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NOVA: The University of Texas at El Paso Magazine

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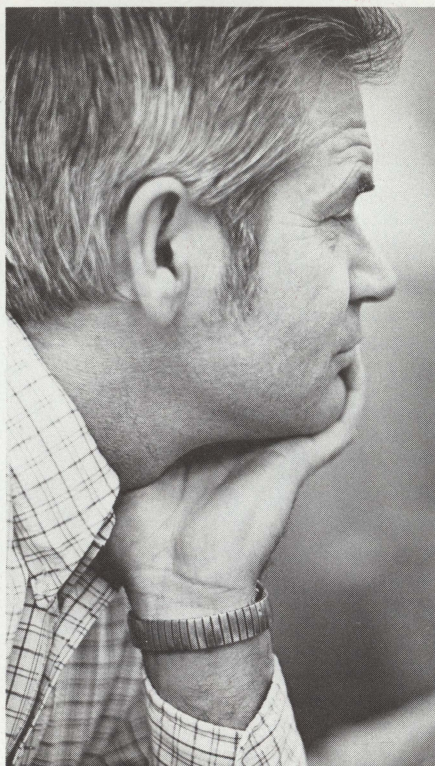
NOVA

The University of Texas at El Paso Magazine



The View from the Hill

by Dale L. Walker



Jimmy

He came here 39 years ago out of Merkel, an oil and feedlot town of a thousand or so people in Taylor County, between Sweetwater and Abilene, just north of Buzzard Mountain. He had a football scholarship and he was a smart, swift and sweet pass receiver (40 one season, a Miner record). He played four years. By 1952 he had been picked football MVP, All Border Conference End, Men of Mines, and had earned *both* his bachelor's and master's degrees. (He received his doctorate in education from Oklahoma State in 1967.)

He did a two-year Army hitch and served as teacher and coach in the Mason, Texas, high school, before returning to Texas Western in 1958 — where he stayed and where, on January 13, 1987, at age 57, his heart stopped suddenly.

Jimmy Reeves Walker, man of many hats, all worn with style: athlete, coach, public school teacher, health and physical education professor, dean of men, dean of students, educational psychologist, expert in adolescent psychology and in counseling, department chairman.

When I learned of his death and after I could think straight, I found in a file a yellowed clipping of a story I

wrote about him for the El Paso Times' "Southwestern in Focus" feature of February 11, 1968. Jimmy was dean of students then, working in the time of the severest "student unrest" that the University has ever experienced. Among some very choice and typically Jimmy Walker quotes in that story was this:

"We are an emerging university and we can never again be the quiet little mining school we once were. . . . The gauge of a university's effectiveness lies in what happens to its students. Do they change? Do they continue learning after the classroom doors close? The students of the 60s, unlike their 'silent' counterparts of past years, are becoming more active participants in their education. You might say they are the 'civic-minded' citizens of the academic community."

In a Q&A interview I did with him in the spring, 1969, *NOVA*, I asked, "Is understanding possible between the 1969 student activist, his 1949 parents, the 1938 alumnus and the 1926 downtowner? Is the gap breachable?"

Jimmy responded, "Yes, I believe very, very strongly that understanding is possible, and that the differences are not as great as they appear to be. If people get to know each other, there can be understanding. They may not agree, but they can discuss and respect the other's opinion. The student who flatly rejects economic values can come to understand the banker and vice-versa if they come together as two human beings, express themselves and listen to each other. . . . Distrust, hate, fear, these are products of separation. When people come together, a lot of magic can take place. . . ."

Later, I ask about his optimism and how he could sustain it when doom-and-gloom had etched itself on so many faces around him. His 1969 answer was that yes, he is an optimist and working at UT El Paso nurtured optimism: "I believe the university is the most humane institution in our society — a place where people can respect each other regardless of their race, creed, color or national origin."

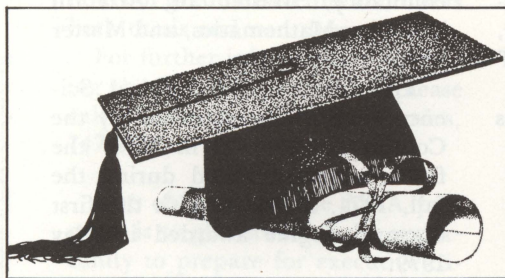
These are not cobwebby abstracts from old, dutiful, public statements. Jimmy was *like* that: eternally optimistic, humanistic and compassionate.

Over countless #5 Mexican plates at the Hacienda in the 20 years we lunched together there, with a draft

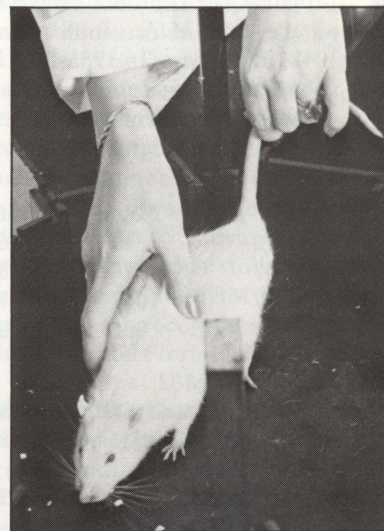
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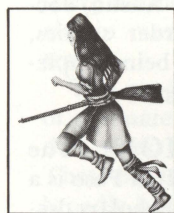
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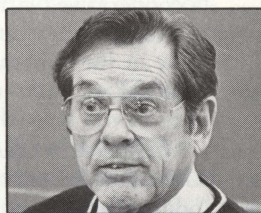
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On the Cover:



Ruth G. Perez
(Photo by Chad Puerling)

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HISTORY: Graduate study was first approved for the Texas College of Mines and Metallurgy in 1940 by the University of Texas Board of Regents. The first graduate courses were offered in the summer, 1941, with course work offered leading to a Master of Arts in education, English, and history.

Nancy Lee Hammons was awarded the first M.A., in September, 1942, in history. (In 1985-86, UTEP awarded 310 graduate degrees.)

The graduate enrollment trend is shown in these figures:

Year	Men	Women
1941-42	17	66
1966-67	576	382
1976-77	1071	775
1986-87	990	1096

Graduate study in Spanish was offered in 1946, Master of Education programs began in 1956.

The Master of Science in Physics was approved in 1962 and since then, Master of Science degrees have been added in biological sciences, chemistry, six fields of engineering, computer science, geological sciences, geophysics, health and physical education, mathematics, nursing, speech, hearing and language disorders, and statistics. Computer science is the newest of these programs, beginning in 1983 and graduating its first student the following year.

Additional Master of Arts programs in applied English linguistics, drama, drama and speech, economics, political science, psychology, and sociology, are now offered.

The first Master of Business Administration (MBA) degree was awarded in August 1974, and the Master of Public Administration and Master of Interdisciplinary Studies have been offered since 1979.

Since 1979, several specialized master's level programs have been offered, including the Master of Accountancy, Master of Arts in Teaching Mathematics, and Master of Music.

The Doctor of Geological Sciences degree was approved by the Coordinating Board in 1974, the first students enrolled during the fall, 1974, semester, with the first doctoral degree awarded in May 1979.

The newest graduate program is a cooperative (with UT Austin) doctoral program in border studies, now in the process of being implemented.

ORGANIZATION: The Graduate School of UT El Paso is a body of professors and scholars designated as Members or Senior Members of the Graduate Faculty and of students duly admitted to pursue their studies beyond the baccalaureate degree. All members of the Graduate Faculty are expected to maintain a national reputation in their field of scholarship.

In academic areas or departments offering graduate-level courses, the members of the Graduate Faculty constitute an individual Committee on Graduate Studies. All recommendations made by committees on graduate studies are subject to review and approval by the Graduate Dean, administrative head of the Graduate School. □

The Deans

John L. Waller (1956-59)
Charles A. Puckett (1959-60)
Anton Berkman (1960-61)
C.L. Sonnichsen (1961-67)
Edmund P. Coleman (1967-69)
Kenneth E. Beasley (1969-74)
Rudolph Gomez (1974-80)
Michael E. Austin (1980-87)
Joseph H. Pierluissi (1987-present)

CREDITS

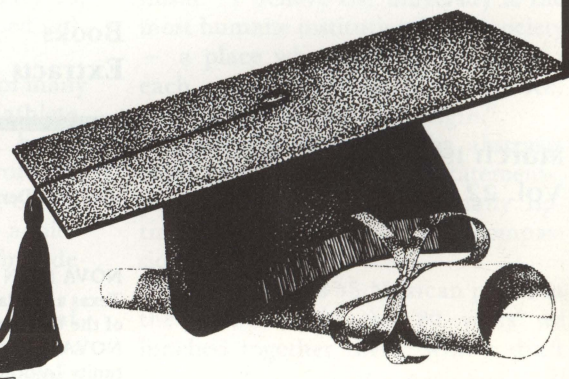
NOVA extends its gratitude to a number of UTEP people for their work in gathering the information and writing the narratives for this special section on Graduate Studies.

Graduate Dean Michael E. Austin coordinated the entire project with the deans of the six colleges and supplied the history of the Graduate School. Assisting Dr. Austin was Harmon M. Hosch, associate graduate dean.

We also extend our thanks to new Graduate Dean Joseph H. Pierluissi, and to deans Ronald W. Hasty (Business Administration), Robert B. Grieves (Engineering), Lynn B. Welch (Nursing), James V. Devine (Liberal Arts), William P. Dunlap (Education) and William Herndon (Science); also to the assistant deans and various faculty members of the colleges who contributed time and writing talents to this section, among them Kathleen A. Staudt, William C. Cornell, Richard W. Burns, and Wilke English.

— Editors

Graduate Studies



Business Administration

The College of Business Administration offers graduate programs in three areas: the Master of Accountancy (MAcc), the Master of Arts in Economics, and the Master of Business Administration (MBA).

The Master of Accountancy is a professional graduate degree for students preparing for careers as professional accountants. The program provides the student with in-depth exposure to the basic areas of accounting, while allowing for specialization to accommodate the student's particular needs and interests. In addition, the program is designed with concentration areas in Managerial Accounting, Tax Accounting, and Financial/Auditing.

The American Institute of Certified Public Accountants recommends five years of academic study to obtain the professional knowledge necessary for a career in accounting. The MAcc degree consists of 36 hours (30 hours in accounting) for students entering the program with an undergraduate major in accounting. The required hours for students with baccalaureate degrees in other fields will vary on a case-by-case basis.

