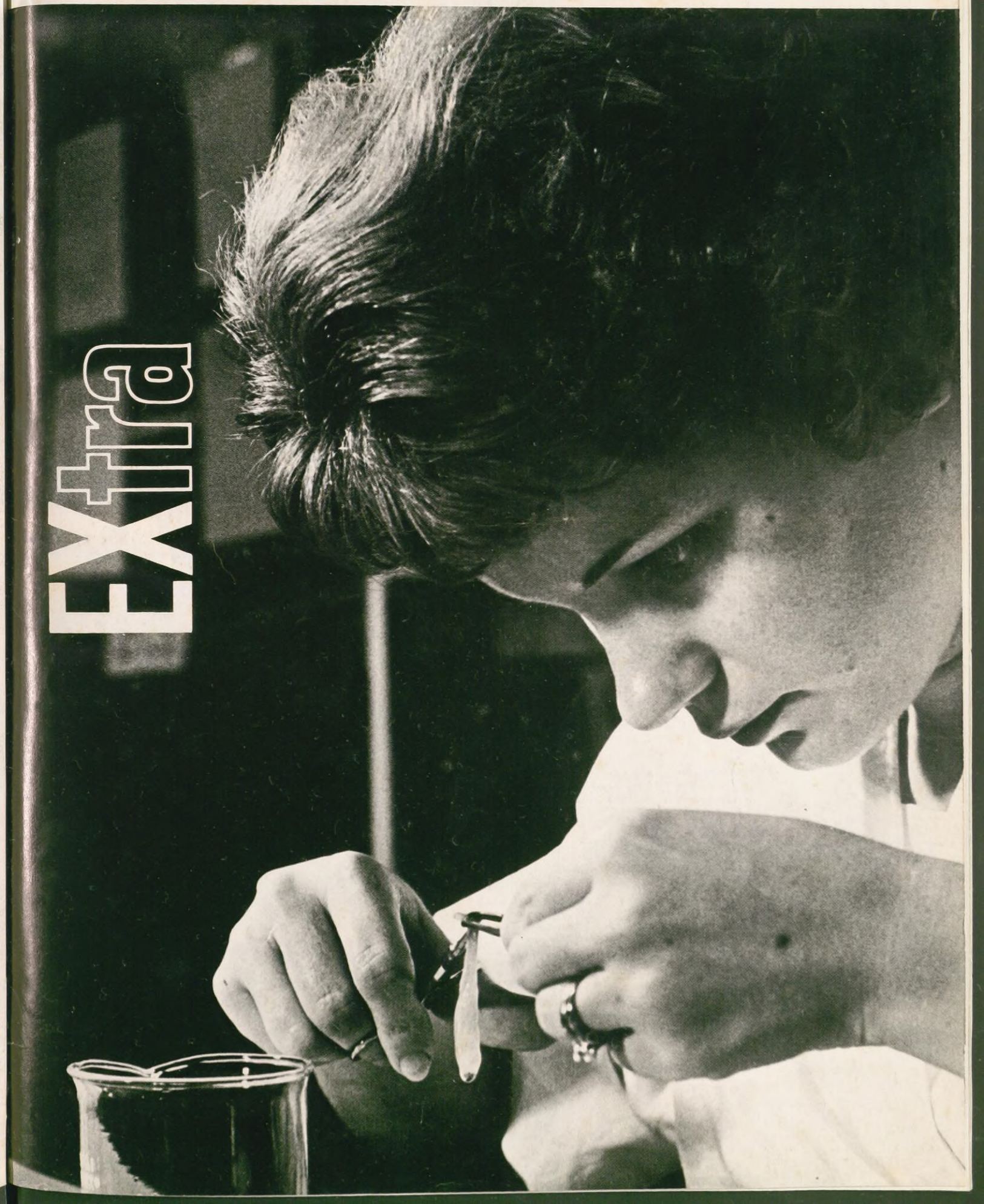
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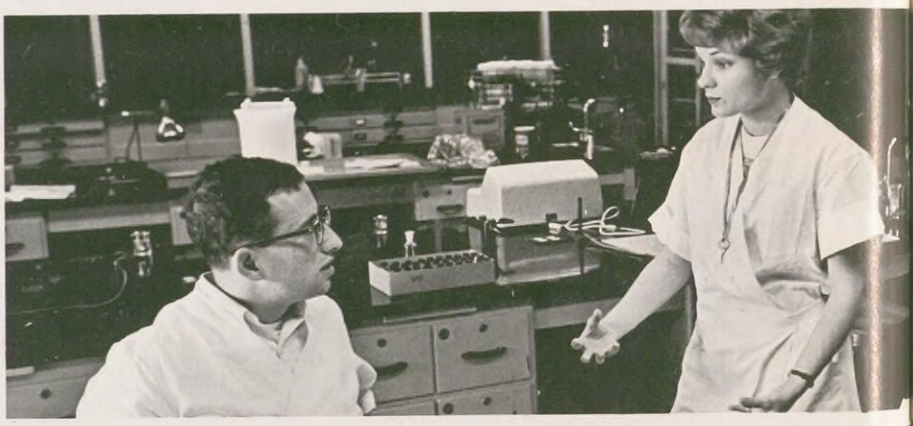

Does the geiger counter tape indicate the occurrence of active transport of carbohydrates and amino acids in the sea cucumber?? See photo story, page 11.

EXtra
University of Houston
Alumni Magazine

EDITOR'S COMMENTS: GRADUATE EDUCATION

Graduate education at the University of Houston was, until the mid-fifties, considered by many observers to be merely an extension of undergraduate instruction with but casual emphasis upon research and creativity. Admissions requirements were not stringent and, while students certainly benefited by their training, they were generally aware that its quality was not always superior. The majority of students attended classes in the evenings and had no part in the exciting and inspiring environment of scholars which should characterize graduate study.

With but few exceptions, that situation no longer exists at the University. Applicants are now carefully screened. Admissions are limited. The content and scope of the curriculum now involves independent research and creative thought in addition to classroom study. Impressive achievements and important contributions to knowledge have been made by both faculty and students. Several departments have gained international recognition.

Yet problems remain. The most conspicuous is lack of adequate facilities and space, not only for classrooms, but for labs, offices, libraries, and other needs. It is common knowledge that faculty of the highest caliber are attracted to universities where they are promised opportunity to develop their own programs, exciting intellectual atmosphere, outstanding salaries, and ample facilities. While the University has been able to offer the first and to some extent the second of these, the latter two have been largely unavailable.

State funds for salaries and facilities are often inadequate. For example, the legislature last year completely eliminated from the budget a proposed UH science and research center. To demonstrate the need for the facility, one may refer to a situation now existing in the department of biology. The Whirlpool Corporation gave the University a $6000 environmental chamber so that Dr. Hugh Freebairn could study the controlled ripening of fruit. The equipment arrived, and the only space available for it in the science building was on the loading dock. There it was promptly installed at a cost of $3000. Dr. Freebairn must move garbage and boxes in order to get to his lab. Other similar examples could be drawn. Such situations should not exist at a university of the size and quality of the University of Houston.

It can be said in defense that this lack of space has resulted from a most rapid expansion in enrollment and it would be sad indeed if the University did not have growth problems. A $30 million building program will go far to provide needed facilities. The administration is attempting to solve these problems. Yet, until this is accomplished we cannot hope for overall excellence in graduate studies.

Alumni should be aware that graduate programs at the University have vastly improved during the past ten years and certain departments may be considered excellent by any standards. But it is necessary to add that because of limitations of space and facilities and funds, some departments and some faculty have lacked the courage to initiate more advanced and more complex programs. Every effort must be made by those concerned with the University, including its alumni, to assure that the factors hindering the growth and development of graduate education are eliminated.

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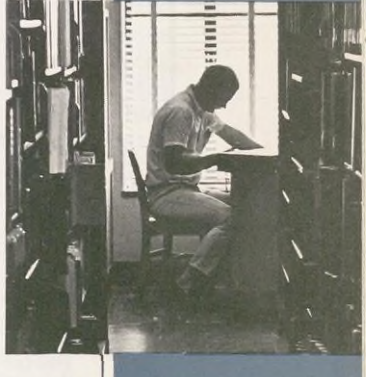
GRADUATE EDUCATION

by Glenda Fuller

In 1964, more than 500,000 graduate students were enrolled in educational institutions in this country seeking degrees as diverse as a Master of Science in Poultry Husbandry or a Doctor of Outer Space. Most graduate students work from five to twelve years to obtain their degrees and only approximately half of them make it. Those who do must leap seemingly unnecessary hurdles. The specific goals and purposes of graduate study and the standards for admission vary from university to university and from department to department. Requirements may be either needlessly stringent or lax. Unlike other students, graduate students have no way of knowing how much time will be needed to obtain their degrees. Yet despite these difficulties graduate enrollment is twice as large as it was ten years ago and will double again in another decade.

The University of Houston has offered advanced degrees since 1939 and currently has over 1500 graduate students enrolled. Thirty-seven departments of the University offer master's degrees and 13 offer doctor's degrees. Students may obtain the Master of Arts, Master of Business Administration, Master of Education, Master of Music, Master of Science, Doctor of Education, or Doctor of Philosophy. (See box, page 4.) Although many of the graduate programs at the University are relatively new and not all of them can claim excellence, the overall program is impressive and the University, along with 650 other institutions across the country which offer advanced degrees, will experience rapid growth in the next few years.



