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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech women's basketball team, coming off a fifth place finish at the Plainveiw Queens Classic Tournament, will face a strong team from The University of Texas at El Paso (UTEP) on Thursday (Dec. 1), 7:30 p.m., in the Women's Gym on the Tech campus.

The Raiders currently boast an 8-2 season record after defeating Hardin-Simmons in Abilene Tuesday, 79-39.

This will be the second time this season that the Raiders have faced UTEP. The Techsans won the first game 70-48.

"Although we won the last game in El Paso, I don't think that we played our best," says Tech basketball coach Gay Benson. "I am looking forward to playing UTEP in Lubbock so that we can demonstrate our strongest play. We were very tired after the long drive to El Paso and did not perform at full potential.

"Tech and UTEP are very evenly matched in size. Their game is a remarkably rapid one because their players possess a great deal of quickness.

"UTEP plays a strong press and effective man-to-man defenses. We should be able to score well, however, with the sharp shooting of Karla Schuette of Slaton and D'Lynn Brown of Stratford."

In the three games at the Plainview Tournament, Schuette scored 42 points and Brown 50. Brown also chalked up 43 rebounds in three games.

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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Radiation detection may be too advanced for James Bond, but Walter Fick, a Texas Tech University doctoral student, is using it to discover the best times to spray mesquite trees with herbicides for most effective control.

Spraying herbicides on mesquite has resulted in only erratic control of the trees at best. As a part of his doctoral dissertation research Fick is trying to discover why this happens. His research is state-funded, and the principal investigator is Dr. Ronald E. Sosebee, professor of range and wildlife management, who is directing Fick's research.

His research is a follow-up to a prior study done at Tech, which determined the influence of variables, such as soil temperature and tree location, on effective control of mesquite. Fick hopes his studies will carry this a step further and determine specific times to apply herbicides for most effective control with all the variables taken into consideration.

He is injecting radioactive carbon dioxide to trace carbohydrate movement in the trees. The radioactive carbon dioxide, as well as carbon dioxide from the air, is synthesized by the tree into carbohydrates. The researchers then watch the movement of the radioactive carbohydrates through the tree.

#### mesquite/add one

Fick said the movement is being studied because herbicides move through the tree in the same manner as the carbohydrates. Studying this should help pinpoint the most efficient times to apply herbicides, he added.

It has been found that the best time to spray herbicides is when the carbohydrates are in low concentration and beginning to increase in the roots of the tree. This means that carbohydrates will be moving to the roots. Herbicides will also move to the roots, which will result in control of the tree, assuming all other conditions are favorable, Dr. Sosebee said. If carbohydrates are not moving to the roots, trees are difficult to kill, which ends in erratic control as evidenced in the past, according to Fick.

Ranchers can determine the best time to spray by observing the trees' growth. Fick said the when the mesquite first puts on green flowers through the time that small pods begin to appear is the best time to spray, since the carbohydrates will then be moving to the roots.

Fick is still in the process of researching the carbohydrate movement. He presented preliminary findings at the meeting of the Texas Section of the Society for Range Management, Dec. 1-3, in Fort Worth.

Tech Prof. Russell D. Pettit of the Range and Wildlife Management
Department also presented a paper to the meeting. He discussed
various aspects of the sand shin oak of West Texas.

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CONTACT: Dan Tarpley

LUBBOCK--The Texas Home Economics Student Section (THESS) has chosen Texas Tech University for its 1978 fall workshop to be held next November.

Cathy Parker, Texas Tech home economics sophomore major, was elected vice chairperson of the student section at the 1977 workshop hosted by Texas A&I University at Kingsville.

Parker is the daughter of Mr. and Mrs. Foster Parker of Happy.

Candy Cook, Texas Tech home economics major from Austin, was named to the nominating committee for next year. Louise Moyers of Abilene Christian University will head THESS during the 1977-'78 year.

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CONTACT: B. Zeeck

ATTNETION: Fashion Editors

LUBBOCK--Phyllis Pittman, born and educated in Texas, is making it as big as she wants to in the world of high fashion.

She has been hailed by the "New York Times" as a newcomer who "is making a niche for herself in an industry that is being taken over increasingly by giants."

Pittman is a former Lubbock resident and 1972 graduate of Texas Tech University. She studied fashion merchandising as a clothing and textiles major in the College of Home Economics, and she will return to the university March 3 for the annual Career Day. On Career Day professionals speak with students regarding job opportunities and professional components related to careers in home economics.

Pittman's pretty little dresses, designed for the late afternoon and evening, are catching on, the "Times" article said. Buyers have purchased her collection for such stores as Sakowitz in Houston, Neiman-Marcus in Dallas, Stanley Korshak in Chicago and, in New York, by Altman's, Berdorf Goodman and Saks Fifth Avenue. They sell for \$275 to \$350, a range she describes as "between Diane Von Furstenberg and couture."

Having lived in Europe a few years where she became involved in fashion and modeling, Pittman returned to New York and moved

#### pittman/add one

a sewing machine and cutting board into her apartment on 84th Street.

Women whom she had met socially began coming to see what she was up to, and most bought.

"I realized I was on the right track," she said.

It was Feb. 14, 1977, that she dropped into the Sakowitz store in Houston, while on a visit with her parents.

"I sold 45 dresses," she said, and arranged for her first
Texas show. Two more shows were planned in Houston and her first
Neiman-Marcus show will be held in March.

The designer has moved the business out of her apartment and set up workrooms with \$20,000 of her own.

"We're running in the black," she said, "but I don't want to get so big I lose personal touch with my customers."

Pittman said she would expand her collection somewhat for spring, however, by adding some cotton things among others.

She said she purchases many of her fabrics from Europe.

"I was kind of spoiled by the wonderful fabrics and workmanship in Europe," she said.

Pittman's collection emphasizes soft, feminine fashions, with touches of ruffles, ribbons and inserts of lace, and the word is getting around. They sell well.

Her parents are Mr. and Mrs. B. C. Pittman, formerly of Lubbock and now of Houston.

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CONTACT: Nita Gilger

LUBBOCK--With four of every 10 people classified as shy, it is no small wonder that many college students are doing poorly in school because of social factors and pressures.

This spring the Department of Home and Family Life at Texas

Tech University will offer an interpersonal skills course dealing

with the problems of shyness.

Dr. Arthur W. Avery, Texas Tech home and family life professor and associate chairperson, said that the university is one of the first to offer a course on shyness.

Avery said that developing certain interpersonal communication skills is important in any profession or walk of life. It is evident by the demand of such courses that students want to learn how to have better relationships with others.

Shyness has many definitions. Some of the more commonly thought characteristics of shyness include reluctance to talk, little eye contact, quieter speech, less self-assertion, a retiring and reserved nature, an uncomfortable feeling in the presence of others, blushing and self-consciousness.

Shyness often has an impact on the way people act but not necessarily in obvious or direct ways, according to "Shyness: And What to Do About It," the text for the interpersonal skills class.

#### shyness/add one

In some cases, shy people are "boisterous and commanding," said to be a "front" to cover up their insecurity.

Carol Burnett and Phyllis Diller are among several personalities who reportedly were shy, especially during their childhood.

Several causes of shyness are <u>described</u> in the book. Social programming is one cause. Competition and individual achievement are stressed to such an extent in American society that people either are subdued under the pressure or they overcome it.

Shyness also is caused by mobility and loneliness. The average American moves 14 times in his or her life. A recent university study revealed that more than five percent of the student body went to the health center in one year to seek help in coping with loneliness.

Another cause explained in the book on shyness is the attribution and labeling process. This is the idea that people become what they are labeled or that, if they are called shy, that attribution contributes, even more to their shyness.

There is a continuum of shyness from lacking a few social skills to a form of neurosis.

As stated in the book, "some people do not have the social skills essential for keeping the machinery of human relationships functioning smoothly. Some do not know how to start a conversation or ask for a raise or speak up in class. Others do not have confidence to do what they know is right."

The other end of the continuum is that shyness may become a "severe form of neurosis, a mind paralysis that can result in depression and eventually be a significant influence in suicide."

#### shyness/add two

Studies have shown that some shy people try to overcome feelings of inadequacy, non-acceptance and social pressures by drinking and often end in alcoholism.

Other studies show a relationship of shyness on sexual performance and emotional imbalance.

Some experts maintain that shyness can be considered somewhat of an advantage. "Shyness can make one appear to be discreet and seriously introspective. It also can increase one's personal privacy and offers pleasures that only solitude can bring. Shy people do not intimidate or hurt others as do some overbearing, more forceful people."

The disadvantages, advantages and definitions of shyness are a relatively new study. However, some skills in dealing with shyness can now be taught.

The interpersonal skills course at Texas Tech will offer students an opportunity to identify interpersonal needs and reasons for inhibitions. Sessions dealing with how individuals are viewed by others and themselves in verbal and non-verbal communication are also a part of the course.

Participants will practice changing aspects of their character, broadening self-reinforcement, talking about feelings openly and developing trust and greater self-confidence.

Many students have already registered for the course. More information can be obtained by contacting Avery or Lynda A. Haynes at 742-3000.

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CONTACT: Roe Burnett

LUBBOCK--Preceding the Tangerine Bowl game, Texas Tech
Ex-Students Association will host a pre-game reception for
all Red Raider fans, friends and supporters from 5 p.m.-6:45 p.m.,
Dec. 23, in Orlando, Fla.

The reception will be held at the Holiday Inn International, 6515 International Dr. The football game between the Texas Tech Red Raiders and the Florida State Seminoles starts at 8 p.m., EST.

A special side-line section of reserved seats has been set aside for Texas Tech fans. Tickets in that section must be ordered from the Texas Tech Athletic Ticket Office, P. O. Box 4199, Lubbock, 79409. Price of tickets is \$10 and each order must include 50 cents for postage.

The Holiday Inn has reserved a few rooms for Texas Tech Exes at reduced rates upon request. The phone number is (305) 351-3500.

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CONTACT: B. Zeeck

LUBBOCK--The aggressive red imported fire ant can damage a tractor, send humans to the hospital and increase pesky aphid infestations. But it also preys on boll weevils and on sugar cane bores.

While there are both bad and good qualities in the insect, most people consider the red imported fire ant a threat to agriculture. The ant has spread so rapidly in the United States that the Texas Legislature has funded concentrated research in an attempt to prevent its further spread and to increase scientific knowledge of its behavior.

The ant was unknown in the United States 40 years ago, but since its introduction near Mobile, Ala., in the 1930s, it has moved westward at a rate of about 30 miles per year on a front hundreds of miles long. At that rate it could reach the irrigated farmlands of West Texas in nine or 10 years, or sooner if given a lift on commercial or other vehicles.

To help forestall such an invasion a team of Texas Tech
University researchers has embarked on a \$200,000 two-year study,
funded by the Texas Department of Agriculture. The faculty-student
team will be looking for the answers to five major questions.

The researchers will determine whether there are native species of ants in West Texas which might serve as competitors and hinder the establishment of red imported fire ant colonies.

#### fire ants/add one

The team also will attempt to define the temperature and humidity conditions of the ants' nest and the ants' ability to alter these conditions or to survive if the conditions are altered by climate.

Investigators will identify any potential West Texas predators and parasites of the red imported fire ant. They will evaluate the effectiveness of present state and federal quarantines imposed to prevent the spread of imported red fire ants. And, once all these objectives are met, they will subject the insect invader to West Texas environmental conditions to measure its potential for establishing colonies in the area.

Dr. Darryl P. Sanders, chairperson of the Department of Entomology, heads the Texas Tech investigative team which, he said, will work closely with researchers at Texas A&M University.

"The potential for establishment of ant colonies in West
Texas," he said, "revolves around the imported red fire ant's
ability to survive and multiply under the environmental conditions
here.