The courses offered in this program may also be used to meet continuing professional education requirements.

For further information concerning the MAcc program, please call the Department of Accounting, 747-5192.

The Master of Arts in Economics is designed to prepare graduates for positions in industry, finance, and government which require strong research/analytical backgrounds. In addition to the standard theory courses, the curriculum strongly emphasizes application of quantitative techniques to problem solving. The structure of the program also permits the student to take multiple courses in areas of special interest.

The M.A. program also offers the student the preparation needed

to progress toward a doctoral candidacy. Many of our graduates have chosen to continue their graduate work and have achieved a high rate of success.

The M.A. degree requires 36 hours of graduate credits and offers both thesis and non-thesis options.

For further information concerning the M.A. in Economics, please call the Department of Economics, 747-5245.

The objective of the MBA program is to give students the opportunity to prepare for executive careers in business or in other fields using business techniques and policies in management and administration.

The program requires 36 hours of graduate work, plus any foundation work that may be required. These 36 hours include 24 hours of broadly based "core" work, and 12 hours of work within a chosen area of concentration, including the professional report, worth 3 hours credit.

Like most MBA programs, the UTEP-MBA program is structured as a two-year program. ("Year" meaning that a student could complete the material in one calendar year of full-time enrollment. Most students in the UTEP-MBA program attend only part-time, and hence take proportionately more time to complete the program.) The first year of the program is foundation work, designed for students *without* an undergraduate degree in business. Students with an undergraduate degree in business administration are scheduled directly into the second year of the program.

As mentioned, the MBA program is designed with the working professional in mind. All of the graduate courses are taught in the evening, each class meeting one night per week for three hours.

For more information concerning the MBA program, please call the Office of the Dean, 747-5241.

The College of Business is justifiably proud of its excellent teaching and research facilities.

The \$7 million College of Business Administration building opened in 1983 and houses all of the classrooms, labs, and offices in Business Administration. The College also contains an impressive array of computer equipment including an HP 3000 computer which drives approximately 25 student access terminals. In addition to the HP 3000, which is used primarily for upper-level research in the advanced CIS classes, there are other student labs featuring almost 100 IBM PCs and compatible microcomputers. The College has direct terminal access to the University's IBM-4381-2 and IBM-4341-MO2 mainframes. And finally, the College recently acquired an AT&T Writer's Workbench system, a sophisticated hardware-software package which performs detailed analysis of written compositions. The system is designed to improve the writing skills of business students.

The recently completed University Library adjacent to the College of Business houses over 700,000 volumes, including all of the recommended Harvard Baker Core Collection in Business and Economics. The Library subscribes to over 200 business and economic journals.

The College is also proud of its outstanding graduate faculty, which includes an impressive number of nationally recognized scholars.

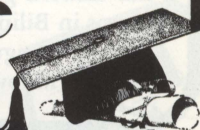
Another important part of the College's research effort is the

(Continued on page 16)

Graduate degrees offered:

Master of Accountancy
Master of Business Administration
Master of Arts: Economics

Graduate Studies



Education

The College of Education is centered around two programs of study: Teacher Education, and Educational Leadership and Counseling.

Together, these two programs of study provide the University the highest enrollment of all graduate study areas — 2,772 credit hours in the fall of 1986.

The Department of Teacher Education offers graduate programs to teachers and to others interested in advancing their knowledge in the profession of education.

Graduate students in the Department of Teacher Education have three options. The Master of Education degree is chosen by the professional educator, while the Master of Arts in Education and the Master of Science in Health and Physical Education are designed for research or continued studies at the doctoral level.

The Department of Educational Leadership and Counseling offers the Master of Education and Master of Arts degrees in numerous areas. These include school supervision, educational administration, school counseling, agency counseling, educational diagnostician, and special programs. In addition to the degree programs, certification by the Texas Education Agency is possible through course work offerings in the areas of professional school or special education counselor, professional school supervision, professional educational diagnostician, professional mid-management school administrator, and professional school superintendent.

Research conducted by the Graduate Faculty of the College of Education continues to be a focus of achievement and pride for the University and the community, with many faculty members having achieved both national and international recognition for their work.

External funding of \$2.5 million has assisted graduate training programs in Bilingual and English as a Second Language education. Significant innovations are the devel-

opment of and training in specialized microcomputer applications in the curriculum and the development of an honors teacher training program for developing leadership and excellence in this area of education.

Early childhood education research, funded under a federal grant from the Office of Bilingual Education and Minority Language Affairs, resulted in development of instructional materials including an early childhood computer curriculum. Early childhood programs have grown in recent years from a few courses in kindergarten education to an undergraduate teaching field, whose first graduates will receive degrees in May 1987, and an area of specialization for the Master of Education degree.

Since testing became standard practice for admission to teacher education programs, the College of Education has emphasized the diagnosing

and remediation of deficiencies students have in language and mathematics skills. National attention has been focused on the College for a project which identifies areas in which students need academic help and shows them where the help is available, to prepare them for the state required Pre-Professional Skills Test.

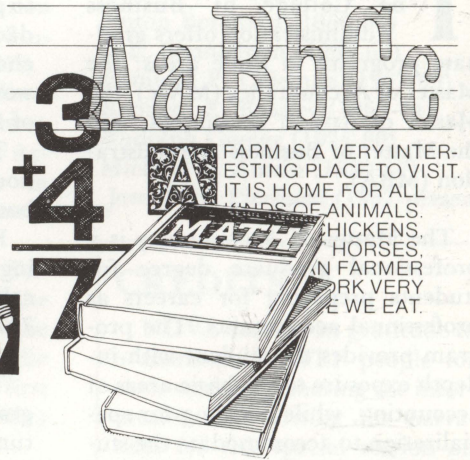
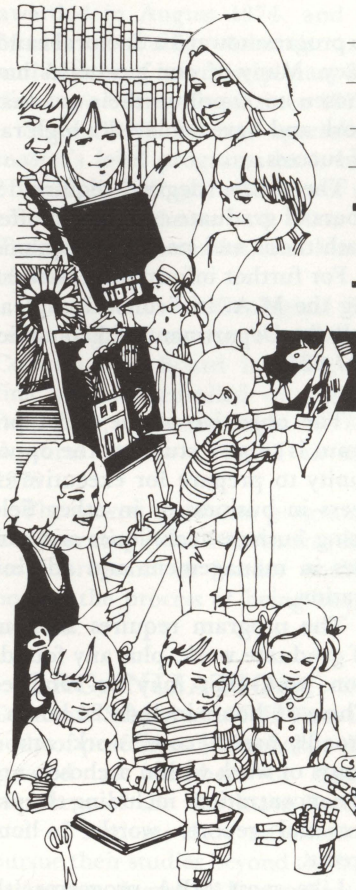
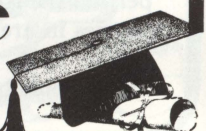
Special Education is another area of research which has attracted federal and local grants related to providing services to adults in transition from school to the work force.

Numerous other research opportunities are available to graduate students in a wide variety of specialized topics. Information about the College's graduate programs is available from the graduate advisors in the Departments of Teacher Education and of Educational Leadership and Counseling. □

Graduate degrees offered:

- Master of Education
 - Curriculum Development Specialist
 - Educational Administration
 - Educational Diagnostician
 - Educational Psychology and Counseling
 - Instructional Specialist
- Master of Arts: Education
- Master of Science: Health and Physical Education

Graduate Studies



Engineering

Graduate study is available in all departments of the College of Engineering.

For students interested in the practice of professional engineering, the Master of Science in Engineering (M.S.E.) degree is offered in several specialization areas, while the more traditional Master of Science degree is available in civil engineering, computer engineering, computer science, electrical engineering, industrial engineering, mechanical engineering, and metallurgical engineering.

Graduate students in Civil Engineering have major concentrations in the areas of environmental/water resources, geotechnical and structural engineering. Each of these study areas is supported by excellent laboratory and computer facilities. The graduate faculty members, all holding doctorates from major research universities, have brought the department an outstanding reputation, nationally and internationally.

Current faculty research interests and activities include mechanics of saturated and unsaturated soils, groundwater contamination and reclamation, bearing capacity of foundations, impact of solids on composite materials, structural anchor holding capacity in soils, hazardous and radioactive waste management, transportation technology transfer, water reuse, and border air pollution control.

With a \$295,000 research grant from the National Science Foundation, the department is developing a materials testing research laboratory that will be unmatched in the Southwest. Other research funding resources include the U.S. Army, Federal Highway Administration, Engineering Foundation, NASA, the State of Texas and the City of El Paso.

Under research thesis requirements, students have the opportunity to enter interdisciplinary studies involving the Department of Geological Sciences, Los Alamos National Laboratory and the Pan

American Health Organization.

One of the newest and largest graduate programs on campus is for the Master of Science in Computer Science. Established in 1983, the program now has more than 60 students; more than 30 degrees have been awarded.

The Computer Science program is concerned with establishing a rigorous scientific foundation for all aspects of computer design, development and application. Opportunities for specialization include information storage and retrieval, computer graphics, computer vision and distributed processing.

A strong area of specialization is artificial intelligence. This refers to the design of computer systems which duplicate the kinds of decision making processes usually associated with human reasoning. Research work involves both theoretical and applied projects, the latter including identification of hazardous waste materials and location of illegal aliens.

The Electrical Engineering Department offers graduate programs in both Electrical Engineering and Computer Engineering. Approximately 60 students are currently enrolled, of whom some are practicing engineers in the El Paso area.

Areas of specialization in Electrical Engineering include communications, control and electric power systems. Some of the leading practitioners in atmospheric science and engineering are graduates of the long established program in that field. Students have developed software packages for atmospheric transmission, designed and built a wide variety of lower atmosphere measurement systems, and are now involved in developing systems for remotely piloted aircraft.

The Computer Engineering degree program introduces students to the design and utilization of computer systems, supported by a VAX 11/780 super minicomputer system and Intel experimental distributed processing system, computer graphics

hardware and a sophisticated computer vision system.

The Mechanical and Industrial Engineering Department offers master's programs in Mechanical Engineering, Industrial Engineering, and a Master of Science in Engineering with a specialization in Manufacturing Engineering. The graduate student may focus attention in the thermal sciences, fluid sciences, solid mechanics, production engineering, or manufacturing engineering, or may obtain a broad background by taking courses in all these areas.