GRADUATE DEGREES OFFERED AT THE UNIVERSITY OF HOUSTON

Master of the Arts (M.A.)
Economics
English
French
German
History
Philosophy
Political Science
Psychology
Psychology Undifferentiated (Counseling)
Sociology
Spanish
Speech
Speech and Hearing Therapy

Master of Business Administration (M.B.A.)
Accounting
Eonomics and Finance
General Business Administration
Management
Marketing

Master of Education (M.Ed.)
Administration and Supervision
Elementary Education
Foundations of Education
Health and Physical Education
Secondary Education
Speech Education

Master of Music (M.M.)
Music

Master of Science (M.S.)
Biology
Biophysics
Chemical Engineering
Chemistry
Civil Engineering
Electrical Engineering
Geology
Industrial Engineering
Mathematics
Mechanical Engineering
Petroleum Engineering
Pharmacy
Physics

Doctor of Education (Ed.D.)
Administration and Supervision
Elementary Education
Secondary Education

Doctor of Philosophy (Ph.D.)
Biological Sciences
Biophysical Sciences
Chemical Engineering
Chemistry
Economics
Electrical Engineering
Mathematics
Mechanical Engineering
Physics
Psychology

History of Graduate Education

Graduate education in this country has been fraught with difficulties since its beginning around 1876. It was not until a hundred years after the first American colleges were established that American institutions began conferring earned advanced degrees. Prior to that time most Americans seeking advanced education went to Germany, whose teachers, libraries, and laboratories had the greatest reputation in the world.

American colleges before 1876 were liberal arts colleges; the fixed curriculum included theology, medicine, law, classical languages and literature, philosophy, and mathematics. Expressions of student initiative or independent investigation were not especially encouraged. Some attempt was made to offer advanced work beyond the normal four-year program. Harvard, for instance, announced in 1825 that provision had been made for "alumni of other colleges to become resident graduates."[1] But requirements were lax and the degree was a post-baccalaureate rather than a genuine graduate degree. It has been said that the degree was awarded to those alumni who qualified for it by "staying alive and out of trouble for three years and giving every modest evidence of intellectual attainment."[2]

What graduates brought back from Germany and laid atop the traditional and classical structure of American education was essentially an appreciation for the new knowledge that was being discovered: natural science, engineering, mathematics, political and social science, geography, and the modern languages. With this new curriculum they brought the German concepts of the need for seminars where teacher and student work together, laboratories for research and publication of findings, and extensive library holdings.

One of these graduates returning from Europe was successful in persuading a group of educators to establish a new university in America which would concentrate upon the Germanic approach to graduate work and be distinct from the liberal arts tradition. The opening of the doors of Johns Hopkins University in 1876 represents the real beginning of graduate education in this country.

From the tension between these two concepts of education, the Germanic and the classical, comes most of the controversy which has both plagued and shaped American graduate education. There was in the beginning an argument among educators over how much of the expanding body of knowledge should be included in the curriculum and over the excessive specialization and proliferation of courses. There was then a conflict in approach between the classical liberal arts courses and the newer sciences. There was also a question over how much emphasis should be placed on original research and publication and how much on preparation for teaching. In addition, there was a controversy over the language requirement, although the controversy was not whether the requirement should exist, but rather which languages should be studied—Greek and Latin or more modern languages.

These questions have continued to be debated as more and more universities have developed strong graduate programs and more and more graduate students have enrolled. The University

of Houston, like most other universities, has fused the two approaches to learning, and has occasionally felt the tension from these questions.

The Emphasis Upon Research

One of the most frequently heard complaints about graduate education has been that too much emphasis is placed on research. The graduate school evolved during a time when science and technology were altering the shape of western culture; the key to advances in science and technology was research. Since the graduate degree was to be reserved for scholars interested in extending the boundaries of human knowledge, the graduate school adopted from its beginning the concept that research leading to new knowledge and publication of findings were the primary criteria for an advanced degree. When it was founded in 1891, the University of Chicago even announced publicly that among its purposes teaching was secondary to research.[3] The University of Houston graduate school catalogue notes: "The development of scholarship and the achievement of a critical attitude toward the literature of the field, as well as *the contribution of original work* competently presented in the form of a thesis or dissertation, are objectives of the traditional graduate degree."

Yet there are those who fear that the strong emphasis upon an original research contribution has forced the graduate school into several dilemmas. The requirement that research must lead to new knowledge has often resulted in specialization to the point of the ridiculous. The research topic is often too specific to give the student a chance to see the broader implications of his findings. (This is no new problem. Contemporaries of William Rainey Harper, founder of the University of Chicago and an ardent advocate of research-oriented graduate education, were fond of asking what else might be expected of a man who wrote his doctoral dissertation on "A Comparative Study of the Prepositions in Latin, Greek, Sanskrit, and Gothic.")[2]

Another difficulty raised by the insistence upon an original contribution to knowledge is that a student may work two or three years on a particular project only to have some other graduate student publish findings first on exactly the same subject; our scholar is then forced to start all over again on another project. This happened, for instance, to Dr. Douglas F. Muster, chairman of the department of mechanical engineering at the University, when he was a graduate student. However, he does not disapprove of the system, and feels that this requirement is one of the things which gives the degree its value. In several of the engineering departments of the University, requirements state that the thesis must be a *publishable* contribution to engineering science. "Either the degree stands for scholarship and originality," Dr. Muster comments, "or it has no value."

Another criticism is that students are hardly prepared by their research projects for whatever career they may be pursuing. Critics maintain that the graduate schools should rather prepare students according to the specific jobs they expect to go into and forget the research requirement. Students, they hold, are seeking graduate degrees as "union cards" for better jobs, and not as the esoteric emblem of scholarship.

Dr. I. E. McNeill, chairman of the accounting department of the University of Houston, has commented that if the University attempted merely to prepare students for specific jobs it would soon discover that the jobs become outmoded before the students can be graduated. It is far more important, he says, to develop in students a capacity for thought, an intellectual maturity based on curiosity and initiative. The specific research project merely serves as a means of developing and disciplining this capacity for thought. No matter what new developments the graduate may encounter in any job he may choose, this training will serve him well. Dr. C. J. Huang, chairman of the department of chemical engineering at the University, has said that graduate education is for creativity and originality.

Much of the support for research does not come from the University itself, but from federal grants or from private industry and foundations. It was university research and university scientists who discovered atomic fission and, with the explosion of the atomic bomb, both government and industry became more alert to the role which graduate education and its emphasis upon research could play in discovering and developing our resources.[3] The successful journey of the Russian Sputnik further emphasized this point, and in the last decade emphasis on research has been greatly increased. In other countries, research is often performed by independent agencies other than the university, but in America, while we do have an increasing number of independent laboratories, the universities carry the major load. Thus, it is altogether proper that government and industry should finance this important activity.

But because federal or private sources are usually willing to provide particular grants for particular research purposes only and are less inclined to sponsor open-ended projects in undirected "pure" research, there is a growing fear on the part of many educators that the graduate school may become a service facility for national research needs rather than an institution attempting to broaden students' minds and lead them into inquiry, investigation, and discovery. It is for such pure research that University funds are most urgently needed.

Support for research at the University of Houston comes from numerous educational, governmental, and industrial sources. It is apparently the opinion of the faculty that these funds do not interfere with freedom of investigation and are, in fact, mandatory if the University is to have a graduate program. In many departments University funds have been largely unavailable for research projects, and contracts from government and industry have provided the only source of research funding. Without such contract research most departments would be seriously handicapped. Faculty members actively solicit these funds, and in large measure the success of the research program is in direct correlation to the success of the department in obtaining such outside support.

While a national cry is heard that there is too much research and not enough teaching, the University finds itself with too little research and

too much teaching. The faculty at the University generally disagree with the premise that if a faculty member spends a major portion of his time on research, his teaching will suffer; most feel rather that good teaching follows naturally after good research. As George Pimentel, chemistry professor at the University of California at Berkeley, has said, "Research and teaching are like sin and confession. If you don't do any of the former, you don't have anything to talk about in the latter."[4]

Research projects underway in the graduate departments at the University are varied and fascinating. To those who are not specialists in the particular fields the titles of some of these projects are baffling: interactive processes in multiple-impact therapy — or dynamics and thermo-dynamics of two-phase liquid flow, for instance. Unintelligible as these titles are to laymen, however, they represent fundamental research into the mysteries of our universe.

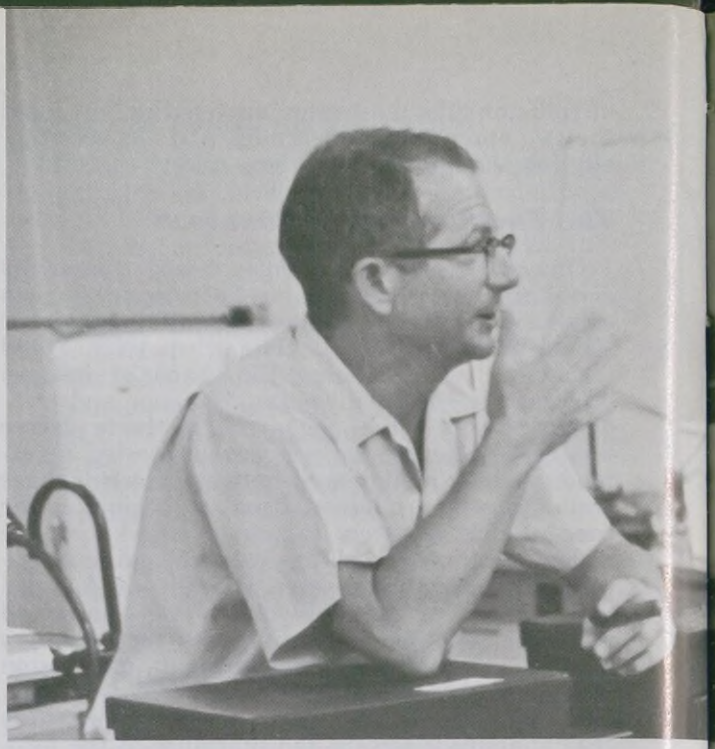
Problems in the Humanities and Social Sciences