"It will be necessary, of course, to subject populations of the pest to such environmental conditions and to measure their reactions, but this aspect will be conducted under strictly controlled field conditions," he emphasized.

He said that the Texas Tech University Center at Junction will be used as a base of operations for some field studies in existing red imported fire ant colonies. The survey for native species will extend roughly from Dalhart south to San Angelo and west to El Paso, he said.

Although 36 million acres in Texas are under quarantine regulations now to help prevent the spread of the ant, the red imported fire ant is not a cooperative insect. It can and does travel on the wind. During certain stages of life the ants are winged, and they mate aloft, sometimes flying against the wind.

The ants are hardy, Sanders said. Queens can live at least seven or eight years in the laboratory.

Like many ants, they tend aphids although the extent of their solicitation for colonies of aphids is not yet known.

It is their mounds that are dnagerous to farm equipment.

The mounds are as hard as cement, Sanders said, and farm equipment,
being driven against them unexpectedly, can be damaged.

But the main objection to fire ants is that they sting, and for people highly sensitive to the ants' venom this can be a serious medical problem. Bites can be fatal.

Working with the Texas Tech team as an adviser is Dr. S. Bradleigh Vinson of Texas A&M University. Vinson is a noted authority on the imported red fire ant.

Faculty at Texas Tech who will be engaged in the research include one member of the biological sciences faculty, Dr. Stuart L. Pimm, and five entomologists, Drs. David E. Foster, James K. Wangberg, Donald Ashdown, Daniel P. Bartell and Sanders. Wangberg already has started field studies.

Students will be assigned to the project next semester.

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CONTACT: Nita Gilger

LUBBOCK--Lower marriage and fertility rates were found in metropolitan areas where there is a high employment level for women, Texas Tech University sociology professor Patricia A. Ross has found.

Dr. Ross conducted the study in two areas, the general labor force participation and the career force participation.

In career force participation the occupations females sought were male-dominated fields such as engineering, science, and teaching at the college and university level. Most of these women waited longer to marry and had fewer children.

The labor force participation was a more general study of female workers. The relationship in this force to the rate of marriage and fertility was weaker.

Two theories about marriage rates have been investigated.

One is that women are marrying whenever they wish because they are able to help with the family income more readily. The other theory, which Ross found to be true, is that women are waiting to marry because they are working and capable of supporting themselves.

Regional differences appeared in the study. In the South women make less money in the job market compared to the rest of the nation, and there are fewer jobs available to them.

Ross said high pay scales and occupational levels for women in California, particularly San Francisco, are probably due in part, to the high educational level there. Until recently California had state-paid tuition in colleges which "made education very economical" for students.

Washington, D.C., New York City, Honolulu and San Francisco had the highest level of income and occupations for women. Ross said each of these cities has a dense population and similar geographic features and are attractive to singles.

The lowest income and occupational opportunity area was

Mobile, Ala. Colorado also had a lower income for women than the
national average.

According to Ross, the Population Commission set up several criteria in population control and studies a few years ago. These included offering better education, eliminating discrimination in job or employment opportunities, and birth control for the general population.

Ross said that by creating the opportunity for women to participate more easily in the job market an indirect incentive would evolve to bear fewer children. If women choose to work, they will usually choose to limit the size of their family.

"People usually reject strong statements about family planning, but opening up opportunities for women to enter occupations would be an indirect form of family planning with free choice," Ross said.

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CONTACT: Jimmy Tate

LUBBOCK--The Army ROTC program at Texas Tech University has concluded activities for the fall semester with an awards program.

Five major awards were presented at the ceremony, with cadet officer David L. Lance of Lubbock presiding.

Receiving the Military Science-1 award for the best firstyear cadet of the semester was Richard L. Draehn of Richardson.

Best second-year cadet of the semester was William D. Rich,

Fort Worth, and best Corpsdette of the semester was Margaret

Suzanne Prince of Andrews. George B. Morris of the Lubbock

Chamber of Commerce presented awards to the cadets.

Five cadets received the Distinguished Military Student award presented by Lt. Col. George T. Kimbro, professor of Military Science. They were John L. Albin of Lubbock, Nancy H. Davenport of Dallas, Richard J. Patrick of Ft. Hood, William J. Smith of Flint and Gerald G. Gibbons of Lubbock.

The award is presented to cadets who are in the upper half of their academic class and have shown exceptional ability as military cadets. Kimbro said.

Cadets Robert H. Morgan, El Paso, and Gregory P. Koenig,
Hereford, were awarded three-year full scholarships. The scholarships
are based on acadmic achievement and potential of becoming quality
military officers, Kimbro said.

#### rotc awards/add one

The ceremonies were concluded with the changing of command of the ROTC program. Gibbons will replace Davenport as commander next semester.

Other presentations at the ceremony were for outstanding intramural participation, the Tyrian Rifle award, the Orienteering award, the Scabbard and Blade award and the Marksmanship award.

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## THE MUSEUM OF TEXAS TECH UNIVERSITY SCHEDULS

Week beginning December 5, 1977

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| December 6                                             | Board Room-                       | 9:00-12:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Barbara O'Connell-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                        | Spord Room                        | 9:30 a.m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Women's Council Exec.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                                                        | ensening.                         | 10:00 a.m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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This is page # 2 of The Schedule of The Museum of Texas Tech University

This is
Thursday,
December 8 continued----Only ----shopping days left til Christmas, fill in
the blanks, again. By popular vote, Christmas will be concelled if everyone
does not play this game.

| work to be say and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | · · · · · · · · · · · · · · · · · · ·        |
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| Indies Half 10:00 a.m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Bacon Heights Pre School-<br>BROWSE          |
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| Assembly Room                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12:30-1:30                | Wolffarth 6th Grade                          |
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| Planetarium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | h:www.ivu                 | use traite use the prime but a come          |
| Ank;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                              |
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| Planetarium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3:30-4:30                 | Clovis HS lith and 12th Grades               |
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| December 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                              |
| FLET SA CHILL. SEED "A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | *                                            |
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| Assembly Room                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10:00 a.m.                | Jr. Programs Committee Meeting               |
| Board Room                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | insha sem.                | es o a contrata reporting person secretarial |
| Lobby Orientation Center                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | a                                            |
| Ranching Heritage Center                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3:00 p.m.                 | Autograph Party                              |
| Only shopping days left                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | · 朱育 3                    | Christmas. Isn't it exciting.                |
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| Saturday.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>6</b> ;                |                                              |
| December 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                              |
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| Planesrium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3:00 p.m.                 |                                              |
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| December 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                              |
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| a n edab water" (20 g. a. u5/840)a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | and a court of the second | an minute a minit that the contracts         |

For those of you who did not read last weeks' schedule, and suddenly found we had visitors in our midst---this is to tell you there are no surprises this week, just Santa Claus.

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CONTACT: Nita Gilger

LUBBOCK--"A Ceremony of Carols" by English composer Benjamin Britten will be performed by the Texas Tech Women's Swing Choir under the direction of Texas Tech voice professor William G. Hartwell III, Thursday (Dec. 8), 8:15 p.m., in the Recital Hall.

The Texas Tech Trombone Ensemble with 22 members and the group, "TubaPower," with 16 players will provide the music. Also featured is Gail Barber, Texas Tech music professor, who will provide harp music for the program.

Works performed will include an opening "Procession," with choristers marching down the aisle chanting the message of Christ's birth, nine carols and a "Recession."

The concert of vocal and brass music is open to the public at no charge.



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CONTACT: Prabhu Ponkshe

LUBBOCK--What makes an Arabian horse an Arabian horse? A slender back like that of a wolf, the foot like that of a cow, ears like a spear, a broad chest, a long neck and a round head with a cow-like nose.

The description seems like a cross between a wolf and a cow, but it is authentic as it comes from a Jordanian parliamentarian who has leased racing horses to King Hussein's uncle.

Shaikh Faisal bin Jazzi, head chief of the Howaitat Tribe in Southern Jordan of 85,000 people, gave the description of an Arabian horse during a visit to Texas Tech University in late November. The Shaikh has been a member of the Jordanian Parliament since 1960.

"In Jordan horses are commonly used for racing and pleasure riding and rarely for work. Horses are more of a hobby in Jordan and they are not a sign of wealth or social status," he said.

Some of the most famous horse breeds are Kuhaila, Saqlawia and Kubeisha. All these are pure breeds.

The Shaikh was quick in making friends with the horses at the Texas Tech horse barn. A few shouts and calls and the horses gathered immediately near the fence in front of the Shaikh. He examined their facial features and affectionately slapped one of them on the face.

The slap would have disturbed a bystander but the Shaikh immediately offerred an explanation: "I wanted to examine their reflexes and also look at their body frames and legs."

Shaikh Faisal was a guest of Texas Tech's International
Center for Arid and Semi-Arid Land Studies (ICASALS). During his
one-day visit to the university he met with Drs. Max Lennon and
J. Wayland Bennett in the College of Agricultural Services. Dr. Rex
Kennedy, director of Texas Tech's Agricultural Services, gave the
Shaikh a tour of the New Deal feed mill.

The Jordanian visitor was impressed by Texas Tech's agricultural programs and hoped that Jordanian students would come to the Lubbock institution for advanced studies. The Shaikh himself is interested in arid lands, agriculture, water conservation, irrigation and increasing agricultural efficiency of water-short environments.

His month-long tour of the U.S. was sponsored by the International Visitor Program of the U.S. Department of State. Faud Kerry of the State Department served as escort and interpreter for the Shaikh.

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CONTACT: Nita Gilger

LUBBOCK--A faculty guitar recital by Texas Tech University instructor James G. Bogle will be on Tuesday (Dec. 6), 8:15 p.m., in the Texas Tech Recital Hall.

Music performed by Bogle, assisted by flutist Michael C.

Stoune, Texas Tech music professor, will include works by John

Dowland, Fernando Sor, Francisco Tarrega, Isaac Albeniz, Villa
Lobos and some of Bogle's compositions.

Bogle has played professionally throughout the United States.

He recently was commissioned to write a piece for the 1977 Fred

Astaire International Dance Compositions.

The recital is open to the public at no charge.



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CONTACT: Roe Burnett

LUBBOCK--Four Texas Tech University freshman art students have been awarded \$50 scholarships for the spring semester.

Recipients of the scholarships are Lauri Joswiak of Dallas,
Milton Burel of Lewisville, Amanda Walden of Uvalde and Jenifer
Anne Wikstrom of Lubbock.

The money for the scholarships was provided by an anonymous donor.

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CONTACT: Marcia Lundy

LUBBOCK--Texas Tech University freshman Dana Stout has been awarded a \$1,000 scholarship by the Ford Motor Company Fund, sponsors of the 4-H achievement program.

Stout was chosen as one of nine winners in the program.

She was presented the award at the 56th National 4-H Congress,

Nov. 27-Dec. 1 in Chicago. The Ford fund also paid winners'

expenses to the Congress.

The Cooperative Extension Service chose the winners.

Stout, 19, daughter of Mr. and Mrs. O. A. Stout Jr. of Hale Center, is majoring in home economics education at Tech.

She has been involved in 4-H for many years, being elected a delegate to the 4-H Hale County Council for seven years and the 1977 council chairperson.

Stout was received the 4-H Junior Leadership award, the Farm Bureau Leadership award and the 4-H Danforth "I Dare You" award. In high school she was selected for "Who's Who Among American High School Students" and "Who's Who Among American Music Students."

Stout has attended 4-H county, district and state camps and served as camp junior leader this past summer. One of the first participants in the Hale County 4-H exchange program, she hosted 4-H members from Minnesota and Iowa and traveled to Iowa for a week's stay to complete the exchange.

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CONTACT: Jimmy Tate

LUBBOCK--Noise-induced hearing loss may be directly related to personality types, according to a recent study by Dr. William K. Ickes, professor of audiology and speech pathology at Texas Tech University.

