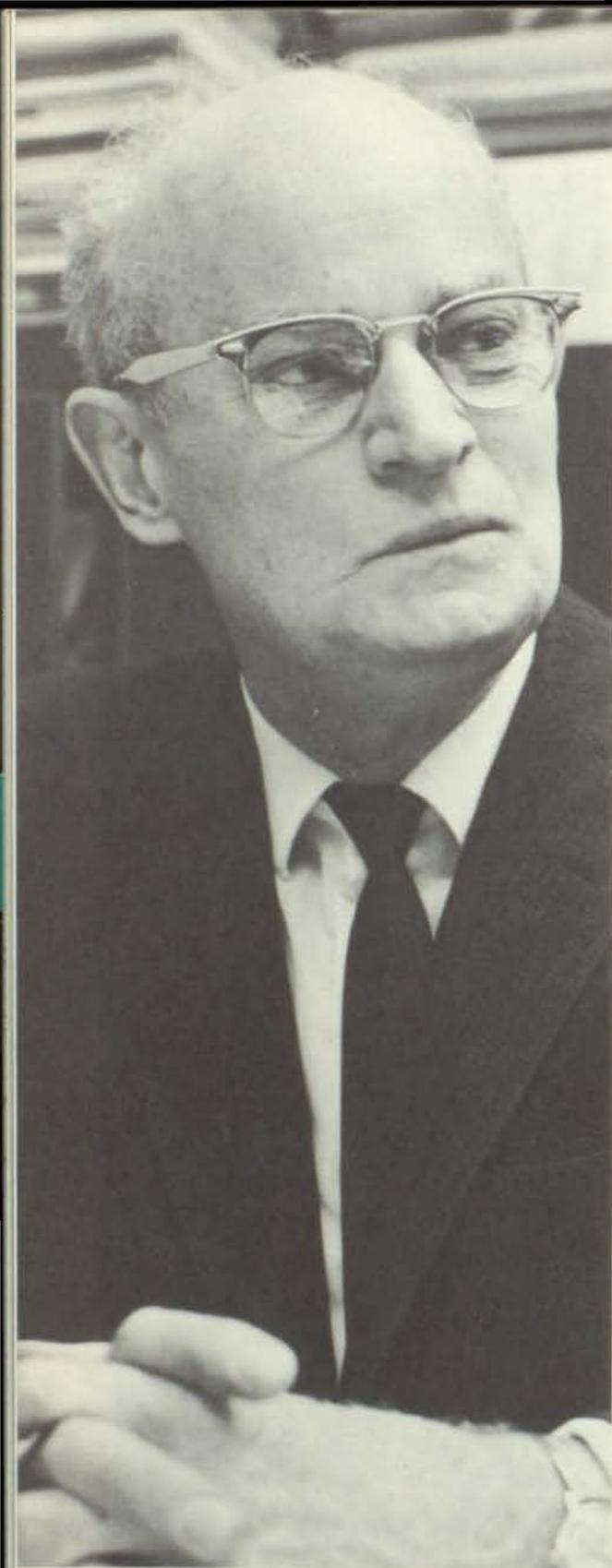
The one hour program, presently reaching viewers within a 60-mile radius of South Bend, could develop outside interests for its presentation. Already, one national Catholic magazine has approached WNDU-TV requesting audio tapes of the program to be reviewed for possible use as feature material. Hamilton has also expressed an interest in taping the shows and syndicating them for use by smaller educational institutions.

Whatever be its future before the viewing public, THE PROFESSORS will continue to showcase the topics and personalities of Notre Dame.

Now, more than 50 "Tonight Shows" and one professional football season old, both very tough acts to follow, THE PROFESSORS are here to remain "on camera."



Prerecorded several days before its telecast (above), THE PROFESSORS show selects discussion members from the faculties of Notre Dame and St. Mary's College, and, occasionally, invites visiting dignitaries and area personalities.