It is in the field of the humanities and social sciences that research techniques have proven most inadequate. Oliver C. Carmichael, former president of the Carnegie Foundation for the Advancement of Teaching, has made an important contribution to solving this problem in his work *Graduate Education, a Critique and a Program.* Carmichael summarizes complaints about dissertation and research topics as follows:

"They are too detailed and trivial in scope and purpose and the type of mental discipline required; too much emphasis is placed upon facts and too little upon ideas and concepts; they are uninspiring in subject matter and unworthy of the research required for the highest academic award, the Ph.D. degree."[3]

Particularly in the area of the humanities is this true, Carmichael says. He thinks the reason is that, since science and technology brought research into the graduate school, the scientific method was accepted as the method of research for all fields. This method, involving objective measurement, observation, and controlled experiment which produce specific facts, has serious limitations for the study of the humanities. One cannot analyze a poem, determine the given number of words, lines, prepositions, or any other facts, and then be able to say absolutely why the poem is significant. The social sciences are becoming more and more "scientific" in their approach to the study of human behavior, yet social scientists are the first to admit that human reactions are based not necessarily on facts, but on values, motivations, inspiration, history, and any number of underlying factors. Carmichael proposes that research in the humanities and social sciences be designed to determine the underlying assumptions upon which human society is built.

"We are living in an age when ideological conflict is characteristic. Totalitarianism, nazism, facism, communism, socialism, and democracy have been debated constantly for 50 years. Two world wars, the Korean conflict, the founding of the UN, the revolution in transportation, in medicine, and in race relations — all these and many other social, economic and political changes have occurred in this century, yet dissertation abstracts give little hint that anything important has taken place. Perhaps the time has come for educational leadership to forsake narrow specialization and begin to direct research efforts toward basic ideas, general concepts, and issues that have relevance in the modern world. What a gold mine of material for the master's thesis and Ph.D. dissertation is to be found in the excavation of the ideas that underlie the concepts of democracy, of inalienable rights, the dignity of the individual, of justice, of freedom in all its forms, of the rights incorporated in our bill of rights, and many others that are the motivations of a free society. A tracing of these concepts in the history, literature, and philosophy of our culture should provide the core of the liberal arts college and a sound approach for graduate study in the field of the humanities."[3]



The insight and creativity required for the type of research which Carmichael suggests might be one significant answer to this important problem of too narrow specialization, and might help to produce what has been called a "broad man sharpened to a point."[5]

At the University of Houston, as at many other institutions, graduate programs in the areas of the humanities and social sciences have not emerged as rapidly as those in science and engineering. In fact, there are no Ph.D. programs at all in the humanities, and some of the master's degree programs in that area have very slight enrollment.

The departments of English and history are the exceptions, having the largest enrollment and more graduate faculty than any other departments. The English department was one of the first graduate programs organized at UH. Dr. R. Balfour Daniels, who is now Dean of the Graduate School, taught several of the first graduate English classes. The history department, having done much significant work, currently has a NASA contract for the preparation of a history of Project Mercury. The music department also has a strong master's program which will be improved still more this fall when Clyde Roller, assistant director of the Houston Symphony, joins the University faculty.

In the field of the social sciences, the two strongest departments are psychology and economics. The psychology department was the first department at the University to offer a Ph.D. Research activities are outstanding, entrance requirements are strenuous, enrollment is limited,

and the graduate program is recognized nationally. The Ph.D. program in economics is younger, but has already made a substantial record.

Certain other departments in the humanities and social sciences have suffered from inadequate enrollment of students and a resulting lack of variety of courses offered. Substantial progress is being made in all departments, however, and as library holdings and additional facilities and funds are made available, all programs will be strengthened.

Preparation for Teaching

Graduate education has generally had as one of its purposes not only the producing of scholars, but also the training of teachers. We may hope that the two are not antithetical, yet there are those who say that teaching methods should differ for the one or the other. Colleges of education have always held that because a man is a scholar does not necessarily mean that he knows how to teach. Others have taken the position that if a man knows his subject matter and is a creative practitioner in his field, he will be able to teach effectively without having had methods courses. Since college and university teachers must have advanced degrees, they have generally answered this question for themselves according to the type of degree which they have attained. The holder of the doctor of philosophy, the Ph.D., is recognized as a scholar and researcher in a partiular field who may or may not be a good teacher, while a doctor of education, the Ed.D., is recognized as an educator highly qualified as a teacher while he may or may not be a specialist in a particular subject area.

It is clear to most educators that colleges and universities will soon need about twice as many teachers as are being produced. In a very real sense, the future of education in this country depends upon the number and the quality of graduate students which our universities produce to man the classrooms and administrative offices of institutions across the country. The failures of the graduate school will be reflected in failures all along the line in the schools which those graduates go into as teachers and administrators. Whichever way the student chooses to prepare himself for teaching, whether with a Ph.D. or an Ed.D., he will need much the same equipment, a basic knowledge of subject matter, a continuing interest in new knowledge in the field, and an ability to inspire his students with enthusiasm for learning.

When University of Michigan President James Burrill Angell was inaugurated in 1871 he stated: "I fear that the public do not sufficiently understand that the essential thing in the University is men, both in the students' seats and in the professors' chairs . . . Wherever such pupils and such teachers are pursuing the most generous culture of a civilized age, there are the essential constituents of a university, though as in Bologna in the 13th century the instruction be given in private houses of the most modest structure . . . The youthful Plato hanging on the lips of the bare-footed Socrates in the streets of Athens—can we find in the world a picture of a more fruitful university culture than that?"[1]

Unfortunately all too few teachers succeed in providing a fruitful university culture. Perhaps the most basic reason lies with the preparation for teaching which they have received in the graduate school.

The College of Education at the University of Houston offered one of the first graduate degrees, and continues to produce more graduates than any other department. Dr. Arvin N. Donner, dean of the College of Education, taught one of the first graduate classes offered at the University in 1939. He still has the yellowed roll book in which the names of the 24 individuals who were in those two classes are neatly written in ink. He also has the list of 656 graduate students enrolled in the College of Education last year, and that was made by a computer on page after page of IBM sheets.

One hundred seventy persons have obtained the Ed. D. degree at UH. Of that number seven are

now college and university presidents, 18 are administrative officers in colleges and universities, and 60 are college teachers. Fifty-five are officials in public schools. That in itself constitutes quite an impressive record for the College. The faculty, however, are still not satisfied. They feel that, among other things, more research should be done by graduate students. Plans for an education research center, with a laboratory school where teaching-learning concepts may be tested by faculty and graduate students, are now being considered.

Because of the large number of students in the College, the classes are sometimes large and not enough individual faculty-student contact is possible. It is estimated that the demands upon the College will triple or quadruple in the next 5-10 years. The administration is making every effort to solve these growth problems while continuing to produce qualified teachers.

Most of the other colleges and departments at UH which offer graduate programs consider that a sizeable portion of their graduates will go into teaching. Some of these students are prepared for their teaching responsibility through teaching fellowships and assistantships. It is well known that a good graduate program depends upon competent graduate students, and good graduate students frequently go to the school where they obtain the best offer of assistantships or fellowships. Every department at the University offers these grants to graduate students. Yet there is an increasing need for fellowships and assistantships, and the apparent concensus of opinion at the University is that not enough have been available in the past.

The National Defense Education Act has provided funds for fellowships upon qualification which support a student for three years. The department of chemical engineering at the University,which has one of the most outstanding graduate programs on the campus, has received ten of these fellowships, more than all the other departments combined. In fact, during one year the department received four NDEA fellowships—the largest number that NDEA ever gave to any department at any university.

Hopefully, the number of these and other grants will increase as the departments are strengthened with additional facilities.

Need for Additional Facilities

An area of most urgent need for the University graduate programs arises from lack of adequate facilities. Almost every department reports that its expansion of graduate programs — in scope, in quality, and in numbers of students — depends upon the provision of additional facilities. This would include office space for both faculty and graduate assistants, classroom space, laboratory space and equipment, libraries, and provision of additional staff. In almost every department faculty members have research projects "tucked away in the top drawer" waiting for the opportunity—which is to say the space, funds, facilities, and time—to undertake them. Until the University solves this problem it will continue to have difficulty on a competitive national basis attracting excellent faculty, students, or research contracts to the campus. The University is now involved in a $30 million building program which will soon

Dr. Hugh Freebairn, UH department of biology, conducts his research in the science building. (See Editor's Comments, page 1.) All too often, lack of space presents a real problem to expansion of UH graduate programs.

afford additional space and equipment, and this will greatly alleviate the problem.

The research facility most needed by the humanities is additional library resources. The library is the laboratory for the student of history or literature or other liberal arts fields. Complete collections, rare books, and first editions, as well as monographs, letters, and other such source material, are necessary tools for the graduate student in the humanities.

As the body of knowledge in all fields expands, there is a growing need for additional library resources, not only for the humanities, and social sciences, but for the sciences as well. The University of Houston Libraries is on the verge of the greatest expansion in its history, but at the present is barely adequate for some of the graduate programs, although it has excellent holdings in other areas of graduate study. Construction has begun on an eight-story addition to the library which will permit more than triple the present holdings and will contain excellent facilities for graduate students. Dr. Edward G. Holley, director of University libraries, is recognized by his collegues as almost a wizard at acquiring rare and hard-to-obtain volumes, and it is expected that as soon as he has the place to put them and the expected increase in funds with which to purchase them, the needed library resources will be available to the graduate departments.