"The fact that high intensity noise can cause hearing impairment has been known for several years," Ickes said. He became interested in why some persons seem to be affected more by high intensity noise than are others.

Ickes believed that the answer as to why some people have noise susceptible ears might lie in the role of vasoconstriction in noise-induced hearing loss.

Vasoconstriction (contracting blood vessels) is a well known phenomenon and may be caused by any anxiety-producing stimulus which produces autonomic nervous system arousal. Ickes decided to study the effect of noise as a noxious stimulus producing autonomic nerve impulses on vasoconstriction.

The study investigated the relationship of noise and the response of the autonomic nervous system. The experiment was based on research by Rosenman et. al. (1964) which related personality types in terms of stress-prone behavior to autonomic nervous responses, including cardiovascular response.

#### hearing loss experiment/add one

Ickes administered a personality test to more than 300 Texas

Tech students and used only the most extreme pattern A and pattern

B personality types.

Type A are classified as those with an extreme drive to compete and to achieve, continuously involved in a variety of activities which are restrictive and inspire self-imposed deadlines.

Type B behavior is defined as that at the opposite extreme, or people who are easy going and less stress-prone.

A total of 20 people, five men and five women type A and five men and five women type B personalities, were used in the study.

Ickes raised the question as to whether loud, noxious noise affects pattern A persons differently than pattern B persons, whether noise susceptibility is a factor related to pattern A behavior, and whether measures of stress patterns can be used to predict noise susceptibility.

Each person was subjected to three time periods, a quiet period, the noise period and a second quiet period. A plethysmograph and an oscillating recording pen measured the vasoconstriction during each segment of the test.

Ickes found that there was no significant change in vasoconstriction for pattern B types. Pattern A subjects showed a marked increase in vasoconstriction (decreased blood volume) at the time they were subjected to the noise, and the increase was statistically significant.

In a closer examination Ickes found that there is no significant change in vasoconstriction for female subjects, either pattern A or pattern B, from the first quiet period to the noise period and back to the second quiet period though pattern A females show more vasoconstriction in noise than pattern B females.

#### hearing loss experiment/add two

Ickes does not question that high intensity noise produces noise-induced hearing loss in any subject, regardless of pattern A or pattern B behavior, but it is the pattern A subjects who seem to be more susceptible to noise.

Ickes said the application of preemployment tests to differentiate pattern A subjects from pattern B subjects may be a useful determinant for employment in noisy work environments. The efficiency of this procedure should rest on longitudinal studies made over long periods of time, he said.

Ickes was assisted by Julie Espili, research assistant, and
Anne Mary Anderson, audiologist. The research report was submitted
to "Environment and Behavior" in September, 1977.

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CONTACT: Roe Burnett

LUBBOCK--Violinist James J. Barber, music professor, and pianist Judith B. Burganger, artist in residence in music, will perform a faculty recital, Monday, 8:15 p.m., in the Texas Tech University Recital Hall.

The program will feature works of Robert Schumann, Ludwig van Beethoven and Richard Strauss.

Schumann's "Sonata in A Minor, Opus 105" for violin and piano, exhibiting long melodic lines, will open the recital.

A work of driving rhythm and intensity, Beethoven's "Sonata in C Minor, Opus 30, Number 2" will follow.

The recital will conclude with Strauss' "Sonata in E Flat, Opus 18," which is a highly virtuosic period piece from the Victorian era.

Burganger began her orchestral debut at the age of 12 and has played with many symphonies in the United States as well as in Mexico City, Berlin and Tokyo. She was the first American to win the International Piano Competition in Munich.

Barber has served as concertmaster with the Eastman Philharmonia and the United States Marine Band Orchestra. Since his Carnegie Hall debut in 1962, Barber has made recital appearances throughout the U.S. and Europe. He is the chairperson of Texas Tech's Department of Music String Division.

The recital is free and is open to the public.

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CONTACT: Roe Burnett

LUBBOCK--The 17th annual Children's Christmas Concert will be performed by the Texas Tech University Symphony Orchestra,
Sunday (Dec. 4), 3 p.m., University Center (UC) Theatre.

Leonard Bernstein's "Overture to Candide" will open the concert, followed by Adolph Schreiner's "The Worried Drummer."

The second piece is subtitled "Humoresque" because there are so many parts for the solo drummer to play.

Ronald J. Dyer, music professor, will be the drummer soloist and will play timpani (kettle drums), bells, tambourine, triangle, cymbals, snare drum, bass drum, castanets, sleigh bells and xylophone.

Highlighting the concert will be "The Carnival of the Animals," which musically describes the march of the Royal Lions, Hens, Rooster, Wild Donkeys, Turtles, Elephants, Kangaroos, Fish, Mules, Cuckoos, Birds and a Swan.

The Suzanne Aker School of Ballet will portray the animals through dance. William G. Hartwell III, professor of music, will present a narrative written by American poet Ogden Nash.

The audience will sing along with a medley of well-known Christmas carols titled "A Christmas Festival" by Leroy Anderson which will close the program.

Tickets are \$1 and may be purchased at Al's Music Machine,
South Plains Mall; Harrod's Music Company, 5422 Slide; Jent's House
of Music, 2646 34th; and the Texas Tech Music Department. Tickets
will be sold at the UC Ticket Booth on Sunday.

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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Two students were recognized at the 27th annual meeting of the Texas Section of the Society for Range Management (SRM) held Dec. 1-3 in Fort Worth.

The two are Dusty K. Webb of Lubbock and John M. Galbraith of San Antonio.

Webb is a freshman majoring in wildlife management. He is also a member of the junior varsity football team.

Galbraith is a senior majoring in range management. He is also president of the national student organization of the Soil Conservation Society of America. At the first of November Galbraith was first place individual at a regional soil judging contest held in Baton Rouge, La. The Tech team won the contest overall.

Each Texas university is permitted to choose two honorees, one lower and one upper classman, based on scholastic achievement and leadership ability.

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CONTACT: Nita Gilger

LUBBOCK--Texas Tech University graduate music students

Patrice Barnett, violinist, and Marilyn Arland, pianist, will

give a recital, Sunday (Dec. 10), 8:15 p.m., in the Texas Tech

Recital Hall.

Performances will include works by Beethoven, Prokofieff and Franck.

Barnett is a student of Texas Tech Professor Virginia K. Kellogg and Arland is a student of Dr. Thomas Redcay II, also a Texas Tech music professor.

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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Placing third of 12 teams at the Mile High Horse Extravaganza in Denver in late November, the Texas Tech University horse judging team came away with high honors for the second time this fall.

One member, Dirk Jones, was the high individual overall for the contest. He placed first in performance judging and fourth in both halter and reasons to take first overall. Jones is a sophomore agricultural economics major from Tatum, N.M.

Other members participating were Eddy Corse, sophomore animal production major, Dumas; Beverly Marr, junior home economics major, Dallas; Gary Reynolds, sophomore agricultural education major, Canyon; and alternate Jim Taylor, senior general business major, Lubbock. The team is directed by horse specialist Jim Heird.



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CONTACT: Nita Gilger

LUBBOCK--Entertaining thousands of children for two hours, five days a week is not an easy job, but Dirk West, Lubbock advertising executive and city councilman, used puppets as the key for three years on a children's theatre television show in 1953-'56.

West, known as "Uncle Dirk," was host of the children's show, which was televised before a live studio audience. He began by drawing cartoons for the children but soon needed an additional feature on the show to fill the two-hour period.

"I just looked at the way some other puppets were made and decided to make my own for the show," West said. The first ones were simple hand puppets. Later he used sleeve puppets and finally puppets with bodies.

The characters included a tiger, horse, duck, dragon, snake chicken, moon creature, a trash can man and Frankenstein.

The chicken, "Earl E. Bird," laid an egg on every show. The egg was a huge plastic one. The horse, characterized as a clumsy, goofy puppet, was replete with a hose enabling him to gulp down eight gallons of water during one show.

Most of the shows were "ad lib," with the subject line designed by West. He provided all eight of the puppet voices.

One show had a pirate puppet that brought out a chest and tried many different ways to open it. West said when he asked the children for ideas on how to open the chest, he received some 3,000 letters.

"There is no limit to what can be done with puppets. The characters are endless," he said.

"Puppets need to be very loud and full of action to keep the children's attention."

West has never pursued puppetry as a career, but he said he has a marked respect for puppeteers and the work they do.

While working on the children's show West performed in several schools and had many requests he could not accept becuase of time demands and the non-portability of the puppet stage.

"Puppets were not difficult for me to make because I am a cartoonist. I was used to designing characters," West said.

He used fabrics, latex rubber, yarn, fake fur and ping pong balls to make the puppets.

Puppets of all kinds and their creators will attend the National Festival of Puppeteers at Texas Tech University, June 25-July 1. West said he thought the festival would be fun and interesting. He is designing the cover for the festival booklet which features the Texas Tech mascot, Raider Red, a copyright of West.

West has been in advertising since he stopped doing the children's show. He also serves as mayor pro-tem of Lubbock.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's swimming team will compete in their first home meet of the fall season Saturday (Dec. 3) at the Men's Gym Pool at 10:00 a.m. The Tech team will face the Lobos of the University of New Mexico.

The athletes will swim 100- and 200-yard races for each event, as well as 500- and 1,000-yard events in the freestyle. They will also swim a 400-yard medley and an 800-yard freestyle relay. The meet will also include diving events.

"We are in much better condition now than we were earlier in the season," said Anne Goodman, Tech swim coach. "We are able to swim the longer distances, and this should be an advantage for us since this meet is an exceptionally long one."

The Raiders have had good practices this week, and Goodman expects outstanding performances from Ruth Mansfield, Great Falls, Mont., in the 200- and 500-yard freestyle events, and Denise Shipman, Richardson, in the freestyle and butterfly sprint events.

"I don't have any concrete scouting reports from New Mexico,
but I have heard that they have a strong freestyle swimmer who should
provide good competition for Mansfield and Shipman," Goodman said.

"They have a new coach this year and number of new recruits."

The meet with New Mexico will close out the Raiders' fall season, with the next meet scheduled for Jan. 12-14, at The University of Texas Invitational.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's basketball team will face the Buffs of West Texas State University at 7:00 p.m., Tuesday (Dec. 6) in the Women's Gym on the Texas Tech campus.

This will be the second meeting of the season for the two rival teams. In the earlier match-up Tech defeated West Texas 79-44.

Outstanding players for the Raiders are D'Lynn Brown, Stratford, and Karla Schuette, Slaton. Schuette currently holds the season high-point record.

"West Texas has a strong press defense," said Tech coach Gay
Benson. "Physically we are larger but they are extremely fast.

Since we played the Buffs early in the season, I have no doubt that they have improved, and it should prove a much closer game."

Recently, the Raiders defeated Hardin-Simmons 79-39, boosting their season record to 8-2.

"We have been playing so many games recently that we haven't had opportunity to practice, and the team is beginning to look a little ragged," Benson commented. "We have played three games in the past week, and I am looking forward to some practice time."

The Raiders' next home game will be played on Dec. 10 against New Mexico State University at 3:00 p.m.

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CONTACT: Dan Tarpley

LUBBOCK--The Texas Tech University Christmas party for all non-academic personnel, Dec. 16, will be highlighted by the presentation of six awards to three outstanding employes of the university and three of the medical school.

The six recipients will receive \$500 cash awards and pay increases.

The party is scheduled for 2-5 p.m. in the University Center Courtyard, and the awards will be presented by Texas Tech President Cecil Mackey in ceremonies at 3 p.m.

In both the university and the medical school awards will go the the outstanding classified employe, outstanding classified supervisor, and outstanding professional or administrative employe.

Plans for the party and the recognition program were announced by Kenneth W. Thompson, vice president for Administration. Recipients will be selected on the basis of outstanding service. Nominations have been coordinated through vice presidents for review by a committee of peers.