Dr. Raymond P. Kent

What the names Morgan and Chase were to banking
the name Raymond P. Kent
is to the academic realms of finance.

His influence
like that of the banking magnates
has spread over faculty and students alike.
His ability as an instructor and author
is attested to by the formidable list of former students
who rank as leaders in the financial world.

The name and his philosophy
have been carried across the country
on the title pages of his two highly-successful textbooks,
Corporate Financial Management, in its second edition,
and *Money and Banking*, now in its fifth edition.
Other writings of Dr. Kent have appeared
in the *Journal of Finance*, the *Review of Social Economy*
and the *Annals of the Indiana Academy of the Social Sciences*.
Most recently, he contributed several articles
for the newest edition of the *Encyclopaedia Britannica*.

A Ph.D. from the University of Pittsburgh
and a former instructor at St. Vincent's College in Latrobe, Pa.,

Dr. Kent believes, "Studies in
money and banking
have taken on a new vitality in recent years.
The field has an excitement and unpredictability
that was unimaginable 15 years ago.
Traditional conservative beliefs have been unseated
by the success of monetary and fiscal policies
based on quite different ideas."

A member of the American Economic Association,
the American Finance Association
and the honor society, Beta Gamma Sigma,
Dr. Kent alternates his teaching load
with courses in management of financial institutions,
money and banking and business finance.

Summers provide the opportunity
to leave the classroom and resume his writing efforts.

Up ahead for the US economy?
Says Dr. Kent, "... a bright immediate future,
with the level of unemployment continuing to fall."

FACULTY SKETCHES



"The most salient feature
in science today
is the enormously rapid growth of knowledge
with a doubling every seven years.

Our aim in graduate education
must therefore be to train Ph.D.'s
in the fundamentals of chemistry
so that they will grow with the subject
and not fall early victims to the obsolescence
which, nowadays, is of so much concern
to the scientific researcher, especially in industry."

Such is the motivating philosophy
behind the chemistry department at Notre Dame
as spoken by its head, Dr. Ernest L. Eliel.
Member of the University faculty for 18 years,
Dr. Eliel notes that chemistry in recent years generally
has assumed "a far more logical and systematic structure
in contrast to its former descriptive and empirical approach."

At the undergraduate level
a comprehensive grasp of the subject is encouraged,
among other ways,
through the practice of introducing some students to research projects
as early as their second year in study,

on the grounds
that "a better and more thorough understanding of science is
achieved through exploration and research."

A native of Cologne, Germany
Dr. Eliel is a nationally recognized authority
in the field

of conformational analysis.

Fluent in four languages, Eliel came to the United States in 1946
and two years later

received his doctorate from the University of Illinois.

Since joining the faculty in 1948

he has received numerous grants from
the National Science Foundation, the National Institute of Health,
the Air Force Office of Scientific Research
and an unrestricted \$40,000 grant

from the Petroleum Research fund of the American Chemical Society.
Renowned through his research and writings in scholarly journals and books