In submitting proposals for doctoral study the departments of history, English, and political science estimated that almost $300,000 would be required on a one-time expenditure to provide adequate library resources for their doctoral programs. After that, of course, additional funds will be required each year. It is hoped that the library holdings will be adequate to support doctoral programs in these three areas by 1967-68.

It should be pointed out that the faculty of the school has made a most admirable record in the face of any negative conditions. One department chairman who has been at the University for several years has commented that it is a case of the entire graduate school's having done the most with the least amount possible. Another remarked that his department's method of operation was first to set the goals, without regard to resources avail-

able, and then to generate enough force to acquire the needed resources.

The reason for the lack of facilities is, of course, due in large part to the relative newness of some of the graduate programs, and to the rapid expansion in enrollment. This same newness is one of the attractions for faculty. Dean Kirkpatrick has said, "The administration makes it easy for a department to establish its own programs. New faculty coming in know that they will have the opportunity to develop a new system, whereas in older schools there are often already rigid well-established patterns and less opportunity for new development."

One of the most common criticisms of graduate schools everywhere is their resistance to change; apparently UH is not subject to this criticism. Most other faculty share Dean Kirkpatrick's view and are certain that as soon as space problems are solved, the time and funds will be made available for expanded programs.

Overcoming Obstacles

There are many areas in which the University of Houston is more advanced than some other graduate schools. For instance, a common complaint against the system of graduate education is that there is too great a lag between the B. A. and the M. A. or the Ph.D.

At the University of Houston there is an absolute time limit of eight years in which to obtain the master's degree, and beginning in 1966, this will be changed to five years. Dr. Muster has commented, "If the degree takes more than five years, someone is misleading the student. Either standards are too rigid or the student is too weak."

One reason why the degree takes so long is that so many candidates are part-time students, working to support their education. Nationally, some 60% of all graduate students are part-time students. This has been a particularly serious problem at the University where some 80-90% have been part-time. Almost every department has been forced to offer many if not most of its classes at night. The College of Business Administration, for instance, has offered almost all of its graduate courses at night. This has seriously hampered the development of the "environment of scholars" so necessary for graduate students. Most departments are now scheduling fewer and fewer courses at night and are insisting that, as admissions become more and more restricted, graduate students be full-time day students. Already, in the departments of psychology, 85% of the Ph.D. candidates are full-time. The mathematics department and several others will offer no further graduate courses at night. While this will make it more difficult for some individuals to obtain degrees, it will vastly improve the graduate programs.

Another move toward progress is cooperative effort, both between departments and between schools and other agencies. Dr. Lester E. Harrel, Jr., former director of the Texas Commission on Higher Education, has stated that one way to start a broad quality increase in graduate-level programs would be cooperative agreements in instruction, library, and research not only among state-supported schools, but also among private institutions.

At UH this is already being done. The psychology department, for instance, is outstanding in its cooperative work with the Baylor School of Medicine, the University of Texas Medical School, the University of Texas Dental School, the Veterans Administration Hospital, the Texas Institute of Rehabilitation, and others. There is a close cooperation between Rice University and the University of Houston libraries. An African studies program may soon be established with Rice University, Texas Southern University, and St. Thomas University. The Ph.D. program in bio-physical science represents an inter-departmental program. Other departments work closely together. "There are no high fences between discplines here," says Dean Kirkpatrick.

The worth of any graduate program, of course, lies in the quality of the faculty. There are many reasons to believe that the University is moving into a position of strength in its graduate faculty. While the administrators continually scout for additional qualified men, the present faculty has achieved admirable records.

For instance, every graduate faculty member in the chemical engineering department has a National Science Foundation grant, and the department has had these grants for over ten years. This continuity of support indicates the effectiveness of the research conducted. Further, the chemical engineering faculty have won the Texas Section-American Institute of Chemical Engineers annual publication award more often than any other school or industry, in spite of the fact that UH has been a member for a shorter time than most of the others. Chemical engineering, psychology, chemistry, and other faculty lecture at international meetings, and at other universities, and in general have shown that UH has a competent and often excellent faculty. The administration is in the process of bringing other figures of international reputation to the campus.

One might summarize this overview of the graduate programs at the University of Houston as follows. The graduate programs, though relatively new, are surprisingly strong. As additional physical space, library resources, laboratory facilities, staff, faculty, and full-time students are increased, the graduate programs will gain even more prominence. In the meantime, while there are areas of recognized mediocrity, there are also great strengths and sources for much pride.

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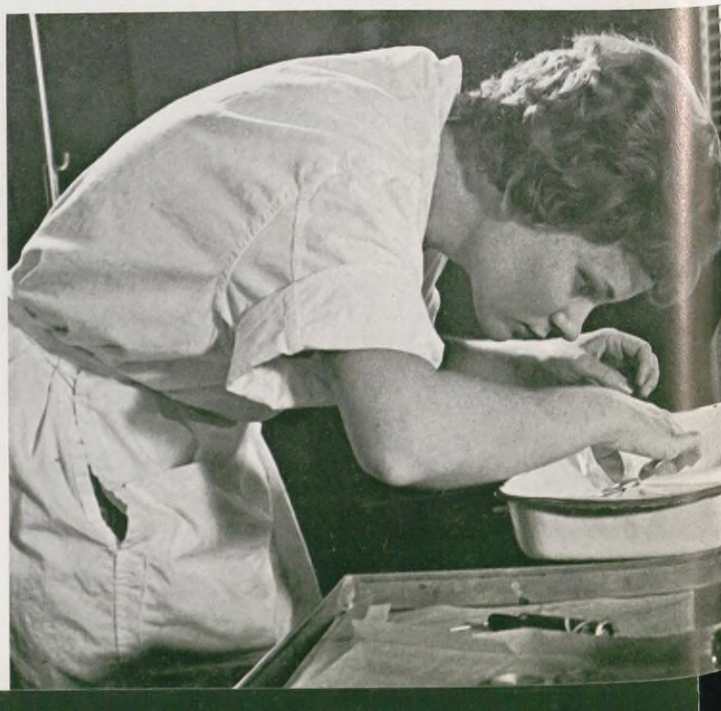
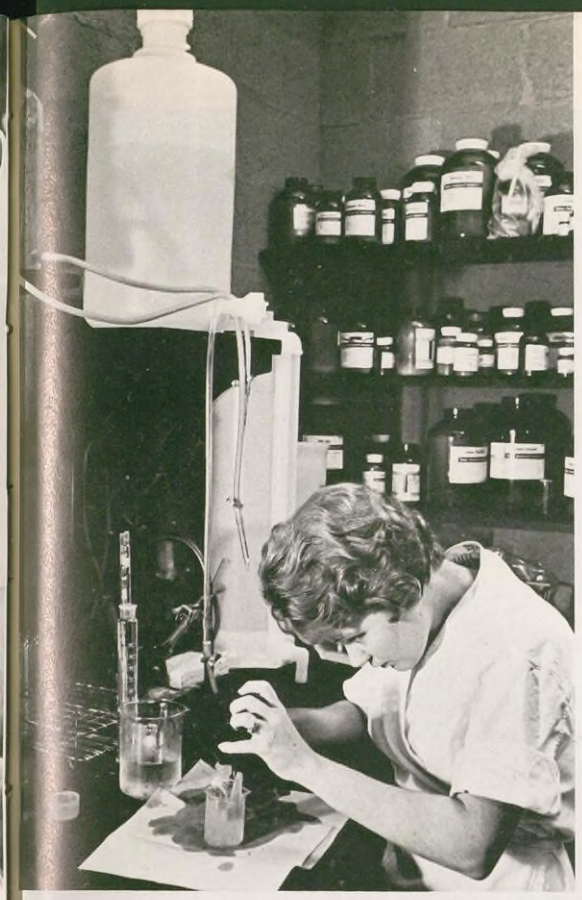
[1] *Studies in Early Graduate Education.* The Carnegie Foundation for the Advancement of Teaching, Bulletin #30 (1939).
[2] Bernard Berelson, *Graduate Education in the United States* (McGraw Hill Book Co., Inc., 1960).
[3] Oliver C. Carmichael, *Graduate Education, a Critique and a Program* (Harper and Brothers, 1961).
[4] *Look Magazine*, February 23, 1965.
[5] Ernest V. Hollis, *Toward Improving Ph.D. Programs* (Washington & Sons, Inc., 1962).
[6] *The American College.* Nevitt Sandord (ed.) (New York: John Wiley & Sons, Inc., 1962).
[7] Mary Bynum Pierson, *Graduate Work in the South* (University of North Carolina Press, 1947).

