Furman Magazine

Volume 20	۸
Issue 0 1972 All Issues	Article 1

9-1-1972

Furman Magazine. Volume 20, Issue 1 - Full Issue

Furman University

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Recommended Citation

University, Furman (1972) "Furman Magazine. Volume 20, Issue 1 - Full Issue," *Furman Magazine*: Vol. 20 : Iss. 0, Article 1. Available at: https://scholarexchange.furman.edu/furman-magazine/vol20/iss0/1

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THE FURMAN MAGAZINE



The Furman Magazine Fall 1972 Vol. 20 No. 1

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Marguerite Hays / Editor

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Once again in early September a group of Furman students and professors assembled at Kennedy Airport and boarded planes for Europe, leaving Furman and the United States for 14 weeks of foreign study. Dr. Willard Pate and 38 students landed at Heathrow Airport outside London and left immediately on a threeweek tour of Great Britain, before settling down in London. Dr. Carey Crantford and 15 students flew directly to Madrid, Spain, where they are now studying. Dr. Thomas Bacon and 17 students landed in Paris and toured Germany and Austria before beginning their studies in Vienna.

Last fall Furman students also studied in France; this year a group will go to Paris with Dr. Myron Kocher in the spring. During the winter term Dr. Joe King and 19 students will visit Italy, Greece and the Middle East on a studytour of Biblical lands.

What is the effect of spending 14 weeks in a foreign country on a Furman student from South Carolina or Georgia or Illinois? Afterwards, it seems almost impossible for them to describe the experience. Yet Carl Springer from Columbia, S. C., in excerpts from the daily journal he kept last fall in Vienna, gives us a vivid picture of how it feels to be transplanted suddenly into the midst of a foreign culture. (See "Vienna Diary" beginning on page 16.)

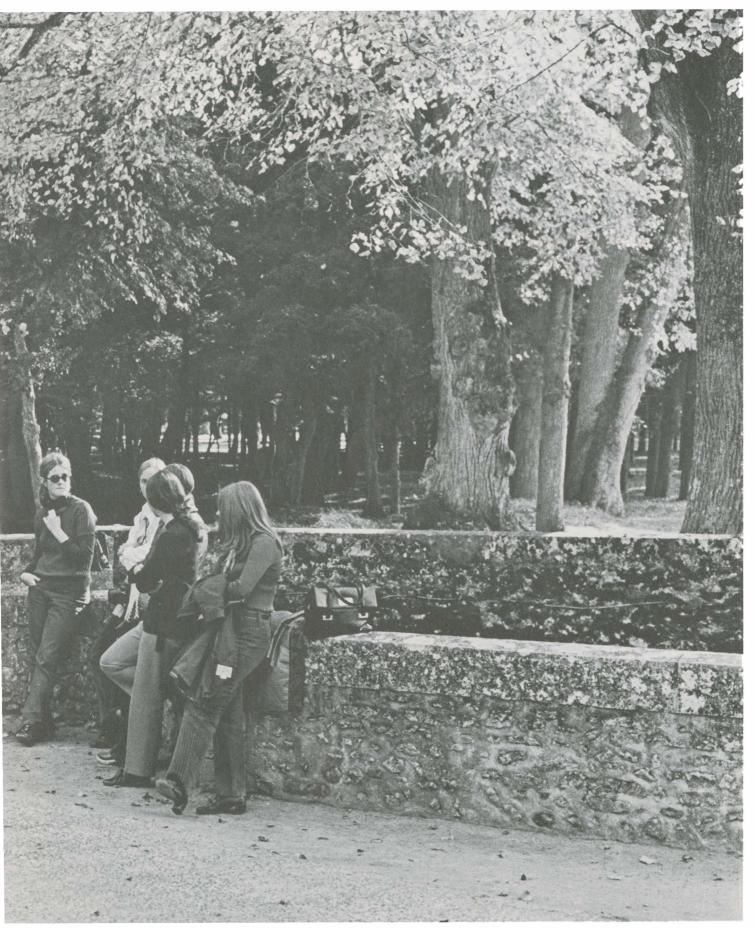
COVERS

Touring Scotland with other Furman students last month, Shelley Smith and Jim Hatcher were dazzled by the scenery as they sat looking out over Loch Katrine in the Trossachs, the setting of one of Walter Scott's novels (front cover). Last year Steven Crotts and Alice Jackson visited Wordsworth's grave in the church cemetary at Grasmere (back cover). Both photographs were taken by Dr. Willard Pate.

PHOTO CREDITS Willard Pate—front, back, inside back covers David Parsell—page 1 Glenn Gould—pages 3, 4, 5, 6, 7, 9 Thomas Bacon—pages 16, 17, 19, 21, 22, 24 Robert Smeltzer—page 26



DAVID PARSELL



Furman students in France resting on the grounds of the Chateau de Chenonceaux

Psychology In Action

One morning last July ten little boys, ranging in age from nine to twelve, sat working at their desks in a classroom. At least, most of them were working. Some were staring out the window or looking around the room. One was idly tapping his pencil on the top of his desk. A pretty young teacher with long brown hair stood at the front of the room answering occasional questions, and a teacher's aide, a young man, walked from desk to desk as the children asked for help.

In an adjoining room six Furman students sat watching the class through a one-way vision screen and monitoring the sound in the room through an overhead speaker. Each student watched only one child, making various kinds of marks on a sheet of paper every ten seconds. At the end of the morning, by looking back over the marks, the students could tell how much time a particular child had spent working, how much time he had spent looking around, talking and wandering around the room, and how much teachers' attention he had required.

Although the class looked much like any other classroom (except for the small student-teacher ratio), it was in fact one of two classes for emotionally disturbed children at Marshall I. Pickens Hospital in Greenville. The Furman students were members of Dr. Gerda McCahan's emotional disturbance class who observed the children's class approximately three hours each week as part of their course work. At the end of each week the students turned in reports on the behavior of the children they were observing, and at the end of the term they would compile extensive reports which would eventually become a valuable part of the children's records at the hospital.

Last winter, as an independent study project, Chuck McGee, a Furman psychology major who was also employed as a resident night counselor in the Marshall Pickens children's program, conducted a pilot study aimed at setting up a program of training for the parents of emotionally disturbed children at the hospital. Under the supervision of Dr. McCahan, he developed a five-step process, which—with some modification—is now being used by the hospital staff with parents' groups.

Meanwhile back at Furman, as one of her independent study projects, Linda Bair, a junior psychology major, planned and carried out an experiment to determine if familiarizing subjects with a certain aspect of learning significantly affects their ability to perform the same process at a later time. The experiment, which was supervised by Dr. Charles L. Brewer, involved 40 student subjects and extensive use of an IBM memory drum and required two terms to complete.

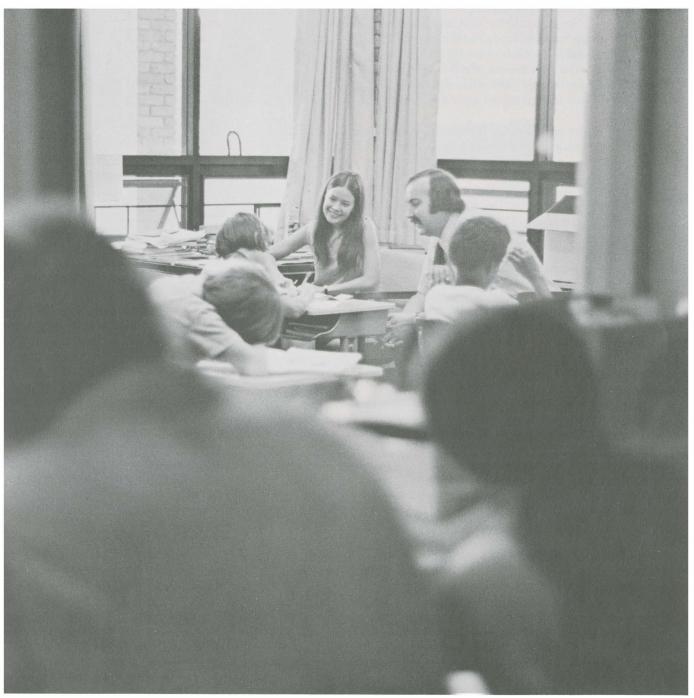
As part of her course with Edwin W. Coppage in physiological psychology last spring Joyce Hiott, a junior, trained a rat to press a bar which triggered the release of food pellets. In this experiment Joyce used a Skinner box, which is also part of the department's equipment.

Within the past few years psychology at Furman has come out of the classroom and library—at least to some extent—and moved into the laboratory and clinic. Instead of merely reading about experiments other people have performed, students are devising and carrying out their own experiments. Instead of merely reading about different kinds of behavior, they are observing and, in some cases, have personal contact with people who have behavior problems.

This revolution in the teaching of psychology reflects a change in the attitude of the Furman academic community, particularly the psychologists, toward psychology. In the early 1900's, when psychology was first offered at Furman, it was taught from the humanistic approach, as it was at most liberal arts colleges. In fact, the first psychology courses were considered part of the philosophy curriculum, and for several years there was a Department of Philosophy and Psychology at Furman. Not until 1936 was a separate psychology department established. Eventually, Furman psychologists began to think that psychology should be more scientifically based, as it had been at large universities for many years.

"Like most psychologists, I had long been convinced that psychology should be considered a science rather than a practical art," said Dr. Charles W. Burts recently. Dr. Burts, a Furman graduate of the class of 1929, taught psychology at Furman from 1933 until 1946 and, after serving as dean of Meredith College and president of Shorter College, returned to Furman in 1953 as director of graduate studies. In 1962 he became chairman of the psychology department. As part of their work for a course on emotional disturbance, Furman students observe a class in the Children's Program at Marshall I. Pickens Hospital in Greenville through a one-way vision screen (below). Claude Wilson, a 1967 Furman graduate and a member of the program's staff, talks with the children and their teacher. Chuck McGee, a Furman psychology major who also works at the hospital (left in photo at right), and other Furman students meet regularly with Tom Kirby, another Furman graduate, and other members of the program's staff to discuss individual cases.





Psychology in Action

"In the early sixties, after moving to the new campus," he said, "we began to try to strengthen the psychology program by bringing to Furman specialists in the different areas of psychology and by obtaining better facilities for the department. We had been doing some experimental work and clinical observation for years, but we wanted to expand our activities in both of these areas."