New courses have recently been added in the areas of computer-aided design and computer-aided manufacturing, with support from a new VAX 11/780 mini-computer system, a microcomputer laboratory, a computer drafting and computer-aided design system, new robotics and numerically controlled machine laboratories. A new computer integrated manufacturing lab will be completed later this year. The UTEP solar pond, second largest in the U.S., was the first such facility in the nation to produce electrical power.

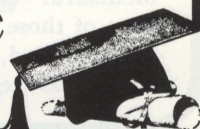
Several students have received financial aid as participants in the Manufacturing Engineering Consortium under which they conduct research projects with sponsoring companies. Graduate courses are generally offered in late afternoon and evening hours for the convenience of locally employed students.

(Continued on page 16)

Graduate degrees offered:

- Master of Science
- Civil Engineering
- Computer Science
- Electrical Engineering
- Engineering
- Industrial Engineering
- Mechanical Engineering
- Metallurgical Engineering

Graduate Studies



Liberal Arts

The El Paso-Ciudad Juarez metropolis of 1.5 million people is rich in size, language and ethnic diversity. Many needs exist for advanced professional training related to this bilingual, bicultural population.

UTEP's College of Liberal Arts houses innovative graduate programs designed to apply knowledge in the worlds of government, social work and psychology. These programs display the capacity not only to serve important local and regional needs, but also to attract students for the unique training UTEP can provide.

The College of Liberal Arts is the largest and most diverse college on campus. Master's degrees are offered in the fine arts, humanities and social/behavioral sciences.

Three of the College's programs are highlighted here to show how they meet area needs.

Employed in government and private agencies, schools, businesses and other settings, graduates from the master's in social work program seek advanced training for better careers and greater challenges. Characteristic of our border region is the need for social services pertaining to immigration, low income, unemployment and family problems resulting from these phenomena. The local chapter of the National Association of Social Workers reports that more than 300 social service agencies operate in the El Paso area, with the numbers of workers in the agencies sometimes in the hundreds. Until recent years, positions requiring advanced degrees often went to non-El Pasoans because the nearest graduate training available was hundreds of miles away.

In 1982 the University of Texas at Austin set up this innovative program at UTEP, aimed at perfecting social service skills in bilingual, bicultural environments. Since most of those pursuing this degree are employed, faculty from Austin and El Paso teach evening and Sat-

urday morning courses. They also supervise internships that give students experience in field work.

An evaluation made by the UT Austin School of Social Work found that El Paso's students — most of them experienced, working professionals — were slightly older (mid-30s average) than Austin's and more balanced ethnically. Student performance on both campuses with identical course requirements and professors, showed El Paso students scoring equal to or better than Austin's. El Paso students scored as more interested in the distinctive mission of social work — social care geared to the needs of disadvantaged, impaired, and underserved people — than were the Austin students, who were more committed to private psychotherapeutic practice.

Professionals in government and the non-profit sector and those seeking positions in either field often turn to the master's in public administration program to strengthen their career mobility opportunities. Since World War II, the greatest growth in government has occurred at state and local, rather than federal levels. Isolated from other large urban areas, El Paso is a center with large numbers of county and city positions as well as regional federal offices whose employees are candidates for this training.

The program focuses on courses in administrative theory, finance and budgeting, personnel, policy and implementation, and other key areas of public management. Innovative courses have been offered in brain skill management for increased productivity, women in management, and health management and administration. Paid internships provide experience in agency management positions. Government practitioners join academic faculty to teach courses.

The 78 students enrolled in the fall of 1986 were mostly experienced civil services

personnel and also included lawyers, a psychologist, and West Point graduates.

The graduates have gone on to perform better in government, obtain promotions, or secure new positions. Among them are a graduate who is in the Mayor's Office in Washington, D.C., another in the General Accounting Office regional office in Dallas, and a staff professional for state representatives in Austin. As a result of the program, students and management practitioners from El Paso and southern New Mexico organized a local chapter of the National American Society for Public Administration (NASPA) which meets monthly.

UTEP's Psychology Department, one of the best departments at the University for its research faculty and external grant-getting capability, has offered a master's in experimental psychology since 1965 and in clinical psychology since 1972.

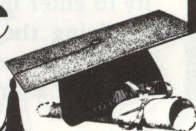
Currently under review by authorities in Austin is a comprehensive proposal for UTEP to offer a Ph.D. in applied psychology. Not only is there a great need in the El Paso area for bilingual, biculturally sensitive professionals, but state higher

(Continued on page 16)

Graduate degrees offered:

Master of Arts
Applied English Linguistics
Drama
Drama and Speech
English
History
Political Science
Psychology
Sociology
Speech
Spanish
Master of Arts in Interdisciplinary Studies
Master of Music
Master of Public Administration
Cooperative Doctoral Program in Border Studies

Graduate Studies



Nursing and Allied Health

The graduate nursing program in the College of Nursing and Allied Health is the only such degree program in the West Texas area.

The program is designed to prepare professional nurses in a variety of specialty areas, and in assuming a number of different roles in diverse settings. Additionally, it provides access to education for nurses who not only work various shifts but who may need to travel as much as 500 miles for their classes.

Students may choose from these clinical concentrations: medical-surgical nursing, maternal-child nursing, or psychiatric nursing. Each student also chooses a functional major in teaching and/or administration. All students complete at least one clinical investigation. Thesis or non-thesis options are available.

Because of the diversity of clinical concentrations, many graduates have been able to complete certification in such areas as certified perinatal nurse practitioner, certified nurse midwife, oncological nurse clinician, critical care clinician, perioperative nurse clinician, and certified emergency nurse clinician.

Clinical studies and thesis research often find wide use. For example, a school system used information in a student's thesis research on adolescents' levels of sex and contraceptive knowledge to further develop its health curriculum. A medical center has asked for a graduate student to follow up an earlier thesis project to develop modification of a computer system to improve nursing records of patient care.

For students who are not working full-time, the Master of Science in Nursing program may be completed in one calendar year. For those who live some distance from the University, a rotating schedule of classes is taught only on weekends.

Among the 150 current graduate nursing students is Ann Sossong, who lives and works in Maine and



attends summer sessions. She already has a Bachelor of Professional Arts degree and a master's degree in education and holds the position of assistant director of nursing and in-service education. She chose UTEP because its program was the only one in the nation offering summer courses in areas in which she wanted to develop expertise. She has been recognized for her nursing abilities by the Maine State Nurse's Special Recognition for Outstanding Achievement.

Louise Castro, currently a full-time graduate student and teaching assistant, began her graduate work in weekend classes when she was working as a nursing supervisor. She is majoring in nursing care of the adult patient with cardiovascular problems. As a teaching assistant, she discovered she enjoyed teaching and decided to change her professional focus from administration to teaching.

Mike Griswald was chosen by the Army to take long-term civilian training. Of three programs which offered emphasis in the perioperative role, he chose UTEP's because of "its excellent reputation with Army nurse graduates and the professional opportunities available in the military in this area." He has chosen to specialize in perioperative nursing, taking both administration and teaching functional areas. His

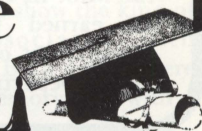
thesis topic is "Effects of Pre-operative Teaching on Patient Anxiety During and After Surgery." chosen to specialize in perioperative nursing, taking both administration and teaching functional areas. His thesis topic is "Effects of Pre-operative Teaching on Patient Anxiety During and After Surgery."

He and Mary Gautreaux, both graduate student representatives for various committees, have started a newsletter, "Graduate Comments," with information on continuing education courses, study sessions and other helpful material for students.

As the experiences of these students indicate, the graduate nursing program offers a variety of clinical and functional concentrations and specialties from which the student can develop an individualized degree plan. Additionally, classes are scheduled at times convenient to students who may be able to attend only weekends or summers. □

Graduate degrees offered:
Master of Science in Nursing
Master of Science: Speech, Hearing
and Language Disorders

Graduate Studies



Science

The College of Science has what is thus far the University's only doctoral program and hopes to gain official approval for another one.

The first graduate program in the College of Science was for the Master of Science degree in Physics, whose first graduates in 1964 were R. Gomez, A. Shlank, K. Wiener and C. Wilson. A mainstay of the program was the Schellenger Research Laboratory, directed by Thomas G. Barnes. Created in 1953, that facility supported research for as many as 40 faculty members and students per year during the 1960s and 1970s.

The next graduate program in the College was in Geological Sciences, with the first master's degree awarded in 1969 to Jack Meyers. To date, more than 150 students have completed this program.

The following year, two more master's degree programs had their first graduates: Keelung Hong in chemistry and four in mathematics, Carol Ezzell, Nancy Marcus, Vien Thoungh Phan and Randall Walters. Since then, some 80 M.S. in mathematics degrees have been conferred.

In Biological Sciences, W.L. Roueche III became the first (of 135 to date) to complete the M.S. in Biology in 1971.

More recently, additional master's level programs have been developed to serve professional teachers: the Master of Arts in Teaching Mathematics and an M.S. program in Biological Sciences.

For students who do not wish to be locked into a single field of scientific study, there is the M.S. in Interdisciplinary Sciences administered under the Physics Department. A non-thesis program, it allows students to concentrate studies in cross-disciplinary areas such as biochemistry or biogeology. Also interdisciplinary in nature is the M.S. in Geophysics, which can be earned through either the Department of Geological Sciences or the Department of Physics.

Since 1974, the College of Science has offered the Doctor of Geological Sciences degree, as yet the only doctoral level program in the University. The first recipient was Gary Massingill in 1979. Eighteen subsequent doctoral degrees have been awarded.

The first endowed professorship in the University bears the name of a long-time faculty member who was also one of the earliest students at the institution. The first Lloyd A. Nelson Professor of Geology was James E. White in 1974. In 1986 funds for a second chair, the Richard and Frances M. Dudley Professorship, became available and William C. Herndon will fill that position beginning in September 1987.

