

REPORT OF THE CHAIRMAN OF USHIGEO

Our parent Committee, the U. S. National Committee on Geology has proposed and the National Academy of Sciences has accepted a revised charter for the U. S. National Committee on the History of Geology. The essential purpose of this revision is to renew the Committee's charter, which expired June 30, 1977, for an indefinite period. As a result of this action, however, the entire membership of the committee must be newly appointed. The Committee will now consist of 20 members, with about one-third of them being replaced each year.

After consultation, the U. S. National Committee on Geology also has nominated the members of USHIGEO. The nominations as listed below have been approved by the president of the Academy, contingent upon a formal acceptance of appointment by each Committee member.

Term ending June 1978

1979:

1980:

Claude Albritton Albert Carozzi Clifford Frondel Joel J. Lloyd Alexander Ospovat Leonard Wilson Henry Faul

George W. White (past chairman) John C. Greene Hubert Skinner Aurèle La Rocque (chm. (comm. on corresp.) Kenneth Taylor Robert Hazen Ellis Yochelson

Robert H. Dott, Jr. Hollis D. Hedberg Joseph Gregory Stephen Gould Rhoda Rappaport Cecil J. Schneer (Chairman

The Committee's principal accomplishment during the past year was the final and formal establishment of the Division for the History of Geology within the Geological Society of America. This Division (in conjunction with the Canadian National Committee for the formation of History of Geology) is very largely due to the efforts of George White and Claude Albritton. Corresponding Members of USHIGEO are urged to affiliate with the Division by writing to the Secretary, Dr. Clifford Nelson at the U.S.G.S., 950 National Center, Reston, VA. 22092, and/or checking the appropriate box on the G.S.A. Annual Dues and Membership forms.

The last INHIGEO Business Meeting was held August 1976 in conjunction with the 25th IGC at Sydney Australia. At the conclusion of the Congress Dr. V. V. Tikhomirov of the U.S.S.R. having successfully led the activities of INHIGEO for nine years, received a formal vote of acknowledgement and gratitude. The new officers of INHIGEO are:

MEETINGS OF INHIGEO

As of this writing, it is not clear whether or not there has been a meeting of INHIGEO in conjunction with the August 1977 International Congress for the History and Philosophy of Science at Edinburgh.

There is to be a full meeting of INHIGEO in September of 1978 at Munster in West Germany. Those interested in the proceedings and/or attendance are invited to correspond with Dr. Helmut Hölder, Geologisch-Palaontologisches Institut der Universität Munster/Westfalen, Gievenbecker Weg 61, D-4400 Munster, Federal Republic of Germany. The program is to be on the general topic of "Regional Influences on the origin and course of development of geological theories." There will be a post-conference field trip. Room and board are expected to cost approximately DM 60 per diem.

The next planned full meeting of INHIGEO will take place in conjunction with the 26th I.G.C. in France in 1980. Dr. François Ellenberger of the Université de Paris-Sud, Orsay, has been invited to prepare plans.

OTHER ACTIVITIES OF INHIGEO

At Sydney the outgoing President, V. V. Tikhomirov of the U.S.S.R. reported that more than 70 volumes devoted to the history of the geological sciences had been published during the interval 1972-76. IN-HIGEO, through its Secretary, has been maintaining an ongoing bibliography or at least a count of significant publications in the history of geology. In order to facilitate this, would the members and corresponding members of USHIGEO kindly undertake to inform this office of their relevant publications starting with those of calendar 1976 and 77 and continuing as new publications appear? It would be greatly appreciated if these notices were typed on file cards in format as close to that prescribed for articles for ISIS as practicable.

BICENTENNIAL CONFERENCE AND BICENTENNIAL VOLUME

We are completing arrangements for the publication of papers written for the New Hampshire Conference as a Bicentennial Commemorative Volume for the geological profession—a suggestion originally proposed by Claude Albritton. Severe restrictions on space have forced us to sharp limitations on the amount of material to be published. In several instances such drastic curtailment has proven impossible and this has cost us the articles which will be published elsewhere and represented in our volume by abstract.

The next meeting of USHIGEO will be held in conjunction with the 1977 annual meeting of the G.S.A. in Seattle, Washington, Conference Room B of the Seattle Center House on Monday, Nov. 7, from 1600-1700.

Respectfully submitted

Cecil J. Schneer, Chairman

DIRECTORY OF OFFICERS, MEMBERS AND CORRESPONDENTS OF USHIGEO SECOND SUPPLEMENT - NEW CORRESPONDENTS

- ANDERSON, Robert S., 126 Blackwelder, Stanford, CA 94305 Phone: 915-328-2697. Home address: Box 81, Hayden, CO 81639. Interests: History of the West, history of geology. Work in progress: a biography of Clarence Edward Dutton.
- DONOVAN, Arthur L., Dept. of History, West Virginia University, Morgantown, WV 26506. Phone: 304-293-2421. Home address: 209 S. Walnut St., Morgantown, WV 26505. Interests: history of science, history of technology, Scottish Enlightenment, 18th century chemistry, science in the USA. Work in progress: James Hutton and the Scottish Enlightenment.
- FRANKEL, Henry. University of Missouri at Kansas City, MO, 5300 Rockhill Road, Kansas City, MO 64110. Phone: 816-276-1331. Home address: 5910 McGee, Kansas City, MO 64113. Interests: development and reception of continental drift theory. Work in progress: "The career of continental drift theory: an application of Imre Lakatos' account of scientific growth to the rise of continental drift theory." "In general, I'm interested in the development of global theories in geology from about 1900 to the present."
- LEFOND, Stanley J. Industrial Minerals Inc., 29983 Canterbury Ci, Evergreen, CO 80439. Phone: 303-674-6318. Interests: History of salt, early mining. Work in progress: starting a paper on "Pioneers of salt in Colorado" and one on early mining in Jefferson City, Col.
- MERGUERIAN, Charles. Duke Geological Lab, 166-19 24th Ave., Whitestone, NY 11357. Phone: 212-352-5857. Home address: 157-11 Sanford Ave., #D-2, Flushing, NY 11357. Interests: Early American beginnings of geological science. Work in progress: Ph.D. candidate, Lamont Doherty Geol. Observatory (Columbia Univ.). Metals, structural geology, petrology.
- PARRY, Ellwood C., III. School of Art and History, University of Iowa, Iowa City, IA 52242. Phone: 319-353-4550. Home address: 143 Bowling Green Place, Iowa City, IA 52240. Interests: Interactions between American artists and geologists from 1750-1900.
- PENN, Prof. Sheldon H., Suffolk Com. College, Selden, NY 11784. Phone: 516-233-5285. Home address: 16 Seward Dr., Dix Hills, NY 11746

PIERCE, Dr. Robert W. Dept. of Geology, Auburn University, Auburn, AL 36830. Phone: AC 205, 826-4282. Home Address: 232 Marion Cir., Auburn, AL 36830. Interests: History of Gulf Coastal Plain Geology, Alabama geology, geology of US, European ties in American Geology, esp. Lyell, second visit of Lyell to N. America, especially Georgia and Alabama sections to be presented as field trip and eventually paper. Role of Anglican clergy in early work on calcareous nannofossils. Survey of history of geology in Alabama. Historical geology is taught with strong orientation toward history and philosophy of geology.

SCOTT, Harold W., Michigan State University, East Lansing, MI. Phone: 344-6565, code 217. Home address: 613 W. Delaware St., Urbana, IL 61801. Interests: general. Work in progress: I'm still looking at John Walker material, enough for another book.

THE NEW HAMPSHIRE BIGENTENNIAL CONFERENCE ON THE HISTORY OF GEOLOGY, OCT. 15-19, 1976

At the invitation of the University of New Hampshire and Chairman Cecil J. Schneer of USHIGEO, some 45 historians and geologists interested in the history of geology gathered at the New England Center, Durham, New Hampshire for presentation of papers, discussion and socializing from October 15 to 19, 1976.

The able planning for the conference ensured that it would he held at the best time of the year when the color of foliage is at its best and Nature obliged with a magnificent show throughout the state and particularly in Durham.

Housing was in the facilities of the New England Center a handsome set of buildings designed especially for meetings of such groups, with luxurious rooms and a truly exceptional dining hall with a remarkable cuisine.

The meeting rooms are also of the highest quality and even the spacious hallways serve the double purpose of comfortable conversation areas and an art gallery of interesting paintings and sculpture.

The hospitality of the University more than rose to the occasion with a reception at the President's house, a cocktail party offered by the College of Engineering, and several complimentary meals in the New England Center.

The Schneers entertained the entire group at their home and in addition to a delightful buffet and social evening, we had the opportunity of again browsing through their fine library.

The Geofoliage Excursion, as its name implies was about evenly divided between some of the spectacular geological features of the eastern New Hampshire area, ably explained by maps and a detailed geologic column, and two geologic maps.

The sessions were opened with an address by Dr. H. William Menard, entitled "Very like a spear."

The papers presented are listed below and, as chairman Schneer has noted in his report above, final arrangements are being made for publication of the papers as a Bicentennial Commemorative Volume for the geological profession.

ALDRICH, Michele L. American State geological surveys, 1823-1878.

ALEXANDER, Nancy. The prophetic work of Edwin Theodore Dumble on the East Texas lignite deposits (1888-1892).

ALEXANDROV, Eugene A. 100-th Anniversary of observations on petroleum geology in the U.S.A. by Dmitriy I. Mendeleyev.

BORI, Robert P. Leonardo da Vinci.

BURSTYN, Harold L. and Susan B. SCHLEE. Review of the history of physical oceanography in America.

CAILLEUX, André de. Geological map of North America by J.-E. Guettard (1752).

CHAPPELL, John E., Jr. The Sagnac experiment and the ether drift controversy.

DEAN, Dennis. The influence of geology on American culture and thought.

DONOVAN, Arthur. James Hutton, Joseph Black and the chemical theory of heat.