A musical program will be provided under the direction of Dr. Harold T. Luce, chairperson of the Music Department.

The Christmas party and the Awards for Excellence program will become an annual activity, Thompson said.

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CONTACT: Nita Gilger

LUBBOCK--The Reader's Digest Foundation has renewed a \$1,000 grant to the Texas Tech University Department of Mass Communications for travel and research.

The grant will be used for faculty and student travel and research and to bring practitioners to the Texas Tech campus to visit with students and lecture to classes, said Dr. Billy I. Ross, Mass Communications chairperson.

"The funds are a valuable resource to students and faculty of our department to give them opportunity to attend seminars, institutes and symposiums to keep abreast of developments in the industry," Ross said. "They are also used for studies and surveys, which help to keep our teaching personnel aware of trends and movements in all media. We also use part of the grant for publishing a laboratory newspaper and magazine.

"The foundation requires that grantees send reports on the use of funds and demonstrate the effective use of them, a requirement which we are happy to meet and one which we believe not only reasonable but also wise."

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CONTACT: B. Zeeck

LUBBOCK--The appointment of W. Lawrence Garvin, nationally recognized architect and planner, as associate dean of architecture in the Texas Tech University College of Engineering was announced Friday (Dec. 2) by Engineering Dean John R. Bradford.

Garvin also was named chairperson of the Division of Architecture and professor with tenure in that division.

Garvin has been coordinator of physical planning for nine campuses of the University of California since 1973. He also has worked in planning for the Harvard Medical School and the Massachusetts Institute of Technology. He was on the faculty in the Clemson University School of Architecture and has been an architect in private practice.

He succeeds Prof. Nolan E. Barrick, who has served as chairperson in architecture since 1953. Barrick is returning to full time teaching.

Garvin's appointment becomes effective Jan. 1.

"The qualifications Larry Garvin brings to the position, both as an administrator and as an architect, will serve the university well," Dr. Bradford said.

"He met with faculty and students in the division last month and comes to Texas Tech with their firm support, as well as that of the university administration."

Garvin holds degrees from Washington and Lee University, where he earned the bachelor of science in physics, from Ohio State University, where he was granted the bachelor's degree in architecture, and from MIT, which awarded him the master's degree in architecture.

He is professionally certified by the National Council of Architectural Registration Boards and is a registered architect in the states of California, Massachusetts, Ohio, South Carolina and West Virginia. He also is certified as a fallout shelter analyst.

For two years, while working as assistant to the dean for architectural planning and director of the Planning Office for the Harvard Medical School, Garvin also served as visiting critic at the Harvard Graduate School of Design.

In private practice he has worked with the firms of R. W. Whitehead, AIA, A. G. Odell, Jr., The Architects Collaborative, and Geometrics-Garvin--Joint Venture, a partnership formed to provide planning and programming services to the trustees and the Massachusetts State College Building Authority.

He was assistant planning officer for Program and Design Review for the Massachusetts Institute of Technology before joining the University of California System. He has worked also with Brandeis University in programming and design review.

His articles have appeared in the "Journal of the American Institute of Architects," American School and University Yearbook" and the "Journal of Architectural Education."

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CONTACT: B. Zeeck

LUBBOCK--The author of a book with a double thrust--delineating the history of agriculture in West Texas as well as the history of agricultural education at Texas Tech University--will be honored Friday (Dec. 9) at an autograph party at the Ranching Heritage Center.

Donald E. Green is the author. He has written "Fifty Years of Service to West Texas Agriculture," which has the subtitle of "A History of Texas Tech University's College of Agricultural Sciences, 1925-1975."

The book has been published by Tech Press and first copies will be available at the autograph party at 3 p.m. in the David M. DeVitt and Mallet Ranch Building at the Ranching Heritage Center of The Museum of Texas Tech University.

The public is invited to the party honoring Green, a historian whose works relate primarily to the history of southwestern agriculture. His "Land of the Underground Rain," a history of Texas High Plains irrigation, was awarded a Texas Institute of Letters prize in 1973.

The central theme of his new book is the close working relationship between the Texas Tech College of Agricultural Sciences and its grassroots constituency, the people and the movements responsible for the realization of the vast potential of West Texas agriculture. He supplies readers with absorbing and candid detail.

Green's honest accounts of conflict lend particular insights into the character of a rapidly growing university. The book is largely a narrative of human nature, and the author's citing of anecdotes, letters and newspaper accounts contribute an unmistakable West Texas flavor to his writing.

He traces the coordination and cooperation between the College of Agricultural Sciences and West Texas agricultural interests through the cotton boom of the 20s, the difficulties of the Depression, and the development of the superfeedlots of the 1960s. The final chapters are devoted to the great changes that have been taking place in the industry and the reflection of those changes in the objectives of the college.

The cost of the new book is \$11.95.

Dr. Dilford C. Carter, director of Tech Press, said the book is a "concise, readable history which should interest a broad variety of people.

"The co-evolution of agriculture in West Texas and the College of Agricultural Sciences demonstrates the interrelationship of the two and the impact each had on the other."

Green also is the author of the "The Creek People" and "Rural Oklahoma."

He earned the bachelor's degree at Abilene Christian University, the master's degree at Texas Tech and the doctoral degree in history at the University of Oklahoma. He is a native of Wellington and was reared on a Collingsworth County ranch.

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CONTACT: Roe Burnett

LUBBOCK--The Texas Tech University Marching Band will present its fifth annual Scholarship Concert Tuesday (Dec. 6), 8:15 p.m., in the Municipal Coliseum.

The "Goin' Band From Raiderland" concert not only furnishes entertainment for the community but also provides recruiting funds.

The money made from the concert will be used by the band to compete with other schools for outstanding musicians through scholarships.

Outstanding features of the concert will include head football coach Steve Sloan directing the band and performances by the flag (cq) bearers, drum corps, twirlers and the Texas Tech pom pon girls.

Door prizes will be awarded and will include free use of a 1978 Chevrolet, courtesy of Town and Country Chevrolet, Slaton.

Dean Killion, director of the Texas Tech Band, said his goal is to have a large number of junior high and high school musicians attend the concert.

"We really like to get the students thinking about the Texas

Tech band at an early age," Killion said. "This way it helps our

recruiting program, but, just as important, it helps the local high

and junior high schools because the Texas Tech band inspires them.

### scholarship/add one

"Some high school musicians are as sought after as athletes, and we need this scholarship money in order to compete with the other schools."

Tickets are \$2 for adults and \$1 for students. They may be purchased from band members and at the Coliseum Tuesday night.

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#### FOR IMMEDIATE RELEASE

CONTACT: Jane Brandenberger

LUBBOCK--Routine academic and medical affairs will be discussed by the Board of Regents of Texas Tech University and School of Medicine on Friday (Dec. 2).

The board will convene at 8:30 a.m. in the Regents Suite on the second floor of the Administration Building.

Following a half-hour executive session the Regents will consider academic and student affairs, including an admissions policy revision, establishment of a bachelor's program in biology, Faculty Senate constitution and an appointment with tenure. Reports on agriculture programs, periodic review of the faculty, and work of an ad hoc tenure review committee will also be reviewed.

The finance committee will offer proposals for writing a fire, lightning, extended coverage and contents insurance policy and seek the board's consideration of signature authority for lease property.

In campus and building matters the Regents will consider award of a construction contract for animal sciences renovation and one for construction of the Jones Stadium ticket office and letterman's lounge. They will discuss retention of

architectural and engineering assistance for Sneed Residence
Hall renovation and selection of an architect for an addition
to the Electrical Engineering Building, for the former Library
Building, for renovation of the Chemical and Petroleum Engineering
Buildings and for West Hall renovation.

The Regents will also consider authority to receive bids and award contracts for renovation of the Killgore Beef Cattle, Teaching and Research Center, as well as acceptance dates for Indiana Avenue lighting and signal systems and Jones Stadium pressbox and spectator seating.

The athletic committee will present a report on the stadium scoreboards.

Convening shortly after 11 a.m. as the board for the medical school, the Regents will consider affiliation agreements with extended care centers in Amarillo, including Vivian's Nursing Home, Bryanwood Care Center, Quality Care Nursing Home, Georgia Manor Nursing Home, Golden Age Nursing Home, Jewel Care Inn, Medi-Park Care Center and Olsen Manor Nursing Home.

Other affiliation agreements to be considered include one with Crosbyton Hospital and Clinic and with Armstrong County Medical Center in Claude.

The board will also hear reports on cooperation between the university and medical school and on Phase II-B construction of the medical school.

Adjournment is anticipated by 12 noon.

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CONTACT: Roe Burnett

LUBBOCK--Beginning as a dream in 1958, the annual Carol of Lights has become a Christmas tradition of Texas Tech University.

The turning on of approximately 15,000 multi-colored lights outlining campus buildings will take place Friday at 7:30 p.m. The ceremony preceding the illumination will begin at 7 p.m. at the Science Quadrangle.

The dream began when coeds from Horn and Knapp Halls and young men from around campus gathered at Memorial Circle, sang Christmas carols and went to the University Center for hot apple cider and doughnuts.

Organizers for the program were Dorothy T. Garner, former coordinator, Women's Residence Halls, and Dr. Gene L. Hemmle, music professor. The first 5,000 lights were provided by Harold Hinn of Dallas, former member of the Texas Tech Board of Regents.

This year's theme is "Light the World With Christmas Joy."

The ceremony will begin with a torchlight procession led by the Saddle Tramps, a spirit organization.

The invocation will be given by Dr. Judson F. Williams, chairman of the Board of Regents. Don Hase, president of the Residence Halls Association, will give the welcome.

### carol of lights/add one

Texas Tech's Brass Ensemble and Choir and a solo by Kyung Wook Shin, professor of music, will highlight the program.

Jennifer Phelps, chairperson for the Carol of Lights, will give the pre-lighting comment.

After the turning on of the lights the audience will sing carols and music Prof. Judson D. Maynard will play the carillon in the Administration Building tower.

Seven buildings around Memorial Circle will be outlined with lights, which will burn from 6-11 p.m., Dec. 2-26.

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CONTACT: B. Zeeck

ATTENTION: Agricultural Editors

EDITOR'S ADVISORY: Efforts are underway to arrange a news conference for Dr. Kelly M. Harrison. If you are interested in attending this conference, please call Area Code 806: 742-2136 for time and place.

LUBBOCK--When U.S. wheat, cotton or any other agricultural commodity is sold abroad, it's the business of Kelly M. Harrison to know about it.

Harrison is general sales manager of the Foreign Agricultural Service of the United States Department of Agriculture (USDA), and he will be among the speakers for the fifth annual Bankers Agricultural Credit Conference at Texas Tech University Friday and Saturday, Dec. 2-3.

Pre-registration figures indicate an attendance of approximately 150 bankers from Texas, New Mexico and Oklahoma.

Texas Commissioner of Agriculture Reagan V. Brown will address the banquet audience in the ballroom of the Texas Tech University Center on Dec. 2. Registration is scheduled for 6-7 p.m., the banquet at 7.

Dr. Harrison, a native of Lockney, will discuss credit arrangements and contract responsibilities relating to export of agricultural products.

In his position he has responsibility for foreign market development activity, and his staff is concerned with the Commodity Credit Corporation (CCC) Export Credit Sales Program; the Food for Peace Program; standby programs for barter, export sales of most CCC-owned commodities, export payments and programs which encourage the export of U.S. agricultural products; and the monitoring of export sales by private U.S. exporters; and the frequent publishing of related information.

A graduate of Texas Tech, Harrison earned his advanced degrees at Kansas State and Michigan State Universities.

The credit outlook for 1978 is the theme of the conference sponsored by the Texas Bankers Association and the Texas Tech Department of Agricultural Economics.