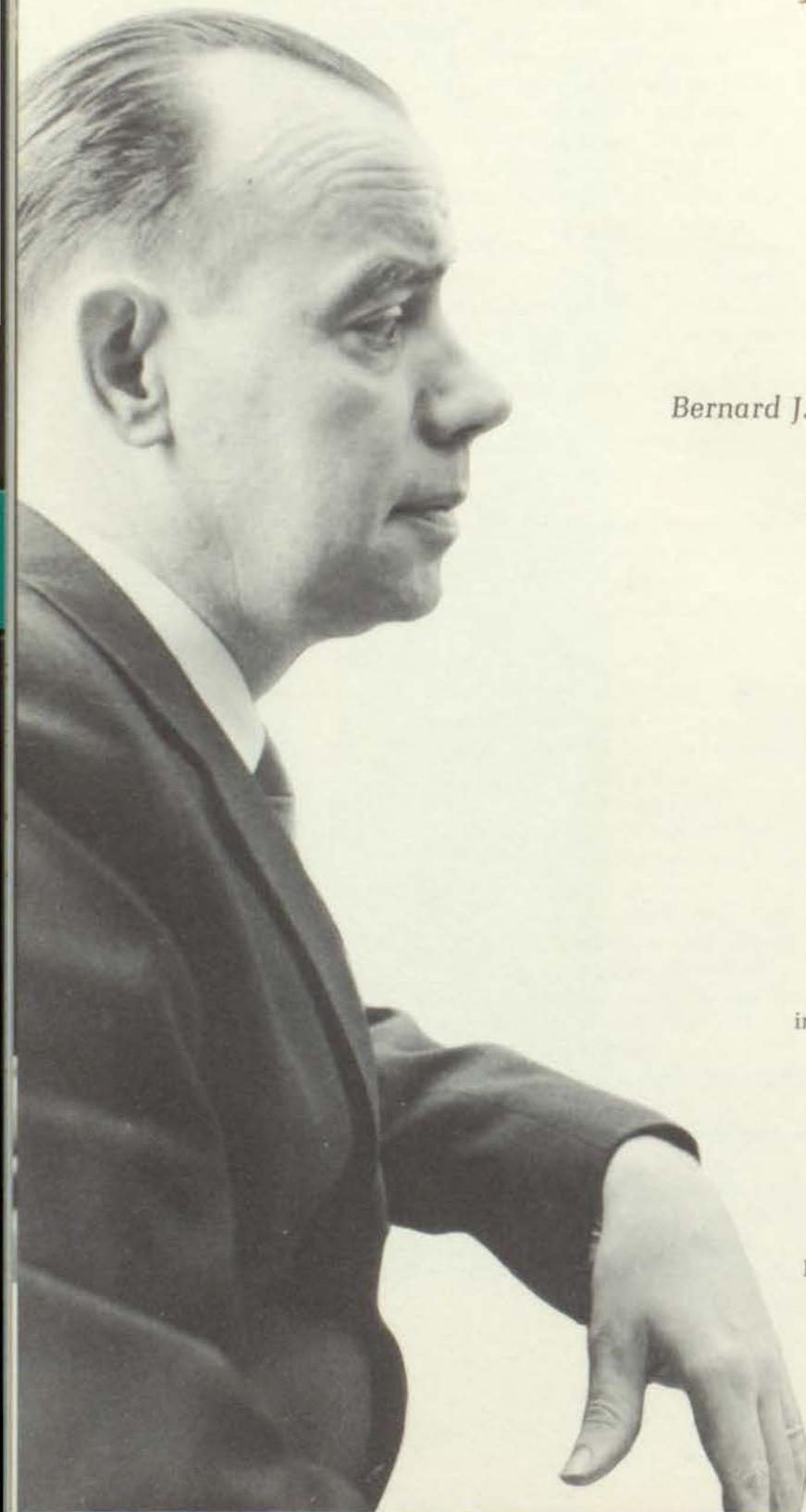
Dr. Eliel is perhaps best known among students
through his textbook, *Stereochemistry of Carbon Compounds*.

His work was recognized twice during 1965
first when he was awarded
the Manufacturing Chemists' Association college chemistry teacher award
and, later, when he received
the Morley Medal of the Cleveland section, American Chemical Society.

In addition to his teaching and writing
Dr. Eliel is a consultant for the Warner-Lambert Pharmaceutical Co.
and a member of various professional and civic organizations.

At Notre Dame, his teaching is concentrated
on undergraduate and graduate courses in organic chemistry.

FACULTY SKETCHES



Bernard J. Ward

The direct appointment of Notre Dame's Bernard J. Ward as reporter of the US Supreme Court's Advisory Committee for Appellate Rules has brought to that professor of law an honor

usually reserved for a handful of distinguished law school deans and teachers.

His duties:

to draw up proposals, in consultation with the 12-man committee for ultimate approval of the Court, to make uniform the rules and procedures of the 11 US Circuit Courts.