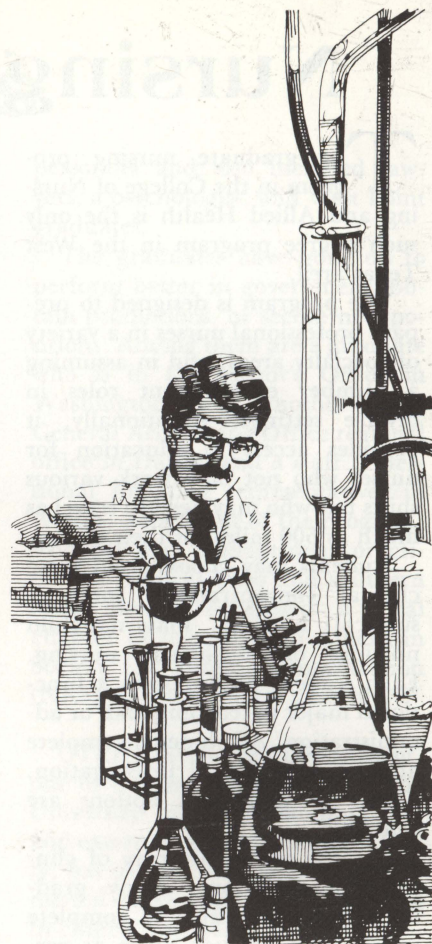
The intimate relationship between research and teaching has long been recognized within the College. More than 75 percent of the College of Science faculty members are engaged in research that qualifies them to serve on the graduate faculty, teaching graduate level classes and service on theses or dissertation committees.

With the establishment of graduate programs, emphasis on research within the College has increased steadily. During 1985 faculty members published approximately 200 papers, articles and books.

Granting agencies which have funded research include the National Science Foundation, National Institutes of Health, American Chemical Society, Petroleum Research Fund, NATO, Department of Energy, U.S. Army, American Cancer Society, Welch Foundation, White Sands Missile Range, Bell Laboratories, NASA and Texas Advanced Technology Program. In 1984-85 researchers in the College were utilizing more than \$830,000 in such funds; the figure for 1986-87 is close to \$2.5 million.

A proposal for a doctoral degree in the chemistry and physics of materials is being developed by the two depart-

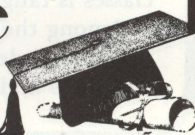
ments. The program and degree would be materials science oriented and would not compete with traditional Ph.D. programs. This program would involve UTEP in high-level technological advance that is especially appropriate to this region. □



Graduate degrees offered:

- Master of Science
 - Biological Sciences
 - Chemistry
 - Geological Sciences
 - Geophysics
 - Mathematics
 - Physics
 - Statistics
- Master of Arts in Teaching
 - Mathematics
- Master of Science in Interdisciplinary Studies
- Doctor of Geological Sciences

Graduate Studies



Make the future brighter

by Nancy Hamilton

When Ruth Glanville Perez began taking night courses at UTEP in 1982, she planned to work part-time toward a Master's degree in psychology. She would continue her full-time job in a medical laboratory until, new degree in hand, she could become a counselor for a health agency.

But this May, when she crosses the stage of the Special Events Center to receive her M.A., she will be aiming at a totally different set of goals.

She and her family will move to another city where she will pursue a doctorate leading to a new career in research on diseases affecting the brain, especially Alzheimer's.

"My husband and my son are very supportive of my research interests," she says. "They are willing to go with me to the university — I don't know which one yet — where I will do my doctoral work."

Her husband, Ray Perez Jr., is also a UTEP graduate, with a B.S. in math and a Master's in educational administration. After several years of teaching, he is now employed at White Sands Missile Range in computer software development for a contractor. Her 12-year-old son, Chris Reynolds, attends Morehead Junior High School.

Ruth Perez's interest in laboratory work dates from her first job after high school. After graduating from Loretto Academy, she worked in a physician's laboratory part-time while attending UTEP. It took six years — until 1972 — to complete her B.S. in biological sciences. Later in the 1970s, she passed tests for accreditation in cytology by the American Society of Clinical pathologists and the International Academy of Cytology.

As her skills developed, she entered



a relatively new field, cytogenetics, the analysis of chromosomes for genetic abnormalities. "We analyzed solid tissues, blood, bone marrow, and amniotic fluid," she recalls. "Also, if a newborn baby appeared to have a genetic abnormality, a blood sample could be tested."

It was this work that brought her back to school. She became interested in the counseling of patients and thought some night courses in psychology would help her.

"I didn't have a single hour in psychology," she says, "so I had to get fifteen hours before being admitted to the Master's program. I worked full-time and attended night classes for two years."

Her first graduate level course, in the fall of 1983, was with Dr. Donald E. Moss. She describes it as "really

tough," dealing with psychopharmacology, the effects of chemicals such as marijuana on functions of cells in the brain.

"I got curious," she admits. "He offered me a research position in his lab at one-fourth the salary I was making and my husband was then teaching high school. We couldn't afford the change then, but when Ray went to work at White Sands, I quit my job at Path-Lab and devoted all my time to research and graduate studies."

In October 1984, under the research grant, she was sent to an international neurosciences meeting at Anaheim, California, where 10,000 scientists and students were present. She was frustrated by the size of the meeting and realized she needed to focus more on a particular area of research. A month later, she was one of two UTEP students who attended a national meeting at Texas Tech on Alzheimer's disease.

Dr. Moss was one of the speakers. In meeting other researchers there, she realized that this was the topic she wanted to explore for her Master's thesis.

"I developed an animal model of Alzheimer's disease using laboratory rats," she explains. "We wanted to test a drug in which Dr. Moss was interested, methyl sulfonylflouride (MSF) to see whether it would slow the progress of the disease."

Perez began by training 32 rats in particular tasks. They were placed in equal groups matched for performance skills. Then she treated the brains chemically so that half the animals would be expected to show the kind of memory loss associated with Alzheimer's disease. Both groups were tested again on a memory task with a maze.

"Within a week of the surgery," she says, "the two groups were performing equally well. I thought my thesis work had failed! We couldn't test the MSF because the animals weren't exhibiting memory impairments."

Although those in the group that was supposed to develop Alzheimer's symptoms performed poorly soon after the surgery, within a few days they caught up with the others in performing tasks related to memory.

She met with Dr. Moss and a committee to consider why the outcome had not been as expected. Had she misplaced the lesions on the test animals? Or did her work show something else — that the brain has some capacity to overcome the damage from the chemical?

Upon rechecking the animals, she found that the lesions were in the right places and had caused brain cell death. But apparently some cells had resprouted afferents, carriers of messages within the brain, and the remaining healthy tissue was able to reconnect the living neurons and restore the memory.

"In otherwise healthy brain tissue," she says, "those cells can evidently reconnect fairly rapidly."

She had begun working on her project in early 1985. That fall she attended her second neurosciences meeting and was able to focus on seminars dealing with Alzheimer's and problems of aging. "I felt like a totally different person from the one who had been so bewildered by the 1984 conference," she recalls.

Perez says a major reason for her interest in this research is her own role as part of the "baby boom generation."

Although the percentage of the population affected by Alzheimer's may be the same, in future years the numbers of patients will increase dramatically simply because of the large numbers of people reaching the older age level it affects.

"If I can help make the future brighter for my generation," she reflects, "I will feel that I have made a worthwhile contribution. I figure people have it tough enough when they are old without also being demented."

The Psychology Department, she says, has received research support

from the Alzheimer's Disease and Related Disorders Association in El Paso, which also invites guest speakers to El Paso. Last March one of those speakers influenced Perez's research goals. He was Dr. George Glenner of the University of California, San Diego.

"He mentioned a rare disease, Mediterranean familial fever (MFF), for which the drug colchicine is used in treatment," says Perez. "If patients are treated young and long enough, they don't form kidney plaques that result from the disease."

When she was working in cytogenetics she frequently used colchicine for the purpose of stopping cells from going through mitosis, the process of cell division.

"I wondered if I could apply this to Alzheimer's," she says.

At the time she was taking a course

"If I can help make the future brighter for my generation, I will feel that I have made a worthwhile contribution."

in cytogenetics with Biology Professor Paul Goldstein, who encouraged her to pursue the idea.

She explains that all cells have a matrix, a cytoskeleton, formed in part by microtubules made of protein substances. In Alzheimer's patients, for some reason certain nerve cells in the brain fill up with neurofibrillary tangles, which ultimately cause the cells to die. The reasoning is that some defect in the cytoskeletal system is causing the protein substances to accumulate in an unnatural manner.

"We now hypothesize that there may be a defect that allows aluminum to substitute for calcium or magnesium, which are normal regulators of microtubule function," she explains.

"If aluminum is binding to the protein, it may not allow it to break down. Why does it accumulate in nerve cells

and kill them? That's the research I started last summer, trying to separate the proteins and look for the effects of calcium, magnesium, and aluminum on normal functions."

She hopes to research brain tissue of Alzheimer's disease patients to learn more about this possibility. Concerned families of patients have cooperated in setting up "brain banks" at research centers such as Dr. Glenner's at UCSD, where research efforts seek the causes of the debilitating disease for which there is as yet no prevention or cure.

By 1986, when Perez attended the annual neurosciences conference, this time in Washington, D.C., she had decided on her new goal of doctoral work and continuing research. At that meeting she met with several people who have graduated research programs in Alzheimer's and became

especially interested in those at Cornell Medical University, University of Kentucky at Lexington, and the Institute of Biogerontology in Sun City, Arizona. She hopes to be able to have a teaching or research assistantship or fellowship to help as she pursues the doctorate.

At UTEP she has been a teaching assistant and a research assistant supported by a Minority Biomedical Research Support grant from the National Institutes of Health. She recommends that grant program which is available in three departments at UTEP — Chemis-

try, Biological Sciences, and Psychology.

As she looks ahead to three or more years of graduate studies, Ruth Perez expressed her gratitude to the UTEP people who have helped her establish new goals in life.

"In the Psychology Department we have professors who are world renowned," she notes. "There could be no better quality of education, support, and closeness of students and faculty than I have found here."

"I can't get enough education and research. I want to go on and on — be everything I can be and do everything I can do!" □



Max Bolen at work:

Making Waves

by Marilyn McClure

Well, you see, there was this volcano.

Actually, it was a model of a volcano sitting on a desk on a stage where Max C. Bolen was giving yet another lecture to science teachers on how to get kids interested in physics.