DISCOVERY

A story in pictures of a student's exploration of the unknown. *Photos by Dick Kenyon*

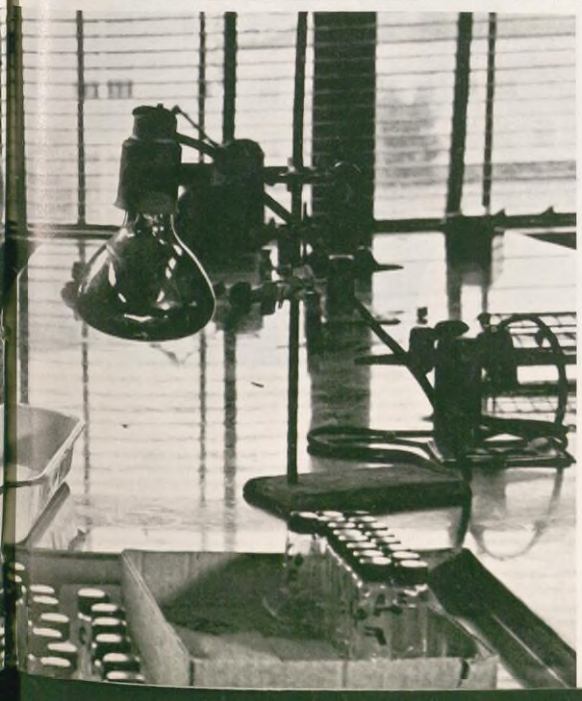
Mary Lynn Greer is a graduate student in the department of biology at the University of Houston. One of the requirements for her degree is research leading to the discovery of new knowledge. Mary Lynn chose to work with Dr. Addison L. Lawrence in a pure research project attempting to discover the process by which organisms actively transport materials through tissue. It was first shown in 1900 that vertibrates, including man, utilize energy in the uphill process of moving materials from a lower to a higher concentration in order to use them for life functions. The actual means by which this occurs has never been determined.





Mary Lynn and Dr. Lawrence hope that by using a sea cucumber, an invertibrate in which the mechanism should be more primitive and less specialized, they may discover some clue to how this process occurs. Mary Lynn is attempting to show that there is transport of a particular material, the amino acid glycial, into the tissues of the sea cucumber. The sea cucumber lives only in the ocean. The ones used in Mary Lynn's experiments are shipped from California. They are kept in acquarium tanks at 7° centigrade.

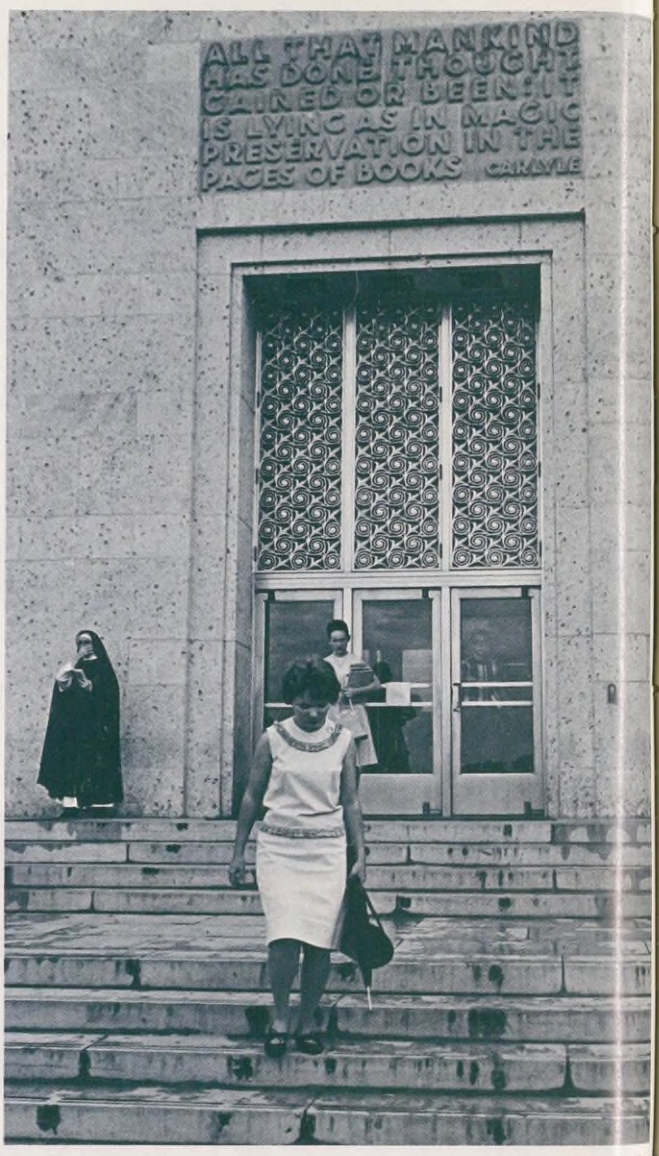
Mary Lynn must have segments of tissue in order to conduct the experiment. She cuts into the animal, extracts the gut, inverts it, and isolates segments of tissue. She prepares the amino acid by tagging it with a radioactive form of carbon. She then places the tissue and the radioactive

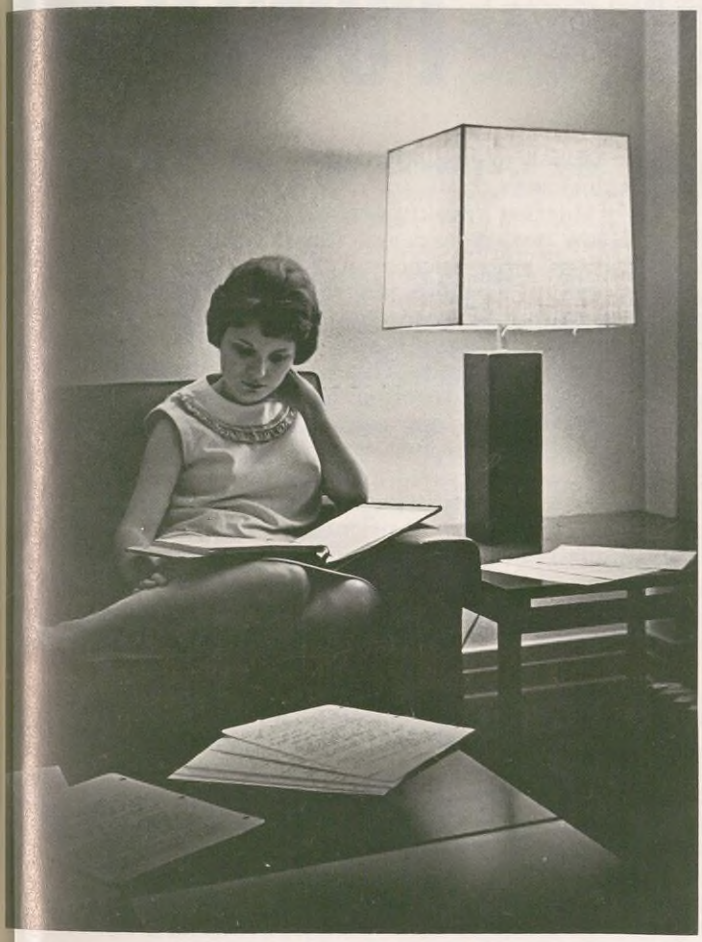


amino fluid in flasks in a machine designed to control the conditions of the experiment. After varying and specified lengths of time, she removes each segment of tissue and places it in ethyl alcohol which extracts from the tissue whatever amount of radioactive amino acid may have been transported during the experiment. This she places on little plates, drys up the alcohol under an infra red lamp, and has left a residue which is the transported radioactive amino acid.

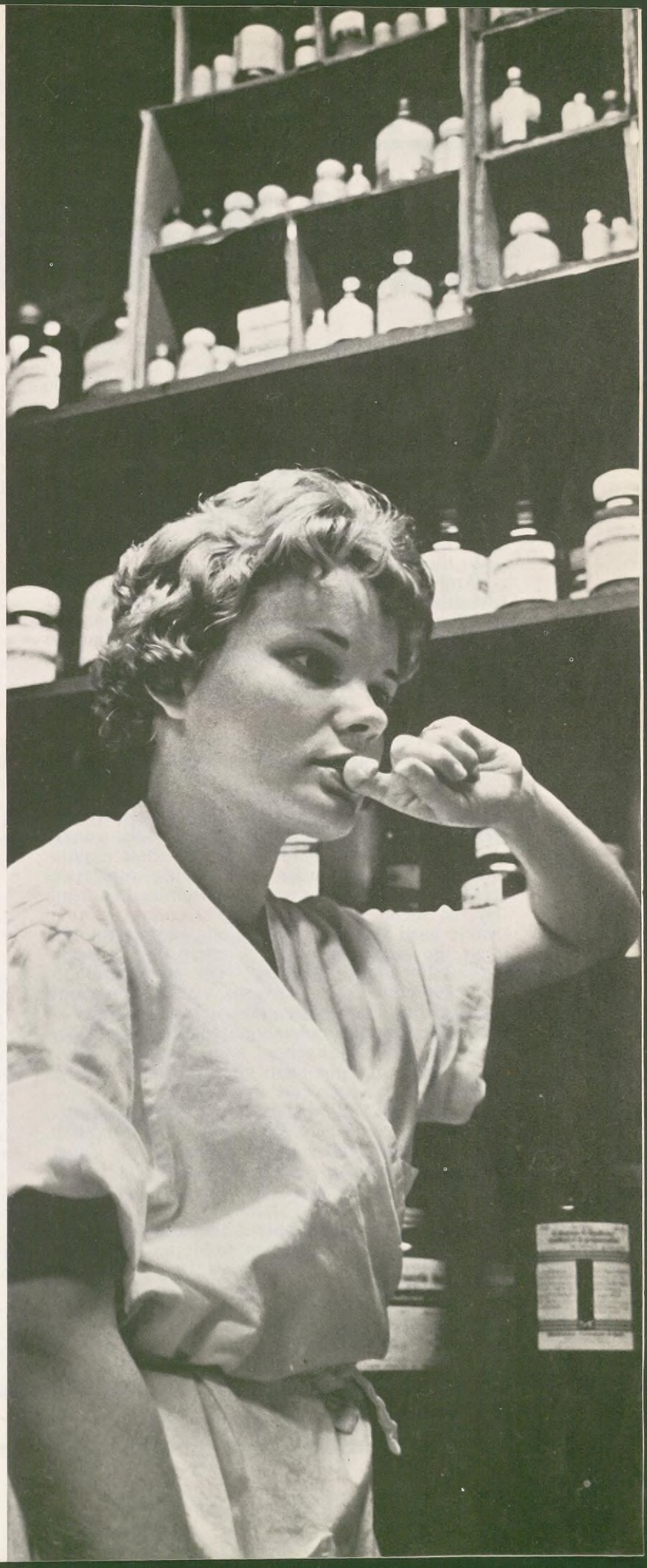
In order to determine the amount which was transported into the tissue, she uses a geiger counter which automatically determines the level of radioactivity. Thus, she is able to tell not only that amino acids are transported into the tissues of the sea cucumber, but how such movement occurs within a certain amount of time and under varying conditions.