DOTT, R.H., Jr. The geosyncline—first major concept made in America. DUSEK, Val. Geodesy and the earth sciences in the philosophy of C. S. Peirce.

FAUL, Carol. Philadelphia geologists—Ben Franklin and the rest. FAUL, Henry. The numbers racket—a history of geologic time.

James Hall-patriarch of American paleontology, geo-FISHER, Donald. logical organizations, and state geological surveys.

FRANKEL, Henry. The career of continental drift theory: an application of Imre Lakatos' analysis of scientific growth to the rise of drift theory.

GERSTNER, P. Henry Darwin Rogers and William Barton Rogers on the classification, nomenclature, and correlation of the American Paleozoic rocks.

GOULD, Stephen Jay. Agassiz' later, private thoughts on evolution: his marginalia in Haeckel's Naturliche Schöpfungsgeschichte (1868).

GREGORY, Joseph T. North American vertebrate paleontology 1776-1976.

HAZEN, Robert M. and Margaret Hindle HAZEN. Neglected geological literature: an introduction to a bibliography of American-published geology, 1669 to 1850.

HEMPHILL, Marie-Louise. The Bone Bank skull and the fossil shells of Walnut Hills as seen in 1828 and 1829 by a French pioneer Charles-Alexandre Lesueur, 1778-1846.

JORDAN, William M. Geology and the industrial-transportation revolution in early to mid-19th century Pennsylvania.

LINTNER, Stephen F. and Darwin H. STAPLETON. The application of geological observation and theory in the architectural and engineering practice of Benjamin Henry Latrobe (1764-1820).

MANNING, Thomas. George Otis Smith as fourth director of the U. S. Geological Survey.

MENARD, H. William. Very like a spear. (Opening address).

- USHIGEO: SUBCOMMITTEE ON CORRESPONDENTS: NOTES AND NEWS
- MIRSKY, Arthur. Geologic resources of the original thirteen United States.
- NELSON, Clifford M. and Fritiof M. FRYXELL. The antebellum collaboration of Meek and Hayden in biostratigraphy.
- PYNE, Steve. Certain allied problems in mechanics: Grove Karl Gilbert at the Henry Mountains.
- SKINNER, Hubert C. Raymond Thomassy and the practical geology of Lou-
- TAYLOR, Kenneth L. Geology in 1776: some notes on the character of an incipient science.
- WINDER, C. Gordon. The geological style of Canada—U. S. relations. YOCHELSON, Ellis L. Paleontology.

SLIDE PRESENTATIONS

- H. Stanton Hill. Slides of I. Hoover Library and II. Charles Lyelli-
- Clifford Nelson and Harold Burstyn. The new U.S.G.S. historical pro-
- Mrs. Mary Lou Robson Fleming. Slides of New Harmony, Indiana.

Norman Butcher. The film "Lyell on Etna"

R. H. Dott. Slides, Geosyncline.

HISTORY OF GEOLOGY AT THE SEATTLE MEETING OF GSA, NOV. 7 AND 8, 1977

Two sessions on history of geology were held as follows:

- November 7: Olympic Room, James H. Shea and Steve Pyne presiding -
- BORK, Kennard B. Louis Bourguet (1678-1742)-a participant in the 18th century evolution of the geosciences.
- DRAKE, Ellen T. Horse genealogy: the Oregon connection.
- ANDERSON, Robert S. Clarence Edward Dutton (1841-1912).
- November 8, History of Geology Division Symposium: Geology of the explorers of western North America. Nisqually Room. Clifford M. Nelson and J. Cotter Thurin presiding
- WHITE, George W.: Introduction.
- LEGGETT, Robert F. Alexander Mackenzie: 1793: first crossing of North America.
- WHITE, George W. The geological observations of John Charles Fremont in 1842 to 1844.
- CRAMER, Howard Ross. Geological observations by emigrants.
- ALEXANDER, Nancy. Ives and Newberry, 1861—first geology of Grand Canyon.
- PARRY, Elwood: Artists with the early explorers.
- KUPSCH, W. O. & W. G. E. CALDWELL. Mid-nineteenth century Cretaceous studies in the Canadian Interior Plains.
- EAGAN, William E. Joseph B. Tyrrell, western Canadian geologist and explorer.
- PYNE, Steven. The western fever: Grove Karl Gilbert as explorer. GUTH, Peter L. Geologic contributions of the Wheeler Survey, 1871-1879.

NEW BOOKS AND REPRINTS OF INTEREST TO HISTORIANS OF GEOLOGY

In this section are included notes on new books and reprints from various sources, such as publishers' advertisements, the current numbers of ISIS, and the geological bibliographies. Historians will already be aware of those mentioned in history periodicals but some geologist-historians may not be. Conversely, some of the books offered in the geological periodical literature may not have come to the attention of historians. It is hoped that both groups will be patient with the other since the obvious to one group may be important news to the other.

- BURKHARDT, Richard W., Jr. 1977. The spirit of system. Lamarck and evolutionary biology. Harvard University Press, \$16.50. (See ad in ISIS, v. 68, no. 242, June 1977, unnumbered p. 5 after p. 342)
- HISTOIRE ET NATURE, No. 7 (1975) and no. 8 (1976). Published by Association pour l'histoire des sciences de la nature, Bibliothèque centrale du Muséum national d'histoire naturelle, 38, rue Geoffroy-Saint-Hilaire, 75005, Paris, France. Subscription for the 1977 numbers is 50 French francs. Some articles of interest are:
- ELLENBERGER, François. 1975. A l'aube de la géologie moderne: Henri Gautier (1660-1737). Première partie. No. 7: 3-58.
- GUÉDES, Goulven. 1975. Actualisme et antitransformisme chez Constant Prévost. No. 8: 33-51.

- BOWLER, Peter J. 1977. Edward Drinker Cope and the changing structure of evolutionary theory. ISIS 68 (242): 249-265.
- ARNO PRESS: History of Geology, First Announcement. If you have not seen this announcement of the publication of 37 reprints in field, you may be able to obtain a copy from Arno Press, 3 Park The total collection is \$952.00 but Avenue, New York, NY 10016. all books may be purchased individually. The editorial board members are Peter W. Bretsky, Cecil J. Schneer, Hubert C. Skinner and George White; the advisory editor is Claude C. Albritton, Jr., all Works included are some by DeWitt Clinton, Georfamiliar names. ges Cuvier, Robert Hooke, Charles Lyell, John Murray, and John Ray. In addition to these generally known classics, some of the interesting titles are Thomas Sherley's "A philosophical essay: declaring the probable causes whence stones are produced in the greater world, London, 1672; Raymond Thomassy's Géologie pratique de la Louisiane, New Orleans and Paris, 1860; John Webster's Metallographia, London, 1671.

In addition to these 37 books, the section "related books" presents an alphabetical listing of previously published reprints by Arno Press which are presumably still available. The authors range from Agassiz through the two Emmonses (Ebenezer and William H.), Guyot, Edward Hitchcock, Schoolcraft, and F. Sherwood Taylor to Josiah Dwight Whitney.

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Most, if not all, of these books are in the principal libraries of this country but it is getting increasingly dangerous to put them into careless hands as their bindings and the paper itself deteriorate. Purchase of the entire collection might be a good investment for a library anxious to keep its precious originals intact or for one just starting to buy in history of geology.

SHROCK, Robert R. 1977. Geology at MIT 1865-1965. MIT Press, Cambridge, MA, 1032 p., \$25.00

HARVARD UNIVERSITY PRESS announces publication of the following: GOULD, Stephen Jay. 1977. Ontogeny and Phylogeny. 501 p., \$18.50

MARCHALONIS, John J. Immunity in evolution. 336 p., \$18.50 MAYR, Ernst. Populations, species, and evolution. 453 p., 51 figs., 29 tables. \$16.00 cloth, \$4.95 paper.

MAYR, Ernst. Evolution and the diversity of life. Selected essays. 709 p., \$20.00.

The following has just been received in Orton Library, Columbus, O. BIEDA, Franciszek. 1976. Zarys Dziejów Paleontologii w Krakowie.

Polska Akad. Nauk Oddział w Krakowie. Komisja Nauk Geologicznych Prace Geologiczne 94, 128 p., portraits. French résumé, p. 126-128. History of Paleontology at Cracow, 1845-1970. The "Literatura" section (p. 94-125) lists publications by paleontologists connected with the University of Cracow and thus provide a good idea of the men and the scope of their work.



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Residence telephones: Jane Brandenberger, Director, 829-2108 / Bea Zeeck, Associate Director, 296-7125 / Dan Tarpley, Manager, News Bureau, 792-5596

CONTACT: B. Zeeck

LUBBOCK -- It was about 100 years ago in Bougival, France, that artists Claude Monet and Auguste Renoir pioneered the new vision of Impressionism in on-the-spot observation together with technical principles of divided touch and shimmering spots of color.

Although their techniques were at first shunned by the accepted art critics of their day, what they painted have become masterpieces.

Monet's work will be featured at 10 a.m. on Tuesday at the sixth in a series of art seminars by Rabbi Alexander Kline. The seminars, which draw from among Rabbi Kline's extensive collection of prints for illustration, are sponsored by the West Texas Museum Association Women's Council. They take place each Tuesday at The Museum of Texas Tech University and are open to the public at a charge of \$2 for each session.

Monet, a leader among the Impressionists, was an artist who practiced longest the principle of fidelity to the visual sensation. Choosing one subject and painting it in various lights, he produced several series of paintings. In the most famous of these series, the "Water-lilies," Monet emphasized the atmosphere by using light as a technique later developed by abstract painters.

Among his masterpieces are "The Gare St. Lazare," "The Railway Bridge at Argenteuil" and an earlier work with more evidence of classic than Impressionist painting, "Women in the Garden."

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CONTACT: Dan Tarpley

LUBBOCK--A reception honoring emeritus faculty of the Department of Mathematics at Texas Tech University will be held Saturday (Nov. 5), 9 a.m.-12 noon, in the Green Room of the University Center.