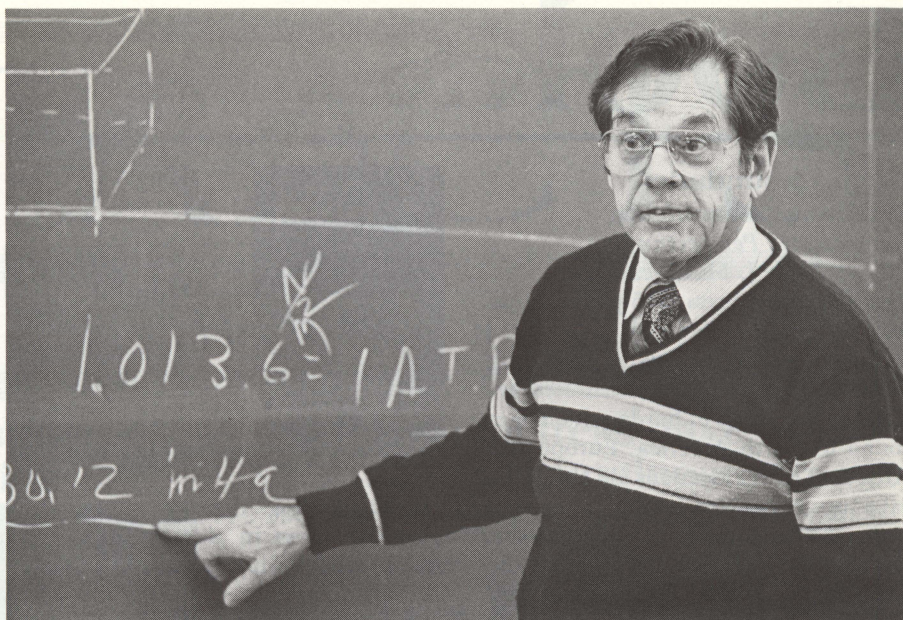
The listeners thought the volcano was going to spurt forth some nice smoke to catch everyone's eye, but they didn't know it would sock their ears and send the first two rows of the audience jumping backward over the chairs for protection.

Dr. Bolen maintains he knew right away when the experiment began to go the way he had cautioned it shouldn't. He also knew he had two choices, to admit he had done what he had warned the teachers not to do, or to play along that the explosion was a surprise to him, too.

He decided to act as if it were a surprise — but then told the truth. Needless to say, he had the audience's undivided attention for the rest of the session.

Dr. Bolen had caught their eyes and ears, and his message was how they in turn could catch the attention of their students. "What I have basically tried to do over the years is create meaningful experiences that were inexpensive and fun for students by telling teachers about demonstrations they could use in their classes."

That simple statement sums up Dr. Bolen's work for the last 18 years. It's also work he continues to do in his retirement — something that began last December. "I'm very grateful for the honorarium the Science Teachers Association of Texas gave me last fall at their annual meeting. The money has allowed me to buy some computer equipment I'm using to develop programs so that elementary school students can learn at their own pace, and to work on an elementary education science enrichment program for teachers."



STAT also made Dr. Bolen an honorary life member and presented him with the B. T. (Tom) Slater Award for Outstanding Accomplishment in the Field of Physical Science. It was only the second time the award had been given. The first award was presented posthumously to Slater himself in recognition of his service as science consultant to the Program Development Division of the Texas Education Agency.

Dr. Bolen came to UTEP in 1965 as chairman of the Physics Department. He later became coordinator of science education for the College of Science and has worked closely with James L. Milson, coordinator of science education for the College of Education.

It was in 1968 that Dr. Bolen was asked to work with the Texas Education Agency in revising the way ninth grade science was taught so that students going on to college would be better prepared. "The problem was that we weren't turning out enough good science teachers. Graduates found they could be a teacher and earn \$10,000, or a scientist earning \$20,000."

The TEA group, which later included Dr. Milson upon the death of another member, went to work and produced Bulletin 725. Requests for copies of "old 725" are still coming in these many years later.

What the publication did was further the idea that students learned best when they could see and touch something, even if it was as simple as pouring sand through different sieves. The

challenge in that particular experiment was to figure out how to separate the grains. "It sounds basic, but it teaches important concepts of how to approach and solve a problem," Dr. Bolen said. The bulletin contained many ideas for experiments teachers could use in the classroom.

The next step was to write a bulletin on safety in science projects and storage areas. Other bulletins followed and "UTEP became known as a leader in the state in science education," Dr. Bolen said.

Studies had shown the need for improving classroom teaching methods so that seventh, eighth and ninth grade students would have more interest in continuing to study mathematics and science. "We found it was in those grades that the majority of students decided if they had a future in the sciences and that decision was greatly influenced by the enthusiasm generated by their teachers.

"We found that more and more students were dropping out of high school physics. This meant the number of physics teachers was decreasing. We wanted to develop a curriculum for teachers that encouraged them to be enthusiastic in leading their students. We knew if more young students were encouraged to continue with science and math, then more of them would later graduate and go into classroom teaching."

Over the years, Dr. Bolen has written many journal articles on physics and education, and has co-authored several books on the physical sciences.

(Continued on page 16)

Books

Across Boundaries

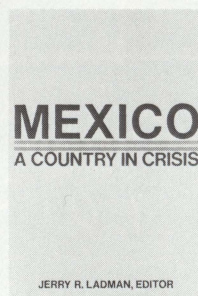
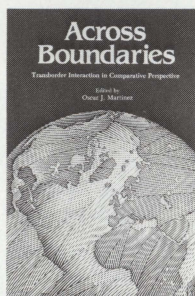
Transborder Interaction in Comparative Perspective

Ed. by Oscar J. Martinez

Texas Western Press, \$15 paperback

Eleven border scholars, including editor Martinez, have contributed articles to this study of border challenges found in North America, Europe and Africa. The six sections of the book take up boundary issues in western Europe, including a cooperative German-Swiss-French program; the U.S. as it fronts on Mexico and Canada; African borders, especially Nigeria-Benin; and borders in the communist nations of Europe.

The study of borderlands, a relatively new scholarly field, needs to develop in the direction of comparative



border studies, the editor suggests, and the essays in *Across Boundaries* mark a beginning point for this approach.

Dr. Martinez invites interested scholars to examine international border relationships as they occur around the world "and to begin constructing a theory of border behavior." □

Mexico: A Country in Crisis

Ed. by Jerry R. Ladman

Texas Western Press, \$13 paperback

Mexico's economic crisis became clear in August 1982 when foreign currency bank accounts were frozen and the peso was sharply devaluated. The roots of that crisis and efforts to cope with it are described by nine authors in this book, edited by Jerry R. Ladman, professor of economics and director of the Center for Latin American Studies at Arizona State University.

Topics included are the Mexican economy, banking system, government, border region, foreign policy, and art and literature.

Contributors are: Marvin J. Alisky, Arizona State University; Jeff Brannon, UT El Paso; Juan Diez-Canedo Ruiz, Banco de Mexico; Shifra M. Goldman, Rancho Santiago College; Mario Ojeda, El Colegio de Mexico; Michael C. Meyer, University of Arizona; Gustavo Saenz, University of New Mexico; and the late Stanley R. Ross of the University of Texas at Austin. □

Mexican Texans in the Union Army

By Jerry D. Thompson

Texas Western Press

(Southwestern Studies, No. 78), \$5

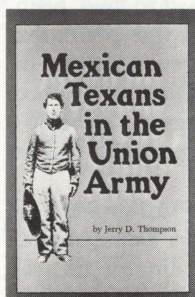
Most of us who read about the Civil War think in terms of Gettysburg, Antietam, Chickamauga, Chancellorsville, the Wilderness — all the roll call of the great battles.

The combat this book deals with is different. small groups of not-very-military-looking men, fumbling for each other through thorny thickets on both sides of the Rio Grande, with casualty lists perhaps reaching eight or ten individuals — this is not the kind of war most books treat of.

Yet as a fine Marine officer, John W. Thomason, Jr., observed in connection with the Carribean "banana wars" of the 20s, a man could get himself killed just as dead in one of them as in the Argonne. So it was in the Texas brush.

However, with *Mexican Texans in the Union Army* the interest is even more in the soldiers than in their battles. There were apparently some 600 such men who enlisted to fight with the Union. (Almost 3,000 fought with the Confederacy.)

They enlisted for assorted reasons, of course. A very common one was to strike a blow against overbearing neighbors. But also they signed up for



cash bounties, for pay, for whatever. Some of the officers felt strongly that the Union should be preserved, but this was not a common motivator among the men.

A certain young Ramirez learned that the Confederate Army was recruiting soldiers at a nearby fort, so he rode over and signed up. Unable to speak English, he didn't realize for several days that he had joined the wrong army. And then, what the hell, he marched off to war anyhow.

The troops were laborers, herdsmen, farmers, teamsters, carpenters, vaqueros, and blacksmiths. Since they spoke practically no English (most of them were Mexican born), there were problems fitting them into the system. It was obviously essential that they have Mexican or Tejano officers.

Desertion rates were high, but understandable. The Army was unable or unwilling to clothe them properly or

(Continued on page 16)

Apache Women Warriors

By Kimberly Moore Buchanan

Texas Western Press

(Southwestern Studies, No. 79), \$5

A curmudgeonly male chauvinist might be forgiven for judging this book an effort, through revising history, to extend lady's lib not only back in time but inter-ethnically throughout the ideally macho native American cultures.

However, such cranky contentions are immediately and effectively demolished by the thorough scholarship of the author, who makes it incontrovertibly apparent that what she writes is for real, and well-attested.

In this interesting little book it is promptly clear that not only *were* there female warriors among the Apaches but: a) some of them were highly respected in their tribes for their military competence, and b) the same phenomenon was to be found among other Indian peoples as well. This is the book's main point, and it is solidly made. And, one should add, interestingly made.

One can find things to quibble at. For instance, on p. 11 the author refers to a "so-called" hostile Indian band, and on p. 18 seems to contradict her own implication with: "The war

(Continued on page 16)

EXTRACTS

by Marianne Fleager

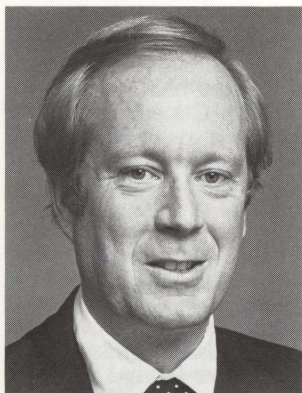
DEVELOPMENT & ALUMNI ASSOCIATION NEWS

Butterworth new president of 1987 Alumni Association

In elections held during Homecoming 1986, George W. Butterworth was voted President of the UTEP Alumni Association, replacing Steve DeGroat. Butterworth is a local attorney, an annual volunteer for the Alumni Fund, and a member of the donor group, the Matrix Society.