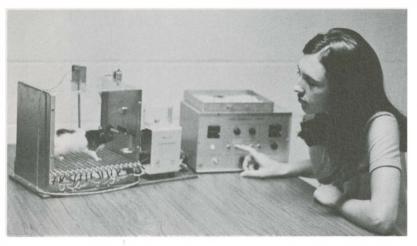
During the next ten years Dr. Burts' efforts would show remarkable results. He brought to Furman a number of capable faculty members, including Dr. Ernest A. Lumsden, an experimental psychologist who taught at Furman two years. In 1965 Dr. Gerda McCahan, a Furman graduate who had served as senior clinical psychologist and chief psychologist in various clinical settings, returned to Furman. In 1967 Dr. Charles Brewer, an experimental psychologist whose major research interest is verbal learning, came to Furman from Elmira College in New York.

Soon after Dr. McCahan's arrival the psychology observation facilities in the Classroom Building were remodeled to permit more students to watch the demonstration of clinical techniques through a one-way vision screen. After Dr. Brewer's arrival, the experimental facilities in the basement of the Science Building were expanded and 14 laboratories were eventually completed.

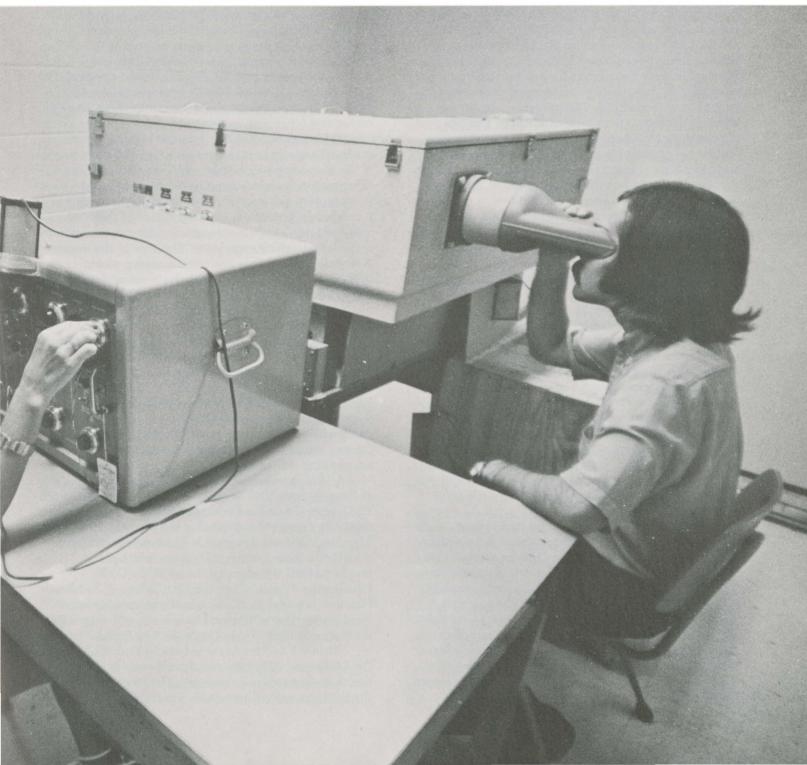
In the late 1960's the psychology faculty, with the help of two consultants recommended by the American Psychological Association, conducted an extensive study of the department's curriculum and ultimately recommended major revisions in the program in order to bring it more in line with an increasing scientific emphasis. Basically, the suggested changes, which have since been adopted, were to eliminate a number of applied courses and to add courses in the fundamental areas of the discipline. Psychology majors are now required to take a core of courses in these basic areas, including general, experimental and applied (or pre-clinical), and after completing these requirements they can take more courses in the area of their greatest interest.

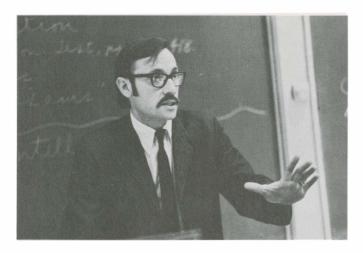
When Dr. Brewer came to Furman, he was given the job of setting up a more elaborate experimental program (a program concerned with pure research), as





Advanced psychology students can now carry out fairly complex experiments in the psychology department's 14 experimental laboratories. With Mike Skipper as the subject, Linda Mullikin conducts an experiment in perception using a tachistoscope (below). Joyce Hiott, a senior psychology major, is "shaping up" a rat to press a bar to get food pellets in a Skinner box (right).





he had done previously at Elmira College. After working with other members of the faculty on curriculum revisions, he drew up plans for the 14 laboratories which were to be constructed. Furman applied to the National Science Foundation for a grant to begin equipping the labs, and in the spring of 1969 received an NSF grant for \$9,000. Furman later received two other similar grants for a total of \$28,000. The labs now contain valuable equipment, including a tachistoscope and memory drums for research with human subjects and Skinnerian operant equipment for use with animals.

Dr. Brewer is understandably proud of the experimental facilities. "By the time we finish using the current NSF grant," he says, "we will have spent about \$100,000 on the labs, equipment and other furnishings. We will be exceptionally well equipped in comparison to other undergraduate psychology facilities. In fact, I know of only one other strictly undergraduate program in the nation that is better equipped. People from Florida State, the University of Wisconsin and the University of New Hampshire have visited Furman and said they've never seen such a facility at an undergraduate level. Many large universities, of course, have more equipment, but undergraduates might never even see the laboratories. You can be sure, however, that our students are doing research with our equipment."

Last year advanced psychology students carried out fairly complex experiments, including investigations in serial learning, free-recall learning, the lag effect, verbal discrimination, tachistoscopic recognition of letter patterns, preference for free vs. earned reward, and dominance hierarchies in rats. One student tried to investigate maze learning in snakes.

"When students do research for us, either in connection with advanced course work or independent study projects," says Dr. Brewer, "they're actually doing what a psychologist would do if he were doing research. The difference is that the experiment is not as sophisticated and students are working under our guidance."

Last summer two psychology students, Linda Bair and Gayle Price, took part in National Science Foundation undergraduate research programs at Florida State University and the University of Virginia, where they were involved in designing and conducting experiments under the supervision of psychologists.

Dr. Charles Brewer is chairman of the psychology department.

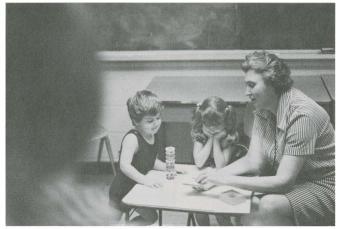
In connection with their applied course work Furman students have the opportunity to work as participant observers in local agencies such as the special education classes of the Greenville public schools, the Speech and Hearing Clinic, the Cerebral Palsy Center and the Children's Program at Marshall Pickens Hospital. Dr. Gerda McCahan has been largely responsible for setting up this program.

"This program has been possible because of the students' great interest in human service and because of the cooperation of the agencies," says Dr. McCahan. "Frequently, agencies do not have time to set up a program for students, but if their work in the agencies is carefully structured as an integral part of their academic requirements, the agencies can give students a very useful learning experience. The crux of the matter is that students are in a professional setting under professional supervision and they have an academic job to do. They are not in the situation as volunteers."

Generally students go into the agencies as observers in the beginning, concentrating on one child. They observe the child as a member of a large group or class, as a member of a small group and eventually on a one-to-one basis. In special education classes students may serve as teachers' aides; in the Speech and Hearing Clinic they may assist therapists in certain kinds of therapy. In every case they develop a case study of the child, which becomes a part of that child's confidential file and can be referred to in the future by people who are working with the child.

A 1941 graduate of Furman, Dr. McCahan taught at Furman from 1945 to 1948 and later received the Ph.D. from Columbia University. She has taught psychology under the auspices of the University of Maryland Overseas Program in Germany and under the Florida State Extension Program. She has also taught medical students and nurses at the Child Development Clinic of the Medical College of South Carolina as a clinical child psychologist, and has supervised the training of doctoral interns in psychology at the Kennedy Child Study Center in New York.

"Before I decided to come back to Furman," says Dr. McCahan, "I spent a great many years in mental health and corrective procedures. The longer I was in the field, the more I became interested in preventive



McCahan demonstrate clinical techniques through a one-way vision screen at Furman.

Students observe Dr. Gerda

work. I finally reached the point where I thought it would be very interesting to see whether it would be possible to communicate what we know from the clinic at the undergradute level so that people would have a better insight into some of the aspects of behavior.

"Undergraduates in a liberal arts curriculum are the potential source of a tremendous amount of understanding of emotional illness. Take a course like mental retardation. Some of the students who take the course will go on in psychology, and for them it's professional information to be used later in their work. Some may be education majors who will never look at a mentally retarded child in school in quite the same way because they will have a greater insight into the problems of retardation. Others, who marry and go into business, will never again look at retardation in the community in the same way because they will have a greater insight into the needs of retarded children and the ways in which we have the best chance of preventing retardation."

Dr. McCahan also feels that clinical courses which involve work in the agencies provide students who plan to go into clinical work an opportunity to find out if they really like that kind of work. "Many students commit themselves to a four-year graduate program in clinical psychology without having had the first contact with any clinical facility. They have to buy the contract before they know what it is."

Although clinical and experimental are different aspects of psychology and involve the use of different types of facilities, the Furman psychology faculty considers them integral parts of the total psychology curriculum, equally valuable to the undergraduate.

Mike Skipper, a junior who also works as a resident counselor in the Marshall Pickens children's program, finds both experimental and clinical courses helpful in his work. "I've been able to apply much of what I've learned in class to situations at the hospital," he says. "It's very interesting to listen to a lecture by Dr. McCahan or Dr. Brewer and then all of a sudden think of a kid who has the same kind of problems they are describing."

Although there have been exciting developments in psychology at Furman in recent years, historically Furman has been in the forefront of the development of psychology in higher education in South Carolina. Dr. John B. Watson, who graduated from Furman in 1899 and taught at the University of Chicago and Johns Hopkins University, became known as the father of behavioral psychology. Furman was one of the first colleges in the state to develop a separate psychology program, and Dr. Burts taught one of the first experimental courses in the state in 1939. In addition to its undergraduate program, for ten years Furman offered a master's degree program in psychology, which provided an education for many counselors and school psychologists who are now active in schools throughout the state.

Besides Professors Burts, McCahan and Brewer, the psychology faculty now includes Dr. Carroll H. Leeds, whose major interests are history of psychology, abnormal and educational psychology and testing; Edwin Coppage, who is completing work on his Ph.D. at the University of Vermont, and John Pellew, a 1970 Furman graduate who has just received his master's degree in physiological psychology at the University of Georgia. Dr. Brewer recently succeeded Dr. Burts as chairman of the department.

An average of 635 students have taken psychology courses at Furman every year during the past three years, and 91 psychology majors have graduated during this time. Thirty-five have gone on to graduate schools for advanced study. Many have received valuable scholarships and fellowships, including three Woodrow Wilson Scholarships, for study at some of the finest graduate schools in psychology in the country.