Department chairperson Dalton Tarwater said the time was selected so that exstudents could attend to visit with emeritus and current faculty. He said former students in Lubbock for Homecoming "are especially invited to attend."

Emeritus mathematics faculty include Professors John Ault, 1965-'75; Gordon Fuller, 1950-'68; Emmett Hazelwood, 1939-'73; E. Richard Heineman, 1928-'73; Robert Parker, 1946-'73; Fred Sparks, 1926-'61; and Horace Woodward, 1937-'77.

Scholarship funds have been established to honor Professors Fuller, Hazelwood and Heineman. The Gordon Fuller Mathematics Scholarship will be for graduate students, the E. Richard Heineman Mathematics Scholarship for entering freshmen and the Emmett Hazelwood Mathematics Scholarship for upper classmen.

Tarwater said the scholarships have become an important means to attract academically superior students.

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CONTACT: Nita Gilger

LUBBOCK--The Fall Festival of the Arts featuring the works of 15-20 local and area artists will be for sale in the Texas Tech University Center Courtyard, Nov. 14-15, 10 a.m.-5 p.m. daily.

Art works will include metal sculpture, macrame, ceramics, jewelry, pottery, oil and water paintings and other works. Each artist will be demonstrating some form of this art throughout the festival.

Classical music, dance and theater groups will also be presented during the festival, sponsored by the University Center Program Fine Arts Committee.

Artists interested in entering the Fall Festival of the Arts can do so by contacting Mike Hatch at the University Center Programs Office at 742-3621.

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CONTACT: Dan Tarpley

LUBBOCK--Industrial engineering Prof. Charles L. Burford of Texas Tech University and Mrs. Burford have been named 1977 Danforth associates.

The Danforth Associate Program is designed "to recognize and encourage effective teaching and to humanize teaching and learning for members of the campus community."

More than 6,000 men and women in approximately 900 colleges and universities throughout the U. S. hold the associateships. Dr. and Mrs. Burford are only the 11th couple to be selected from Texas Tech for this honor since the initiation of the program in 1941. Three years ago Dr. J. Wilkes and June Berry were selected.

Appointments are for six years. Charles and Clara Burford will attend the biannual conference for associates at Toto Hills Resort in Many, La., Thursday through Sunday (Nov. 3-6).

The Danforth Program offers opportunities for interdisciplinary and interinstitutional activities among faculty "who share a broad concern for values in
education and society at large and who, as persons interested in teaching and scholarship, share a specific concern for students."

Associates attend regional conferences which are sponsored by the Foundation and which address various topics related to their roles as faculty, teachers and citizens. The program is unique in the inclusion of spouses who are associates and full participants in conferences and other program activities.

During their terms associates are eligible to attend three biennial regional conferences as guests of the Foundation and to apply to the College Project Fund for support of special activities.

danforth associate / add 1

Danforth Associates are selected from college and university faculty and their spouses who express a major commitment to undergraduate teaching. Prime criterion for selection is that the faculty member be an able teacher in a four-year accredited college or university, be interested in scholarship and be concerned with the development of undergraduate students in terms of their values and social responsibilities.

Burford came to Texas Tech in 1964 and has been active in university affairs since. He is past chairman of the Academic Affairs Committee of the Faculty Council.

In addition to civic and professional organization involvement, he has worked in student affairs and has sponsored several student organizations.

He has been instrumental in developing undergraduate courses and has served as an advisor to both undergraduate and graduate students. He has been acclaimed for teaching excellence and for providing variety in teaching.

He received the Ph.D from Oklahoma State University in 1966 and is a registered professional engineer in Texas and Oklahoma.

Clara Burford is working toward a doctoral degree in education at Texas Tech and has a master's in elementary education from the university. She did undergraduate work in music at The University of Texas at Austin. She has been teaching in Lubbock public schools eight years. She also is nearing qualification for administration and supervision certification.

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CONTACT: Roe Burnett

LUBBOCK--This is Homecoming Weekend at Texas Tech University, highlighted by the 2 p.m. Saturday football game between the Texas Tech Red Raiders and the Texas Christian University Horned Frogs in Jones Stadium.

Festivities begin Friday and will continue through Saturday night.

Texas Tech Ex-Students Association will host a coffee for past presidents of the association Friday morning. The Association Council luncheon honoring retiring faculty and staff and the Top Techsan Staff Awardees will be held at 12:15 p.m. in the University Center (UC) Ballroom. A pep rally is slated for 6:15 p.m. in Jones Stadium.

The annual Texas Tech Century Club Dinner, featuring a musical performance by Guy and Ralna Hovis of the Lawrence Welk Show, is scheduled for 6:30 p.m. in the UC Ballroom. All exes and guests are invited to the Homecoming dance at the Koko Palace, 50th and Avenue Q, 9 p.m.

Saturday activities begin with a 9:30 a.m. coffee honoring all classes. It will be in the UC Courtyard. The class of 1952 will hold a silver anniversary reunion coffee at 9:30 a.m., and the class of 1957 will have a reception at 4:30 p.m., both in the Ex-Students Association Building on campus.

The Ex-Students Luncheon will begin at 11:15 a.m. at the Municipal Coliseum. Hosts are Furr's Inc., Furr's Cafeterias Inc., and Gold Bond Stamps.

Campus organizations and academic groups will host other homecoming activities.

The Homecoming parade will begin its march at Broadway and Avenue H, 10 a.m., continuing west on Broadway onto the Texas Tech campus and ending in the Administration Building parking lot.

homecoming / add 1

Floats sponsored by various businesses and organizations will be judged, and winners will receive plaques and cash prizes of \$350, \$250 and \$150. Plaques are donated by William W. "Coach" Brown of Brown's Varsity Shop, Burl Pigg of Pigg Brothers University Jewelry and Irvin Carson of Broadway Drug.

Float judges will be Dr. J. Wilkes Berry, English professor, William E. Talley, academic counselor for athletics, Robert Duncan of the dean of students office, physical education Prof. Peggy J. Williams, and Mrs. Martin Neil.

Parade dignitaries include parade marshal Lewis N. Jones, dean of students, Yancey Price, former Texas Tech football player, former Texas Tech football coach Berl Huffman, professor and tennis coach George R. Philbrick, and John Wesley Phillips, the university's oldest freshman.

Others will be Mrs. Raymond Marshall of Lubbock, Texas Tech's first homecoming queen; Arch Lamb of Lubbock, founder of the Saddle Tramps; Cheryl Greer, first woman to receive an athletic scholarship at Tech; Jeannine McHaney, director of Women's Athletics; Kimberly A. Miller, Miss Lubbock; Becky Bailey, South Plains Maid of Cotton; Mary Ellen Harter, Miss Texas Tech, and Sharon Kelton, 1976 homecoming queen.

The Texas Tech Band and area high school bands will march in the parade. Other participants will include the Red Raider on Happy Five, Raider Red, cheerleaders and (cq) pom pon girls, along with Lubbock Mayor Roy Bass, Former Texas Gov. Preston Smith, and Algore Smith, A Texas Tech employe who several years ago asked and received permission to ride in the parade and has participated since.

The crowning of the 1977 homecoming queen will take place during pre-game activities at the stadium at 1:45 p.m. Elections will be held Wednesday and Thursday in the UC lobby, 8 a.m.-5 p.m.

The queen's court will be announced Friday and the queen at the game.

Homecoming queen candidates are: Debbie Gizzolli, Pam Neece, Laurie Alexander,
Janis Brady, Deborah Rainwater, Leslie Nossaman, Tracie Erwin, Beth Ann Wright, Elaine
Millican, Cindy Shryoc, Missy Farrell, Becky Gantt, Elaine Kelley, Jamie Montgomery,
Dedo Wray, Anne Duffy, Erin Erskin, Barbara Bisang, Debbie Terry, Ronda La Fon, Tericia
Loran, Debbie Stockdale, Missy Bolt, Virginia Costilla, Melinda Rapp, Melissa Watson,
Laura Scioli, and Verna Faye McFarland.

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ATTENTION: Agricultural Editors

LUBBOCK--A new, low-cost diet for cattle in the future could come from wafered trash---sorghum stubble, cotton gin trash, or even shredded, cubed and wafered brush.

Dr. C. Reed Richardson of the Texas Tech University faculty in animal science has initiated a study using a cuber to determine the effects chemical treatment and mechanical processing of grain sorghum stover, cotton gin trash and wheat straw have on the palatability and digestibility of these low quality roughages.

"We think the process has a lot of promise," he said,

"particularly when cattle come into the feed lots from the range,

or possibly as an economical feed replacing hay for wintering

brood cows."

The equipment Richardson is using is located at the newly completed feed mill at the Lubbock County Agricultural Field Laboratory near New Deal.

The raw material is delivered there and sprayed with sodium hydroxide. It goes through a shredding process, then to a grinder. Liquid, including molasses, is added in a blender. The resulting mixture is put into the cuber which delivers a cube made up of packed wafers. As the cubes are dumped into feeders, they break up into individual wafers which are easy for livestock to grasp.

For basic studies on palatability and digestibility 38 lambs are being used. Eight of these already have been put into metabolism cages for intensive study.

If the lamb studies meet with success, cattle research will follow, Richardson said.

The value of the sodium hydroxide, he said, is in its ability to chemically separate part of the digestible cellulose in the waste material from the hemicellulose and lignin which animals cannot use.

For growing animals, he said, it is probably possible to add particular nutrients to provide a complete diet within a cube. In the fattening phase, the percentage of roughage in a diet is decreased considerably, and the use of low quality wafers has fewer applications.

Richardson said he believes the treated cubes will improve feed efficiency and possibly result in increased growth. The only objectionable side effect apparent at this time, he said, is that the animals' eyes tend to water from the vapors of the sodium hydroxide. This is a temporary effect, however, and apparently not troublesome to the livestock.