Mary Lynn is also a teaching fellow. She teaches nine hours per week. She spends some of her time in library research. She often works late into the night on her experiments at the lab or in her studies at home. Eventually she will describe her discoveries in a written thesis. Mary Lynn and Dr. Lawrence believe that their experiments have proven that transport does occur in the sea cucumber. They hope that they will eventually know how it occurs.





They describe their project as pure research — to obtain information about this particular form of life — but if they are successful in determining how the primitive sea cucumber transports materials, they will have made an important contribution to applied research, providing a key to unlock the mystery of a similar mechanism in man.



SHIFTS IN POWER ON

Justice Arthur Goldberg has just resigned from the Supreme Court to become the U.S. Ambassador to the United Nations. What effect has he had upon the Court in his short time there? In 1964 a UH graduate student analyzed in his master's thesis the changes which resulted from

The United States Supreme Court has had an important role in the shaping of American democracy. One hundred and sixteen years ago the French aristocrat Alex de Tocqueville wrote, "Scarcely any political question arises in the United States that is not resolved, sooner or later, into a judicial question."[1] Another writer states that "for an institution with neither purse nor sword, which is supposed to subsist on the dry bones of the law, the United States Supreme Court has an amazing record for insinuating itself into the vital areas of our lives."[2]

And indeed it does. For no matter how one describes the relationship of the Supreme Court to American democracy—be it called the conscience of the nation, a national schoolmaster or a continuing constitutional convention—it is still the national arena in which the central problems of a free society are reflected.

The impact of the Supreme Court on almost every aspect of the American way of life is dependent on how the members of the Court interpret the cases that come before them. It has long been recognized that statutes are rarely drawn up in such a manner as to be clearly and obviously in violation of the Constitution; usually there is room for discretion. Under these circumstances, the factors upon which a judge constructs his decision may very well be determined as much by his social and economic philosophy as upon sound legal precedent. When one accepts the fact that the "meaning of the Constitution is determined by counting noses,"[3] the membership of the Supreme Court becomes vitally important. The addition or subtraction of one member of the Court can completely alter the Court's decision-making equilibrium, and profoundly affect the course of American jurisprudence. This is precisely what happened in 1962.

Late in the 1961 session of the Supreme Court, Justice Charles Evans Whittaker, a conservative, retired after a relatively short time on the Court. At the end of the session, Justice Felix Frankfurter, under a doctor's orders, retired after serving for 23 years. Justice Frankfurter was considered in many circles to be one of the most influential and distinguished men ever to sit on the Court. In the early years of the New Deal he aligned himself with the activist side of the Court, but by 1941 he had shifted to the conservative side.[3] In his later years on the Court, he became the acknowledged leader of a conservative bloc of justices who were usually able to dominate the Court's decisions.

One of Justice Frankfurter's colleagues, Justice Hugo Black, was a leader of the minority bloc of four justices who advocated a more liberal or activist point of view, holding that the first amendment guarantees of freedom of speech, press, and religion are absolute rights which neither Congress nor the state can limit. This philosophy upholds social legislation and action by the federal government if they do not conflict with individual liberties. Unlike Frankfurter's philosophy that the Supreme Court decisions must be restricted to a role limited by Constitutional and legislative laws, the Black philosophy is oriented toward a more individualistic interpretation of the laws according to a sense of justice and injustice.

For years Justice Black and Justice Frankfurter battled back and forth on the Court over which of the two philosophies should prevail. With the backing of Justices Harlan, Stewart, Clark, and Whittaker, Justice Frankfurter had usually prevailed. Black and the liberal justices lived through a long dry spell. The Court did, of course, render liberal decisions; but they were, for the most part, of a very limited nature. Far-reaching decisions were scarce.

Then in 1962 the leader of the Court's conservatives was gone: the liberal leader remained. As scholar and partisan alike awaited the result, two new members took their places on the Court.

President John F. Kennedy appointed Byron R. White to the vacancy created by the retirement of Justice Whittaker and Arthur Goldberg was appointed to fill the vacancy caused by Justice Frankfurter's retirement.

Justice White had served as Deputy Attorney General of the United States and as one of President Kennedy's chief political strategists in the West before being appointed to the Court. He was born in Wellington, Colorado, where his father was a lumber dealer and mayor. While attending the University of Colorado as an undergraduate, White was both an outstanding scholar and athlete. He was elected to Phi Beta Kappa, was a Rhodes Scholar, attended Oxford Law School, graduated from Yale Law School *magna cum laude* in 1946, and played professional football for the Pittsburg Steelers and the Detroit Lions. His party affiliation is Democrat. Before coming to the Court he had numerous ward posts up to 1960 when he became head of both the

THE SUPREME COURT

the appointment of both Goldberg and Byron R. White to the Court in 1962. A summary of his conclusions are presented in the following article which describes the emergence of a liberal majority on the Supreme Court.

by Harrell R. Rogers, Jr., Political Science '64

Colorado for J.F.K. Committee and the National Citizens for J.F.K. Committee. His religious affiliation is Episcopalian.

The parents of Arthur Goldberg were Jewish immigrants. Goldberg, one of eight children, knew poverty as a child. He managed to stay in school although his mother was widowed when he was three years old. After high school he attended Northwestern Law School, graduating *summa cum laude* in 1929. He was admitted to the bar the same year although he was not then 21 years old. For some thirty years he practiced law in Chicago and served as general counsel to the Congress of Industrial Organizations and the United Steelworkers of America. He was one of the chief men in the negotiations that precipitated the AFL-CIO merger. In 1961, he became President Kennedy's Secretary of Labor. His political affiliation is Democrat. From time to time he has been active in his party.

This was the lineup of the Court in 1962 when it opened a new session. During that term oral argument was heard in 151 cases. Of these, 49 were civil liberties cases and 63 were economic cases.

In the civil liberties cases a liberal bloc of judges emerged on the Court composed of five justices: Chief Justice Warren, and Justices Black, Brennan, Douglas, and Goldberg. This bloc dominated civil liberties decisions and as a result substantial advances were made in the area of Constitutional law. Significant changes occurred in the area of civil liberties. The first amendment rights of freedom of expression, assembly, and religion were extended. In criminal cases the rights of the accused received stronger attention. In race relations the Court continued to maintain a progressive attitude in its decisions, which were marked by a high degree of voting agreement among the justices. The Court extended even further the federal authority over state authority. Many a decision in civil liberties cases in the last few years has reflected a struggle in the Court over two basic issues: the proper role of the Supreme Court and the role of the Bill of Rights in American democracy. The civil liberties decisions in 1962 reflect a liberal and activist philosophy. The addition of Goldberg to the Court made a majority for this philosophy. Justice White was conservative.

Ever since the New Deal, the Court has upheld government regulation of business and the federal government's economic programs. The addition of Justices Goldberg and White to the Court merely added two more votes to sustain this position. Justice White is much more activist in economic cases than Goldberg, who is quite activist in civil liberties cases while White is more conservative.

Thus, it is apparent that because of the change in membership on the Court in 1962 the liberals on the Court gained control and the Court was dominated by two activist majority blocs which were drawn on economic and civil liberties lines. Justice Goldberg joined Justice Black and the other three liberal justices to produce the majority in civil liberties cases, and they were joined by Justices White and Clark for a liberal majority in economic cases.

Although Justice Goldberg swung the precarious balance of the Court to the liberals in civil liberties cases, his decisions and stands do not seem to be those of vehement liberalism. In fact, in some economic cases he shows that he prefers not to nullify state action unless it conflicts seriously with federal action. In labor cases, an area in which many observers felt that Goldberg would be the most vehement in his liberalism, he shows a determination to afford labor what he deems to be its proper protection, but he does not write forceful opinions upholding labor, and in two cases, he dissented against the worker.

Justice White seems determined to be an activist in economic cases and a conservative in civil liberties cases. Considering his voting record in the 1962 term, very litle change may be expected from him in the future.

It is obvious that the trend of the Court in 1962 was activist. More and more, the Supreme Court seems to have accepted the role of acting as the conscience of the country. Its decisions set the pace that will be followed in American jurisprudence. When other elements of government fail to solve obvious problems, the Court takes up the battle. In the area of economics, the trend can be expected to continue for quite a while, because the Court had a healthy majority in this field. In civil liberties, the majority is more precarious and in the future the balance of the Court could incline either way.

[1]Alex de Tocqueville. *Democracy in America*, 2 vols. Phillips Brandley (ed.) (New York: Knopf, 1946), I, p. 280.
[2]M. J. Pusey, "Struggle Inside the Supreme Court," *Saturday Evening Post*, October 6, 1962, p. 22.
[3]C. Herman Pritchett, *The Roosevelt Court: A Study in Judicial Politics and Values* (New York: The Macmillan Company, 1948), p. 22.

BILLBOARD

ALUMNI NEWS

Education

Judy Ann Gidden has been appointed educational missionary to West Brazil by the Presbyterian U.S. Board of World Missions. She will teach missionaries' children and will go to West Brazil early this fall. She is a member of the Oaklawn Presbyterian Church in Houston.