Most Furman psychology graduates have made excellent records in graduate school. Bob Hulsebus, a 1968 graduate who has just finished his Ph.D. at the University of Florida, was recently mentioned as the most outstanding of the 160 students to attend Florida's Graduate School of Psychology in the past 15 years.

Many other Furman graduates who have taken psychology courses have gone on to graduate study and careers in adjacent fields such as special education, social work and speech pathology.

With all of the new programs and new facilities, however, the main goal of the psychology department at Furman is not to train students for future careers, but to give them a greater understanding of man.

Behavior and the Brain

By Charles L. Brewer

Recent research indicating that human behavior may be controlled by direct stimulation of the brain has created both excitement and concern.

I magine a person sitting in a laboratory with hundreds of electrodes permanently implanted in his brain. At a computer nearby sits a neurophysiologist pressing a button which activates an electrical circuit and stimulates some specific area of the experimental subject's brain. Following the stimulation, the person with electrodes in his head begins to eat with a voracious appetite from dishes of sumptuous food in front of him. After a few minutes, the experimenter presses another button which terminates the shock to the first area and stimulates another part of the brain. The subject almost immediately stops eating and says that he has had enough food for the time being.

Further demonstrations indicate that the subject can be made to start drinking and stop drinking when other areas in his brain are stimulated with mild electric shocks. Still other brain centers can be stimulated to produce sexual arousal and sexual satiation in our subject. Specific and precise control over these behavior patterns has been accomplished with no evident harm to our completely cooperative subject who reports no pain at all from the shocks delivered to his brain.

Imagine another person talking and laughing contently with his friends. One would never suspect that a few months ago he was highly susceptible to attacks of violence which seemed neurologically similar to an epileptic seizure. Now, however, he has minute electrodes permanently implanted in his brain and, when certain points are stimulated by radio waves sent automatically from a remote computer, his violent attacks are kept almost completely under control. From casual observation, he appears to be perfectly normal and healthy.

Are these scenes merely Orwellian nightmares as depicted, for example, in Michael Crichton's recent best-selling book *The Terminal Man* or is it possible that such things might become realities in the not too distant future? Visions of a ruthless dictator standing diabolically at a master console stimulating the brains of helpless, enslaved masses come immediately and vividly to mind. Fortunately, such fears are quite premature at this time. Nevertheless, recent research with direct stimulation of the brain has prompted considerable excitement about its prospects as well as great concern about its possible abuse.

The human brain is perhaps the most complex and

efficient physical structure known to man. The functioning of its estimated 10-12 billion cells makes it a remarkable and awesome center for the control of most behavior. Researchers using direct electrical and chemical stimulation of the intact, waking brain have recently provided much information about the neural mechanisms involved in behavior.

A methodological breakthrough which made it possible to study the brain of behaving animals came in the 1930's when W. R. Hess developed a procedure for implanting very small electrodes in the brains of anesthetized cats. This technique was substantially refined in the early 1950's by several investigators and soon it was possible to implant microelectrodes (some as small as 1/50,000th of an inch in diameter) in specific areas of the brain with the use of precise stereotaxic instruments which guide the electrode to a circumscribed locus. The procedure usually involves anesthetizing the subject, performing a minor surgical operation, and making a small opening in the skull with a dentist's burr. The electrode is then accurately inserted through the hole. The experimental subject is usually equipped with a small connecting device permanently installed on the external surface of the skull which can be made operative by merely plugging a wire cord into an electrical circuit-much like connecting an electrical household appliance to a wall socket. This technique has been used for providing electrical stimulation to the brains of thousands of animals in many laboratories throughout the world. There is ample evidence of its efficiency, accuracy, and safety, contravening the initial skepticism that such a procedure would be technically impossible, dangerous to the subject, and disruptive of the organism's normal functioning. In fact, electrodes have been implanted and used for as long as six years in some monkeys without any discernable ill-effects upon health or normal behavior.

Interest in direct brain stimulation was appreciably heightened in 1954 when José Delgado discovered that cats stimulated with electrodes placed in certain brain areas would go into what appeared to be a state of rage. The suggestion was that stimulation here produced negative emotional states. Anthropomorphically speaking, such a condition might be called pain or displeasure. In the same year, James Olds and Peter Milner



GLENN GOULD

serendipitously discovered that stimulation in other sites of rats' brains seemed to produce pleasure. Rats would repeatedly press the bar in a Skinner box when the only observable result of the bar-press was an electrical shock to the septal area of the brain.

These demonstrations produced an almost unprecedented flurry of additional research which showed conclusively that animals would work very hard to stimulate certain pleasure centers in their brains. Indeed, rats preferred electrical stimulation over food when very hungry and over water when very thirsty. In one instance, ravenously hungry rats ignored available food and concentrated on stimulating the pleasure center with electric shocks—some as many as 5,000 times per hour for more than 24 consecutive hours. Finally, they collapsed in total exhaustion, but still pressing the bar for one last shot of juice. In another study, rats preferred electric shocks to the brain over sexual activity when they were sexually aroused.

Other researchers have located activation and sleep centers and can produce sudden and astonishing changes in activity level. Donald Lindsley, for example, has shown that active rats can be made to fall asleep and that cats in a deep sleep become frisky felines when these centers are stimulated.

That particular brain centers are responsible for certain very specific involuntary behavior is demonstrated by Delgado's observation that areas in the

monkey's brain control dilation and contraction of the pupils of the eye. Simply by varying the intensity of shock, the pupil's size can be changed just like adjusting a camera lens; one pupil can even be caused to dilate and the other to contract at the same time! He can also make a monkey perform like a toy robot; just by pushing the appropriate buttons the monkey can be made to open or close his eyes, turn his head, move his tongue, flex his limbs, yawn, sneeze, or hop. One series of widely circulated photographs illustrating the dramatic control over behavior through these means depicts a fierce bull charging full-tilt toward a torero and then abruptly coming to a dust-raising halt when his brain is electrically stimulated by radio waves emanating from a remote-control device. The brave torero obviously had great confidence in these techniques of behavior control.

Methods of direct chemical stimulation of the brain are of more recent development and involve the use of micropipettes and stereotaxic instruments similar to those mentioned above. When Alan Fisher injected the male hormone testosterone into rats' brains just in front of the hypothalamus, many of his male and female animals responded with some form of maternal behavior. He was understandably surprised to see the male rats acting like good rodent mothers and his observation of this paradox, subtitled "The Case of the Mixed-up Rat," was the auspicious beginning of an extensive programmatic research effort which has produced other impor-

Behavior and the Brain

Epileptic seizures can be prevented and intense pain can be diminished by stimulating certain areas of the brain.

tant findings unequivocally establishing the significance of biochemical manipulation of behavior.

Sebastian Grossman demonstrated that eating and drinking behavior can be elicited in rats by two other chemicals, noradrenalin and acetylcholine, substances known to be important as neural transmitters. Noradrenalin injected just above the hypothalamus caused even a well-fed rat to start eating again. Acetylcholine injected at the same point drove even a water-satiated rat to drink. He also found other locations in the rat's brain which functioned as stop-eating and stopdrinking centers.

In the last few years, great strides have been made in developing techniques for gaining control over behavior using electrode implantations and other similar procedures. Delgado has been an important pioneer in this work which involves more compact and sophisticated instrumentation. He has devised a microstimulator (about the size of a postage stamp and the thickness of a fingernail) which can be permanently installed under the skin on the skull. (For cosmetic reasons, this is usually preferred over external gadgets which are not very attractive.) One of the fantastic and almost incredible prospects evolving from his use of the computer is the suggestion that it might be possible some day to have direct contact between two different brains without any participation of the animals' sensorv systems.

It is irrefragably the case that these techniques have enabled researchers to gain control over animal behavior in ways which are at once dramatic and disconcerting. But at this point some readers might understandably be wondering, so what? You may be thinking that all of this information is rather curious and discomfiting but that you never expect to be responsible for controlling the behavior of rats, cats, monkeys, or even bulls. I am interested in *people*, you say. Surprisingly enough, so are most neurophysiologists and physiological psychologists whose remarkable discoveries provide the empirical foundation for some entirely new conceptions of neural functioning which have significant implications both for the bases of human behavior and for man's ability to control it. In fact, some of the techniques discussed here are now being used, albeit less extensively and on an experimental basis, with humans.

Robert Heath, for some time in the vanguard, has demonstrated that epileptic seizures can be prevented and intractable pain can be diminished in terminal cancer patients by stimulating different brain areas. Pain seems to be relieved by stimulating the septal area, the region that Olds and Milner found to function as a pleasure center in rats. Heath and his colleagues have also experimented with some manic-depressive psychotic patients who wear a small control box attached to their belts. When they feel a state of depression coming on, they press one button to stimulate a particular area in the brain and their depression seems to decrease; when they sense an anxiety attack, they press another button to stimulate another area in the brain, and the anxiety seems to dissipate fairly rapidly. In some patients as many as 125 electrodes have remained implanted for months or even years with no apparent deleterious effects. Patients usually wear hats, caps, or wigs to conceal the connecting equipment. With Delgado's new subcutaneous microstimulator mentioned above, this may no longer be necessary even for cosmetic reasons. In a short time, it *might* be possible for a human subject to have numerous electrodes implanted in his brain and this fact go completely unnoticed, even by a careful observer.

Several research teams are exploring the possible brain involvements in homosexuality with similar techniques. Heath's group treated a male homosexual by stimulating the pleasure center in his brain. After several weeks of treatment, the patient was able to have his first sexual experience with a woman.

Vernon Mark and Frank Ervin have used electrical stimulation of the brain and other surgical interventions for treating persons who have violent and dangerous outbursts of rage associated with epilepsy. While the patient is conscious and under the influence of local anesthetic, the surgeons implant electrodes in different brain areas (usually the temporal lobe or amygdala). They then apply a weak electric shock to various sites. When the area responsible for producing the uncontrollable attacks is identified, that minute region is destroyed with a stronger shock. Such procedures seem to have worked effectively to reduce violence without any noticeable adverse effects upon other aspects of the patient's functioning or behavior. Plans are now



underway at Massachusetts General Hospital for setting up a special institute for treating violent patients with these and similar procedures. Results from these future efforts could call seriously into question the traditional environmental explanations of violence which have dominated the thinking of some anthropologists, psychologists and sociologists for many years.

These brief and oversimplified examples merely illustrate the most recent research. We have already learned that there are basic neural mechanisms in the brain responsible for mediating mental activities, most behavior, and perhaps emotions. Researchers have been able to obtain control over some of these in important ways, and will continue to make progress in understanding the mysteries of the inordinately complex brain. This work holds great promise for further advancements in our knowledge and perhaps in improving the human condition. At the same time, there are many potential dangers and some important moral and ethical considerations raised by this research. Persons most actively involved in the work are the ones most concerned about these implications.