"Although we are working with sorghum stover, cotton gin trash and wheat straw," he said, "we think there is promise also in mesquite and probably even greater promise in peanut hulls."

Particular advantages, according to Richardson, are in timing, storage and cost.

The materials we are using become available in the fall of the year, when the producer has the time to process the feed and just as the cattle are ready to start a winter program. For basic studies on palatability and digestibility 38 lambs are being used. Eight of these already have been put into metabolism cages for intensive study.

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Particular advantages, according to Richardson, are in timing, storage and cost.

The materials we are using become available in the fall of the year, when the producer has the time to process the feed and just as the cattle are ready to start a winter program. Storage problems are reduced. For instance, Richardson said, 15 bales of straw can be reduced in size by about two-thirds. Cubes could probably be stored for a couple of years without deterioration because they are dry, he added.

While individual producers likely would not invest in a cuber, neighbors could combine capital to make the investment profitable for all, he said.

"Texas alone grows approximately 8.5 million acres of grain sorghum annually," Richardson commented, "and only about 25 per cent of the feeding value of the stover is realized by grazing.

"Sorghum stover and the low quality by-products of the cotton crop, such as gin trash, represent an important area for conservation of feed nutrients. Converting them to useful feed is especially important in this time of rapidly increasing production costs."

Dow Chemical Company is assisting in support of the research project.

Working with Richardson on the project are Dan Arndt, a doctoral student and the son of Mrs. Evalyn Arndt, 612 S. 6th St., Vandalia, Ill., and Robert Beville, the son of Mr. and Mrs. Herman Dicus of near Decatur, Tex., who is working on his master's degree.



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CONTACT: Nita Gilger

LUBBOCK--Much of today's housing and housing policy is designed in the absence of adequate knowledge about the social, cultural, psychological and physical housing needs of potential occupants, Texas Tech Prof. Cora McKown has told the American Association of Housing Educators.

Even less attention has been given to the dimensions that contribute to housing satisfaction for families in low-income rural areas, according to the family management, housing and consumer science professor.

For those reasons she and Dr. Kay Stewart of Oklahoma State University conducted a study from a larger eight-state survey to determine the extent of satisfaction of low-income rural families with their housing.

"If there is no genuine concern for the people being housed, there can be little effective improvement in the product or the process of housing," Dr. McKown said. "Housing policies, products and management are successful only insofar as they solve the real housing problems and provide housing satisfaction for people—all people."

Purposes of the study were to examine the socio-demographic characteristics (age, sex, education, occupation and income), and the characteristics of their housing on housing satisfaction. The

professors also were testing to determine if housing satisfaction acts as an intervening variable between family-housing characteristics and the desire to change housing by altering or moving.

Housing satisfaction was measured on the basis of space and arrangement, type, structural quality and appearance, storage and outdoor space, housing/utility costs and services, and location and fire and police protection.

Findings showed that rural families tended to be older, have more male household heads and less education than urban families.

Strongest influences on housing satisfaction were the structural quality and space as measured by persons-per-room. Nearly one-half of the respondents indicated that their housing was not adequate for the needs of their family.

Respondents were more likely to express desire to change when satisfaction with space and arrangement or with type, quality and appearance was lower.

The two family variables which had the most direct influence on desired change were age and sex of the household head.

Older household heads were less likely to want to make changes in housing.

Families with male household heads were more likely to make housing changes than families with female heads.

Overall findings of the study show that socio-demographic influences such as sex, occupation, age, education and income do have a significant influence on the desired housing of rural families.

rural housing study/add two

This rurally focused study is valuable, according to McKown, because most previous surveys have concentrated on urban communities.

Data obtained in the study is expected to help formulate sound housing policy for rural areas where such information is needed by policy makers.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK The Texas Tech women's volleyball team, after becoming the Texas West Zone champions last weekend, will travel to Arlington, Friday (Nov. 4), to participate in The University of Texas at Arlington Invitational Tournament.

The competition, featuring a 12-team field, will continue through Saturday.

On Friday the Raiders will play Texas Woman's University at 2:00 p.m., the University of Utah at 4:30 p.m. and Texas Wesleyan at 7:00 p.m. In the Saturday competition the Raiders will face Sam Houston State at 8:00 a.m. and Southwest Texas State at 10:30 a.m.

"Sam Houston is the strongest team in our pool, and they defeated us earlier in the season. We are much more experienced now and should be able to beat Sam Houston," said Tech coach Janice Hudson.

"After hopefully beating all of the teams in our pool we will advance to the championship bracket, which begins play Saturday afternoon.

In the championship rounds we will face the strongest teams in the state, Texas A&M and Arlington.

"We go to the State Tournament in two weeks, and this invitational will be good preparation for us. We will be playing the same potent teams at State, so this competition should prove to be a good warm-up exercise."

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--This weekend (Nov. 4-5) the Texas Tech University women's tennis team will play matches with two nationally recognized college powers, Southern Methodist University (SMU) Friday and Trinity University Saturday. Both are road trips for the Red Raiders.

The Tech singles lineup for both matches will include Junior College All-American Karen Schuchard, Mame Bevers, Kathy Kuhne, Kim Hood, Debbie Donley and Leisa Bewley. Doubles pairings for the Raiders will be Schuchard-Bevers, Kuhne-Hood and Donley-Ann McNabb. In Friday's play against SMU in Dallas the Raiders will face Ann Broyles, Chrissy Gonzales, Kim Steinmetz, Vicki Saraga, Cindy Benzon adn Martha Ann Bass.

Play will begin at 2:00 p.m., Friday, on the SMU varsity courts.

On Saturday the Raiders will meet Trinity in San Antonio.

Singles lineup for Trinity will be Ann Smith, Sandy Stap, Carrie

Fleming, Laurie Oberheide, Stacy Bowman and Carrie Sterling.

Play begins at 1:00 p.m. in San Antonio.

"The Tech team is short on experience, and these kinds of matches with strong teams will benefit us a great deal," said Tech tennis coach Emilie Foster. "SMU and Trinity are both consistently powerful. Trinity's Sandy Stap has been an All-American for the last two years and SMU's Cindy Benzon was All-American in 1975, so this should be good, forceful competition for us."

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CONTACT: Prabhu Ponkshe

LUBBOCK--The Houston Livestock Show and Rodeo has given an \$18,000 award to Texas Tech University's College of Agricultural Sciences for funding three projects in the Animal Science Department.

This is the seventh award from the organizers of the show to Texas Tech during the last six years, which gifts now total more than \$100,000.

This year's amount will be used to support three projects in animal science under the direction of Dr. Robert A. Long, Dr. C. Reed Richardson and James C. Heird.

Long, who specializes in livestock evaluation, will investigate methods of identifying growth rate and yield grade potential in feeder cattle; Richardson, a feed mill specialist, will study the effects of mechnically processed sorghum stubble and gin trash on voluntary consumption by sheep and cattle; and Heird, Texas Tech's horse specialist, will study effects of early handling, or lack of it, on a horse's ability to learn.

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LUBBOCK--An Industrial Advisory Committee for the Department of Electrical Engineering at Texas Tech University will hold its first meeting Friday and Saturday (Nov. 4 and 5) on the Lubbock campus.

Ten of the 11 committee members are graduates of the university.

All are asked to serve without compensation and at no cost to the university.

The committee will be asked to review both undergraduate and graduate programs and to suggest possible changes or directions.

Dr. Russell H. Seacat, department chairperson, said that the committee will hear a progress review on Friday and on Saturday members will organize the committee and chart its course.

Three members of the committee have been honored by the university as Distinguished Engineers. They are W. Lyle Donaldson, senior vice president of the Southwest Research Institute, San Antonio; Byron J. Bennett, dean of engineering of Montana State University, Bozeman; and G. Raymond Coffman of Texas Power and Light Co., Dallas.

One member, H. Marshall Gettys, Gettys-Eads-Adair, Inc., Houston, was named a member of the Athletic Hall of Honor in 1967.

Others include: Mark Townsend, Bell Telephone Laboratories,
Holmdel, N.J.; Thurman A. Bouknight Jr., vice president for programs,
E-Systems, Dallas; Walter D. Warren, vice president for engineering

Datapoint Corp., San Antonio; Dr. Marshall Molen, director of research and development, ESCO Manufacturing Co., Greenville; Leearl Ann Bryant, senior engineer, Collins Radio, Dallas; Lt. Col. Eldred D. Merkl, who was awarded the first doctoral degree as an electrical engineer by Texas Tech and who is now stationed at Wright Patterson Air Force Base; and Lin Wetterau, operations manager, Sensor-Emitter Products, Texas Instruments, Lubbock.

All but Wetterau are Texas Tech graduates.

"Selection of members of the Advisory Committee," Seacat said, "was based on the individual's dedication to the university and the department's decision to seek opinion from as broad a variety of backgrounds and experience as possible."

Coordinator for the committee is Horn Prof. Magne Kristiansen.



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CONTACT: Marcia Lundy

LUBBOCK--Approximately 100 people are expected to attend the 29th annual Dairy Short Course, sponsored by Texas Tech University's Department of Food Technology, beginning at 8:45 a.m. on Monday (Nov. 7) at Lubbock's South Park Inn.

The short course will be directed to dairy processors, midmanagement personnel and sales representatives of the dairy industry.

Program coordinator is Brian Gilmore, administrative associate in the Department of Food Technology. Dr. Charles V. Morr, chairperson of both the Departments of Food Technology and Food and Nutrition, will chair the day's meetings. Dr. Anson R. Bertrand, dean of the College of Agricultural Sciences, and Dr. J. Wayland Bennett, director of industry relations for the College, will also participate in the day's meetings.

The program for the banquet Monday night will be chaired by Dwain Upham, a Bell Dairy Products employe and president of the Texas/New Mexico Dairy-Tech Society.