In addition to meeting twice a year with the committee,

Prof. Ward travels extensively across the country to sound out federal judges and attorneys on the new proposals.

Appointed by Chief Justice Earl Warren in 1961,

Prof. Ward assumed the duties of reporter in addition to a teaching schedule that includes courses in remedies, federal jurisdiction and procedures, civil procedure,

and a seminar in appellate procedures.

In addition to a manuscript

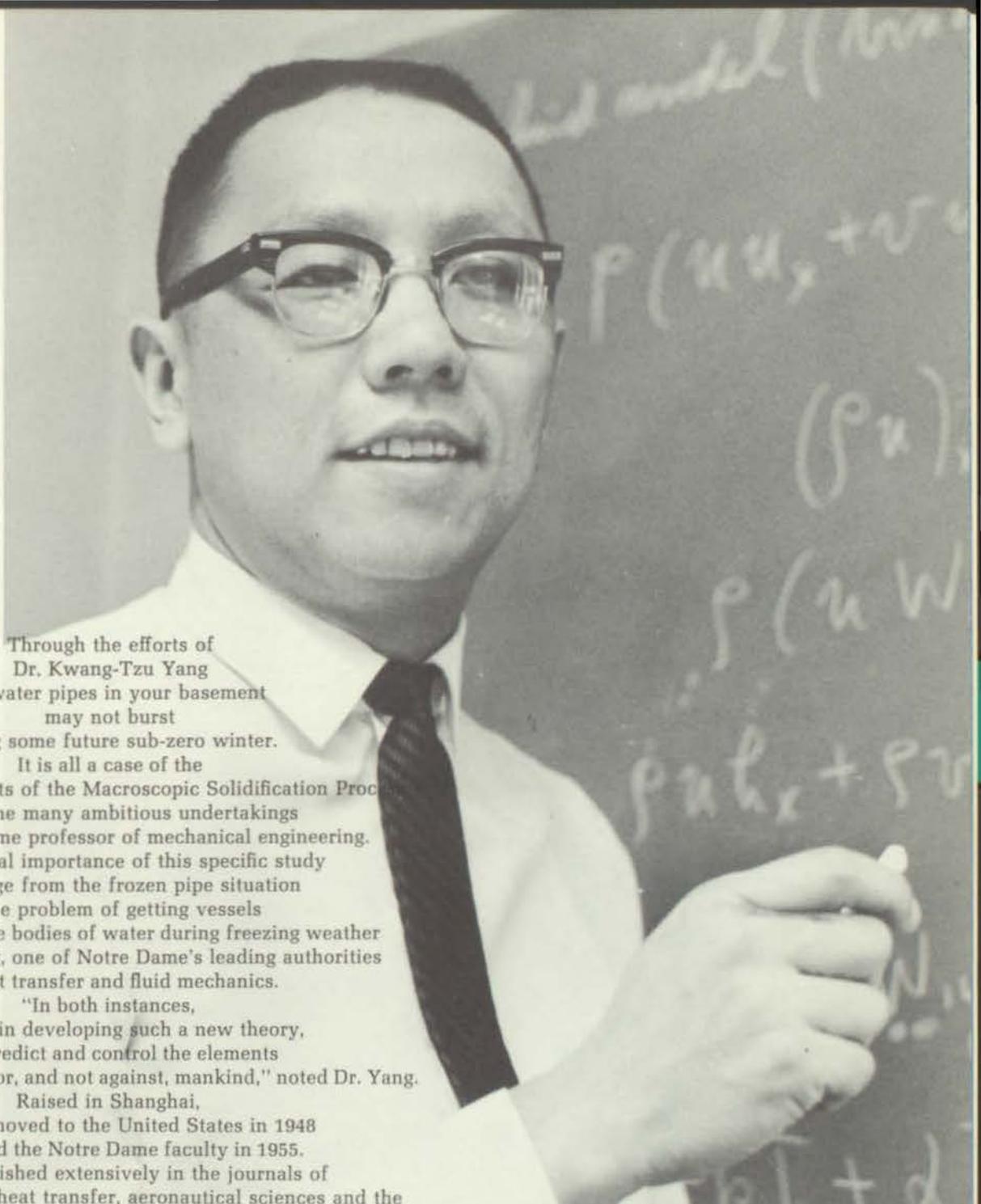
he is now preparing on appellate practice,

Prof. Ward has contributed articles to several legal journals.