Imagine what the situation will be in 1984 when scientists *might* be able to exert control over human behavior with these and related techniques—control over eating and drinking, motor behavior, certain autonomic responses, violence, even sexual behavior. And what about thinking, attitudes, learning, and memory? Some tentative research has already begun in these areas.

Probably the first questions to arise are: Who is going to do what to whom, for what purpose, and to what end? Who will be sitting at the master switch manipulating human behavior by computer-programmed stimulation of the brain with electrodes or chemicals? At this point, of course, such debased enslavement is beyond the realm of possibility. But as Perry London has put it: "As 1984 draws near, it appears that George Orwell's fears for Western democracy may have been too pessimistic, or at least premature, but it is also clear that his conceits of the technology by which tyranny could impress its will upon men's minds were much too modest. By that time, the means at hand will be more sophisticated and efficient than Orwell ever dreamed, and they will be in at least modest use, as they have already begun to be,

not by the will of tyrants but by the invitation of all of us, for we have been schooled to readiness for all these things and will demand their benign use regardless of their potential risk. The capacity for control will continuously grow, evolving hopefully from benevolence."

And José Delgado adds: "A host of medical, ethical, legal, and political questions are involved in the possibility of intelligent choice among behavior determinants and their control. Each of these aspects deserves careful study and should form part of the general plan of action... A better understanding of mental mechanisms will favor the pursuit of happiness and diminish the unnecessary suffering of human beings. The direction of colossal forces discovered by man requires the development of mental qualities able to apply intelligence not only to the domination of nature but also to the civilization of the human psyche."

Naturally, a recognition of the possible dangers of the misapplication of our new knowledge does not absolve us from the responsibilities which inhere in the intelligent and appropriate applications of it. Let us hope that Joseph C. Wilson was right when he concluded that we ". . . for once have a chance to turn frightening technological advances into useful and constructive tools for social advancement. . . . When you understand them and use them with loving care, you will find that what may appear to you to be evils of modern technology are instead the essential attributes of a modern humanism."

Dr. Charles L. Brewer, chairman of the psychology department at Furman, has held summer appointments to study verbal learning at Indiana University, Harvard University and the University of Michigan. As author and co-author, he has published seven articles about his research in psychological journals. A graduate of Hendrix College, he received the Ph.D. from the University of Arkansas and taught at the College of Wooster in Ohio and at Elmira College in New York before coming to Furman in 1967. In 1969 he received the first annual Award for Meritorious Teaching at Furman and in 1970 was a finalist in the E. Harris Harbison Award for Gifted Teaching, a national competition sponsored by the Danforth Foundation.

The Strange Death of Liberal Education

By James H. Billington

A new kind of university has emerged in the United States in recent years. It has been called many things: "multiversity" and "megaversity," but I call it the marketversity. It is a university which has essentially gone over to the values of the marketplace of American commercial society. It has subtly taken on the coloration and the character of America's most historically successful activity — our business economy.

This type of university echoes the division of labor in the productive society. Competitiveness reflects our free enterprise system, with emphasis on methodology over memory, on people and faculty becoming interchangeable parts in a system of universities which tend to resemble one another and imitate one another to an almost compulsive degree.

Until just recently the American university had been a mixture of the old medieval college and the modern, graduate-oriented university. The original idea of a university, which emerged during the Middle Ages and began the liberal arts tradition, was essentially devoted to transmitting a cultural heritage, to giving coherence through memory.

The second type of university developed during the 19th century in Germany; it sought not so much to transmit an old, fixed body of truths as to discover new and infinite ones. While the medieval university was built around classroom communication between student and teacher, the German university was built around research in libraries and laboratories. This highly specialized university came to the United States originally through Johns Hopkins and Harvard, and eventually most American universities became creative combinations — in varying degrees — of the liberal arts and the specialized university traditions.

But in the boom period after the war, American universities began to resemble each other more and more. It is as though someone has a formula; and, like good technologists, we reproduce it at every university in more or less the same way. The historic pursuit of truth has become a kind of hysteric pursuit of relevance. Whereas the ideal of the old medieval university was the learned theologian and the ideal of the German university was the professorial specialist, the real hidden

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hero of the new marketversity is the intellectual entrepreneur who can mobilize brain power for some act of social utility, who can perfect and develop problem solving techniques and, above all, package them and sell them effectively to the government or to the foundations or whoever else is dispensing largess.

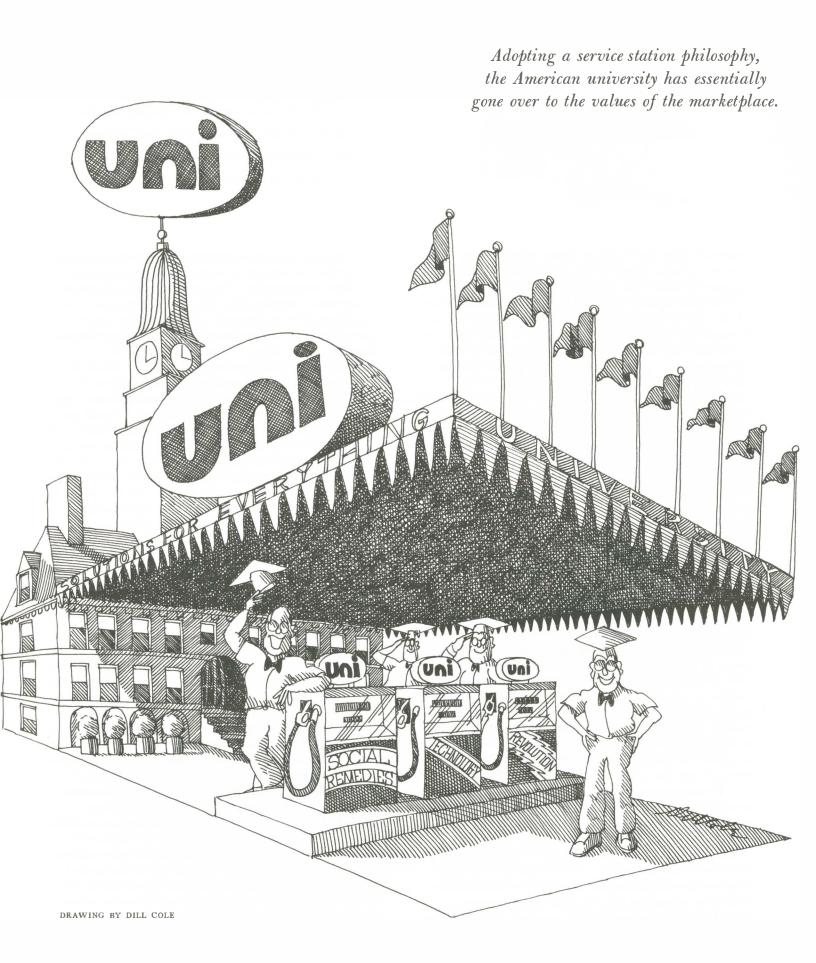
And so we get a service station philosophy. The public should not be surprised if this service station which caters to consumer demand — decides to serve disruptive and revolutionary ends. Once we have agreed on the university as a service station, it seems rather trivial to ask which form of gasoline they are serving or even who is manning the pumps.

Why should universities have come to this plight? Why should they have become subordinated to economic and political pressures? I think if we try to diagnose this malady we will find that the collective ailments that we suffer from in our universities are related to the broader society — and indeed are analogous in some respects to the ailments that afflict us most as individuals.

One of these ailments is the cancer of malignant material growth, not only in cities but also in universities, where growth for growth's sake has often been impersonal and life-destroying, where the unchecked population explosion has scattered its anti-personal shrapnel very effectively. The national product gets more gross every year — bloated with false growth at the expense of nature, sapping strength, like cancer, from the vital, life-sustaining cells of civilization.

These cells are, of course, individuals. They are fed by ideas. Ideas and people are the only essential ingredients of true liberal education, and the creative, unpredictable interactions between ideas and people are the heart of what this enterprise is all about. Yet the emphasis in an age of malignant growth has been on things and buildings, rather than on people and ideas. We have been guilty of what some students have called the "edifice complex," of building things rather than building people.

In addition to this cancer, there is a collective mental illness of motion without mind or memory. "Be where the action is," "Get a piece of the action" — these were the slogans of the 1960's. A decade that began with the slogan, "Let's get this nation moving again," proceeded to move us dumbly into the swamps of



The Strange Death of Liberal Education

"The problem of heart failure in the universities is evident in our nervous preoccupation with the structures rather than the substance of education."

Southeast Asia and then out again, spurred on by something known only as "the movement." And yet the supersonic Saint Vitus dance goes on.

Motion without memory, I am told, is characteristic of the insane, who lose all links with a meaningful past. Increasingly cut loose from moorings, as older loyalties to the church, community and family peel away like the strands of a cable, more and more people live out their lives like frantic oarsmen on a rudderless boat, convinced that they are getting somewhere simply because they see a lot of things passing by.

Even worse than malignant growth and mindless motion is the most subtle problem in our institutions the same problem that is the greatest killer in our society: heart failure. In perfecting how our systems function, whether military, industrial or educational, we have forgotten *why* and have removed the human heart from the controlling center. Having taught ourselves an appropriate fear of totalitarian regimes where the ends justify the means, we may have created a heartless antihumanism of our own in which the means have become the ends.

Whereas the major crisis area of recent years — the inner-city ghetto — has kept a measure of soul alive amidst poverty and degredation, the modern American university — the second crisis area — seems to have lost much of its soul amidst unprecendented material growth. The problem of heart failure in the universities is evident in our nervous preoccupation with the structures rather than the substance of education. The universities' answer to disruption and crisis has been simply to adopt new techniques of crisis management: resolving communities into interest groups, concentrating power through selective consultation and cooptation.

However necessary political management and economic rationalization are to the universities in crisis, they are not sufficient to give purpose to them. (Efficiency, when introduced to the Penatgon by Robert McNamara, was not enough to give sensible direction to foreign policy.) Preoccupation with structure has sometimes become a method for indefinitely ruling out all serious talk of substance. Consensus management seeks to avoid ideas — and represents an implied threat to any idea that does not organize itself politically. Arriving at a consensus is in any case the creation of entropy, not energy. It requires more committees, not more commitment. The crisis of higher education, in my view, is ultimately a crisis of commitment: commitment of communities to their colleges and commitment of those within the college communities to their own true calling.

Franz Kafka has perhaps analyzed the condition of modern man as acutely as anyone. On the eve of World War I, he wrote from his prospering native city of Prague: "The early fathers of the church could go into the desert because there was a richness in their hearts, but we who have richness all around us now have the desert in our hearts."

What is the commitment? What is our "identity" in a true university community?