Other speakers include Larry Bratcher, administrative

officer of the Texas Farm Home Administration, USDA; Tom Linquist,

representing the Lubbock office of the Small Business Administration;

Alex Sheshunoff, president, Sheshunoff and Co., Austin; and members

of the faculty in agricultural economics at Texas Tech University.

President Thad McDonnell of the Levelland State Bank heads
the conference board of directors. O.R. Stark Jr., president of
the Quitaque First National Bank, serves as board vice president.
Dr. J. Wayland Bennett, associate dean of the College of Agricultural
Sciences at Tech, is conference coordinator.

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CONTACT: Dan Tarpley

LUBBOCK--Dr. Janet W. Diaz, visiting professor of Spanish at

Texas Tech University from the University of North Carolina, Chapel (cq)

Hill, will lecture on "Vincente Aleixandre: A Profile of the Man and His Work," Thursday (Dec. 8), 7:30 p.m., room 266, Business

Administration Building.

Her lecture is the second in a series sponsored by the Department of Classical and Romance Languages.

A Spanish poet of "The Generation of '27," Aleixandre was little known in this country until he was awarded the Nobel Prize for Literature this year.

To students of Spanish poetry, however, the award was long overdue recognition for the poet, whose reputation had been mostly confined to his own country.

Diaz' lecture focuses on the evolution of Aleixandre's verse from 1927 through the Civil War and the Franco regime to 1974.

Diaz, author of three books as well as many professional articles and papers, is teaching courses in modern Spanish literature at Texas Tech this year. She has five monographs in preparation.

Titles of her books are "The Major Themes of Existentialism in the Works of Ortega y Gasset," "Ana Maria Matute" and "Miguel Delibes."

The public is invited to the lecture, which will be presented in English.

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CONTACT: Jimmy Tate

LUBBOCK--Lewis N. Jones, dean of students at Texas Tech University, will be honored with an appreciation dinner by the Alpha Phi Omega service fraternity Saturday, Dec. 3, 7:00 p.m., according to Ron Green, APO president.

The dinner will be held in the University Center Ballroom on the Texas Tech campus. Tickets for the dinner are \$6 per person and the public is invited. Tickets may be purchased at the door.

Jones has been working for Texas Tech since 1947 and will retire at the end of January, 1978.

He received APO's National Distinguished Service Recipient
Award in 1964. He had also served as a national board member of
the fraternity.



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CONTACT: Jimmy Tate

LUBBOCK--Texas Tech will conduct "College Day," March 3, 1978, for Texas and New Mexico high school seniors and others interested in attending the university, according to David Nail, assistant dean of students and coordinator of the program.

The event provides prospective students an opportunity to visit with academic advisors in the colleges and departments in which they are interested.

Each of the six colleges will have representatives available for consultation and questioning.

The event also features booths for service and campus organizations to give prospective students a better idea of student life.

Campus bus tours and a special 12-minute film entitled "This is Texas Tech" also will be provided.

Last year more than 1,800 students attended "College Day," Nail said.

In addition to sponsoring "College Day," Texas Tech also participates in the Texas Association of College Registrars and Administration Officers (TACRAO) program. TACRAO coordinates "college nights" during which colleges may visit a high school at one time to allow students to learn about several schools they may be interested in and obtain information from them.

### college day/add one

Texas Tech will send representatives to the Austin-Waco area, Dec. 5-9; Corpus Christi, Jan. 16; Kingsville, Jan. 17; South Texas area, Jan. 19-24, and the Houston area, Feb. 6-9.

-30-

4-12-5-77

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CONTACT: Jimmy Tate

LUBBOCK--The South Plains Homemaker Service in affiliation with the Texas Tech University College of Home Economics has concluded its homemaker training program at the South Plains Electric Cooperative.

Homemakers completing 60 hours of training received certificates of confirmation, including training manuals and homemaker service aide pins.

The South Plains Homemaker Service provides employment and training for mature homemakers who perform in-home care services for elderly and disabled persons desiring to remain in their own homes and able to do so with limited assistance.

Services performed by homemakers include menu planning and meal preparation, escort to the doctor or beauty shop, personal grooming and care of individual needs, visitation and companionship. They help also with laundry and light housekeeping.

Services, available at a nominal fee based on monthly income, provide an alternative to institutional or nursing home care.

Persons interested in receiving services of a homemaker aide or desiring information about employment in their community may contact the South Plains Homemaker Service or local coordinator at (806) 763-4641 or 742-3033.



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CONTACT: B. Zeeck

LUBBOCK--Engineers in West Texas and eastern New Mexico will have opportunities during the spring semester to enroll in any of five courses offered by the Division of Continuing Engineering Education of Texas Tech University.

Two courses will be offered on the campus of Amarillo College, two on the campus of Frank Phillips College in Borger and one accelerated course offered weekends on the Texas Tech campus in Lubbock.

The program leads to the master's degree in engineering and is used primarily by practicing engineers seeking professional development. Because degree requirements can be completed off campus, engineers can remain on the job and at home.

Forty-six engineers have earned the master's degree through the program.

Spring semester courses at Amarillo College will be in civil engineering, "Advanced Mechanics of Solids," and in systems, "Analysis of Engineering Systems I."

In Borger students may enroll in a chemical engineering course,
"Process Dynamics and Automatic Control," or an industrial engineering
course, "Advanced Engineering Economic Analysis."

On the Texas Tech campus an electrical engineering course in instrumentation will be offered from 7 to 9 p.m. on Fridays and 9 a.m. to noon on Saturdays on seven weekends: February 10-11, 17-18 and 24-25; March 10-11 and March 31-April 1; and April 14-15 and 21-22. This accelerated course is offered for three hours of credit.

Division director Jo King said the program has been developed since 1966 to comply with requests from professional engineers employed in area industries. Personnel from 17 companies and members of two professional societies have participated.

For additional information write Jo King, Continuing Engineering Education, College of Engineering, Texas Tech University, Lubbock, Tex. 79409. The phone number is area code 806: 742-3456.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's basketball team will close out its fall season Saturday (Dec. 10) against

New Mexico State University (NMSU) at the Women's Gym on the

Tech campus.

The Red Raiders also will play Abilene Christian University
Thursday in Abilene. The Techsans boast a season record of 11-2
going into the Abilene match-up.

Season statistics indicate the Raiders are averaging 77 points per game, and their opponents are averaging 56. Tech's starting players also show significant progress, with Karla Schuette, Slaton, and D'Lynn Brown, Stratford, averaging 13 points per game; Rosemary "Dodie" Scott, Slaton, averaging 10; Marilyn Payton, Lubbock-Cooper, contributing an average of nine; and Cheryl Greer, Bridgeport, averaging seven.

First substitutes Jill Owens of Littlefield, Beth Cleveland of Dimmitt and Carol Dudensing of Rule each average five points per game.

Top scorers Schuette and Brown also excel in other aspects of the game, with Schuette top ball stealer and Brown leading rebounder, with 15 rebounds per game.

The Raiders are averaging between 38 and 40 per cent from the field in shooting and 79 per cent from the free-throw line.

"Our season is going basically as I expected," said Tech Coach Gay Benson. "If we win against NMSU, I believe we will have progressed nicely. If both of our games this week result in victory, we will go into the holiday break with a season record of 13-2, which obviously builds good morale."

The New Mexico State Roadrunners have a 5-2 season record, with wins over the University of California at Santa Barbara, West Texas State University, Odessa Jr. College and two wins over Sul Ross. NMSU's losses were from Long Beach State University and Biola College, Los Angeles.

Placing second in the Intermountain Athletic Conference last season, the Roadrunners competed against teams from 14 other major colleges and universities. The team also took a second spot in regional competition in the '76-'77 season.

NMSU is returning all but one player from last year, and has added five freshman recruits.

"One of our outstanding players is Ann McReynolds of Albuquerque, who has been an All-Conference player for the last two years," said NMSU coach Karen Fey. "Gail Cozzens of Portales and Tracy Smith of Roswell are also playing well for us this year."

The Raiders will resume practices Jan. 4, with their first Lubbock game of the spring season scheduled for Jan. 11 against North Texas State.

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CONTACT: Marcia Lundy

LUBBOCK--High quality is what Texas Tech University horse specialist Jim Heird is after in developing a breeding program, and high-quality is what he will be getting in the 1978 breeding season.

Last year saw the donation of top quality broodmares to the program as well as the donation of several top quarter horse stallion services. This year more stallion services have been donated.

Several of the mares in the Texas Tech breeding program will be bred to Toolie Step, a son of Big Step, third leading sire of performance horses for the American Quarter Horse Association (AQHA) in 1976. Toolie Step was donated for the 1978 breeding season by Don Wilcox of Tulsa, Okla.

The broodmare Horned Fantasy, donated last year by R. C. Jones of Tatum, N.M., will be sent to Jack Kyle's ranch in Santa Rose, N.M., for breeding to one of his quarter horse stallions.

Angle Five, a '76 donation by John Jones of North Carolina, and Twilight's Glo, a '76 donation by Arthur Sluder of Lubbock, Tex., will be sent to Rob Brown's ranch at Throckmorton, Tex., for breeding to Eddie 60 and either Four Y Five or Two Rocks. Brown donated the latter two for services last year.

Silver Dora, a granddaughter of King P-234, donated by John Jones, will be sent to the quarter horse division of Brink's Ranches, located at Sisterdale, Tex., for breeding to Docs Hickory. Docs Hickory is by Doc Bar, second leading sire of performance in AQHA in 1976. Docs Hickory was also a semi-finalist in the prestigious National Cutting Horse Association Futurity in 1976.

Buster Fipps of Fipps Farm in Tahoka, Tex., has donated a breeding to one of his thoroughbred (TB) stallions, the choice to be made by Heird. Heird will choose from Felon (TB), by Bolinas Boy, a grandson of Nasrullah, the sire of Bold Ruler, that sired Secretariat; Stephanos (TB), by Boldnesian, by Bold Ruler; or Bold Frank (TB), by Bold And Brave, by Bold Ruler.

The remaining broodmares will be bred to Toolie Step.

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CONTACT: Roe Burnett

LUBBOCK--Phi Kappa Phi, a prestigious honor society for all disciplines of American universities and colleges, will institute a fall semester initiation and reception for Texas Tech University graduate students, Tuesday, 4-6 p.m., in El Centro in the Home Economics Building.

Students to be initiated are Hal N. Anderson Jr., graduate student in business administration from Gatesville; Sheryl Diane Hider Boyd, graduate student in education from Dallas; LaJuanna R. Lindsey, graduate student in education from Plainview; Paul Michael Finnegan, graduate student in museum science from San Francisco, Calif.; Melissa Pearson, graduate student in art from Lubbock; Jeffrey Brian Robb, graduate student in entomology from Denton, and David Dean Witt, graduate student in sociology from Lubbock.

All inititates are candidates for the master's degree in their graduate programs.

Phi Kappa Phi was founded in 1897 in response to a need for a unique society to honor individuals for outstanding academic attainments and is "dedicated to the unity and democracy of education and open to honor students from all departments of American universities and colleges," said Dr. Rae L. Harris Jr., chapter president.

### phi kappa phi/add one

The society's objective is to foster and recognize outstanding scholarship, character and social usefulness in students, he said. Phi Kappa Phi is differentiated from other national honor societies in that it is not restricted to particular fields or programs.

A founding member of the Association of College Honor Societies,
Phi Kappa Phi has chapters at 196 universities and colleges throughout
the United States and Phillippines. The Texas Tech chapter was
organized in 1956 and approximately 100 of the Texas Tech faculty
are members of the society.

All Phi Kappa Phi members of the Texas Tech alumni chapter of Phi Theta Kappa, a junior college affiliate of Phi Kappa Phi, are invited to attend, Harris said. Officers and sponsors of the undergraduate all-university honoraries on the campus also are invited.