Dr. Harold F. Landrith, Ed.D. '60, has been appointed dean of the Clemson University School of Education in Clemson, South Carolina.

Dr. R. B. Cutlip, president of the William Woods College in Fulton, Mo., received the honorary degree of Doctor of Laws from Bethany College in Bethany, West Virginia. Prior to his appointment as president of William Woods College in 1960, Dr. Cutlip was director of the Graduate Division of Chapman College in Orange, California. He is also former director of counseling at UH.

Miss Lelia V. Matthews, '46, a teacher of vocational home-making and music, left for Turkey in July to become a member of the overseas staff of the United Church of Christ. She will serve as director of residence at the American Academy for girls in Uskudar, a suburb on the Asiatic side of Istanbul.

James C. Vick, '51, is now teaching at Helms Elementary School in Houston. He was a recent contributor of a special feature article on chalked stencil art in *The Instructor Magazine*.

James A. Dean, '55, branch supervisor of components engineering of Thiokol Chemical Corporation in Marshall, Texas, has recently been accepted as a member of the American Society of Mechanical Engineers. His company is contractor-operator of the Longhorn Army Ammunition Plant, where solid fuel rocket motors for the Sergeant Missile System, the Nike-Hercules Missile System, and both stages of the Pershing Missile System, along with pyrotechnic signals for the Army, are constructed. Dean was also listed in Who's Who in the South and Southwest for 1965-66.

Brooks Nolan, '64, recently arrived in a small, remote Army installation on the island of Hokkaido, Japan, and found a fellow alumnus there. Floyd Parker, '54, had preceded Brooks by several months at the installation. Both were surprised at meeting a fellow alumnus at such a remote spot. Brooks is a second lieutenant in the Army Security Agency. Floyd is an engineer with LTV Electrosystems, Inc., of Greenville, Texas.

J. D. Kimmel, '53, has been elected a director of Struthers Thermo-Flood Corporation, Tulsa, Oklahoma. He is also vice president in charge of engineering for the company, with offices in Houston. He is a former All-American football player, and was lineman for the Green Bay Packers and the Washington Redskins.

Law

Richard Haynes, '59, and Donn Fullenweider, '58, have formed a partnership with offices in the Houston First Savings Building in Houston.

Billy E. Lee, '51, has joined the firm of Prappas & Rowland in the J. Robert Neal Building in Houston.

Arts and Sciences

Greg Robinson, '64, wrote resently that he has returned to Victoria, Australia, to do personnel work in industry there. Another alumnus in Victoria, Geoffrey M. Walker, '64, recently won the Australian open 6-miles championship.

Arthur D. Holler, '65, has been commissioned a second lieutenant in the Air Force upon graduation from Officer Training School at Lackland AFB, Texas. He has been assigned to an Air Defense Command unit at Tyndall AFB, Florida.

James F. Palmer, '46, former professor of graphics arts and communications at UH, has written a handbook explaining the streamlined metric system adopted by 36 nations at the 11th General Conference of Weights and Measures in 1960. There are more than 80 units of weight and measure in the conventional system commonly used in the U.S., while the international system has only six primary units — the meter for length, the kilogram for mass, the second for time, the ampere for electric current, the Kelvin degree for temperature, and the candela for light density.

Henry J. Jisha, '54, assistant professor of speech at the University of Cincinnatti, has been named one of the ten outstanding speech instructors in the central states area for 1965 by the Speech Association of America's Central States district. He is working on his doctorate at Wayne State University in Detroit. He moderates a Sunday afternoon discussion program on Cincinnati radio and is coordinator for the UC evening college's annual speech convocation. He also serves as a consultant with the Cincinnati Speech and Hearing Center.

Technology

Collin F. Cain, Sr., '63, now living in Denver, Colorado, is in the furniture and fixture business. He writes that among his major clients are several airlines in Denver. He as also associated with the Dale Carnegie Association in Denver.

Business

Rudolph C. Strouhal '49, a major in the Air Force and a veteran of 20 years active service, has been named to direct the training program for nearly 1200 officers and airmen in Air Force Reserve units in four states — Washington, Oregon, Idaho, and Montana. He holds 11 decorations including the Distinguished Flying Cross and the Air Medal with three oak leaf clusters. He has logged some 4,000 hours of flying time. Major and Mrs. Strouhal, the former Mary E. Goodson, whom he met at UH, live

in Vancouver, Washington with their three children, Steve, Wayne, and Joan.

B. B. Browning, '49, has been named sales manager of Wier Homes, Inc. in Houston. Prior to this appointment he owned Browning Rubber Clad Products in Detroit, which he sold before moving to Houston. He lives with his wife and daughter in Houston.

M. B. "Barney" Kent, '53, Houston area branch manager of the Saunders System Corporation, truck rental and leasing, has been elected Texas State Director of the Car and Truck Renting and Leasing Association at the annual convention held in Chicago. He is currently state president of the Texas Car and Truck Renting and Leasing Association. He is married to the former Carolynne Bond, M.Ed. '63, and they have two sons, Bernie, and Eddie.

ASSOCIATION NEWS

Engineering

The Cullen College of Engineering Alumni Association Board of Directors met recently to nominate new officers for the board for the year. Candidates included: President — Leonard Lock and Wayne Dessens; Vice President — Bobby Schwartz and James Ellis; Secretary — Fred Gentile and Jim Bodmer; Treasurer — Wayne Phillips and Merle Schwartz; GEA Board — Pat McLaughlin, John Whalen, Jim Harmon and Wyatt Jones; Federation Board–Bill Hershey and Jim Martin.

Optometry

The College of Optometry Alumni Association Newsletter announced recently that a post-graduate course will be held at UH during homecoming November 6. Suggested topics for study included demonstration and discussion of instruments and techniques for detection of glaucoma, contact lenses, developmental vision, stereo refraction, and practice managment.

Federation

Dr. Louis H. Green, surgeon, Hermann Professional Building, has been elected president of the UH Alumni Federation. Dr. Green, elected for a two year term in a recent board of directors meeting, replaces Harry Hedges, vice president of Horton and Horton Building Materials Company. Other new Federation officers include John L. Moncure, attorney with Butler, Binion, Rice and Cook law firm, vice president: Leonard Locke, engineer at the NASA Manned Spacecraft Center, secretary, Ben Schleider, Texas National Bank Building, treasurer.

CAMPUS NEWS

Amendment One Supported

Houston and Texas voters will have an opportunity to provide a great service for 17 state supported colleges and universities in the November 2 election, according to Dr. Philip G. Hoffman, president of the University of Houston.

Amendment One on the ballot, if approved by the Texas voters will permit the state to create, with no increase in taxes, a special building fund which will be allocated to state universities on the basis of their projected enrollment increases for the next 12 years.

Dr. Hoffman, who is also chairman of the Council of State University and College Presidents, has stated that these building funds are essential to Texas colleges and universities. Recent figures and projections compiled by the Texas Commission on Higher Education, bring out startling predictions for the growth of campus population. For example, students enrolled in state-financed senior institutions totaled 63,474 in 1954. By 1964, fall semester registrations in these schools had leaped to 146,673.

And, according to projections based on college-age population for 1975, the head count of students in state-supported colleges will shoot up to 300,035 — an increase of 120% in enrollment in the next ten years.

"Most of our colleges already are packed to their limits," said Dr. Hoffman, "and in view of the year-to-year increases in the number of students, expansion of existing facilities needs to be made *before* we have to turn young people away because there is no room for them. For that reason, I am firmly behind the passage of Amendment One in the November elections."

Amendment One is proposed as a constitutional measure to provide a definite and immediate source of funds for construction and equipment for 17 state-financed senior colleges and universities. Passage of the bill will not only free for other uses the appropriations now required from state general revenue, but will also put these senior institutions in line for approximately $50,000,000 in matching federal funds over a 12-year period.

"If Texas doesn't use these federal monies, they will go to other states," said Dr. Hoffman.

Dr. Garrison To Record Eulogy

RCA Victor Records has asked and been granted permission to re-

cord the moving eulogy for the late President John F. Kennedy, made at the University by Dr. Winfred E. Garrison, professor emeritus of philosophy, on a recording of twelve historic memorial addresses. Also included on the recording will be addresses by such eminent world figures as Pope Paul VI, the Archbishop of Canterbury, Chief Jusice Warren, John Masefield, and others.

Dr. Garrison's career spans several decades and professions. He is an artist, sculptor, author, educational administrator, historian, linguist, editor, philosopher, professor, and ecumenical leader. He has been at the University since 1951. He is a former president of three universities and colleges. He holds numerous academic and honorary degrees from universities including Yale, the University of Chicago, and others. He was honored at the University of Chicago Divinity School as alumnus of the year in 1963; he received his Ph.D. there in 1897.

Dr. Garrison has written many books, contributed to encyclopedias, and served as editor of several publications. He has lectured all over the world. He has served as delegate or consultant to major ecumenical conferences, including the founding of the World Council of Churches.

Dr. Garrison also delivered a eulogy at the time of the assassination of President William McKinley in 1901.

Skitch Henderson To Conduct Band Day

Skitch Henderson, musical director of the NBC-TV Tonight Show, will be guest conductor for 7000 high school bandsmen at the University of Houston's tenth annual band day show during the halftime of the UH-Chattanooga game on October 30 in the Astrodome. Henderson, who in addition to his Tonight Show performances is frequently guest conductor of several of the world's finest symphony orchestras, will lead the combined high school bands from across the state in *Giant, Johnny's Theme* (from the Tonight Show, and published for the first time for the occasion), *Let Me Call You Sweetheart,* and *God Bless America.* Henderson will lead the audience in a sing-song of *Let Me Call You Sweetheart,* with the lyrics flashed on the big Astrodome scoreboard. Jim Matthews, University of Houston Band Director, expects this to be one of the finest band days in UH history.