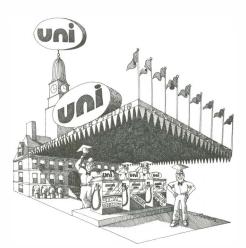
It is, first of all, a commitment to the life of the mind, which, like all of life, is good and deserves celebration. The life of the mind is the heart of this enterprise, and it keeps ticking within real people amidst the time bombs all around us.

Can the life of the mind have any impact in a world of power and profit? In 1808, at the height of his imperial fortune, Napoleon Bonaparte, the consummate man of the world, wrote to Fontanes, an intellectual, "What excites my wonder most in the whole world is the impotence of force to really organize anything that lasts. There are only two powers in the world — the sword and the mind, and in the long run the sword is always beaten by the mind."

There are three adjectives that I would use to describe the life of the mind: joyful, awful and moral.

Why do we camouflage the exhileration and joy so much behind courses, curriculums, certification rituals? The essence of the enterprise in a true university is the most liberating game in the world: the pursuit of truth. It is a game that is totally non-exclusive and non-competitive. It is played best when everyone is playing as much as possible. One individual's achievements in this game are not a threat but an invitation to others. Truth is much bigger than any of us. In so far as we are caught up in the pursuit of truth, we are free from the pursuit of each other.

This is, moreover, the one area (in the world, where *physical* freedoms are going to have to be



modified to some degree simply to enable us to survive) where there are infinite horizons for freedom before us. Intellectual enquiry is a game that can be played actively anywhere, at any time. In so far as students acquire the habit in college, they will never be totally enslaved by the subhuman games of the rat-race by day and the mole machine by night.

The life of the mind is awesome in the literal sense of being full of awe and wonder. It is essentially nothing more than the extension of the wondering child in all of us: the wide-eyed "why" about important questions that children ask and which all too often get removed from our trivialized agendas in so-called higher education. Without preserving or rediscovering something of the child-like, one probably cannot get through this life, let alone into the next.

The applied mind has brought such astonishing powers to man that the simple necessity of survival underscores the third feature of the life of the mind the moral. The life of the mind is moral by its own nature. It seeks the essentially moral ends of order and beauty, of scientific and artistic truth. Alongside man's desire for general laws — the scientific principle — there is his longing to find, in Yeat's words, "in all poor foolish things that live a day, eternal beauty wandering on her way." We must learn not just general laws and principles, but the specific creative accomplishments and even the fantasies of others past and present.

It is not accidental that precisely in an age of creeping technological uniformity men everywhere seem to feel a renewed need to insist on their special nature, on their right to be and do something that is uniquely their own. This desire intensifies the need for the humanistic half of the educational enterprise, in which the whole man is ennobled through involvement in the anguish, achievements and aspirations of other unique selves.

If higher education is to survive the reign of the marketversity, three things will help: variety, leadership and community. In a time of increasing subordination to the market and loss of memory, we must maintain in this country a variety of institutional patterns. There should probably be more of both pure research and pure teaching institutions; above all there must be a variety of traditions and approaches within the university: an end to rote imitation based on short-term market considerations rather than any enduring values.

Secondly, we need leadership which does not simply respond to political and economic pressures, but puts ideas and the vision of the unique destiny of each institution ahead of other considerations. We need more human guidance and less curricular and manipulative controls.

We also need a sense of community. Once we have defined those ideals that unify a community, there is a chance that there will be some common involvement, some shared enthusiasm. There is a chance that we can check the most frightening erosion of all, which for me is epitomized in a column I read by a student at the University of Michigan in *The Michigan Daily* a few years ago: "This institution has dismally failed to inculcate in most of us anything approaching an intellectual appetite. What is worse we are drifting toward something that is far worse than mediocrity and that is absolute indifference, an indifference perhaps even towards life itself."

This is truly the sickness unto death — the classic state perhaps — of decline and fall that overtakes societies when outer wealth and power lead to the inner loss of shared values. Without variety, without leadership, without community we will be witnessing not the renewal that is our hope, but the death that is the promise of institutions when purpose has faded and the heart has ceased to beat.

Shakespeare in *The Tempest* gave us the phrase "brave new world," but he put it in the mouth of the young Miranda. An older and wiser Prospero has the last word for those who build on bricks and bureaucracies rather than men and dreams:

The cloud-capped towers, the gorgeous palaces, The solemn temples, the great globe itself, Yea, all which it inherit, shall dissolve, And, like this insubstantial pageant faded, Leave not a rack behind. We are such stuff As dreams are made on. . . .

Dr. James H. Billington, professor of history at Princeton University and an authority on Russian intellectual history, has lectured in Leningrad and Moscow. This article was adapted from a speech he made at Furman last spring.

Vienna Diary

Bonn

September 4, 1971

Perhaps the expectation of some events is more fun than the occurrence. Although we realize that what we expect will never materialize, for some reason the shock is never less. The thought of going to Germany and daydreams of an exciting life in Vienna helped me get through many wet and lonely nights this summer, yet the first few days of the trip have become the tedious herding of bodies and luggage from one place to another, as we always knew it would be.

I was neither surprised nor disappointed by my lack of ability in German. There was no shock, just the embarrassment of being in someone else's land and not knowing the language. Perhaps the embarrassment will work in my favor if I become concerned enough to study that much more.

The Rhine

September 5, 1971

Despite a mob scene at the beginning, this excursion developed into an honestly enjoyable experience. The weather managed to remain clear and balmy, and produced one of the most beautiful full moons I have ever seen.

I was amazed at how good my memory has been. The river offered no surprises (except for the naked woman in the speedboat). I am beginning to see something I should have realized long ago: Germany exists not as a unified land with a history which is simply precedent to the present, but it exists on many different planes of meaning; it is successfully segregating its past from its present, its old from its young and its culture from its daily life. Today I saw the past-pleasantly preserved in the little castles along a storybook river. Yet while I was looking up at the cliffs, I failed to see the almost unbelievable amount of industrial traffic along the river. I was able to sit calmly on the steamer, going at a ridiculously slow speed, and watch the remains of so many centuries pass in review, and yet a few minutes later I was incensed at a modern 20th century traffic jam.

I wonder how many Germans really care about the preservation of a past which seems to have so little to do with the present?

While studying in Vienna last fall, Furman senior Carl Springer kept a journal describing his experiences and his reactions to life abroad.

Munich

September 9, 1971

Munich is a city that maintains a pace rivaling that of any major American metropolis, yet the people seem a lot friendlier than those of a Newark, N. J., or a Chicago. The rich history of the place exhibits itself everywhere. Buildings, squares, monuments, sculptures, ancient towers: they appear at every corner. I'm just not accustomed to a place with an eventful 800-year history.

My confidence in my ability to carry on some type of essential conversation with people is increasing.

"Carolina on my mind." 10:00 p.m.

Vienna

September 11, 1971

The journey from London to Vienna was too rushed, too tourist-like, and too exhausting for me to get anything more than a superficial idea of what Europe or the Germans are like. One fact is painfully obvious: I am still a tourist. I have not begun to integrate myself into a society, which I really can't discern through the window of a bus. I still feel like a visitor to a zoo, who becomes the subject of the animals' scrutiny. I don't worry too much about it, though, since we have so much time.

A few thoughts are worth remembering; the contrast between the crowded industrial north and the immeasurable beauty of northern Bavaria is the most important. Mainz and the industrial north represent the epitome of what man can do to himself and nature in the name of progress. Yet Bavaria shows me that man can actually improve the aesthetic quality and productive quantity of a finite amount of land, which he and his ancestors have been living on for thousands of years. We Americans could take the example to heart: used land does not and should not mean wasted or spent earth. Perhaps some day we will realize that our land is also finite.

Vienna

September 17, 1971

Vienna has been the subject of so many famous authors for so many centuries, how can I describe it in a 25ϕ notebook? One thing is certain: this city does have a personality, a personality that defies description. The "city" in America is a relatively homogenous structure





which differs only in such minor things as geographical makeup or the disposition of local sports fans, but this collection of old buildings seems to have settled into some type of pace which is neither hectic nor lethargic, but rather the speed or movement of life which men perhaps wanted to maintain when they first started living together. The traffic is sometimes rushed and always noisy, but the drivers remain faces inside the cars and do not become the soulless extension of a machine, which one sees on any U. S. freeway at 5:00 p.m.

Pedestrians maintain their usual brisk pace, but for every pedestrian there exists a counterpart calmly sitting in a cafe, reading and drinking, who feels no great rush to accomplish anything, no great desire to get anywhere.

The city is laid out in a manner just eccentric enough to make it interesting to live in. The streets and rings don't form a maze, nor do they form countless squares of cement. The "block" concept doesn't work here: two blocks to the left might mean a two-hour hike.

I'm homesick for my fiancee and depressed, but I can't help feeling some type of love for this city. For the present, that's the best compliment I could pay anything....

Vienna

September 22, 1971

Each day becomes a little easier to live through. My confidence in my ability to communicate with these people is increasing. The personalities are beginning to show where, previously, the strangeness of the language created a type of faceless creature which, regardless of age, gender, or body type, was "German." Why are the older people friendlier than the younger?

It's amazing how quickly one becomes accustomed to the daily routines of Vienna which differ so from those we have experienced for 20 years. Bathrooms, heating, eating habits, and countless little mannerisms become second nature in a matter of days. I imagine I walk five miles a day here without a second thought, while in the States I would groan about going across campus.

The people here (and I've been watching carefully for the past few days) look different. They're healthier. I see no acne, no fat teenagers and, unaccountably, very few unattractive young people, whether boy or "The important thing was not to stand still, not to stagnate, not to pass up this bus when another one might not come along."

girl. One thing that sticks out is the number of old women.

What happens to these people? The women under 30 are all lovely and slim, but a middle-aged woman's shape is as baroque as *Karlskirche*. A skinny old woman doesn't exist here, nor does a fat young one.

One of the real joys of this city is the *Strassenbahn* [tram]. Not only is it ecologically clean, it's a lot of fun and sort of romantic. I wish I could afford to ride more.

Andy and I have already found our "place." It's an old-fashioned *Bierstube* down the street from where we live. High ceilings, wood panelings, thick porcelain tables and rather harsh lighting give it an effect which carries one back at least 30 years, but the clientele and the management only accent an era which I have never seen but only dream about.

The customers are middle-aged or older, working class, and they obviously spend evenings here in lieu of watching TV. Andy and I were carefully scrutinized when we first came in, but our politeness and crude German won us some friendly questions and a sort of "come again" attitude. We sat and talked with a nice old guy for at least an hour.