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CONTACT: Jimmy Tate

FOR RELEASE DEC. 7, 1977

SAN FRANCISCO--Texas Tech University geosciences Prof. C. C. Reeves Jr. reported on the migration of nitrate, chloride and total dissolved solids of the Ogallala Aquifer of West Texas at the American Geophysical Union here this week.

Reeves discussed the distribution of the chemicals and total dissolved solids from ground water from the Ogallala Aquifer in a 27-county West Texas area that demonstrated widespread areas of poor water quality.

Reeves has found that northeast of a line from Clovis, N.M. to Lubbock, Tex., nitrate is usually less than 45 parts per million (ppm), chloride is less than 20 ppm and total dissolved solids are less than 400 ppm.

Southwest of the line, nitrate may exceed 60 ppm and in some areas exceeds 170 ppm. Chloride commonly exceeds 500 ppm and may be greater than 2,000 ppm and total dissolved solids usually exceed 1,000 ppm and may be greater than 8,000 ppm.

"Most of the high nitrate values," according to Reeves, "occur in areas having sandy soils which have been intensively cultivated; thus leaching of nitrogen-based fertilizers is suspect.

"However, the high chlorides and total dissolved solids, which exist in essentially the same geographic area, represent lateral seepage of saline water from large alkali lake basins and local vertical migration from saline Cretaceous aquifers."

The original chemical analysis was done by the late Prof. W. D. Miller. -30- 2-11-28-77

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CONTACT: Jimmy Tate

LUBBOCK--Friday, Dec. 9, is the last day to pick up registration materials before Christmas for the spring semester at Texas Tech University.

Materials may be picked up in the second floor conference room of West Hall from 1-6 p.m.

The spring semester begins at Texas Tech, Monday, Jan. 9, when residence halls open for occupancy at 10:00 a.m.

Registration will be conducted Tuesday and Wednesday, Jan. 10-11, and classes begin Thursday, Jan. 12.

-30-

13-12-8-77

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CONTACT: Nita Gilger

LUBBOCK--Dr. David Leon Higdon, Texas Tech University
English professor, has published a book entitled "Time and
English Fiction."

The book, being considered for use in graduate studies, describes the relationship between time and structure, a general overview of time schemes in fiction and a practical analysis of 20 novels of the last 300 years.

Higdon is the general editor of "Conradiana" and the author of a "Critical Edition of Joseph Conrad's Almayer's Folly."

The professor has been awarded two grants by the American Philosophy Society and studied in England this summer.

His primary literary interests are the British novels of the 19th and 20th centuries.

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CONTACT: Marcia Lundy

LUBBOCK--Texas Tech University animal science students will have the opportunity next semester to study a more well-rounded registered Rambouillet sheep herd because of the donation of eight ewes to the university.

The Rambouillet ewes were donated by breeder Gerald Porter of Fort Stockton. Animal Science Prof. Leif H. Thompson said the ewes will be used to improve the university's Rambouillet breeding herd and in classwork.

Dr. Thompson said the ewes will be an important addition because Porter's sheep have been in the top rankings for the past eight to 10 years in the ram performance tests conducted annually at the Sonora Research Station.

He said the new ewes would also help prevent inbreeding in the herd.

These eight ewes bring the total registered Rambouillet herd to 36. Thompson said Rambouillet sheep were chosen for the university's breeding program for three reasons. They are the best wool-producing sheep in the country, a more hardy sheep, with better survival rates for lambs, and better adapted for range grazing.

Both Pat Rose, Bracketville, and Clinton Hodges, Denver City, have also recently donated Rambouillet ewes to the university.

Thompson said he was still trying to obtain another ram for stud services in order to bring in different qualities to the herd.

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CONTACT: John C. Harris, KTXT-FM

LUBBOCK--KTXT-FM (91.9 megahertz), student-operated radio station of Texas Tech University, is presenting the 38th season of Saturday matinee broadcasts of the Metropolitan Opera through April 15, 1978.

To millions of radio listeners in the U.S., Canada, Hawaii, Alaska and Puerto Rico, the Metropolitan Opera broadcast season is the most important "live" cultural program broadcast by radio each year.

KTXT-FM is one of more than 240 radio stations across the nation which will carry the Met broadcasts on the Texaco-Metropolitan radio network.

The 20-week broadcast season will feature two operas never before broadcast by the Metropolitan Opera: Massenet's "Thais," Jan. 28, and Donizetti's "La Favorita," March 11.

Other operas scheduled for the season include Puccini's "Madame Butterfly," Dec. 17; Verdi's "Il Trovatore," Jan. 14; and Wagner's "Tannhaeuser," Jan. 21.

In February listeners will hear Verdi's "Otello," Feb. 4;
Cilea's "Adriana Lecouvreur," Feb. 11; Tchaikovsky's "Eugene Onegin,"
Feb. 18; and Mussorgsky's "Boris Godnov," Feb. 25.

### opera broadcasts/add one

March will bring "Pelleas et Melisande" by Debussy, March 4;
Donizetti's "L'Elisir D'Amore," March 18; and Mozart's "Don
Giovanni," March 25.

Three operas will be broadcast in April to bring the season to an end: Strauss' "Die Fray Ohne Schatten," April 1; Puccini's "Tosca," April 8; and the double bill of Mascagni's "Cavalleria Rusticana," and Leoncavallo's "Pagliacci," April 15.

Most of the broadcasts will begin at 1 p.m., Lubbock time, Saturday afternoons.

More information on any of the operas may be obtained from KTXT-FM, Texas Tech University, P. O. Box 4710, Lubbock, Texas 79409.



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CONTACT: Dan Tarpley

LUBBOCK--Fourteen Texas Tech Reserve Officer Training Corps cadets will be commissioned second lieutenants in ceremonies at 10 a.m., Dec. 17, in the University Theater. Six are Army ROTC cadets, eight are Air Force.

Maj. Gen. Thomas A. Aldrich, commander of the 22nd Air Force, Military Airlift Command, Travis AFB, Calif., will deliver the principal address and administer the oath of office.

Members of the platform party will include Arts and Sciences

Dean Lawrence L. Graves, Aerospace Studies Prof. Fred D. Barnes,

Military Science Prof. George T. Kimbro, and Lt. Col. Arnold G.

Johnson, chaplain, Reese AFB.

Army ROTC cadets who will receive second lieutenant commissions in the United States Army are:

Clifford Anderson, San Antonio journalism graduate, armor;
Julian R. Biggers, Lubbock chemical engineering student, ordnance;
Andy F. Nazario, Lubbock physical education and health education
student, U.S. Army Reserve; Robert V. Romigh, Bandera sociology
student, armor; Jack B. Wiggins, Roswell, N.M., physical education
graduate, Air Defense Corps; and Michael H. Worsham, Athens,
"Distinguished Military Graduate," Army Reserve.

Air Force cadets who will receive commissions are:

Alfred B. Alvarado, Jr., San Antonio sociology graduate,
Air Force Reserve; Charles G. Crawford, of Sam Rayburn, business
administration graduate, pilot training; Gary J. Gore, Fort Worth
history graduate, missile launch; Stephen T. Grace, Fort Worth
electrical engineering technology graduate, pilot training;
Charles R. Greenway, Baird "Distinguished Military Graduate,"
pilot training; David A. Pribyla, Tarzan agricultural economics
student, pilot candidate; John G. Schmeltz, Dallas political
science student, pilot candidate; and Jason E. Tyler, Estancia,
N.M., English literature student, Air Force Reserve.

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CONTACT: B. Zeeck

LUBBOCK--The Ranching Heritage Center of The Museum of
Texas Tech University is one of six Texas projects which received
recognition this year from the American Association for State
and Local History.

An Award of Merit from the association recognized the center for "communicating ranching history of West Texas through conservation and restoration of architectural remains."

The Ranching Heritage Center is a 12-acre outdoor exhibit depicting the history of ranching in the American West. More than a score of structures have been brought to the center and restored in authentic detail, including furnishings and paraphernalia.

The West Texas Museum Association had received the association's Award of Merit in 1956 as "a cultural force of greatest importance in this area."

This year 39 Awards of Merit were presented nationwide by the association in its program to foster interest in state and local history and to encourage individuals and organizations to reach high standards of achievement.

Other Awards of Merit in Texas went to Roger Conger, Waco, recognized as a "worker in history," the Square House Museum in Panhandle and the Texas County Records Inventory Project of North Texas State University.

#### local history/add one

Certificates of commendation, for projects of more limited scope, were awarded the "Corsicana Daily Sun" for its bicentennial edition, Campbell and Lynn Loughmiller for their oral history, "Big Thicket Legacy," and David C. Humphrey for his history of the early years of Columbia University. Humphrey, now of Austin, is a newly arrived resident of Texas.

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CONTACT: Pat A. Broyles

ATTN: News Editors

(Editors: Please note that a student from your area is featured.)

LUBBOCK--The Moot Court team of Texas Tech University reached the quarterfinals of moot court competition in New York City in mid-December.

Twenty-nine teams from the nation's top law schools were involved in the national finals, sponsored by the Young Lawyers Association of the Bar of New York City.

Texas Tech's Moot Court team is made up of Randall R. Moore of Frost and Houston, David Hamilton of Lubbock and legal brief writer Kerwin B. Stephens of Gustine, all third-year law students. Donald M. Hunt, adjunct professor in the Texas Tech law school, is team coach.

"The competition was extremely close," Hunt said. "The caliber of competitors was outstandingly good, but it always is at this level."

Hunt said that attainment of the quarterfinals ranks the Tech team about fifth in the nation. The winning team represented the Dickerson School of Law in Carlisle, Penn. Arizona State University captured second place and The University of Texas scored as semifinalists.

In moot court competition a hypothetical case is presented as if to an appeals court, with one team appealing and the other defending

a decision. The issue involved in this year's competition concerned the rights of associate lawyers in a firm to unionize.

Hunt said that the winner of the case is determined by the skill of the team members and their preparation. The oral presentation constitutes 60 percent of the total score and the legal brief makes up the remaining 40 percent.

The Texas Tech team earned the right to compete at the national level by remaining undefeated in the regional meet in Austin in October. The team faced schools from Texas, Arkansas and Oklahoma. This is the third time since 1969 that a Texas Tech team has earned the right to compete nationally.

Members of the Moot Court team are selected from tryouts held during the first and second weeks of the law school term.

All three members of this year's group have served on previous teams.

Moore is the son of Mrs. Lois G. Moore of Frost and William R. Moore of 9001 Kempwood, Houston. He attended Frost High School and received the bachelor's degree from Austin College, Sherman, in 1975.

Hamilton is the son of Mr. and Mrs. Thomas B. Hamilton of 5212 26th St., Lubbock. He was graduated from Post High School and earned the bachelor's degree from Texas Tech in 1975.

Stephens attended high school in Gustine and received the bachelor's degree in economics and general business from Texas Tech in 1975. He is the son of Mr. and Mrs. George Stephens of Gustine.

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CONTACT: B. Zeeck

LUBBOCK--Dr. William F. Bennett, associate dean of the College of Agricultural Sciences at Texas Tech University, has been named secretary of the Resident Instruction Section, Division of Agriculture, of the National Association of State Universities and Land Grant Colleges.

Bennett is the first officer elected from the fauclty of a non-land grant institution.

The division's interest is in such areas as the teaching of agriculture, innovative programs for teaching, national manpower needs, educational priorities in agricultural education and curricula trends.

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CONTACT: Nita Gilger

LUBBOCK--The opera performance of "The Marriage of Figaro" will be Jan. 12-14, 7:30 p.m., and Jan. 15, 2:30 p.m., at the Texas Tech University Center Theatre.

Mozart's comedy of 18th century manners and court intrigue will be performed by the Texas Tech Music Theatre.

Tickets are \$5, \$4, and \$3 and may be purchased at the Texas

Tech Music Department Office. Tickets for Texas Tech students

are half price.

Reservations and information can be obtained by calling 742-2294.