Speakers include Robert H. Murphy, sales manager of Bell Dairy Products in Lubbock and president of the Texas Dairy Products
Institute; Boyd Rice, manager of the southwest portion of United Dairies Industry Association (UDIA) of Arlington, Texas; Raymond Mykleby, executive vice president of Dairy Research Inc., a branch of UDIA in Rosemont, Ill.; Dr. Henry Randolph, president of H.E.

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Randolph Consulting Services in Bryan, Texas; Ed Havran, manager of the Texas Jersey Cattle Club and American Jersey Inc., in Grapevine, Texas; Dr. R. G. Morley, director of research and development at Dari-Tech Co. in Atlanta, Ga.; and Lee Rowland, quality control coordinator, Southern Division, Borden, Inc. in Houston.

Featured speaker for the banquet that night will be Texas
Tech's recently retired Tech athletic administrator of finance
and development and former basketball coach Polk Robinson.

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CONTACT: Dan Tarpley

LUBBOCK--The Texas Tech Student Foundation will sponsor an all-university mixer, "A Warm-up for the Slopes," at Coldwater Country, South University and Loop 289, 3-6 p.m., Friday (Nov. 4).

The program will feature modeling of ski fashions, ski films and dancing. One couple will receive a ski trip to Red River Ski Area during a weekend in January or February.

The weekend package includes housing for two nights and breakfasts and lunches for two days.

The mixer is one of a series of events sponsored by the student foundation to support academic recruiting, freshman orientation, scholarships and recreational sports.

The student group sponsored the "Senior Challenge" last spring as a project and solicited graduating seniors for three-year pledges of \$10 each per year. More than \$5,000 in pledges were received.

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LUBBOCK--Dr. Leslie C. Drew, newly appointed director of
The Museum of Texas Tech University, will address the 48th annual
meeting of the West Texas Museum Association (WTMA) on Monday
(Nov. 7).

The meeting in The Museum will begin with a dinner at 7 p.m.

Three Action Awards are expected to be presented to outstanding South Plains residents. These are the WTMA awards to individuals, businesses or civic groups who have made significant contributions to the cultural life of the southern High Plains. Names of recipients are not announced before the presentations.

Invited to the annual meeting are WTMA members and their guests. Anyone may join the association on any of six levels. The most popular is the individual or family memberships at a cost of \$15 annually. Memberships are held by people throughout West Texas.

In addition to announcing its Action Awards members will vote on new officers Monday, including new members of the Executive Committee and the Board of Trustees. President J. C. Chambers and the WTMA Women's Council President Mrs. J. Dalton Tarwater will make brief reports.

Nominated to serve as officers are: B. C. McMinn as president; Larry Shortes, vice president; Mrs. Richard Dickey, secretary; and Fred Timberlake, treasurer.

Nominated to Executive Committee terms expiring in 1980 are Charles Verner, Coffee Connor, Grey Lewis, Eugene Alderson and Mrs. Dickey. Nominated as members of the Board of Trustees are Charles Pope, Buddy Barron and Ken McEachern.

Providing music for the meeting will be Texas Tech music student Russell Hughes, a pianist.

The WTMA sponsors a variety of exhibits and activities at The Museum. Last year the organization, for instance, sponsored spinning and weaving workshops, the Belgian Gun Exhibit, the Navajo Rug exhibit, the Ronald Thomason and other exhibits.

It also coordinated tours for its members to see the American Indian "Sacred Circles" exhibit in Kansas City and the King Tut treasures exhibit in New Orleans. In 1978 two members' tours are planned, one to see the King Tut treasures when they are exhibited in Los Angeles and the other to the exhibit of works by artist Paul Cezanne in Houston.

It publishes a digest of Museum activities three times a year and a journal of general interest treating some historic, scientific or cultural topic in depth.

Its work is supported in part by sales from The Museum Shop.

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CONTACT: Jimmy Tate

LUBBOCK--Five Texas Tech University employes have been named recipients of the "Top Techsan Staff Award" and will be honored at a 12 noon luncheon, Friday (Nov. 4), by the Ex-Students Association.

Recipients at the fifth annual awards ceremonies are John G.
Taylor, contracting and purchasing officer for the last 10 years
and employed by Texas Tech for 28 years; D. M. McElroy, director
of correspondence, extension and educational television, with 18
years of service, and Ex-Students Association executive secretary
for five years prior to that; Carol J. Baker, athletic ticket
manager for three years and employed by Texas Tech 12 years;
Florida F. Golden, buyer II, Building Maintenance and Utilities
Department, employed by Texas Tech for 12 years; and Leo R. LaBerge,
Jr., corporal with the University Police Department, 12 years of
service.

Wayne James, executive director of the Ex-Students association, will make the presentations of the "Top Techsan" awards. Wick Alexander, Arlington, president-elect of the Ex-Students Association, will preside at the luncheon, and W. K. "Bill" Barnett, Levelland, president of the Ex-Students Association, will recognize faculty and staff who have retired within the past 12 months with at least 10 years of service.

Dr. Richard A. Lockwood, vice-president for Health Sciences Centers, will be quest speaker.

To be eligible to receive the Top Techsan recognition, a person must be a non-teaching, untenured full-time employe with a minimum of 10 years at Texas Tech. Candidates must have displayed loyalty to the institution and quality of service to students, faculty, the university community and city community and possess high integrity and good moral character.

Recipients are chosen by an anonymous committee made up of members of the faculty, staff and ex-students. The awards are presented annually during Homecoming Week at the university.

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LUBBOCK -- Approximately 250 alumni and ex-students of the Texas Tech University College of Agricultural Sciences are expected to attend the annual Homecoming breakfast Saturday in the historic Pavilion on campus. The breakfast will begin at 7:30 a.m.

Dean Anson R. Bertrand will review for the guests progress on construction of the new Agricultural Pavilion on the Texas Tech Lubbock campus and on the \$3 million building program at the Lubbock County Field Laboratory of the College of Agricultural Sciences.

Texas Tech President Cecil Mackey has been invited to attend.

Members of the Student Ag Council will prepare the sausage and
egg breakfast. Associate Dean William F. Bennett is coordinator.

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Reservations are not necessary.

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CONTACT: Roe Burnett

LUBBOCK--The "Auto Safety Hotline," a toll-free telephone line to report vehicle safety problems and obtain vehicle recall information, is now available to students, faculty and staff of Texas Tech University, as well as the general public.

John B. Howard, traffic safety coordinator for an 18 county area including the campus community, said the National Highway Traffic Safety Administration (NHTSA) has announced that the service is a permanent facility. Howard joined federal officials in urging the community to make use of it when needed.

Hotline operators are on duty from 7:30 a.m. to 4:00 p.m., Monday through Friday. Calls made after hours or on weekends are recorded and operators return the calls when they return to duty. The toll-free number is (800) 424-9393.

When calling the Hotline, persons should provide the vehicle's year, make, model and vehicle identification number. If a safety problem is being reported, a brief description of the problem, odometer mileage and results of the problem should be given.

"The Hotline is a means to complain to the appropriate people of special safety problems found with motor vehicles," Howard said.

"If there is a legitimate problem with the vehicle, an investigation will be made to determine if the problem needs to be corrected on that particular make or model."

hotline/add one

The Hotline also provides a way to determine if the motor vehicle meets safety standards. According to Howard, this is especially beneficial to persons who are thinking of buying a new or used car.

Operation of the Hotline began in a 10-state area in 1975.

Texas was included in the service in July, 1976, when the service expanded to the 48 contiguous states.

The Hotline has provided recall information to thousands of vehicle owners and assisted in getting motor vehicle problems solved. On a normal workday operators receive 150-200 calls.

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CONTACT: Worth Wren

LUBBOCK--Two symposiums on academic information open to the public are scheduled for Texas Tech University's Continuing Education Building X-15, Nov. 15 and 21.

The 7:30 p.m. meetings will focus on academic resources, university services and special assistance available for mature students or prospective students at Tech.

A panel of representatives from various university departments will explain the "how to's" of being admitted and enrolling for courses, obtaining information about classes, degrees and careers and shortening the time required for completing a degree.

Students will present a humorous view of "What the College Catalog Doesn't Telll You."

Financial and other practical considerations for returning to school will be outlined.

Parking for the discussions is available across the street in the Lubbock Municipal Auditorium parking lot.

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CONTACT: Jimmy Tate

LUBBOCK--A scientific study into how clouds form and produce precipitation is part of a multi-university research project delving into methods for weather modification and increased rainfall for the Great Plains.

The study at Texas Tech University is done through use of a meteorological satellite. Dr. Gerald M. Jurica, professor of geosciences, is project director.

"The satellite over the eastern Pacific can scan cloud formations from the North to the South Pole in 20 minutes," Jurica said.

"With the satellite we can detect early development of clouds, what they're doing and how they're moving."

Overall purpose of the project, funded by the U.S. Department of Interior and conducted by several Great Plains region universities, is to increase rainfall in the Great Plains region, Jurica explained. The Texas Department of Water Resources is assisting in funding the Texas portion of the project.

More research is needed on cloud systems before a practical plan can be developed for increasing the amount of rainfall cover such a large area, according to the Texas Tech professor.

"While we are trying to learn how clouds form and what leads to precipitation,

Texas A&M University is studying wind patterns on the earth's surface during

cloud build-up," he said.

The Tech-A&M project surveys cloud formations within a 90,000 square kilometer area around Big Spring.

The satellite picks up the cloud formations over the U.S. and sends the information to Wallops Island, Va., where the information is relayed to White Sands, N.M.

"Colorado State University, in turn, receives the information from White Sands, and CSU's computer terminal relays it to us." Jurica said.

Some of the features obtained during analysis are location of initial cloud development, rate of cloud growth and direction of cloud movement.

The data are collected every 30 minutes, which permits study of the rapid changes that can occur in a cloud formation.

"The most interesting thing we've found through our research so far is that in the course of a day general cloudiness in the morning is likely to become organized and vigorous in the afternoon hours in the summer. We are now trying to detect where significant cloud developments will, be in the late afternoon. Use of the satellite in the morning may one day lead to cloud modification later in the day.