I am impressed with the ease of the people here and their attitudes toward work. Everything closes for lunch, and Sundays only a few *Konditori* [pastry shops] can be found open. On Sunday everyone dresses up and gets out the baby and his hydraulic carriage and goes for a walk. Ambling down a main boulevard with deafening traffic is not my idea of leisure, but I must admit that these people can and do relax. I've even noticed myself slowing down. Good for me.

Sleep is a natural way to end the evening, not a type of biological sedative. Walking is not punishment for being too cheap to ride, but the best way to enjoy where you're going. Meals are not conducted on the basis of a car getting 8 gallons of regular, but they are eaten at the best time of day for the complete enjoyment of your leisure, your newspaper and your friends.

Even without cameras, *Europe on \$5.00 a Day*, and those awful Tirolian hats, American tourists stick out like Dick Gregory at a Klan meeting. I stick out, too. Maybe I shouldn't have brought those black and white oxfords...



Carl Springer, Frau Helke and other students look out over Vienna from a nearby mountain.

Vienna

September 28, 1971

Leftover thoughts:

I saw the king of Belgium last week. Wish I had my Brownie. . . .

I've only seen one drunk and the beer is so cheap. A victory for good manners.

I'm enjoying learning so much over here I don't worry about grades.

Where did all these old women come from? If Brecht is so modern, why is he dead?

Vienna

September 29, 1971

Vienna. Europe. The excitement. The challenge. I have charged into them like a rookie linebacker against an arch rival, ready to expand my horizons, my experience, and so forth. Going to Europe or broadening horizons or anything like that was not the important thing: the important thing was not to stand still, not to stagnate, not to pass up this bus when another one might not come along.

When I return home I'll remember this time as a period of great excitement, personal fulfillment and tremendous self-improvement. It is for this reason that I write down, on impulse, what I'm thinking now to be looked at later with no small degree of embarrassment.

Now I'm miserable. I'm learning more than I ever dreamed, increasing my experiences to the point of intellectual gluttony, and I'm still miserable. Why? My fiancee mainly, of course, but I won't be content to mask the problem with just one answer. Maybe I'll find out later. Right now I'm sick of intellectualism, literature, architecture, and other cultures.

Vienna

October 3, 1971

Frau Feldbrod is a phenomenon which deserves more consideration than a few pages in a *Tagebuch*. If Charles Dickens had been German, Frau Feldbrod would have been one of his characterizations.

The woman is a scattered collection of exaggerations; a caricature doesn't do her justice. Short, squat, never wearing less than three sweaters, she haunts the halls, shuffling about in slippers. Her hair looks like a phosphorous bomb, her skin is albino from moving about only at night, but her most singular feature is her eyes. God knows how big they are, for she has converted two telephoto camera lenses into a pair of glasses, giving her an unmistabable resemblance to an albino fly. Her voice doesn't ring; it clangs. She exaggerates syllables and phrases and hand gestures to the point that she resembles a Jewish comic giving a monologue. We can't tell if she's angry or joking. What did I do to deserve this? The amazing fact is that she likes me and never fails to give me 30-minute doses of polemic in her police-siren voice. I'm thinking of taking her back to South Carolina, teaching her to yodel, and making a million dollars. Gondek was right; this is an experience.

Vienna

October 11, 1971

Dr. Bacon lowered the boom today. I never realized I was a good-for-nothing international playboy who had no respect for anyone nor any desire to advance himself, but then nobody's perfect.

I'm really surprised how coming back to my room and translating has almost become a ritual. We impose order on ourselves. My ears are hurting. When do they turn off the noise?

I may be miserable here, but I'm certainly not hungry. Vienna is lucky in that its geographical position allows it to select the best that both ends of Europe have to offer in the way of culinary treats. Viennese food's main distinction lies in the fact that it has no particular personality. It's simply good food. It's impossible to starve here; the food is so cheap.

I may be wrong, but it seems the Viennese shop almost daily. Perhaps it's not as practical as the weekly expedition to the Winn Dixie, but the relationship of the butcher to the customer is that of a trusted counselor. I have to exchange pleasantries in my butcher shop even when purchasing only 10 decas of *Karsewurst*.

The national elections took place a couple of days ago. They generated all the excitement of a stock market report. This country is in an enviable position. They're neutral, they maintain but require no military, they have no racial problems, no mafia, no generation buried in self pity, no alcoholism or drug addiction, no growing pains, a minimum of blight, no conscience for the world



or even their own history, no war. Lord, if these people only knew. I still wouldn't change. We have a way of doing things big, whether its winning a war or making enemies. I just hope Austria has enough sense to value its situation. Fraulein Ingram complained about unconcerned students: I could go for Eisenhower and crew cuts again.

Frau Feldbrod has mercifully contributed an ancient radio to our room. This means that Andy and I can sit in our room at night and get nostalgic over the songs coming from Radio Luxembourg. Why are young lovers always so tragic? I don't believe I should have come here. I had no right.

Frau Feldbrod says I shouldn't have a beard. Frau Feldbrod says America is a land of *Verbrechern* [criminals]. Frau Feldbrod says I shouldn't stay in America, since it's polluted. Frau Feldbrod says American police are worse than criminals. Frau Feldbrod says American girls are idiotic and I shouldn't marry one. Frau Feldbrod says Americans are lazy. Frau Feldbrod says too many Americans take the anti-baby pill and it gives them cancer. I say the country that produced Mickey Mouse can't be all bad.

Today I took a walk down to the open-air market. This city never ceases to amaze me. It was almost medieval. Ruddy-faced old women in scarfs, looking like Van Breughel models, selling countless varieties of fruits and vegetables. The trucks bore the names of places throughout Europe; Greece, Albania and so forth.

American scholars and critics always make a point of criticizing the method by which we breed housing multiple and uniform. I never expected Europe to be Utopia, but nevertheless we usually credit the European with more taste and sensibility. Surprise, then, that even in Vienna the bulk of apartment buildings, though historically interesting, bear a depressing similarity.

Even baroque churches begin to blend into a configuration of curved walls and almost erotic altars. So, Carl, the next time you self-righteously attack the lack of taste and imagination of your generation, remember that uniformity is not a product of post-war "A person would have to be a fool to leave Vienna during his free time, when he has at his disposal the entire cultural history of Europe in one building...."

America. Why did I have to come 7,000 miles to find that out?

Vienna

I am writing with a pencil tonight because I got a small spot of ink on Feldbrod's *Tischtuch*. A typical night: the usual translation, Radio Luxembourg fading in and out. Quiet, lonely. Too much time for random thoughts which always become gloomy. Bad lighting in which shadows become more prominent than objects.

We've been studying the Dutch school of art during the Middle Ages. It's really fascinating, but I sometimes wonder if we don't sometimes overinspect art. Frau Helke is a very good teacher, but she doesn't analyze a painting; she dissects it. Perhaps I like the mystery of things too much, but I think we overanalyze. Trends, styles, basic concepts are important to appreciate, but scrutinizing a Van Eyck or Goes to the point that the shape of the frame serves a distinct purpose, is destroying the purpose of the painting. If an artist is as good as he should be, his methods will secretly work an effect upon us. Perhaps we won't recognize his devices; perhaps we're not supposed to. Art is an aesthetic form; it should produce a purely aesthetic feeling. The same applies to literature.

Yesterday we went to *Klosterneuburg* and *Heiligenkreuz*. The monasteries were interesting, of course, but the snow-covered country and the sunset stole the show. *Grinzing* (*Heilingenstadt*) was a bummer. The place itself was fantastic, but we were sort of silly. The day in general was certainly the most enjoyable I've had in Vienna.

Vienna

October 20, 1971

I had an ego trip at *Die Physiker*. I understood it. A delightful performance in a beautiful theater. The night before was good, too. Music and some pretty good German conversation with Sigie. I'm slowly being taken in by this city.

We had class today again at the *Kunsthistorisches* [National Art History Museum]. A person would have to be a fool to leave Vienna during his free time, when he has at his disposal the entire cultural history of

Vienna Diary



Furman students tour castles throughout Austria and Germany.

THOMAS BACON



Europe in one building and all of it available for one Schilling. I plan to spend a lot of time there, using what I've learned from Frau Helke.

I might be mistaken, but I think the tourists are leaving. Good riddance: I've only been here five weeks and I already feel like they're trespassing on my land.

Vienna

October 23, 1971

Saturday, October 23, was a most singular day. I can cite reasons for its being different, but to grasp its identity as something unique and enjoyable would require someone with a more experienced brain and a more rational pen.

In the first place, I spent it alone. Everyone else fled the city, all intent on catching all of the Europe they can eat for four days—the weekend special. I enjoyed a leisurely breakfast, content in the knowledge that I wasn't expected anywhere with anyone at anytime.

I went shopping for books, taking my time as I went, scrutinizing. I finally got three beautiful books: Brecht, Goethe and a biography of Breughel. The total cost was \$4.48. On the way back I helped a nice-looking American couple find the *Schatzkammer* [Imperial Treasury]. They didn't dress or act like most tourists: I wondered if perhaps they had gotten on an overseas flight by mistake instead of one to St. Louis and decided to make the best of it.

A nap. A slow dinner. I guess the most important thing about the day was that it was not forced: it was my pace, and I can never remember being that relaxed. A good day.

Vienna

October 25, 1971

We're over half-way now. I hope the second half goes quicker. I can see that I'm not going to enjoy it until I get back. I guess I'm learning, but I'm not so sure what. I love Vienna—I've grown that much. *Tagebuchs* are stupid—events don't become events until you've had time to see what you've done. This trip is like a photograph: we won't see the developed product until we're far away from where we took it.

Sundays don't lose their personality. Germanic or American, Sunday keeps its unmistakable grasp on me. The longest day. No one else in the world; everyone Rebecca Waters (left) spent last year studying at the Institute of European Studies in Vienna.

retreats. Faceless people on the streets. Everything is closed except those concerns which depend on the lonely or homeless. Slow hours. Hours to fill. Mistakes to remember. A past to haunt. A future to dread. A suspended present.

Vienna is no exception. No lovers in the parks, only the ancients who fix themselves on the benches, pushing their eyes inward into 50, 60, 70 years of almosts or maybes. Everyone goes inward on a Sunday, unless he's lucky.

I have too sorry a past and too mysterious a future to like Sundays. I wonder how many people don't?

What makes Viennese old women so delightful and female rednecks over 40 so repulsive? Culture? Breeding? They're both stuffy in a certain way. The Viennese are physically rougher and probably more righteous, but I can't help liking them. Perhaps it's because they bother to get out and be seen. It's hard to dislike someone lively. Perhaps we just don't have that many places for the elderly to go except First Baptist. I like the old biddies here. They own this city. Maybe there is a certain beauty in the aged.

Vienna

Leftover thoughts:

Baroque churches are more sensual than religious. Our group is splitting. Good. It's unhealthy to cling. Feldbrod would have made a terrific Anthony

Quinn.