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CONTACT: B. Zeeck

LUBBOCK--Whatever will become of the Rocky Mountain elk in Guadalupe National Park might well depend upon a lengthy study underway by Texas Tech University researchers.

John D. Moody, a graduate student working under the direction of Prof. C. David Simpson, is trailing, observing and studying the elk population of about 104 animals in the park. He has spent more than six months camping out in a tent, and he expects to remain in the park on the project until the end of 1978.

There are two major areas of concern: the possible lack of water, which could cause a decrease in the number of elk, and the low productivity level, with only about 12 calves per 100 cows.

Other studies of elk have reported ratios as high as 57 calves per hundred cows.

The Rocky Mountain elk are not native to the park, and, because many watering places have dried up for the animals, there is a question as to whether or not the herds will survive and multiply normally.

Merriam's elk was indigenous to the Guadalupe Mountains and similar areas in New Mexico and Arizona before 1900. About 1905 they were reported extinct.

In 1928, a rancher brought 44 Rocky Mountain elk into the area and released them on his ranch in McKittrick Canyon. By 1931 their

numbers increased to approximately 60 elk, and by 1939 the population was estimated at 400. Elk that had migrated from Mckittrick Canyon found water at stock tanks dotting the region.

When the federal government established a park, the land was allowed to return to its natural state and the stock tanks were not maintained.

"It appears that the present population of elk, reduced significantly from previous years, may reflect the scarcity of water that now exists on the elk range," Simpson said. He explained that the elk originally came from areas where water was no problem for the animals.

The elk range in the national park covers about 11,000 acres. The elk prefer the high lands, but permanent water is available on the top of the mountains only at the Upper Dog Canyon springs.

Several small pools of permanent water are found along the north and south forks of McKittrick Canyon, but Moody and Simpson said that the nature of the terrain make this water unavailable to elk on the high range. There is one stock tank on private property which some of the elk use, and some springs scattered along the lower slopes of the eastern escarpment serve a herd of 15 elk which remain near the park headquarters.

In addition, temporary water is available in the park after heavy rains, but is present for more than a few days only at two locations.

In locating the carcasses of elk in the park Moody reported finding 31.

"It is significant," he said, "that 18 of the carcasses were found in close association to depressions that held water after rain. This may offer strong evidence as to the dependency of the Guadalupe elk on surface water."

The age structure of these carcasses were one calf, two yearlings and 15 animals that were 7 years old or older. The absence of animals between 2 and 7 years old, he said, indicates a possible explanation for the mortalities.

"Animals using the permanent water sources on the upper range must travel several miles over steep, rocky terrain to and from feeding grounds. In the event that a sick or old animal remains close to one of these temporary pools until it dries, that animal may become too weak to move."

It is Moody's job to track and watch the elk, sunup to sundown. Although he has a 8- by 18-foot bunkhouse near a ranger station in Dog Canyon, he uses it only for supply and data storage, and sleeps in his tent, even the one time it snowed.

By using a tranquilizer gun he has managed to date to put radio collars on two elk cows so that he can keep track of them electronically. He has nicknamed them "Molly Brown" and "Lilly Dale."

Elk are naturally herding animals. During the breeding season, or rut, a bull gathers a harem. After breeding, the bulls join bachelor herds. After a cow drops a calf, she remains separated with it about two weeks and then both rejoin a herd.

Moody hopes, by close observation, to determine whether or not the elk cows are producing offspring and what happens to reduce the number that might grow to adulthood.

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CONTACT: Jimmy Tate

LUBBOCK--The Texas Tech University History Department, in conjunction with the University Center Program's Films Committee, will sponsor a film series on United States' 20th century wars during the spring semester.

The series will illustrate and attract interest in U.S. war history, according to Profs. Harry A. Jebsen Jr. and James W. Harper, coordinators of the series.

The feature length films, to be shown in the University Center Theater, all at 7:30 p.m., include: "Fifty-five Days At Peking," Feb. 6; "All Quiet on the Western Front," Feb. 20; "Flying Leathernecks," March 27; "The Bridge," April 3; "Dr. Strangelove," April 10; and "The Green Berets," April 17.

Tickets will be provided free to each student in a history course who wishes to attend. Tickets to all others are \$1.00 each.

"It's a good way to compare Hollywood's version to a historian's version of history," Harper said.

Both pro and anti-war material will be presented and the films relate to numerous 20th century history courses, Jebsen said.

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CONTACT: B. Zeeck

LUBBOCK--Dr. Marion O. Hagler, professor of electrical engineering, has been named interim director of the Texas Tech University Center for Energy Research, according to an announcement by Dean John R. Bradford of the College of Engineering.

Bradford said that Hagler's interim appointment would continue through the remainder of the academic year. At that time, he said, it is anticipated that a permanent appointment will be made.

Hagler succeeds Dr. Stanley R. Liberty, who resigned to become head of the Department of Electrical Engineering at Old Dominion University in Norfolk, Va.

Hagler, whose primary research interests are in fusion energy and optics, earlier had served as director of the Institute for Energy Research out of which the center grew. He is co-director of the Electrical Engineering Department's Plasma Laboratory.

Hagler holds both the bachelor of arts and the bachelor of science degrees from Rice University and the master's and doctor's degrees from The University of Texas at Austin.

The work of the Center for Energy Research is supported, in part, by a State Legislature appropriation of \$250,000 per year for each year of the biennium.

Although its origins were within the College of Engineering, it seeds projects outside that college. The School of Law and the departments of political science, economics, chemistry and agricultural economics, in addition to engineering disciplines, are participating in research this year.

Research funded by the center stresses, although it is not limited to, applications of solar, wind and biomass energy sources to agricultural, housing, electrical and transportation problems.

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CONTACT: B. Zeeck

LUBBOCK--The semi-arid plains of West Texas have approximately 19,000 playa lakes, a surprise to newcomers to the area but well known to migrant birds and hunters.

Large numbers of waterfowl migrate through the area on their way to southern wintering grounds, and they use the open water as stopover points each year.

Because the lakes usually are on agricultural land, the birds can feed on leftover grain. The system works well for the birds and for duck hunters.

Texas Tech University researchers believe that if more is known about the birds' habitat requirements on their migratory path, it might be possible for farmers and ranchers to increase their income by attracting more birds and leasing the land to hunters.

Dr. C. David Simpson of the range and wildlife management faculty is directing a project which would determine why waterfowl select some lakes and avoid others and then establish techniques for making more of the lakes attractive to birds.

The work is supported by the U.S. Forest Service through the Rocky Mountain Forest and Range Experiment Station's Great Plains Wildlife Research Laboratory on the Texas Tech campus.

"The high plains playas are suited to waterfowl use," Simpson said, "and an understanding of the requirements of migrating birds would permit landowners to manage the lakes so as to attract

#### playas/add one

harvestable waterfowl."

The lease money would supplement farm and ranch income, he said, and is a source of income often overlooked.

Simpson pointed out that many small farms have playa lakes that could be made suitable for waterfowl if the owner could learn what is necessary to develop their attractive qualities and then manage the habitat to bring the ducks and other birds in.

Working with him in the \$14,000 research project is graduate student Richard Moore.

"We have had some difficulty this year," Simpson said, "because of the lack of rain, drying up some of the playas we had hopes to study."

New study sites have been selected, however, and Simpson said he believed the research could be completed.

During the duck season some birds were taken so that a study could be made of the types of food they had been eating. This is important in determining the type of habitat that could be developed to attract greater numbers of game.

Areas under study bear signs which say: "Southern Great Plains Widlife Habitat Research Area. Please do not disturb. Texas Tech University."

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CONTACT: B. Zeeck

LUBBOCK--Ask any farm or ranch wife from yesteryear, and she'll tell you agriculture is a woman's world--tending chickens, milking a cow, and even helping in the fields.

Agriculture still is a woman's world, but in a way grandma never dreamed possible.

Coeds are studying everything from agricultural engineering to animal science and, what's more, they're landing good jobs.

In Texas Tech University's College of Agricultural Sciences 270 undergraduate women are enrolled in nine departments, and another 27 are in graduate programs. The number represents 18 per cent of the 1,505 undergraduate total and 15 per cent of the 180 graduate students.

The largest numbers are studying animal science, plant and soil sciences and park administration or landscape architecture.

Dr. William F. Bennett, associate dean of the Texas Tech

College of Agricultural Sciences, said that nationally more than

30 per cent of the agricultural sciences students in higher education are women.

The high percentage, he said, is accounted for primarily in that natural resource management and environmental sciences are

areas included in colleges of agriculture in many schools. These are particularly attractive to women, he said, and in some eastern schools more than half the students enrolled are female.

The first person to earn the doctor of philosophy degree in agricultural sciences at Texas Tech was a woman, Dr. Margaret Briley, Her primary interest was animal nutrition. She received the degree in 1973 and then joined the Texas Christian University faculty.

Helen Howe, KDAV radio farm director, is a graduate in animal science, and she was the first woman radio farm director in Texas. She was awarded her degree in '73.

"The enrollment of women in agricultural sciences began increasing significantly about a decade ago," Dr. Bennett said.

"We have found that industry welcomes women, and as graduates they compete well with men for jobs and salaries."

Some who come from farm and ranch families return home in management roles, he said. A few enter veterinary medicine. Some go into government service, particularly from the areas of park administration and range and wildlife management.

Nursery management and nursery marketing employ graduates who have majored in horticulture. Some graduate teach vocational agriculture. Others join industry. For instance, one women graduate is now a marketing representative for an agricultural chemical firm. Another works in market development for the same company.

From food technology, graduates work in areas of quality control and regulation in the food industry.

Of the 270 undergraduate women students in Texas Tech's

College of Agricultural Sciences, 12 are in agricultural economics,

four in agricultural education, one in agricultural engineering,

59 in animal science, eight in entomology, seven in food technology,

59 in park administration and landscape architecture, 76 in plant

and soil sciences, 32 in range and wildlife management, and 12

have not declared majors.

Of those in plant and soil sciences, Bennett said, most are majoring in horticulture.

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CONTACT: B. Zeeck

LUBBOCK--There is more than meets the eye in any architectural scheme. For five Texas Tech University senior students of architecture the project they have just completed represents 18 months of work, two large volumes of written materials and a room full of exhibits.

The five---all urban design majors---have been meshing a 2,500-year-old culture with technology to improve the quality of life in one Iranian city. Their result is a detailed plan, specific designs and a 15-foot model for the city of Hamadan.

The basic core of ideas, said one of the students, could be applied anywhere in the world.

Working on the project have been two Iranian and three Texas students: Cordell and Cornell Arterbury, twin brothers from Texarkana, Randall Gaither, Plainview, and Bahman Dajeshjou and Houshiar Haghani of Tehran. Their professors have been Dr. George T. C. Peng and A. Dudley Thompson.

"The main purpose of selecting this project as a team thesis," Dr. Peng said, "was to enable students to learn planning principles and urban design theory through practical example. It was intended to approach this project both theoretically and practically."

Although the students chose the city with which they wanted to work, Hamadan's problems met the academic criterion.

#### hamadan/add one

"We wanted the students to embark upon a problem that had no prior solution," Thompson said, "and it had to have a spectrum of scales---national, regional, local and intimate."

Haghani had recently traveled to Iran and recommended the students apply their urban planning theory to Hamadan, partly because it has similarities with Lubbock, Texas Tech's home city.

One of the similarities which attracted the students' interest was the establishment in Hamadan of a new university, Bou-Ali-Sina. While they agreed to a pedestrian corridor of about 2 kilometers or 1.3 miles, which links the university and the city's central plaza, the students found themselves at odds over approach.

"The three Texas students," Peng siad, "were eager to preserve the Persian cultural influences of Hamadan, while the Iranian students favored a high level of American technology applied to the design."

The result was compromise.