Joining him as officers of the Association are Patrick Wieland, President-Elect in charge of Membership, Cheryl A. McCown, 1st Vice President in charge of Homecoming, 2nd Vice President Bill Stevens in charge of Ways and Means, Rene Nunez as Treasurer, and Martini DeGroat, secretary.

New directors-at-large, who will serve three-year terms starting in January, are Amy Castillo, Joe Gomez, Lavon H. Gschwind, Grady Ray and Larry Trejo. Incumbent directors are Russell Autry, Dr. Elaine Barron, Luis Cortes, Jack Parks, John Shaw,



Butterworth

Doris Sittig and Steve Tredennick.

Outgoing board directors were honored with certificates of appreciation presented at the Association's annual Christmas luncheon. They are John E. Best, Nancy Hamilton, Jim Payne and Lloyd V. Stevens, Jr. □

UTEP plans 3-year campaign for Advanced Mfg. Institute

The University of Texas at El Paso is planning a strong three-year fund raising campaign in celebration of its 75th Anniversary in 1988. Much of the funding raised during 1987, 1988 and 1989 will be used to support an Institute for Advanced Manufacturing in El Paso (IAMEP). The campaign will kick off with the 1987 Alumni Fund Telephone Campaign. Dates for the phonathon are Monday through Thursday, March 23-26, and March 30-April 2. The University's goal for the Institute has been set at \$7.5 million.

The establishment of the IAMEP was approved by the UT System Board of Regents at their August 1986 meeting. It will be owned by the UT System and managed by UT El Paso for the benefit of economic development in the El Paso region.

The objectives of the Institute are to encourage economic development in El Paso, to develop and support a national center for advanced manufacturing/production in the area, and to provide research and service environments to strengthen UT El Paso's academic programs.

Faculty, institute staff and UTEP graduate students will work on projects involving the latest technology in robotics, on referrals for basic research, maintaining a data base to identify opportunities for expansion of existing businesses and the location of new businesses here, and numerous services involving the use of manufacturing, management and materials technology.

The goal of \$7.5 million includes \$1 million for endowed professorships; \$3.5 million for building construction, \$1.5

UTEP benefactress gave \$2.5 million to Engineering

Mrs. Louise B. Murchison, a prominent El Pasoan who had provided the University of Texas at El Paso with more than \$2 million in endowments, passed away on November 17, 1986. She was the widow of the late Samuel M. Murchison.

Mrs. Murchison, a member of the El Paso pioneer Beach family, gave \$2.5 million in 1985 and 1986 to establish endowed chairs and undergraduate and graduate scholarships in the University's College of Engineering. She had requested anonymity of her gifts until her passing, according to son-in-law, Mayor Jonathan Rogers.

In accordance with Mrs. Murchison's wishes, the endowed chairs which she established will support outstanding faculty members whose work will contribute to the economic development and progress of this region. Also, the holders of the chairs will be involved in teaching undergraduate students as well as being committed to the development and implementation of a proposed doctoral program in Engineering. In that way, the chairs will ensure the integration of the two principal functions of the institution, teaching and research.

Mrs. Murchison is survived by her daughter Patricia Rogers, son-in-law Jonathan Rogers, and four grandchildren. □

Matrix Society members Honored by University

Members of the University's alumni donor group, the Matrix Society, were honored by the University with an annual dinner held at the El Paso Marriott in January.

At the annual dinner, speaker Tieman H. Dippel, Jr. spoke on the need for even stronger support of higher education in the face of drastic budget problems affecting the State and the appropriations being slashed at the State university level. Dippel, a political "independent," was the founder of Texans for Quality Education. He was the founder of the Texas Lyceum Association and served on the Texas Commission on the Arts. He is also past president of the Texas State Chamber of Commerce. An attorney and banker,

Dippel believes in education as the key to economic recovery for the State of Texas, and as a means of building a strong economy via areas other than the oil industry. He attended the dinner with his wife, Kitty.

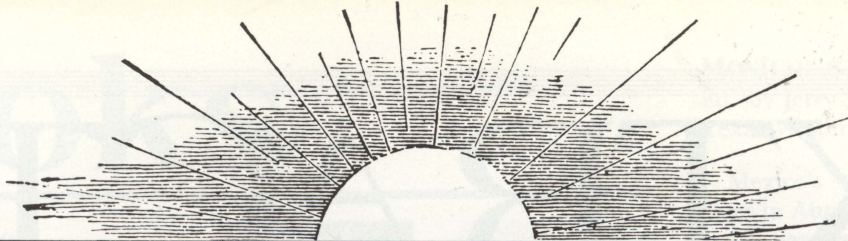
Chairman of the 1986 Matrix Society, Steve Tredennick, announced that memberships held steady at 400+ and that the group contributed approximately \$500,000 to academic programs.

Outgoing members of the Society's Executive Committee were presented with honorary certificates. They are Charles "Lucky" Leverett, Harriett Holt, Dr. Rufus Bruce, Mary Carolyn DeGroat, Barbara Prewitt, Robert Glanville and Steele Jones. □

million each for equipment and an operating fund endowment. In addition, the University will be seeking donations of at least 20 acres of land, and the construction of the facility at cost.

Individuals who are graduates, members of the El Paso community or corporate-affiliated,

and who are interested in assisting the University in achieving the goals for the Institute are asked to call the Development Office (915) 747-5533. Volunteers will be sought for the annual Alumni Fund Telephone Campaign and the 1987 Corporate and Business Gifts Campaign. □



ALUMNOTES



Judith Solis



Enrique Solis

Judith English Solis (M.Ed. '71) and her husband, **Enrique Solis** (B.S. '63; M.S. '71) were honored as Distinguished Alumni by the College of Education at New Mexico State University during the Homecoming celebration there last October. Dr. Judith Solis received a doctorate in education at NMSU in 1972. Her Bachelor of Science degree was granted at Kansas State University in 1962. After teaching in the San Angelo, Radford and El Paso schools, she joined the staff at UTEP and since 1973 has been assistant dean of students. Dr. Enrique Solis received his doctorate in educational research and statistics at NMSU in 1975 and has served as vice president of instruction at El Paso Community College for the past 12 years. He is among the six highest placed Hispanics in Texas community colleges and is among the 12 highest placed Hispanics in national community colleges.

1950-1959

John "Pinkey" Edwin (B.A. '54) has been elected Texas veterinary state co-chairman of the Morris Animal Foundation, a non-profit organization which funds research. He has practiced veterinary medicine in El Paso for 21 years and has served four terms as president of the El Paso Humane Society.

Lorenzo G. LaFarelle (M.Ed. '56) has joined the ITT Employment and Training Systems, Inc. as a program administrator at Ft. Bliss. He was formerly employed by the El Paso Public School System as a high school teacher for 18 years, then as a counselor for 16 years.

by Sue Wimberly

Henry Masterson (B.S. '57), a chemistry teacher at Hanks High School, El Paso, was one of six high school teachers selected nationally by the American Society of Biological Chemists to receive a research fellowship during the summer of 1986. His research was conducted with Dr. James Becvar of the UTEP Chemistry Department. Masterson was also runner-up for Teacher of the Year award at Hanks High School last year.

Weldon Donaldson (B.S. '58), sales manager of KFMB-TV, CBS affiliate, in San Diego, California, was recently appointed to the marketing advisory council of the CBS network. His wife, **Barbara McDonald Donaldson** (B.S. '58), is an interior design consultant.

Hector Holguin (B.S. '58; Outstanding Ex 1982), chairman and chief executive officer of the Huguin Corporation of El Paso, has been named to the State Advisory Council of the Texas Association of Mexican American Chamber of Commerce's Youth Business Leadership Program.

Soledad Sambrano Arenas (B.A. '59), is a social research scientist with the U.S. Department of Health and Human Services in Washington, D.C.

1960-1969

Frank R. Sanchez (B.S. '63) is an electronic engineering design manager for the Boeing Company in Seattle. He is responsible for the electronic design of special purpose test equipment for use in the factory and laboratory, flight and ground instrumentation, and laboratory simulators. He is also serving as president of the Puget Sound Chapter of the Society for Hispanic Professional Engineers (SHPE), is the Boeing corporate advisor for the student chapter of SHPE at the University of Washington and is co-chairman of the University of Washington minority engineering program

finance committee.

Judith Burkart (B.A. '65) is a commercial real estate broker in Richardson, Texas.

Phillip L. Lakin (B.S. '65) is manager of geophysics with Arkla Exploration Company. He resides in Shreveport, Louisiana.

Arthur C. Peralta (B.S. '66; M.Ed. '71), former principal at Eastwood High School, El Paso, has been named principal of Del Valle High, which is scheduled to open in the fall of 1987.

John R. Shaw (B.S. '68) has been named manager of the El Paso plant of ASARCO Incorporated. Mr. Shaw joined ASARCO in 1968 as a metallurgist at El Paso and served as superintendent of the copper department in 1972. In 1976 he was appointed assistant general superintendent and in 1980 became superintendent of their Glover, Missouri, refinery. He returned to El Paso in 1982 as general superintendent. He is a member of the board of directors of the UTEP Alumni Association.

Robert W. Gilmer (B.A. '68), an economist with the Tennessee Valley Authority (TVA), has joined the staff at the Center for Energy Research/Education/Service, Ball State University, as a visiting research professor.

Terrell T. Kelley, LTC/US Marines (B.A. '69), currently stationed with the 13th Marine Amphibious Unit, Camp Pendleton, California, recently completed a six-day port visit to Fremantle, Australia, after his participation in exercise Valiant Usher 86, a Seventh Fleet sponsored exercise.

1970-1975

Yoram Eytan-Ettinger (B.A. '70) is consul general of Israel to the Southwest in Houston. From 1971-73, he served as deputy consul for information at the Consulate General of Israel in Los Angeles. Returning to Israel, he

was in governmental information services in Jerusalem until 1975 when he became assistant director of the United States Cultural Center in Jerusalem. He is former editor of *Contemporary Mideast Background*, a Jerusalem bi-weekly newspaper and is currently a contributor to Texas media on issues dealing with international terrorism and Middle East politics.

Irene Jimenez Bryant (B.S. '70; M.Ed. '73) is designing clothes and prints for J.S.'s Christian Designer Collection in El Paso.

Linda Carol George (B.S. '71), a former elementary teacher at May Elementary School, May, Texas, has published an article, "Organize a Plan Book," in *Instructor*, a magazine for classroom use.