This city is becoming too much like home.

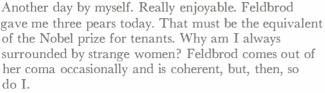
There are a few visual experiences which will never diminish with age, and that is good because these are the same ones which cannot be sucked into a camera.

The most striking one is the *Rathaus* [city hall] at night. One has to be a mile away to look up at it without getting dizzy. The blue-green stone always looks so cold and smooth, and the large clock in the center gives an eerie glow.

If I were going to impress someone, however, I would take them to Belvedere Palace on a clear day. The combination of Vienna and the hills in the background is beautiful beyond description.

October 27, 1971

"I haven't done one-tenth as much as anyone else on this trip, and yet I feel like a mental glutton."



I suppose I should write some more physical descriptions of Vienna, but the fact is that I've stopped observing it and started living in it. I could no more give a clinical description of Vienna than I could of my old neighborhood. Nothing strikes me as unusual or singular anymore.

Well, what am I getting out of this trip? A typical American pragmatic question. We don't do things for their own sake. We even enjoy ourselves, so we can say we enjoyed ourselves.

Nevertheless, I left a fiancee, extended my time in school, and spent money to come here, so the question is not really moot. German? Yes, I'm learning German. Culture? Up to my nose. Enriching experiences? To the point of gluttony.

The only bad thing is that I won't realize it until, perhaps, years from now. Now it's a drag. That's why it's important that I write it now. Remember this page, Carl, when you get starry-eyed. . . .

Vienna

November 3, 1971

When are we ready? I realized today that we have eight more days of class and Fraulein Ingram is still searching for some type of workable class routine. We have eight more days of class and Helke hasn't reached the Baroque.

It's amazing how we spend so much time preparing. We're still preparing Feldbrod for some better type of living situation. We're still learning about Vienna. Time is the most difficult concept to put into perspective. So much of the conversation in our group concerns preparation for our free time, as though school were no more than a stepping stone. Hotels, prices, places, trains: this is the stuff we work with.

Tonight my roommates spent the night preregistering for the next term at Furman. I'm not being self-righteous, because I realize I'm preparing to go home. Somehow, for some reason, buried and covered with memories of missed opportunities, we leave our



past and destroy our present with dreams of the future, a future which invariably proves to be independent of our pathetic attempts to shape it. This trip is not what I pictured it to be; neither was college. That's not to say everything is a disappointment. What's important is that we seem to allow the present to parade in front of us without experiencing it. We've been here over two months. It has gone quickly, but it seems like two years.

Grade fever is breaking out. Horrors of denials to grad schools, shot egos, unacceptable G.P.R.s. To heck with it—I'm just too old to bother. If I can't think of something more important to keep me up at night, then I'm in bad trouble. If nothing else, Vienna should have taught me that just maybe life can be measured by something other than a written account of past performance.

Vienna

November 7, 1971

Saturday night alone. I should be worried, but instead I just feel kind of relaxed. I wonder how long this pace will be able to stay with me. I'm going to miss Vienna. I can tell already. As much as I want to get home, I'm going to miss Vienna.

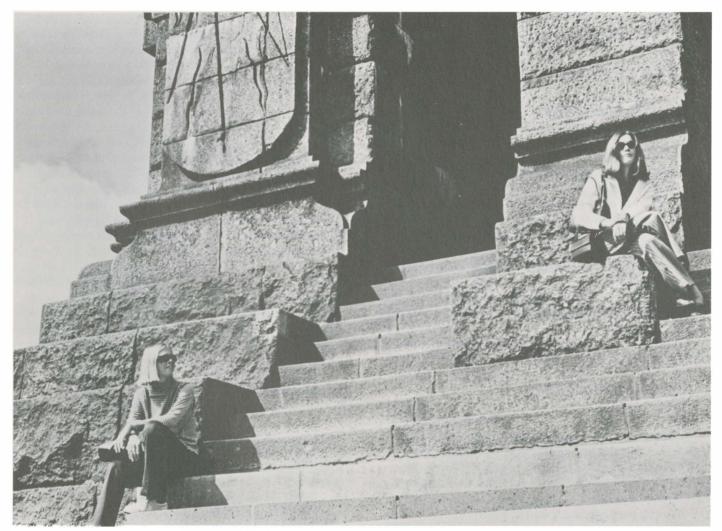
Feldbrod cussed Jonathan Ray for visiting on Saturday. Nothing can excuse rudeness. We are now giving her the silent treatment and driving her crazy.

The body has a set of pressure releases positioned throughout the figure. These are the voices of pain which keep us from killing ourselves because of our own overenthusiasm or stupidity.

What do we have for an overworked brain? What tells us to quit perceiving when the space within the curls and folds of electric tissue receive so much from so many directions which demand so much consideration? I haven't done one-tenth as much as anyone else on this trip, and yet I feel as though I were a mental glutton. I have so much within me now that I neither feel capable of receiving any more nor even sorting out that which I've already seen, felt, heard, or touched.

Soldiers coming out of an especially horrible battle usually can't relate what happened. Their memory of the nightmare, warped and amplified and distorted by over worked senses stretched to inhuman proportions, consists of scraps of trivia.

Vienna Diary



Waiting for the steamer to take them up the Rhine, Kay Lewis and Julie Ratterree relax in Koblenz.

THOMAS BACON

A three-month stay in Vienna is certainly not a front line assignment, but the comparison is not ridiculous. I'm bombarded with so much so fast that when I get back, I'll probably be able to remember the oddest assortment of unrelated events.

Better to take it slow, experience what you see, than to rush around in a frantic attempt to "do" Europe. If I return with only a feeling for Vienna, I want it to be a true one. School is over. Odd that it ended as inconspicuously as it began. It started slowly and had an even more painful ending. The flight to Europe was a fitting beginning hectic and abrupt. School, however, sneaked up on us, and we were five weeks into the term before we realized what was going on.

And now it's over and I didn't see it leave. I've been waiting for it to go away and I didn't even see it go. "The snow was a sign to me, a sign that I had stayed too long...."



Until Prague, I never found much value in the cliche, "it's important to broaden your horizons."

Drab, grey, lifeless, almost constantly dark, truly depressing. Despite all of my 20th century depressions and neuroses, I never realized how important light and color were to me. Prague has a total lack of color.

As far as I'm concerned, it is a different world. The only link with us is its preserved history. The mixture of communism and the Middle Ages, however, just doesn't work.

Nothing is improved or taken care of. Dented cars remain dented, crumbling houses continue to decay, and the sidewalks lose their cobblestones like an old man losing teeth.

The air is a mixture of fog, mist, exhaust gas, and grit. One has to look through the air to see anything, and the effect is extremely spooky.

I was glad I went, but I was even happier to leave. After Prague, Vienna was indescribable. Vienna was home. To me, Prague is the edge of my psychological flat world. I don't want to go again.

I wasn't expecting snow. It started out as a surprise, a pleasant one, but developed into something foreboding and mysterious.

I stood at the window and watched the grey and white envelop the ground, streets, building, cars, trees. Usually it would not fall vertically like the pleasant artificial stuff used in store windows and films; it would instead be forced to the ground by a cruel wind, as though it were being rushed because there was much more behind it to come. And there was. It seemed to come forever and, watching from my window, I couldn't help worry that perhaps I wasn't meant to witness this; perhaps this wasn't part of the \$1,400. But why?

The cars began to lose their shape and streets and sidewalks merged despite the feeble attempts of car tires to prevent the union. The sill in front of me began to whiten. The other side of the street blurred with the horizon, branches began to disappear and then even tree trunks became mere dark shafts in the grey-white murk.

All of a sudden I knew why this left me so uneasy: The snow was a sign to me, a sign that I had stayed too long, and that staying longer was dangerous. It was a blunt reminder that I was to be somewhere else. For

re here too long.

their branches.

having missed my chance.

Am I really going to remember? Which is more real, the event as it happened or the memory which is born in the occurrence and nurtured by time, until it takes on a firm configuration of its own? Perhaps they are both realities, separate but equal.

a moment I had the fear of being forced to stay now,

are wet concrete and the sidewalks wet ice. The cars

have their shapes and trees have miraculously regained

Still, the lesson or warning remains. I have been

Today the sun is where it should be; the streets

But, how am I going to explain it? How do you recreate with words a subtle combination of sight, mood, weather, and other conditions? How am I going to reconstruct the cold wind on my face as I viewed the countryside from the wall of the monastery at Melk? How am I going to transmit the loneliness of Sunday nights in a cold, garish room? It's all I can do to remember it, much less pass it on.

I suppose I wouldn't be concerned with memories at all if I didn't have this *Tagebuch*. Perhaps it's the singular nature of the experience that makes me want to get it down in some permanent form.

Vienna

November 30, 1971

If my eyes didn't need prisms and if my ears were waxless, if my nose were clear and my taste buds not seduced by food and drink, and, most importantly, if my mind were free of too many memories of too many places, then perhaps the hand would produce something other than an apology.

I didn't miss Vienna, but I didn't catch it either. But I wouldn't be surprised if no one else has either. I may not have defined it, but I have felt it, felt it as surely as if I touched it. And, like the impressions on a hand, I've got something to show for what I've felt. A slower heart, a quieter and slower step. A calmer voice. These are not unimportant things.

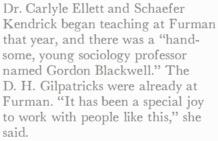
Odd, that's not why I came here, but that will be the most important thing I take back. I hope I don't lose it at customs....

iss Alice Adams is a quiet, sprightly lady who has handled Furman library patrons with consummate skill for the past 33 years. Possessed of uncommon composure, she has never been ruffled by students who do not know how to find what they are looking for or by professors who are irritated because all of their books are not in one place or by total strangers who sometimes ask bizarre questions.

During her years at Furman she has cheerfully helped literally thousands of people find all sorts of information and publications. There have been times, however, when she could be firm. When, for instance, students fell asleep stretched out on the couches (instead of sleeping unobtrusively at the tables), she usually woke them with a gentle shake.

Miss Adams retired from library work at Furman on August 31. A few days before her retirement she consented to talk a little about the past. From the time she came to Furman in 1939 as assistant librarian, she said, she was in charge of circulation, first in the library at the Woman's College, later, for five years, in the library on the Men's Campus, and most recently in the James B. Duke Library on the new campus. She was also in charge of student assistants for many years, and, as associate librarian since 1960, she had performed other administrative duties.

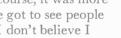
When she came to Furman, she recalled, Dr. John L. Plyler had been president of the college only a few months. Marguerite Chiles, now dean of women, was president of the senior class at the Woman's College.