"Our biggest problem is condensing the huge amount of data that the satellite collects into useful information," Jurica said.

Without the cooperative agreement between Texas Tech and Colorado State University, Tech would be unable to work effectively on the problem, he commented. The program has also benefited from Texas Tech Computer Center facilities.

The project is geared to summer-time conditions and it is the data collected from summer days that Jurica studies.

He would like to extend the study with weather satellites to focus on thunderstorms and has started planning a program of this type.

The cloud study project should be complete in two years. The U.S. Department of Interior seeks a working program of weather modification leading to increased rainfall by the early 1930's, according to Jurica.

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LUBBOCK--The Hoblitzelle Foundation of Dallas has made a grant of \$18,000 for the architectural restoration of the Barton House at the Ranching Heritage Center of The Museum of Texas Tech University.

Announcement of this gift and two others, amounting to \$7,000 for the Ranching Heritage Center, was made by the Texas Tech University Office of Development and University Relations.

The Ranching Heritage Center, a 12-acre outdoor exhibit of meticulously restored authentic structures, depicts the history of ranching in America. The exhibit begins with a cabin built in South Texas in the 1830s, and a tour ends at the Barton House built on the High Plains in 1909.

The Ranching Heritage Center's season extends through Dec.

31. It reopens April 1.

The Hoblitzelle grant will assist in completing restoration of the Barton House by providing such things as strengthening an entry stairway to withstand public use and restoring exterior and interior finishes to the original surfaces.

The Barton House depicts the affluence ranchers achieved after more than a century of struggle to establish one of the nation's basic industries.

A \$5,000 grant from the Fasken Foundation of Midland will be used in landscaping at the Ranching Heritage Center---to secure native grasses, plants, shrubs and trees---to assure that the landscaping around each structure is as historically authentic as possible to the structure's original location.

A \$2,000 continuing grant from the Shell Companies Foundation will be used for program development at the Ranching Heritage Center which, in the past year, was host to 40,000 visitors, among them 12,000 public school children who visited as an extension of their classroom studies.

The interpretive program for the Ranching Heritage Center was made possible by a grant from the Mational Endowment for the Humanities, Washington, D.C.

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CONTACT: Jimmy Tate

LUBBOCK--Dr. Arthur W. Combs, international consultant in education and psychology, will be the principal speaker for the Texas Tech University College of Education's "Education Week," Nov. 7-11, according to Dr. Robert H. Anderson, Dean of the College.

Combs, of Greeley, Colo., will speak Tuesday in the Biology Auditorium, room 101, from 4-5:30 p.m., on the question "So You Want To Be a Teacher?"

A reception for Combs is scheduled for 2:30 p.m. in the Administration Building, room 244.

Combs has served as president of the New York State Psychological Association, chairperson of the Joint Council of New York State Psychologists and president of the Florida Association of School Psychologists.

He received the John Dewey Award for distinguished service to contemporary education, 1967, and the distinguished service award, New York State Psychological Association, 1957.

He also is the author of 17 books and more than 130 articles.

His best known books are "Perceptual Psychology: A Humanistic

Approach to the Study of Persons," "The Professional Education of

Teachers" and "Humanistic Teacher Education."

"Education Week" will open Monday with the Association of Childhood Education's "Storytelling Hour," 11 a.m.-12 noon in the

Lubbock Room of the University Center. Pat Oxford, instructor in education of Texas Tech, will speak on Montessori Schools, which offer training and instruction for children three to six years of age, from 1:30-2:30 p.m. in the Senate Chambers. Velma Ruth Shambeck, principal of Murfee Elementary, an "open concept" school in Lubbock, will discuss this educational concept, 3:30-4:30 p.m., also in the Senate Chambers.

Dr. Roger Croth, professor of education at the University of New Mexico will speak on "Parent Communication" from 12 noon-2 p.m. in the Senate Chambers. A seminar on "Handicapped Simulation" is scheduled from 2-5 p.m. in the Lubbock Room, Wednesday.

The Texas Student Education Association will sponsor a bake sale, 10:30 a.m.-2:30 p.m. in the University Center.

On Thursday Drs. Paul Zintgraff and Steve Thomas, Texas

Tech professors of education, will speak on "Collective

Bargaining" from 3-3:30 p.m. in the Senate Chambers, and Thomas
will talk about "Legal Aspects of Education Policies" from

3:30-5 p.m. in the Senate Chambers.

Combs will address the Jones Fellows, recipients of fellowships for doctoral study in education, Tuesday, 4 p.m.

A Homecoming tea will be held Saturday, Nov. 5, from 10 a.m.-12 noon, in the main office area of the Administration Building.



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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--For Edwards Plateau farmers and ranchers who maintain co-existing livestock and deer herds three factors contribute to the success of this co-existence.

Those three factors are grazing rotations, maintenance of herd size and supplementary energy feeding programs.

Dr. Fred C. Bryant of Texas Tech University's Department of Range and Wildlife Management determined those factors in his research in the Edwards Plateau region, around Sonora, Texas.

The research was directed at examining forage competition in the Edwards Plateau region between the Spanish goat, a new introduction to the region, the Angora goat, sheep and white-tailed deer.

Bryant's study was begun in August of 1975 and information on the diet composition of the animals was collected monthly for a year. The study area was in a pasture grazed regularly by cattle, sheep and goats for 12 months and then rested four months. Deer grazed it regularly.

He found that livestock and deer compete with each other for three types of grazing including pasture grasses, certain weeds and browse or low-growing bushes and trees.

Bryant suggested that, since grass is highly nutritious at its immature stage, management which increases its availability, such as grazing rotations, would be very favorable to the deer and livestock alike.

Supplementary feeding programs were found beneficial for all types of animals during certain times of the year. Bryant said a rancher might want to provide deer herds with high energy type feeds, such as corn or oats, during hot, dry summers and dry autumns and winters.

This supplemental feeding for deer, he said, was only recommended to ranchers who want to intensively manage deer. He said this feeding program would also mean an equally intensive "harvest" program to control deer herd size.

"Feeding a poor deer herd that suffers from overpopulation is really ignoring the problem," Bryant said.

Sheep were found to require extra energy particularly during
December and January. Bryant suggested a rancher could provide this
by feeding energy-high feeds from August to October, to provide extra
fat, or by improving range conditions by using grazing systems and
proper stocking. He said the latter system is obviously the cheaper.

Bryant said low energy levels were most noticeable in goats, particularly Angora goats, from November to March. He said low dietary energy levels in Angora goats have been found to cause them to abort their young. Supplemental feeding may be necessary, he said, but proper stocking and grazing management could also be a partial solution to this problem.

Bryant presented his findings at the Angora Field Day held at the Sonora Research Station near Sonora on Nov. 9.

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CONTACT: B. Zeeck

ATTENTION: Financial Editors

LUBBOCK--Economic conditions affecting agricultural costs, market prices and credit will be reviewed on Dec. 2-3 at the fifth annual Bankers Agricultural Credit Conference at Texas Tech University.

Dr. J. Wayland Bennett, associate dean of Tech's College of Agricultural Sciences and coordinator of the meeting, said that the cost-price squeeze on the agricultural producer and the consequent severe financial difficulties farmers face make the conference of special interest to producers, bankers and agribusiness representatives.

Theme of the conference will be the agricultural credit outlook for 1978, Bennett said.

Sponsors are the Texas Tech University Department of Agricultural Economics and the Texas Bankers Association.

Texas Commissioner of Agriculture Reagan Brown will address the banquet audience on Dec. 2.

Kelly Harrison, general sales manager for the Foreign
Agricultural Service of the U.S. Department of Agriculture,
will discuss credit arrangements and contract responsibilities
relating to export of agricultural products.

bankers ag conference/add one

Larry Bratcher, administrative officer of the Texas Farmers
Home Administration, USDA, and Tom Linquist, representing the
Lubbock office of the Small Business Administration, will talk
about their agencies' interest in farm production credit.

Alex Sheshunoff, president of Sheshunoff and Co., Austin, will discuss bank profitability.

Bennett said that the latest economic outlook from the 1978
Agricultural Outlook Conference, Nov. 14-17, in Washington, D.C.,
will be incorporated into the conference.

Texas Tech's Department of Agricultural Economics will furnish outlook material on 1978 production costs and expected price trends for the major crops and livestock enterprises of the area.

Thad McDonnell, president of the Levelland State Bank, is president of the board of directors for the conference. O. R. Stark Jr., president of the Quitaque First National Bank, is vice president.

Bankers from Texas, eastern New Mexico and Western Oklahoma are expected to attend, but the program should be of special interest, Bennett said, to bankers throughout TBA Districts 6, 7 and 8.

There is a \$35 registration fee. Registration forms and information can be obtained by writing Dr. Bennett, Box 4190, Texas Tech University, Lubbock, Tex. 79409.

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CONTACT: Worth Wren

ATTN: Fine Arts and Entertainment Editors

LUBBOCK--Texas Tech University Center Programs has scheduled its first Travel Fair, Nov. 29-30, in the University Center Courtyard.

Representatives from various airline companies, travel agencies, the Texas Tech International Programs office and other groups will set up booths in the courtyard. Fair hours will be from 10 a.m. to 6 p.m., Tuesday, Nov. 29, and from 10 a.m. to 3 p.m., Wednesday, Nov. 30.

Special entertainment by Tech dancers and a folksinger are planned during lunch hours both days.

The public is invited to all Travel Fair activities, and (cq) the event is expected to be an annual affair, according to Ihor (cq)
Bemko, UC Programs Travel Committee chairperson.

Tony Mosiman, a representative of the Council for International Educational Exchange, will speak at 7:30 p.m., Nov. 29, in the Lubbock Room of the center. He will discuss flight discounts, the international student travel card and other travel advantages for high school and college students.