George L. McLendon (B.S. '72), a professor of chemistry at the University of Rochester, received recognition in the October 1986 issue of *Chemical and Engineering News*, a publication of the American Chemical Society, as recipient of the ACS (Alpha Chi Sigma) Award in Pure Chemistry.

Steve DeGroat (B.B.A. '72; M.B.A. '75) has been named president of Surety Savings in El Paso.

Barbara Mumm Wilson (B.S. '73) is an elementary assistant principal in the Goose Creek Consolidated Independent School District in Baytown, Texas.

John Knopp (B.S. '73) has been appointed pastor of Blessed Sacrament Catholic Church in northeast El Paso. Knopp attended St. Thomas Seminary in Denver and Notre Dame University following his UTEP graduation, and was ordained a Catholic priest in 1978.

Robert Leroy Giron (B.S. '73) is associate professor of English/ESL at Montgomery College, Takoma Park Campus, a suburb of Washington, D.C.

Arthur L. Ramirez (B.S. '73) is a psychiatrist in private practice in El Paso and an assistant professor of Psychiatry at Texas Tech School of Medicine (El Paso). His

wife, **Irma Garcia Ramirez** (B.S. '75), who received her Master's in Education at Augusta College, Georgia, is co-owner of Live 'N Learn, a private pre-school and day care center.

Nick de la Torre (M.S. '74) is director of intake and court services at the El Paso County Juvenile Probation Department.

Ray Gonzalez (B.A. '75), publisher of Mesilla Press in Denver and poetry editor of *The Bloomsbury Review* literary magazine, was a UTEP speaker last December. His first full-length book of poems, *From the Restless Roots*, was published by Arte Publico Press at the University of Houston this year. A chapbook of poems entitled *Apprentice to Volcanos* was recently issued by Leaping Mountain Press in Ft. Collins, Colorado.

Shah Khan (B.S. '75), a hydraulic engineer with the U.S. Corps of Engineers in Fort Worth, has received his Professional Engineer license.

1976-1979

Fred R. Diaz (B.S. '77) is an officer with the National Oceanic and Atmospheric Administration. He received his M.S. in hydrographic science from the Naval Post Graduate School in Monterey, California.

Deborah D. Williamson (B.S. '77), a labor and bankruptcy attorney with the law firm of Cox & Smith, San Antonio, was a featured speaker at the Fifth Annual Bankruptcy Conference in Austin.

Paula Ann Brook (M.F.A. '78) recently completed a doctor of education degree at the University of British Columbia.

Stephen Rash (B.B.A. '79) is an officer with Lauterbach, Borschow & Co., certified public accountants, in El Paso.

Eric L. Bennett (B.S. '79) is a warrant officer with the U.S. Air Force. A helicopter pilot, he completed his flight training at Ft. Rucker, Alabama.

James Forbes (B.S. '79) is a teacher and basketball coach at Riverside High School, El Paso.

Terry Gay (B.B.A. '79) is a registered stock broker with Equico Securities Inc., El Paso.

1980-1986

Godwin O. Mayuku (B.S. '80) is a track and field coach in Nigeria. He writes *NOVA*, "Since I came back to my country, I have produced many athletes — mostly hurdlers — who have represented

Nigeria and I have often been invited to help groom the national team for various international engagements . . . I am glad to be a product of UT El Paso."

Quang N.V. Pham (B.S. '80) received a Master of Science degree in hematology/immunology from the Graduate School of Biomedical Science at the University of Texas Health Science Center/Houston last June.

Kathleen Coulehan (B.A. '81) is news director for the CNN TV in Agana, Guam.

Rene L. Flores (B.B.A. '81), former corporate controller of Texscan Corporation, Phoenix, Arizona, has been promoted to vice president of finance and chief financial officer.

Randal Hunt (B.B.A. '81) has been named manager of the Private Business Advisory Services department of Peat Marwick in the New York office.

D.J. Dunn, Capt./USA (B.B.A. '82) is on duty with the 2nd Armored Division, Ft. Hood, Texas.

Bryan Morris (B.S. '82), of Morris, Toothman and Associates, a consulting engineering firm, has received his license as a Texas Professional Engineer.

Claudia Leticia Serrano (B.A. '82; M.A. '85), has been selected to participate in the Mayor's Urban Fellows program in Washington, D.C.

Dawn Marie Summers (B.S. '83), a police officer in San Diego, California, is working toward a Master's degree in law. A field training office with SDPD, she is currently teaching a vehicles operation course.

Richard C. Johns, Airman 1st Class/USAF (B.S. '83), has graduated from a security police specialist course at Lackland Air Force Base, Texas.

Marjorie Marinovic (B.B.A. '83), former president of the El Paso chapter of the Texas Society of Certified Public Accountants, is controller, secretary-treasurer and chief financial officer of Comgraphix Inc., Southwest Microfilm Division, El Paso.

Fernando Silva (B.S. '84; M.S. '86), UTEP engineering graduate, has joined the firm of Parkhill, Smith & Cooper Inc.

Stephanie Linam (B.B.A. '85), a certified public accountant, has been promoted to staff accountant in the audit division of Peak Marwick in Albuquerque. Her husband, **Dan Callis** (B.A. '85) is a graduate student at New Mexico University.

Laura J. Frink (B.A. '85) is a reporter/photographer for the *Virginia Gazette* in Williamsburg, Virginia.

Allison Ring (B.A. '85) has been named city editor of the *El*

Paso Sun.

Hector Morales (B.S.N. '85), of El Paso, has been appointed program administrator of Sun Valley Hospital's adolescent treat-

ment program.

Sarah Whitaker (M.S.N. '86), of Roswell, New Mexico, has been named to *Who's Who in American Nursing 1986*.

DEATHS

George E. Espersen (1931 etc.), a resident of Cumming, Georgia, July 5, 1986.

William H. Rutherford (B.B.A. 1936), of El Paso, August 18, 1986.

Randall B. Gorter (B.B.A. 1984), October 12, 1986, in El Paso. He is survived by his wife, Maralee S. Gorter, and two daughters.

Lloyd C. Hamilton (B.S. 1958), in El Paso, October 28, 1986. His wife, Rachael Y. Hamilton, and several children survive him.

Helen Virginia Leitch (B.S. 1956), who taught in the El Paso schools for 30 years, in New Braunfels, Texas, October 30, 1986. Survivors include her husband, Allan Leitch, and two sons.

Raymundo Barrios (B.A. 1969), in El Paso, November 1, 1986. He was retired from 32 years service with the U.S. Border patrol. Survivors are his son and several daughters.

Wilson Lee Newell, Jr. (B.A. 1947), a retired geologist, in El Paso, November 7, 1986. He is survived by his wife, Maria Newell, a son and a daughter.

Mary Frances Crawford Akard (1927 etc.), a resident of Dallas, Texas, November 9, 1986. She is survived by her husband, Hunter E. Akard.

Louise B. Murchison, well-known El Pasoan and friend of the University, November 17, 1986. She provided over \$2.5 million for the College of Engineering in endowed chairs, and both undergraduate and graduate fellowships and scholarships. Survivors are her daughter, Patricia Rogers, and four grandchildren.

Paul H. Carlton (B.B.A. 1940; Outstanding Ex 1981), November 23, 1986. He was a partner in the firm of Bixler, Carlton, Pittenger and Rister, Certified Public Accountants, and served as a member of the El Paso Independent School District Board of Trustees for 18 years. His wife, Louise Carlton, survives him.

Louis Francis Mancini (M.A. 1975), in November, 1986. An ordained Roman Catholic priest, he

served at Ft. Bliss for 32 years. A sister survives him.

Joe H. Dominguez (B.B.A. 1956), December 6, 1986. He was a resident of Houston where he was district director for the Internal Revenue Service. Survivors include his wife, Maria Dominguez, and several children.

William S. Strain, professor emeritus of geological sciences, November 26, 1986. Dr. Strain joined the College of Mines faculty in 1937 and served as curator of the El Paso Centennial Museum during its early years. He received the Outstanding Teacher Award for 1964-65 and was named emeritus professor upon his retirement in 1974. He was a member of the Society of Vertebrate paleontologists, Sigma Xi, Sigma Gamma Epsilon and Phi Sigma scientific societies and was a fellow of the Geological Society of America and the Texas Academy of Science. Survivors include his wife, Val Strain, and his daughter, Wilda Lee Bell.

Linden Kauffman-Linam (B.S. 1986), a student at Texas A&M Graduate School of Oceanography, November 26, 1986. She is survived by her husband, Patrick Linam, of El Paso.

Soledad Esquivel (B.S. 1985), a fourth grade teacher in the El Paso schools, December 12, 1986, in El Paso. She is survived by her parents, Julia and Macaria Esquivel, a brother and several sisters.

Betty T. King (B.S. 1967), El Paso teacher, December 17, 1986. Her husband, Robert W. King, a daughter and son survive.

James Edward Brown (B.S. 1963), an engineer and supervisor with the El Paso Electric Company, December 25, 1986.

Alfredo Abrego (B.A. 1948; M.A. 1950), a resident of Houston, January 23, 1986. He is survived by his wife, Amparo Abrego, and his daughter, Dr. Lillian Abrego Mack, all of Houston.

Jimmy R. Walker (B.S. 1952; M.S. 1952), chairman of the Department of Educational Leadership and Counseling, January 13. See View from the Hill.

Business...(from page 3)

Bureau of Business Research. The bureau serves as both a collector and a clearing house for research on the border area, maintaining the most accurate and comprehensive data bank on the El Paso area and publishing *The El Paso Economic Review* and *The Southwest Journal of Business and Economics*.

The increased emphasis upon quality research can also be seen in the Professional Reports now being produced by MBA students. In lieu of the comprehensive exams formerly required, MBA students now write a Professional Report, similar to a thesis or dissertation, representing an area of intensive research on a particular topic. Many of the reports feature original research pertaining to business interest within the El Paso-Juarez region. Recent titles, indicative of this focus include: "Franchises Owned by Mexican-Americans in El Paso, Texas and Their Economic Impact in the El Paso Market" (by Fabio Lopez), and "Attitudinal Differences of the Mexican worker in the U.S.-Mexico Twin Plant Facilities" (by Susan Williams). □

Engineering...(from page 5)

The graduate program in Metallurgical Engineering centers around two research areas — deformation or fracture mechanisms of materials and chemical reactions on materials.