A member of the Louisiana Bar,

Prof. Ward received his undergraduate and law degrees from Loyola University of New Orleans, and later earned a LL.M. degree from Yale University.

While studying at Yale he was designated a Sterling Fellow.



Dr. Kwang-Tzu Yang

Through the efforts of
Dr. Kwang-Tzu Yang
the water pipes in your basement
may not burst
during some future sub-zero winter.

It is all a case of the
"Hydrodynamic Effects of the Macroscopic Solidification Process,"
one of the many ambitious undertakings
of the Notre Dame professor of mechanical engineering.

The eventual importance of this specific study
may range from the frozen pipe situation
to the problem of getting vessels
in and out of large bodies of water during freezing weather
explains Dr. Yang, one of Notre Dame's leading authorities
on heat transfer and fluid mechanics.

"In both instances,
the hope in developing such a new theory,
is to predict and control the elements
so that they may work for, and not against, mankind," noted Dr. Yang.

Raised in Shanghai,

Dr. Yang moved to the United States in 1948
and joined the Notre Dame faculty in 1955.

He has published extensively in the journals of
applied mechanics, heat transfer, aeronautical sciences and the
International Journal of Heat and Mass Transfer.

Possessing a doctorate from the Illinois Institute of Technology,

Dr. Yang has been the recipient
of four National Science Foundation research grants,
and is presently a consultant

for Dodge Manufacturing Corp. in Mishawaka, Ind.

His professional association memberships include
the American Society of Mechanical Engineering,

American Society of Engineering Education,

and the honorary societies of Sigma Xi, Tau Beta Pi and Pi Tau Sigma.

FACULTY SKETCHES



Edward A. Goerner

The combination of youth and education in the person of a political scientist has given Notre Dame the leadership needed to meet the academic problems of the student intellectual elite.

That combination is found in Edward A. Goerner,

associate professor of political science, and it earned him the post of chairman of the Committee on Academic Progress of the College of Arts and Letters.

His job: with the aid of faculty counselors and "scouts,"

to meet the needs of students whose extraordinary intelligence and motivation are not satisfied within the established curriculum.

"Right now, we have a boy who wants to study both physics and philosophy," mentioned Prof. Goerner. "Moreover, he has the ability to handle both.

Our hope is to arrange a special curriculum in which he'll be allowed to pursue a degree for both a bachelor of science and a bachelor of arts."

Despite the rewarding nature of his counseling work, Prof. Goerner's first interest is in political theory and comparative government, two of his regular courses.

His work in these areas was highlighted recently when Herder and Herder of New York published his manuscript *Peter and Caesar: Political Authority and the Catholic Church*.

An undergraduate of Notre Dame and the holder of MA and PhD degrees from Chicago where he was a William Rainey Harper Fellow, Prof. Goerner this fall will journey to Strausbourg, France, for a year of research on the European Parliament.

His travel to the continent is part of the faculty exchange program of the University's West European Area Studies of which he is assistant director.

We cannot profess to be a first-class Catholic university, in the best tradition of that title, without becoming deeply engaged in making our contribution in finding solutions to man's greatest problems, here and all across the world.