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CONTACT: Nita Gilger

LUBBOCK--Arts and crafts of approximately 20 local and area artists will be for sale at the Fall Festival of the Arts in the Texas Tech University Center Courtyard, Nov. 14-15, 10 a.m.-5 p.m. daily.

Art works will include needlework, feather, silver and handpainted jewelry, macrame, nail and metal sculpture, stoneware, pottery, water color, oil and china painting, bronze sculpture, ceramics, framed and unframed original graphics, limited edition prints, and framed butterflies.

Each artist will be demonstrating some form of his art throughout the festival.

Classical music, dance and theater groups also will be presented during the festival, sponsored by the University Center Program Fine Arts Committee.

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CONTACT: B. Zeeck

ATTENTION AGRICULTURAL EDITORS

LUBBOCK--The landowner whose acres are infested with sand shin oak faces more than a clearing problem. In addition to economic considerations, the land often lacks moisture, and noxious weeds or soil erosion could be worse than the original problem.

Texas Tech Univeristy Prof. Russell D. Pettit of the range and wildlife management faculty is working toward a solution which could increase productivity as much as 300 per cent. He is using a herbicide called "Spike" (tebuthiuron).

"If we find that Spike, a chemical produced by the Eli Lilly Company, can kill shin oak at rates below one pound per acre," he said, "the economics of oak removal would be within the realm of what a rancher could afford."

Dr. Pettit has been working with graduate students in studies in northern Yoakum and southern Cochran counties.

"Shinnery infests parts of 76 counties in West Texas," Pettit said, "interfering with grazing on 3.5 million acres in the states.

"Some call it the largest oak forest in the world."

In West Texas the path of the infestation appears to follow ancient sandy river beds that flow in the area where Pettit is working between Portales, N.M., and Muleshoe, Tex., and in an area meandering through Andrews, Winkler and Ward counties. -more-

sand shin oak/add one

The sand shinnery oak grows knee to waist high, and for approximately six weeks in the spring it cannot be safely grazed because the buds and young leaves are poisonous to cattle, and later acorns are toxic.

Within the shinnery, however, there can be good forage from bluestem, needle-and-thread, and dropseed grasses.

Ranchers find sometimes that, when the oak is removed, the only thing left is threeawns, or needlegrasses, which are not palatable for cattle.

A common control is to root plow the oak, he said, but this removes any good grasses and, because precipitation can provide only 12 to 15 inches of moisture per year, erosion in the sand hills area is a major threat.

"Besides," Pettit said, "root plowing destroys not only the oak but also any good grasses that might be growing on the land."

If root plowing is used, he said, ranchers would do well to plow in strips, then plant good range grasses, pressing the seed into the fine soil, and hope for two or three rainy days.

He suggested weeping lovegrass as a potentially good cover.

Among the chemicals which have been used to control the sand shin oak, Spike appears to offer the best long-term solution.

Control practices to date have called for one pound per acre.

At a cost of \$15 per pound for the chemical plus \$3 per acre for aerial application, this solution is too expensive for ranchers in Pettit's view.

sand shin oak/add two

If the cost could be reduced to between \$7.50 and \$10.50 per acre with the rancher having a reasonable assurance of not having to repeat the process for 20 years, the economics of control are good, Pettit said.

"The less chemical that is used, the more likely the land will have left on it some good range grasses that serve a dual purpose. They are attractive for grazing, and they help hold the soil," Pettit explained.

"With good control and moderate chemical use, productivity of the land could be increased in the range of 300 per cent."

He said that within the next year he hopes to have some final results on his research, which involves attempting to control sand shinnery oak with Spike rates ranging downward from three-fourths to one-sixteenth of a pound per acre.

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CONTACT: Roe Burnett

LUBBOCK--A pre-game reception for ex-students, alumni and supporters of Texas Tech University is scheduled for 11:30 a.m.-1:15 p.m., Saturday, Nov. 12, in the lobby of the Fair Park Coliseum, next to the Cotton Bowl, in Dallas.

The reception precedes the Texas Tech-Southern Methodist University 2 p.m. football game in the Cotton Bowl. The Fair Park Coliseum is within walking distance of the Cotton Bowl.

The Dallas chapter of the Texas Tech Ex-Students Association invites all exes, friends and supporters of the Texas Tech Red Raiders to the pre-game activities at the coliseum.

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CONACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Mark Hellman, DVM, professor of animal science at Texas Tech University, predicts that the High Plains area will become one of the top areas for the dairy industry in the country in the near future.

"We now produce as much milk as South Texas does," Dr. Hellman said, "whereas 10 years ago that area produced two to three times the amount the High Plains did."

Because of this dairy industry growth in the High Plains and El Paso areas, Hellman said, Texas Tech is upgrading its dairy herd.

Hellman gave three reasons for the dairying increase, including grain availability, climate and market closeness.

"The dairy industry is moving in the same direction as the cattle industry," he said. "A few years ago, feed lots began relocating to where grain was being grown, and now the dairy industry is doing the same thing."

Feed availability is better in this section of the state than in others, Hellman said, and feed prices are favorable to the industry. He said dairy cows like a climate that is fairly dry, one that doesn't get too hot, humid or cold, such as the High Plains possesses.

While Wisconsin and Michigan are top markets now for dairies, according to Hellman, their climates are too cold. He feels sections with climates similar to that of the High Plains are the future leading dairy industry areas.

Hellman also said milk is shipped south from northern dairies for marketing, so that the southern dairies' proximity to the marketing areas will be another plus factor in the industry's migration.

"Here in the Plains area and in El Paso we are not too far from the markets in Dallas and Houston," Hellman explained.

The Tech herd has gone from only 12 to 15 cows to its present size of about 60, which have produced as much as \$1,500 to \$2,000 per month over operation costs of the dairy.

Hellman said the "rolling herd" average of milk production, which is measured in pounds, has been more than 16,000 pounds of milk per cow for the 305-day measuring period. The average in Texas was about 13,000.

A breeding program is also getting underway, he said, to produce the replacement cows needed periodically because of production, breeding and other problems.

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CONTACT: B. Zeeck

LUBBOCK--The concept of vast national parks like Yellowstone,
Big Bend and the Great Smokies has served generations of Americans,
but city dwellers often miss out.

The National Park Service (NPS) is working to alleviate that situation and, at the same time, help solve some other urban problems by using a new concept, national parks in big cities.

On the Texas Tech campus this week (week of Nov. 6) to discuss National Park Serivce operations and goals were John Jay Bright and Dave Turello of the NPS Denver Service Center. Bright is responsible for planning, design and construction for the NPS in the southeast and southwest regions. Turello is assigned to Texas A&M University, where he is working with faculty and students in park administration.

Meeting with Texas Tech classes, Bright and Turello talked about a park in the Great Plains area and explained Gateway Park, planned for urban parts of New Jersey and New York within a concept that also has been proposed for other large metropolitan areas, including several in Texas.

"Cities are in crisis," Turello explained, "and parks like Gateway could help both economically and socially."

He said Gateway could be expected to attract 20 million visitors annually whereas the 270,000-acre Great Smokies National Park, the nation's most popular, attracts only about 4 million per year.

parks/add one

Development for Gateway is projected at a cost of \$300 million, and it could employ 800 persons. Land use---Sandy Hook in New Jersey, a shoreline of Staten Island, and a shoreline and islands off Brooklyn---is a combination of city, state and federal property.

"These lands include deteriorated water fronts, garbage dumps, and some are abandoned military lands," Turello said. He suggested that hangars, no longer used for planes, could be turned into recreational buildings. Much of the land would be restored to natural beauty.

The idea is similar to Lubbock's, he commented, in converting deteriorating land into the Canyon Lakes Project.

Bright spoke of the social values of city parks. There is enjoyment to be found in natural settings, he said, and recreational outlets for city dwellers.

"And we have found that there is an interchange among people in a park environment that is different from the interchange in high density areas. There is no role playing, no caste system. It is a healthy interchange."

A park similar to Gateway is the Golden Gate National Recreational Area in the San Francisco region, which is already in use.

An entirely different concept which the NPS representatives discussed with Texas Tech students is that of a tall grass prairie park.

The first was suggested in 1915, and the best site for it, the NPS representatives said, is probably the Flint Hills region of Kansas and Oklahoma, where the prairie grasses grow six to nine feet tall.

The prairie park would fulfill a concept that national parks should include representative samples of the American landscape, preserved for future generations. Conflicts have arisen, Bright told students, over whether this is a valid concept and, if a prairie park is established, where it should be located.

Of particular interest, Turello and Bright said, is that in the plains area alone man did not adjust the environment to his specific needs but adapted himself to the environment.

"That was probably because the environment was so harsh, he had to adapt," Bright explained.

Also visiting with the NPS representatives was Pat D. Taylor, a graduate of Texas Tech who earned both the bachelor's and master's degrees in park administration and landscape architecture. Taylor now serves with the Texas Extension Service.



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CONTACT: Nita Gilger

LUBBOCK-- Dr. H. Paul Chalfant, professor and chairperson of the Texas Tech University Scociology Department, has been selected president-elect of the Mid-South Sociological Association at its annual meeting in Monroe, La., Nov. 2-5.

The association has 300 members and covers a nine-state area, including Texas, Oklahoma, Arkansas, Louisiana, Alabama, Mississippi, Kentucky, Tennessee and Georgia.

Purpose of the association is to further scientific interchange among sociologists. One hundred university representatives from 22 states attended the conference.

Chalfant's duties for the next year will include planning the program for the next associational meeting and later presiding over the '78 meeting.

Dr. C. Eddie Palmer, Texas Tech sociology professor, also was elected chairperson of the Committee on Nominations.

Others from Texas Tech attending the conference were Drs. Brent S. Roper, Peter L. Heller and George D. Lowe, all sociology professors, and graduate students Kim Harp and Carmen Riviera Worley.

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CONTACT: Roe Burnett



LUBBOCK--William K. Hosokawa, associate editor of "The Denver Post," will visit classes and faculty of the Mass Communications

Department of Texas Tech University on Nov. 14-15.