Although Miss Adams liked working on the Women's Campus, the library was off to one side and few people used it, so she was glad to have the opportunity to move to the Men's Campus in 1953. "It was much more stimulating," she said. "A lot more work went on over there, and I came in contact with more people."

When the library was moved to the new campus in 1958, once again she welcomed the change, this time because of the beautiful new library building. "I guess some people would think this is heresy," she said, "but there's no comparison between the two libraries. On the Men's Campus we didn't have any screens at the windows, and when we stayed open at night in warm weather, the bugs came in. Of course, it was more intimate there. We got to see people more closely, but I don't believe I knew the faculty any better than I

Alice Benson Adams was born in Seneca, S. C., the youngest of eight children. She graduated from Furman in 1923 and taught Latin in high school for several years. She became interested in library work and attended the University of North Carolina for three summers to earn the A.B. in library science. While teaching in North Carolina,



do here. Just the physical comfort of this building, the fact that we have so much more room to operate.... Well, it's so much more like what a library should be." In 1939 both Furman libraries had a total of 49,000 volumes, received 200 periodicals, operated with a staff of five, and had no set budget. Today the library has 192,000 volumes, receives more than 1,300 periodicals, employs a staff of 20, and has an annual budget of \$115,000.



It is hard to think of being at Furman without

she visited Dean Virginia Thomas at the Woman's College and mentioned that she would like to be employed nearer to home. Soon afterward she was offered the job as assistant librarian at the Woman's College, and she accepted the offer immediately, she said. Later, in 1950-51, she attended Columbia University and received the M.S. degree.

With typical modesty, Miss Adams insists that nothing exciting has ever happened to her since she came to Furman (or before that). Last spring a group of her friends who were attending a dinner in her honor at Furman reminded her of some of the more memorable events of the past 33 years in a taperecorded sort of "This Is Your Life." They described how at the Woman's College she had learned to guard the windows on the second floor of the library to prevent students from climbing out on the shaky roof of the back entrance to get a better view of May Day exercises. They told about the bomb scare that occurred one night in the sixties when someone spotted a small metal box in a library window (the box turned out to be part of the airconditioning equipment). They told of her efforts to learn how to drive when the library moved to the new campus, of the trips she took with other librarians.

Lark Harris, long-time janitor in the library, described the years' highlights this way:

Miss Adams came in and spoke, "Good morning, Lark." "Good morning, Miss Adams." She said, "I haven't checked the building to see if I have anything to tell you yet, but I will before the day's over."

I said, "Yes'm."

So along about 11:00 she didn't have anything to tell me, but I had something to tell her.

"The boiler is acting up," I came and told her. "We better get the peoples out because the boiler seems like it wants to blow up." And we was running around trying to get the peoples out, and when we got out she said, "Whew, I sho was scared!"

That was all that morning. So we didn't have no more trouble until one morning in '72. She come in again and speak, "Good morning, Lark."

"Good morning, Miss Adams." She said, "I haven't checked the building yet, but I've got something to tell you." It was early for her to have something to tell me.

"I've checked the deposit box, and there's a snake and some frogs in there," she said.

I said, "Miss Adams, you've got the wrong man."

It is impossible to say who has benefited most from Miss Adams' presence at Furman—students, faculty members or her fellow librarians. Certainly professors whom she has helped in an infinite variety of ways (including locating materials for many of their doctoral dissertations) are among the most grateful. Dr. Albert Sanders, professor of history, wrote to her recently: "For putting up with my failure to plan ahead-and saving my face by getting my books in place despite these failures, thank you! For helping students of mine whom I sent to you with problems without properly orienting them, thank you." Dr.

Alice Adams

Charles Brewer, professor of psychology, wrote: "In all of my experience, I have never encountered a more helpful, accommodating, and cordial person than you have been to me during my five years at Furman."

One of her main joys, Miss Adams says, was working with student assistants and seeing some of them go into library work. They, in turn, have been lastingly grateful for her interest. "I appreciated the fact that she always showed such an interest in me personally," Richard Band, a 1972 graduate, said recently." Her concern was especially welcome my freshman year, when I lacked self-confidence and my work in the library became a real stabilizing influence." Mrs. Pat Byars, a Furman graduate who now works in the library, said, "It was she who made me want to become a librarian in the first place. As a student back in the early forties, I felt that there must be something unusually good about a profession which could attract such a wonderful person."

According to her colleagues in the library, Miss Adams has been an inspiration professionally, an understanding and sympathetic friend, and a "raconteur par excellence" with a wonderful sense of humor. Dr. Robert C. Tucker, Furman librarian with whom she worked almost 25 years, summed up their feelings recently when he said, "It is hard to think of being at Furman without Alice Adams. We will manage, I am sure, but it will seem strange." And then he added:

"I don't know who will wake the students."

Letters

It is time for a note! You always do an excellent job on *The Furman Magazine*, but this time you outdid yourself. It is superb and I'm so glad the arts got the attention.

> Pam Shucker '60 Greenville, S. C.

Your publication on art, music, literature and theatre interests us greatly and we would, therefore, appreciate being included on your mailing list beginning with the next edition.

> Marsha Patterson Business Career Institute, Inc. Durham, N. C.

As a member of the class of 1960, I would like to express to you my personal observations concerning the recent change in format of *The Furman Magazine*.

I am very disappointed to see that in the last two issues of the magazine we have deleted the alumni news. I realize that this was probably an economy move, but I am disappointed to see that the alumni news is what had to give, rather than cutting back on some of the more literary-type articles. I am not convinced that the average alumnus is interested in seeing The Furman Magazine develop into a top-notch literary composition. While I don't doubt for a moment the quality of your workmanship, I simply believe that a literary magazine put out by a university is catering to a very small segment of the alumni. I know in the business world it is very important, and almost mandatory, that we do a great deal of reading. In my case, I am afraid the literary magazine will wind up on the bottom of the pile and I may never get to it. However, I found myself drawn quickly to The Furman Magazine to seek out the news of what classmates and other graduates were doing, and this resulted in my usually reading the magazine from cover to cover. I can say that I have been a faithful reader of The Furman Magazine since my graduation.

As you know, communications is one of the biggest problems universities, or any business for that matter, have. If we can keep our alumni reading the magazine, even through such egotistical channels as Class News, the way is made easier when it is necessary to launch a loyalty campaign or a Paladin Club drive. Let's not relegate alumni news to a sporatic newspaper-type report.

> Kenneth R. Brown '60 Vice President and Trust Officer The Citizens and Southern National Bank of South Carolina Columbia, S. C.

Editor's Note: Because of budget limitations The Furman Magazine is now published three times a year instead of four. The newspaper, Furman Reports, is published four times a year. In recent years we have attempted to give the magazine a true magazine format by including more in-depth articles, while printing shorter news-type articles in Furman Reports. Class News was moved to Furman Reports because it seems to fit better into the news format and because Furman Reports is published more often than the magazine.

I want to compliment whoever should be complimented on the recent edition of *The Furman Magazine* about the arts, and I want to particularly comment on Phil Hill's headline, "I think we ought to be able to risk an occasional mistake in an effort to find the truth." People who believe that and act it out are exceedingly rare in this world.

> Arthur Magill Chairman of the Board Her Majesty Industries, Inc. Mauldin, S. C.

The South Carolina Division of the American Association of University Women would like to request permission to reprint Dr. Thomas Buford's article, "Art, Education and the Quality of Life," in the fall issue of *Palmetto Leaf*. We believe this is a good, thoughtprovoking article.

> Choice McCoin '57 Editor Palmetto Leaf Greenville, S. C.

The last issue of the magazine was a superb edition and largely because of your Blackburn article. This article is one of the best that's been published in the magazine and the absolute best about Blackburn anywhere. It will be showing up in footnotes someday.

> Max Steele '43 Head of the Creative Writing Program University of North Carolina Chapel Hill, N. C.

I thought that was a splendid piece on Dr. Blackburn. You caught the essence of the man beautifully—his warmth, his commitment and dedication, and his humanity. I am most grateful to you for writing it.

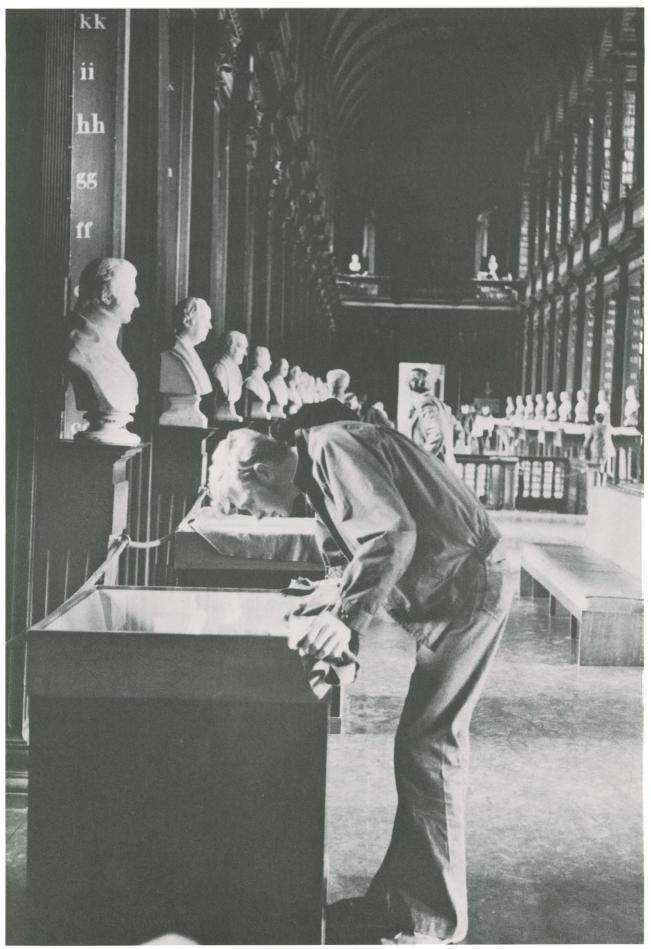
> William Styron Vineyard Haven, Mass.

I received by today's mail two copies of *The Furman Magazine* and I can't thank you enough for including me on your list of recipients—for who would spend 72ϕ on sending two copies to a stranger?

I pawed through the pages in ignorance, as I am a graduate of North Carolina State, class of 1910, until I came almost to the end of the magazine. My eyes fell on the picture of our old friend William Blackburn, "Teacher of Writers"; then my doubts disappeared like mist before the morning snow. Dr. Blackburn is the dearest friend of my son Bill and myself, for we both hold him in the deepest affection.

> William C. Styron, Sr. Goldsboro, N. C.

Photo right: Furman students studying in England also visit Ireland. Henry Parr and other students spent some time in the Trinity College Library in Dublin last year.



The Furman Magazine Furman University Greenville, S. C. 29613