The University has always been the critical mass in society. Today, one may not simply criticize; the problems are too enormous. The modern university must begin to commit its resources to solutions. I can visualize the Notre Dame of tomorrow operating in South America and in Africa. I can see Notre Dame leading the way at home and on the world scene, too — in the ecumenical movement, in civil rights, in the philosophy of science, in bridging the gaps between diverse world cultures, in atoms-for-peace — indeed, in a way that the present day needs of mankind demand and in whatever areas where we might serve as men committed to Christian wisdom.

Rev. Theodore M. Hesburgh CSC
President

staff

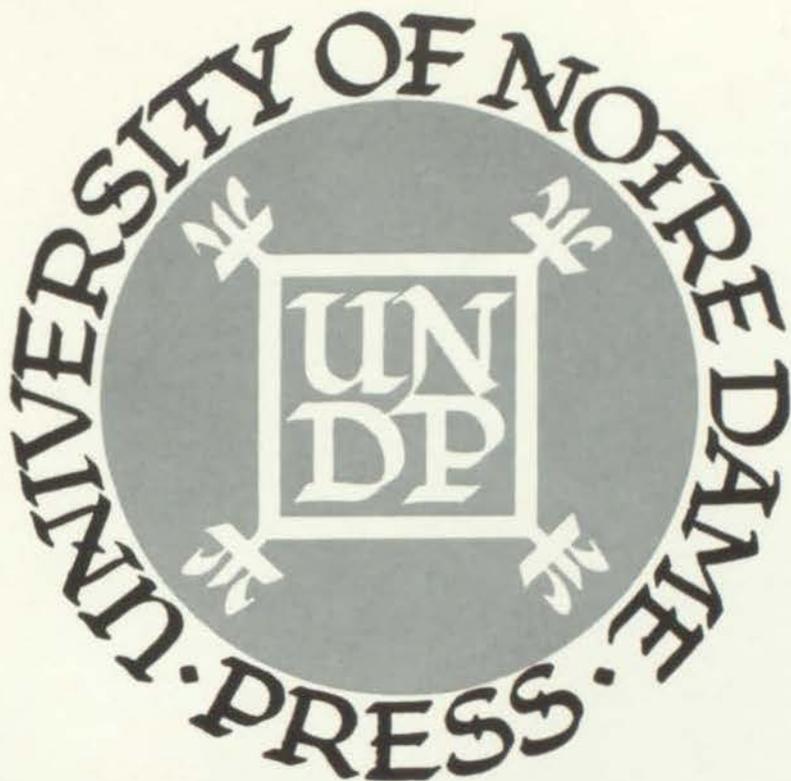
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Webster defines the colophon as an emblematic or ornamental device, the publisher's trademark.

As the University of Notre Dame Press enters its twentieth year of publishing with such titles as *THE CRISIS OF CREATIVITY*, *METHOD AND MEANING IN JONSON'S MASQUES* and *TOWARD A CHRISTIAN MORAL THEOLOGY*, we recall how far the Press has come since the first publication to bear its colophon was issued: *THE FOOTBALL REVIEW*. Two decades and more than two hundred titles later we anticipate a spring publishing season that will see Jacques Maritain, Romano Guardini, E. E. Y. Hales and Bernard Häring join our rapidly widening list of authors.

Recent books have explored population control, international diplomacy, and the cinema. Since the 1955 publication of Louis Bouyer's *LITURGICAL PIETY*, the Press has been proud to place itself in the vanguard of the liturgical renewal. Last fall we published *MAN AND SIN*, the first in a series of books by Piet Schoonenberg, S.J., a Dutch theologian pioneering broader horizons for Christianity.

Now in its twentieth year, the University of Notre Dame Press has come of age. With service to scholarship and to the informed reader its guiding criterion, it proudly publishes the books that will endure because they are beyond the ages.

Let us show you.

Write for our spring catalog.



Notre Dame

Insight

Vol. I No. 2 to appear in May will feature the University's "Vatican II Theological Symposium," a meeting held at Notre Dame in late March that brought together the world's leading Catholic, Protestant, Orthodox and Jewish theologians and religious leaders to discuss the theological issues of the ecumenical council.