Engineering Dean Appointed

Charles V. Kirkpatrick has been named dean of the Cullen College of Engineering by the Board of Regents. He had previously served as acting dean since September, 1963.

Dean Kirkpatrick, who is chairman of Region Four of the Engineers Council for Professional Development, often visits engineering schools in most of the southern and southwestern states and occasionally in other regions to evaluate programs for accrediting purposes. Drawing on this broad perspective, he recently assessed UH engineering programs for *EXtra.*

"The University has the potential to become one of the best engineering schools in the country. Because of our youth, we are now significantly below this level in our overall programs. But already some of our departments are superior to any in the state and region, and we are making rapid progress in all departments. One reason is the strengthening of faculty. Recruitment has become easier as the College has expanded. We are now getting inquiries from engineering professors from all over the world. We can compete in money and rank with most other schools. The future looks bright."

The new engineering building scheduled for occupancy in 1967 will certainly be another factor in strengthening the College. The building will have three stories and a basement, housing all three Ph.D. areas — chemical, electrical, and mechanical engineering — and providing faculty and administrative offices. It will contain special research facilities, such as a sound chamber for acoustical engineering research.

The College has added several new faculty members this fall. Dr. Wallace I. Honeywell, a specialist in low temperature studies, comes to the University from California Institute of Technology and the University of Holland. Dr. H. S. Hayre, specializing in underwater acoustics and microwave transmissions, was previously with the U.S. Navy and with NASA. Dr. Sydney R. Parker will specialize in control theory; he comes to the University from City College of New York. Dr. R. D. Finch, from UCLA, will be working on several areas of engineering science, including a bio-engineering program which will relate engineering concepts to the functions of the human body. Other new faculty include Dr. S. Bart Childs, Mr. C. A. Morgan, and Professor Gabriel Fazekas.

Dean Kirkpatrick received a B.S. in petroleum engineering from Texas A & M and an M.L. from the University of Houston. He entered University service in 1947 and served as chairman of the division of chemical-petroleum engineering from 1959-1962.

New Business Dean Active

Dr. Ted R. Brannen, dean of the UH College of Business Administration since June 1, has gone right about the work he described for *EXtra* recently as "developing all the vast potential available to the College so that we may bring to our business students the broadest perspective and the most professional approach."

Dean Brannen commented that 15 years ago schools of business generally restricted themselves to the training of clerks, but that today emphasis upon production and organization theory, management, quantative decision-making, psychology, international business, and other items included in the curriculum have reshaped business education. Because of rapid scientific, technological, and economic change, business students must now be trained, Dean Brannen said, to organize and use effectively whatever resources may be available to them, and this training is aimed at the whole career, not just at the first job or any one particular job.

Demonstrating his determination to develop all the potential available to him, Dean Brannen has already met with numerous groups from business, industry, and educational circles, such as the College of Business Administration Alumni Association, the Association's goals and objectives committee, certain retailers in Houston, and recently he met with more than 15 Houston bank presidents and administrators to discuss the study of finance.

Among his colleagues on the faculty of the College of Business there is an air of excitement and expectancy. Talking with them, one senses that they have been given encouragement to move ahead with projects and programs they have been hoping for and thinking about for some time.

Dean Brannen has a broad background in education, government, and industry to bring to his new position. He received his B.S. in economics, management, and engineering and his M.S. in management and economics at the University of

Arkansas, and his Ph.D. in economics and anthropology at the University of Texas. He has served as vice chancellor of the University of Kansas City and dean of the school of business administration there. He was assistant to the president for university affairs of the Graduatue Research Center of the Southwest and director of the Institute for Graduate Education and Research. He was chairman of the department of general business at Oklahoma State University, professor in managment at the University of Florida, and assistant professor at Arkansas, Texas A & M, and the University of Texas. He was also industrial relations adviser for Arabian-American Oil Company, economic analyst for Texaco, Inc., and economist and chief of the Economic Analysis Branch of Region 10 of the Office of Price Stabilization. He has written several books dealing with various aspects of business, economics, and management.

Kirby Papers Acquired

On November 12, 1901, in the main ballroom of the Rice Hotel, was held "The Greatest Banquet Ever Held in Texas" (according to headlines in the *Houston Chronicle*) in honor of Houston entrepreneur John Henry Kirby. Kirby had just formed the largest corporation ever chartered in Texas at that time, the Houston Oil Company of Texas, as well as the Kirby Lumber Company, and was honored and acclaimed with lavish tribute by the banquet guests including the governor of the state and many other dignitaries. The banquet menu was a thing of delight, ranging from absinthe and caviar to camembert and cigars. Fourteen formal addresses and eight impromptu toasts were delivered. Then Kirby himself rose to tell his neighbors that the oil company would own over a million acres of East Texas land and would

engage in oil exploration and development, while the lumber company would purchase some sixteen sawmills and have a manufacturing capacity making it the largest single lumber manufacturer in the South.

John Henry Kirby's success story, which has been told by UH instructor John O. King in a book entitled *The Early History of the Houston Oil Company of Texas,* began on a little farm near Peachtree Village deep in the Piney Woods of East Texas. Kirby remarked years later that he was 12 years old before he saw a railroad. He was educated in one-room schools in Tyler County. But under the tutelage of Judge S. Bronson Cooper of Woodville, Kirby attended Southwestern University, became calendar clerk of the Texas Senate, was admitted to the Bar and began to practice law. Later he formed the Texas Land and Lumber Company; the Texas Pine Land Association; the Gulf, Beaumont and Kansas City Railroad, and various other enterprises. But the formation of the Houston Oil Company of Texas and the Kirby Lumber Company, which he accomplished with the backing of Eastern financiers, was the most impressive accomplishment of his career. In spite of litigation and receivership, of conflict with his financial associates, and other factors, the Houston Oil Company continued to bring substantial profits to its stockholders until it was liquidated in 1956, when $243 million was paid for the company's assets. The Kirby Lumber Company did become the largest lumber manufacturer in the South and still continues in operation, though managerial control passed from Kirby's hands shortly before his death in 1940.

During his lifetime, national recognition was paid Kirby as an industrial giant. He served on the War Industries Board and was lumber director of the U.S. Shipping Board Emergency Fleet Operation in World War I; he was a member of the National Conference on Unemployment in the 1920's. He served two terms as president of the National Lumber Manufacturers Association and played a leading role in the creation of the Southern Yellow Pine Association. He founded the Kirby Petroleum Company, the Kirby Development Company, and several other enterprises. He also served for two terms in the Texas Congress.

Recently the Texas Gulf Coast Historical Association, a society of historians sponsored by the University of Houston and engaged in collecting and preserving manuscript records that reflect the history of the Gulf Coast region, acquired the John Henry Kirby papers as a gift from Mr. Kirby's grandchildren. The collection, which is now housed at the University, is a remarkably complete record of Kirby's activities. The papers fill some 275 letter files, 20 letter press volumes, 54 file boxes, and over 100 ledgers and record books.

Recently the Forest History Society, Inc., a national association, designated the University of Houston as an official repository for manuscripts and historical data on the forest industries. The University already held the James Rockwell Papers and the M. T. Jones Lumber Company records.

These remarkable acquisitions have greatly augmented the holdings of the University Libraries in primary source material so sorely needed for graduate programs. Dr. James A. Tinsley and Dr. George T. Morgan, Jr., of the history department will have primary responsibility for these materials.

Letters To The Editor

EDITOR:

When my mail finally caught up with me in Hong Kong, I was very pleased to see the latest edition of the *EXtra.* I feel this is one of your best issues. A bouquet of roses to Glenda Fuller. For an ex-University of Arkansas Cotton Bowl quarterback, Charlie Gray is doing an excellent job of directing the Alumni Federation.

I hear through channels that hundreds of bright-eyed applicants were turned down for University of Houston enrollment last year. I'm glad I made the grade before such stringent requirements were set up. The shape of our old school tie seems to be taking on more of an Ivy League cut—the old soup spots seem to have been cleaned! I do hope the tradition of weekend trips to New Orleans, San Antonio, Corpus Christi, and Monterrey are still in force.

I was recently late for an appointment with a young man who turned out to be a Houston alumnus employed on some job with the American government. It is true that the University still maintains its tradition of educating some of the most beautiful women in the world; the Houtson Ex's wife I met reconfirmed this point.

I hope to be in Houston for homecoming if business permits.

J. P. Dudley, '54

October Calendar

1	Music, Houston Friends of Music Fine Arts Quartet, program of chamber music, Cullen Auditorium, 8:15 p.m.
3	Music, UH faculty recital, Jeffrey C. Lerner, clarinet, and Albert Hirch, piano, Cullen Auditorium, 8:15 p.m., admission free.
9	Football, UH vs. A & M, there.
11	Public address, Dr. Billy Graham, Cullen Auditorium, 12 noon, admission free.
13	Lecture, Dr. Milton Eisenhower, Cullen Auditorium, admission free.
14	Music, UH Virtuoso Quartet, Cullen Auditorium, 8:15 p.m., admission free.
16	Football, UH vs. Miami, there.
21-23	Drama, UH department of drama production, to be announced.
23	Conference, Student Activities, Cullen Auditorium.
23	Football, UH vs. Tennessee, there.
30	Football and Band Day, UH vs. Tulsa, Bands conducted by Skitch Henderson, Astrodome.

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