"The whole thing was a matter of cooperation," Gaither explained and Cordell Arterbury added that "working with the team was an education in learning to work with people."

Although modern technology was applied in the design, Thompson said the students' architecture did not come out "zoomy."

"The students gave up the privilege of artistic license," he said, "and they did not infuse the design with their own aesthetic values."

The design solution instead was sensitive to the artifacts of the city. Overall, the corridor they planned has a low profile which does not interfere with Hamadan's skyline, pierced by the minarets of the Islamic culture.

#### hamadan/add two

Focal points at either end of the corridor are the modern university and a typical Iranian bazaar. New buildings designed by the students, including a hotel, an activities center and an (cq) entertainment center, are modern but have the spacial qualities of ancient structures.

"If the university is to contribute to the life of the city, there has to be a place to link the city and university together," Daneshjou said. "The corridor we designed is that place, where the people from the university and the people from the city would mingle, sharing ideas and culture."

-30-

#### EDITOR'S NOTE:

Cordell and Cornell Arterbury are the sons of Mr. and Mrs. Charles Arterbury, 2311 Shady Ave., Texarkana, Tex.

Gaither is the son of Mr. and Mrs. Clarence Gaither, 3106 West 4th St., Plainview, Tex.

Bahman Daneshjou is the son of Mr. and Mrs. Abou-Alghasem Daneshjou, 30 Pishdadian St., Tehran, and the son-in-law of Mr. and Mrs. E. G. Dufour, 7508 Cross Draw Drive, Austin, Tex.

Haghani is the son of Mr. and Mrs. Abdollah & Bahereh Haghani, 103 Pahlavi Ave., Esfandiar St., Tehran.

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CONTACT: B. Zeeck

LUBBOCK--Dr. Magne Kristiansen, Horn Professor of electrical engineering at Texas Tech University, has been elected a fellow of the Institute of Electrical and Electronics Engineers (IEEE), effective Jan. 1.

In naming him a fellow the IEEE Board of Directors elected

Kristiansen to the highest grade of membership in the organization.

Kristiansen's citation read "for contributions to plasma technology and pulsed power."

Kristiansen serves on numerous professional committees. He was the organizer or co-organizer of six national and international conferences in his research fields. He was a member of the organizing committee of the IEEE Society on Nuclear and Plasma Sciences, is a member of two IEEE technical committees on plasma science and fusion technology, and is a member of various National Science Foundation, U.S. Air Force, National Academy of Science and U.S. Department of Energy advisory and review panels.

He has supervised the research of 10 master's degree students and seven doctoral degree students. In addition to teaching, he is a consultant to the Los Alamos Scientific Laboratory and the National Research Council.

Kristiansen also was a key man in the design of the program of departmental development in electrical engineering at Texas Tech, a program funded by the National Science Foundation.

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CONTACT: B. Zeeck

SUGGESTED RELEASE DATE: Jan. 1, 1978

LUBBOCK--What is probably the most popular show in West Texas is on 24 hours a day, and it's free. The show is the sky itself, and a new Moody Planetarium show, "Brush Strokes," will explain the phenomena visible night and day.

The new discovery program will start Jan. 7 and run through March 12. Moody Planetarium shows begin at 3 p.m. each Saturday and Sunday at The Museum of Texas Tech University. Tickets are \$1 for adults and 50 cents for students.

"Brush Strokes," written by graduate student Rachel Nelson, will help viewers understand more about the spectacular sunsets, the aurora borealis or northern lights, meteor showers, eclipses, green flashes, sun dogs, rainbows and other extraordinary sky sights.

Nelson, a student of museum science, has worked to translate scientific terms to laymen's language. In addition to explaining the phenomena, the show will help the audience to know when and where to look for nature's special effects.

In developing the show Nelson worked with planetarium Director Ronald A. Johnston.

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CONTACT: Jimmy Tate

LUBBOCK--Thirty-four Texas Tech University law students will graduate in ceremonies at 10:30 a.m., Saturday (Dec. 17), in the Law School Forum.

Civil Appeals Court Justice Carlton B. Dodson of Amarillo, former legal counsel for Texas Tech, will present the commencement address at the hooding ceremony.

Law Dean Frank W. Elliott will deliver the opening remarks and Dr. Glenn E. Barnett, vice president for Planning, will introduce Dodson. The graduates will be hooded by Law Profs. J. Hadley Edgar and Marilyn E. Phelan.

Students receiving the Doctor of Jurisprudence Degree are:

Gemeral E. Berry Jr., San Antonio; Willie L. Brown, Dallas; Thomas
E. Carr, Fort Worth; Milton C. Colia, Fort Worth; Robert F. Conn,

Kirbyville; William R. Copeland, El Paso; David Fernandez Jr.,

Temple; David J. Ferrell, El Paso; John P. Fouts, Haskell; James
R. Gallman Jr., Longview; Ronald E. Garner, Odessa, Wash.; Steward
K. Hawkins, San Angelo; Douglas R. Hill, Ely, Nev.; William R.

Holman, Paris; William K. Johnson, Lubbock; Carolyn S. Jordan,

Lubbock; Stephen T. Krier, Denison; Paul J. Kubinski, El Paso;

Carol S. Leach, Lubbock; Maribeth I. Lynch, New York City, N.Y.;

Ronald M. Mapel, El Paso; Bradford L. Moore, Brownfield; James D.

Moorhead, Wichita Falls; Thomas R. Owens, Lubbock; Rodney M.

Patterson, Austin; Michael F. Payne, Wichita Falls; Penelope A.

Rhude, Harlingen; Richard C. Robins, El Paso; Susan E. Sanders,

Seminole; Patrick C. Simek, Seymour; Ingrid S. Stromberg, Dallas;

Dennis D. Strouble, Lubbock; Roger N. Wineinger, Amarillo; and

Kerry D. Woodson, Marshall.

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CONTACT: Nita Gilger

LUBBOCK--Grace S. Thompson, Texas Tech secretary in Student Life, has received an award of appreciation for her service to students at the university.

Thompson has been a secretary in the office of Dean of Students Lewis N. Jones six years. The presentation was made by Beta Sigma Chapter of Alpha Phi Omega, a service organization which Dean Jones has sponsored for the past 48 years.

Specifically, the Texas Tech secretary is cited for "service to the student body" and "kind, generous, helpful service" she has given members of the service organization.

The organization has 70 members who help with the Carol of Lights, Dad's Day, Homecoming, orphans' homes, Boys' Town, and various telethons.

The student members of Alpha Phi Omega also have provided funds for blind students, the fountain, the Southwest Conference, softball lights and benches on campus.

Thompson has helped with many of the typing and service efforts of the organization.

Ridgley L. Denning, assistant to the dean of students, said,
"Grace likes working with students and she is most helpful. She
keeps everyone organized and everything runs smoothly with her here."



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CONTACT: Marcia Lundy

LUBBOCK--Few of the landowners whose farming or grazing land in the 3.5 million West Texas acres is covered by sand shin oak realize there are advantages in controlling rather than completely eliminating the oak.

Dr. Russell D. Pettit, professor in Texas Tech University's Range and Wildlife Management Department, says clearing out the oak may increase, rather than decrease, ranchers' problems.

Pettit listed eight reasons for maintaining sand shin oak stands.

The oak stands help minimize wind erosion, particularly in the spring months when high winds are prevalent, he said. The oaks are particularly helpful in preventing erosion of exposed hilltops.

Sand shin oak stands help provide emergency forage during droughts, when there is little if any grass available for cattle. The oak is the only plant that will put on any growth during droughts, and its carotene and protein content would enable livestock to sustain themselves until other types of forage are available, providing care is taken with grazing schedules. During the spring months the oak is extremely toxic.

Shinnery oak has been found to be a valuable food source and cover for wildlife, who are apparently not affected by its toxicity during the spring, Pettit said. The oak is considered a necessity for the lesser prairie chicken, and pronghorn antelope would not be in this West Texas except for the shinnery oak stands.

The hybrid types of sand shin oak, which grow somewhat taller, provide shade for livestock, which is extremely important during the summer when soil temperatures can reach 150 degrees Fahrenheit.

The oak's shade also aids in microbial growth in the soil. The microbes are essential in decomposition, which is a major part of soil somewhat.

Pettit said because the shinnery oak is more deeply rooted than any of the other plants in the area, it helps recycle soil nutrients to the topsoil. The oak brings the nutrients up to its leaves and, when the leaves fall in the autumn, they return the nutrients to the soil surface through decomposition. This recycling process has been determined by soil samples.

The oak stands aid in preventing livestock from grazing some grasses, especially when the stands are dense. This protects seed sources which are needed to re-seed the grass in the spring.

The Tech professor added that many people find the oak stands aesthetically pleasing because the stands break the monotony of the flat plains and because of the leaf coloration in the fall.

Because there are advantages to the sand shin oaks, Pettit suggested that controlling rather than eradicating the oak would be more beneficial in the long run.

He said if the oak were eliminated, a combination of overgrazing and wind erosion would probably result in making the West Texas are a virtual desert within 10 years. Much the same thing happened in the Sahara Desert.

Pettit suggested partial clearing and thinning of the stands would result in improved grazing while at the same time preserving the advantages of the sand shin oak stands for the West Texas regions.

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CONTACT: Dan Tarpley

LUBBOCK--An undergraduate course in the history of sports and recreation in the United States to be offered at Texas Tech University for the first time is expected to be a popular one.

Dr. Harry A. Jebsen Jr., professor of history and a sports and recreation participant, spectator and follower, will teach the new course during the spring semester.

It is designed primarily for students with interests in history, sports, sports writing, physical education and recreation and is likely to be a popular elective, Jebsen said.

The text will be "America's Sporting Heritage 1850-1950" by Dr. John Rickards Betts, former history professor at Boston College.

Jebsen said major topics will include the social structure of sports, the growth of intercollegiate sports and financing sports.

The course will include discussions of some of the major characters who have shaped sports in the United States, including boxer John Sullivan, baseball player Babe Ruth, U. S. baseball commissioner Judge Kennesaw Mountain Landis, Ring Lardner, tennis star Billie Jean King, and thoroughbred racehorse Man-of-War.

The social aspects of organized sports, including integration of the races and sexes, the participation and spectator aspects of sports from the neighborhood level to international games and competition will be taught.

#### history of sports/add one

The text by Betts covers 100 years of U. S. sports history including the rise of class sport, rural and urban influences before the Civil War, sporting journalism, urbanization and democratization, social and cultural implications, and the rise of sports since World War II.

"Sportsmen of the 19th century sought to perpetuate the rural diversions and woodland sports of the pioneers, but the impact of the Industrial Revolution and urban movement of the middle years led to the competitive games and commercialized promotions of the later part of the century," Betts wrote.

"In the 20th century all the major powers of the world, including those in the Far East, have witnessed a great development of both spectator and participant sports, and the interest has in large part been cultivated and influenced by Americans. It is the purpose of this study to describe the ways in which sports in America have been influenced by historical development and how sports in turn have penetrated our language, literature, arts, educational philosophy, city planning and other facets of American civilization," he wrote.

"As a study in social history, the emphasis will be placed on such themes as the technological revolution, the rise of the middle class, the relationship to democratic aspirations and to the immigrant, and the competitive spirit in a free enterprise society."

The sports history course at Texas Tech is relatively new in Texas institutions. National leaders in the teaching of sports history are probably the University of Massachusetts, where there is a sports history center, and Pennsylvania State University.

### history of sports/add two

Prof. Jebsen has been a member of the Texas Tech history faculty since 1969. Since 1971 he has been director of urban studies at Texas Tech.

Jebsen received the master's and Ph.D. degrees from the University of Cincinnati, the first in 1966, the second in 1971.

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### Hagler/Add One

Research funded by the center stresses, although it is not limited to, applications of solar, wind and biomass energy sources to agricultural, housing, electrical and transportation problems.