A recent project investigated the early stages of deformation and fracture of ceramic composites at ultra-high temperatures (3000 degrees Fahrenheit) at the request of the Materials Laboratory of the Air Force's Wright Aeronautical Laboratory. The information was used to plan the development of materials for the next generation of jet engines. Engines can be flown more efficiently if ceramic composites can survive the ultra-high temperature and stresses produced during engine operation.

Under a project funded by the NASA Johnson Space Center, researchers are investigating the impact of meteorites on composite materials which will be used for structural supports on the space station. Other research is directed toward modification of existing cyanide and thiourea leaching processes for recovery of gold and silver. □

Liberal Arts...(from page 6)

education institutions are able to accept only 10 percent of the more than 2,000 students in Texas who annually seek admission to doctoral programs, according to the American Psychological Association.

Applied psychologists are in demand by industry and by social service agencies, public and private. Areas with cultural and linguistic pluralism, like El Paso, present distinct challenges to psychology professionals in the areas of testing, counseling, forensic psychology, health psychology and personnel management. The 1980 Census reports that 57 percent of El Paso's labor force is Hispanic. The El Paso Center for Mental Health and Mental Retardation reports that two-thirds of its clients are of Mexican origin, many of them primarily Spanish-speaking.

UTEP's Applied Psychology Ph.D. would remedy the serious state and national deficiencies in the supply of bicultural, bilingual applied psychological training. It would be the only such training facility in this country. □

Bolen...(from page 11)

His youngest son was in ninth grade at the time he was writing one of the books.

"I used him pretty much as a guinea pig for the activities I was writing about. Teenagers are pretty honest. I remember one time I was trying to develop an activity that would show wave displacement. I called my son in and had him watch as I dropped something into a bowl of water. I asked him what he saw and he said 'waves, of course' in a tone of voice that implied I had been an idiot for asking the obvious. I knew then the experiment would work for other students."

However, Dr. Bolen has never been one to just write about how to do something, he has also shown how to do it in the many workshops he has led for high school science teachers. He has been honored for his work by being named a fellow in both the American Association for the Advancement of Science and the Texas Academy of Science.

These days, he takes pride in saying students are currently better prepared and at a higher level "they take almost the equivalent of an entry level college class while they're in high school."

He said he measures success by a student who could have chosen another field electing instead to become a science teacher. Another measure of success is the number of requests for copies of the old Bulletin 725. "Thank goodness for Xerox. I run them off a copy, put it in the mail, and know another group of students will have a better chance of ending up liking the sciences." □

Mexican Texans...(from page 12)

to pay them. Also they fretted at long periods of inactivity, and they suffered from many illnesses. (More than half their deaths were from disease; being killed in action was relatively rare.)

Mexican Texans in the Union Army brings to light an obscure but interesting corner of a great war. It is a well done book, complete with statistical

appendices, including a roster of the men who served.

It is also a handsome little volume, with an attractive, and appropriate, cover design — a new departure from the uniform format traditional to the Southwestern Studies series. □

— Ray Past

Apache...(from page 12)

party, an integral part of Apache life, had as its objective revenge. Hunting, raiding, and warring were the three central features of Apache life." This would indicate to me rather a hostile bunch, and I think I'd drop the "so-called." Anyhow, such objections are minor, and they certainly in no way challenge the book's thesis.

This is, then, a highly readable, enjoyable, and scholarly bit of work. It is also attractively printed and bound, which ought to be worth mentioning: a nice piece of work deserves to look nice too. □

— Ray Past

UTEP Calendar, Spring 1987

ART/MUSEUM

EL PASO CENTENNIAL MUSEUM: Hours 10 a.m.-4:30 p.m. Tuesday-Friday, and 1:30-5:30 p.m. Sundays. The museum also houses exhibits on natural history, anthropology, and rocks and minerals of the Southwest.

MARCH: Color and black and white photographic exhibit by Bob Lilly and David Guiffre.

APRIL 1-MAY 16: Watercolor exhibit by Bill Bissell.

MAY 17-JUNE 30: Large format landscape photography, Western theme, by Darryl Gilmore.

MAIN GALLERY FOX FINE ARTS CENTER: Hours 8:30 a.m.-4:30 p.m. Monday-Friday:

March 27 - April 16 National Juried Print Exhibition.

April 29 - May 12 Student Exhibition.

UNION EXHIBITION GALLERY, 2nd floor Union East: Hours 10 a.m.-1 p.m. weekdays, plus 5-7 p.m. Wednesdays and Fridays: April 6-24 Collage Exhibit by Denny Frazee, chairman of the Amarillo College Art Dept. *Reception 6-8 p.m. April 6.*

DRAMA

ELENCO EXPERIMENTAL, Studio Theater: April 9-11 8 p.m., April 11 & 12 2:30 p.m. "Identi-Kit" collective creation by the Argenta Manhattan Workshop, script by Rodney K. Reading.

UNION DINNER THEATER: Time & ticket information 747-5711. June 5-6, 12-13, 19-20 dinner performances, matinees June 14 & 21, "Cinderella" by Rodgers & Hammerstein.

DRAMA DEPARTMENT PRODUCTIONS: Main playhouse, Fox Fine Arts Center, ticket information 747-5146.

MARCH 28 2:30 p.m. annual children's show "Don't Buy Neckties from the Bear" directed by Gifford W. Wingate (other performances held for local school children on various dates).

MAY 1, 2, 8 & 9 at 8 p.m., May 3 & 10 at 2:30 p.m. "Come Back to the Five and Dime, Jimmy

Dean, Jimmy Dean" by Ed Graczyk, directed by Roberto D. Pomo.

EVENTS

May

- 16 Commencement
- 16-32 KCOS annual main auction

June

- 5 Registration for the summer session

FILMS

All films shown in the Union Theatre at 1 & 7 p.m. Admission free to UTEP students, faculty and staff with a valid ID, \$1.50 general admission. Sponsored by Student Programs Office.

March

- 13 "Spring Break" (R)
- 25 "Cal" (R)
- 27 "The Quiet Man" (R)

April

- 1 "Mon Oncle" (NR)
- 3 "The Color Purple" (PG)
- 8 "Eraserhead" (NR)
- 10 "Psycho" (PG)
- 15 "Everything You Wanted to Know About Sex (but were afraid to ask)" (PG)
- 22 "Ballad of the Little Soldier" (NR)
- 24 "Quadrophenia" (R)
- 29 "Gilda" (PG)

May

- 1 "Laura" (Great Director's Series — NR)
- 6 "Attack of the Killer Tomatoes" (PG)
- 8 "If" (R)

MUSIC

April 9-11 8 p.m., April 12 2:30 p.m. "La Traviata" by the University Opera Company, tickets 747-5603, Magoffin Auditorium.

MUSIC DEPARTMENT: All free, public events 8 p.m. in Fox Fine Arts Recital Hall. Information 24 hours a day at 747-5603.

March

- 25 El Paso Brass Quintet and friends.
- 28 Faculty recital, all Brahms, Joseph Packales, pianist and Michael Kan-nen, cellist.

April

- 21 Percussion Ensemble concert, Larry White conducting.

May

- 8 University Orchestra concert, Laurence Gibson conducting.

SPORTS

WOMEN'S TENNIS

March

- 16 9 a.m. at home, WTSU
- 17 2 p.m. Arizona State in Tempe
- 18 2 p.m. U. of San Diego in San Diego
- 19 2 p.m. U. of Kansas in San Diego
- 20 2 p.m. U.S. International U. in San Diego
- 21 2 p.m. Point Loma College in San Diego
- 27 2 p.m. at home, Eastern New Mexico State

April:

- 9-11 All day, Road Runner Invitational in Las Cruces (UNLV, Midland, Texas Tech, UNM, Utah, Grand Canyon, UTSA).
- 24-25 All day, High Country Conference Championship in Ft. Collins, Colorado (BYU, Colorado State, NMSU, UNM, Wyoming, Utah State, UTEP).

MEN'S TENNIS

March

- 16 9 a.m. at home, WTSU
- 18 2 p.m. U. of San Diego in San Diego
- 19 2 p.m. San Diego State in San Diego
- 20 2 p.m. U.C. San Diego in San Diego
- 21 2 p.m. Point Loma College in Point Loma
- 27 2 p.m. at home, Eastern New Mexico State

April

- 10-12 All day, U. of New Mexico Invitational in Albuquerque (West Texas, NAU, Utah, UTEP)
- 27- All day, WAC Championships in Albuquerque (UTEP, UNM, Wyoming, Air Force, Hawaii, BYU, Colorado State, San Diego State, Utah).

Jimmy...(from inside front cover)

Coors and coffee later, I learned and appreciated the wide swing of Jimmy's intellectual interests, his passion for family and people and books and good movies, for Texas and the border country, and for the University of Texas at El Paso. ("The Institution was *everything* to him," his long-time friend, fellow student dean and professional colleague Larry Hamilton told me.)

He was a tall, athletically fit, handsome, graying, funny, gentle, companionable man with an outward serenity and inward intensity, a combination I guess he developed in the turbulent times he was dean of students. He had fallen from grace, as so many student-oriented people did, everywhere, in those days and slipped quietly back in-

to teaching. But people who knew him and knew the real story of UTEP's days of "student activism" always appreciated his quiet, sensitive and sensible style. And beginning with President Arleigh Templeton, Jimmy re-emerged, serving on key committees and recently rising to the chairmanship of the Department of Educational Leadership and Counseling.

The "re-emergence" was a fascinating process to Jimmy, who likened his years following his deanship to a sort of comic limbo. He asked me once if I remembered a character in *Li'l Abner* who walked around with a perpetual dark cloud over his head. We later found the character in a trivia encyclopedia: Joe Btfsplk, the World's Worst Jinx. "That's me," Jimmy said,

"an academic Joe Btfsplk."

James Day called me from Centennial Museum early on January 14 and hadn't heard the news.

"Jimmy Walker died yesterday," I said.

"Jimmy's dead?"

"Yes."

"Why?"

"That's the question. I wish I knew the answer."

"How?"

"Heart, I guess. It was sudden."

There was a long pause and James finally said:

"Well, he was a good man. He'll be missed."

That about sums it up.

I miss Jimmy already. We all do. □



Stephen Riter, chairman of the Department of Electrical Engineering, turns the tables on NOVA photographer Chad Puerling. The camera-computer hookup is part of a research study being conducted by Dr. Riter on the use of computer-monitored closed-circuit television in security systems.

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