Hosokawa is the third of four editors-in-residence to consult with the Department of Mass Communications during the fall semester. The editors are sponsored by the Newspaper Fund of the "Wall Street Journal."

Hosokawa began his editorial career in 1933 at the "Japanese American Courier," Seattle, Wash., doing part-time editorial work.

He has had two years' experience in overseas work as managing editor of the "Singapore Herald" and as a writer for the "Far Eastern Review" and "Shanghai Times."

After Hosokawa served as executive secretary of the Japanese American Citizens League, Seattle, in 1941, he became editor of "Heart Mountain Sentinel" in Wyoming.

From 1943-'46 Hosokawa was copy editor of the "Des Moines Register" and in 1946 he began service on the editorial staff of "The Denver Post." He has served as copy, telegraph, make-up, magazine, executive news, assistant managing, Sunday, editorial page and associate editors. He has covered overseas assignments in Japan, Korea, Vietnam and France.

He has written articles which have appeared in "Readers'
Digest" and "Saturday Evening Post." He was author of "Nisei,"
"The Two Worlds of Jim Yoshida" and "Thunder in the Rockies."

He served as a Pulitzer Prize juror in journalism in 1969,
'70, '75 and '76 and was a former member of the Editorial Advisory
Board of the "Quill" magazine for journalists published by Sigma
Delta Chi, society of professional journalists. Hosokawa received
the American Jewish Committee Media Award in 1976.

Born in Seattle, Hosokawa received the B.A. at the University of Washington in 1937.

Editors-in-residence who have visited Texas Tech this year include Charles O. Kilpatrick, editor and published of the "San Antonio Express and News," and Bill Baker, president and editor of the "Kansas City Star."

James Powell, editorial director of the "Arkansas Gazette,"
Little Rock, will visit Texas Tech on Nov. 28-29. Two additional
editors-in-residence are scheduled to visit the department during
the spring semester.

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CONTACT: Roe Burnett

LUBBOCK--The All-Engineers Banquet for Texas Tech University's College of Engineering will be Nov. 18.

The 7:30 p.m. affair, to be held at the Big Texan Steak Ranch banquet hall, will honor new initiates of the seven engineering societies on campus, according to Duane A. Crawford, professor of petroleum engineering.

Master of ceremonies will be Cary Billingsley, petroleum engineering senior and president of Pi Epsilon Tau, a petroleum engineering honorary.

Guest speaker will be Mack Wallace, chairman of the Texas
Railroad Commission, which administers oil and gas regulation in
the state of Texas. Wallace will speak on "The Energy Crisis and
Its Effect on Texas."

Gov. Dolph Briscoe appointed Wallace railroad commissioner in 1973 after the resignation of Byron Tunnel. Prior to his appointment Wallace was executive director of the Governor's Criminal Justice Council. Wallace became chairman of the Railroad Commission in January of 1977.

He received a law degree from Baylor University in 1953 and served as Henderson County Attorney from 1957-'62. Wallace was formerly district attorney of the Third Judicial District of Texas from 1962-1973.

engineering banquet/add one

Wallace serves on the Secondary Recovery Committee of the Interstate Oil Compact Commission and is Gov. Briscoe's representative to the Interstate Mining Compact Commission, as well as a member of the Governor's Energy Advisory Council. Judge advocate of the Texas State Guard, he holds the rank of lieutenant colonel.

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CONTACT: Nita Gilger

LUBBOCK--Brenda Kay Hord, Texas Tech University journalism graduate and editorial staff reporter for the "Midland Reporter-Telegram," has been named one of 20 Rotary International Fellows in the nation to study abroad in 1978-'79.

She will study agricultural journalism at the University of Aberdeen, Scotland.

During Hord's nine-month stay in Scotland she will speak to Rotary Clubs and visit in homes there to promote goodwill and perform an ambassadorial role. She will live in university accommodations.

The Rotary scholar will leave early next September to begin her master of agriculture degree. She will be available for speaking and other appearances at Rotary Clubs in the United States on her return.

"International goodwill and service above self are two themes that the international exchange program emphasizes," she said.

Miss Hord was nominated for the fellowship by the Lubbock Rotary Club and recommended by the Rotary district organization. Dr. Glenn E. Barnett, vice president for Planning at Texas Tech, is chairman of the district selection committee, and Dr. Doyle Z. Williams, coordinator of the Area of Accounting in the College of Business Administration, chairman of the Lubbock club's selection committee.

hord/add one

All of Miss Hord's expenses will be paid which makes the fellowship worth approximately \$10,000, Dr. Barnett said.

She is the daughter of Mr. and Mrs. Bobby Hord of 1604

East Buckley, Brownfield. She received the bachelor's degree

from Texas Tech in the spring of this year.

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CONTACT: B. Zeeck

LUBBOCK--The Lubbock Chamber of Commerce, City Planning
Director Jim Bertram and Lubbock County Commissioner Alton Brazell
Monday night (Nov. 7) were presented Community Action Awards by
the West Texas Museum Association (WTMA).

The awards were made at the 48th annual meeting of the WTMA following a dinner in The Museum of Texas Tech University. The WTMA is a supporting organization for The Museum.

Dr. Leslie C. Drew, named director of The Museum Nov. 1, addressed the audience of approximately 250.

He broadly outlined some programs that can be applied to
The Museum's interpretive programs and operations. Interpretive
programs for the general public and for school tours include exhibits
within The Museum and the Ranching Heritage Center.

The Action Awards were presented to recognize significant contributions to the cultural life of the southern High Plains.

The Chamber of Commerce was cited for its work in coordinating the Lubbock Lake Site development and Lubbock's Bicentennial activities, as well as its support of the Lubbock Cultural Affairs Council, of the Committee of 70 and of the arts.

Specifically mentioned were the Women's Division purchase of "Indian Graphics," its purchase of a collection of the "Cowboy in American Prints," its sponsorship of the "Robert O. Anderson Collection of Indian Artifacts" exhibit at The Museum and its recognition by the West Texas Chamber of Commerce in 1972, when the division received an Achievement Award for its art collection and its promotion of awareness of art through the graphic media.

Bertram, director of planning for the city, was presented the award "based on his efforts to improve the quality of life and our urban visual image through encouraging landscaping, an attractive urban image through design and encouraging the creation of a commission for urban design."

The citation also recognized his work and interest in the Canyon Lakes planning and his efforts for historical preservation programs in the city.

The award especially recognized his coordination of the city's

Long Range Comprehensive Planning Program, Community Renewal Program,

Computer Base Program for Land Use and Environmental Control, the

Neighborhood Development Program, the Economics Development Assistance

Program and the Canyon Lake Program.

Brazell was cited for enriching "tremendously the cultural quality of Lubbock County."

He was cited for his work in the creation and operation of the Lubbock County Historical Collection Museum at Shallowater and in the preservation of Lubbock County historical records and some furnishings from the old Lubbock Court House, his support of an architectural inventory with its implications in historic preservation, his aid with a preservation project leading to a published photographic history of

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CONTACT: Jimmy Tate

ATTN: Oil Editors

LUBBOCK--Three Texas Tech University geosciences professors presented theories in petroleum exploration and production at the annual meeting of the Gulf Coast Association of Geological Societies in Austin.

Dr. Grover E. Murray, past president of Texas Tech and
University Professor of geosciences, presented the opening address
entitled "Indigeneous Precambrian Petroleum," petroleum produced
from the Precambrian geologic period.

Murray said most petroleum exploration has occurred in areas where the rocks are relatively young. He said U.S. geologists should consider searching for petroleum in sedimentary deposits of Precambrian age, which cover large areas of the world.

Murray commented that Russian geologists have had significant discoveries of hydrocarbons in Precambrian rocks, which range in age from 600 million years to 4.7 billion years. Murray suggested that U.S. geologists "take a hard look at the petroleum potential of Precambrian rocks."

Dr. David K. Davies, professor and chairperson of the

Department of Geosciences, discussed the "Porosity and Permeability

of Gulf Coast Hydrocarbon Reservoirs."

Davies said the productivity of a large number of wells could be significantly increased at minimal cost. Sands considered to be full of water could produce water-free oil, he said.

precambrian petro/add one

Davies urged that geologists pay attention to clay minerals deposited in the pore spaces of sands. These clays can control quality of a hydrocarbon reservoir and often cause serious production and completion problems. Such problems can be overcome through correct design of drilling and stimulation programs.

Dr. Alonzo D. Jacka presented two papers at the conference. The papers discussed hydrocarbon productivity of carbonate reservoirs in Texas.

One of Jacka's papers was an invited contribution to a special symposium devoted to carbonate rocks.

More than 2,000 geologists were in attendance.

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CONTACT: Worth Wren

ATTN: News Editors

LUBBOCK--"Orientation for Mature Students," at 7:30 p.m., Tuesday, Nov. 15, and Monday, Nov. 21, will explain the "how-to's" of continuing education at the university level. The sessions will be in Texas Tech University Continuing Education Building X-15.

Service for Mature Students, formerly Women's Continuum, is sponsoring the two identical free seminars for anyone who needs practical information on admission and enrollment at Tech.

Financial considerations will be discussed, and a Tech student will reveal "what the catalog doesn't tell you" in a humorous sketch on returning to college.

Parking is available across the street from X-15 in the Lubbock Municipal Auditorium parking lot.

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CONTACT: Nita Gilger

LUBBOCK--"Focus on Individuality," a symposium sponsored by the Texas Tech University Women's Service Organization (WSO),

Dec. 5-6 in the University Center, will feature speakers Margaret

Mead, sociologist and writer, and the Hon. Kent Hance, state senator,

and other local and campus personalities.

Mead will speak on "Human Identity and Social Action" in the University Center Ballroom, 8 p.m., Dec. 5. The WSO is co-sponsoring the event with the University Center Programs Office.

A panel discussionon effects of Title IX, which legislates greater equality for women in multiple campus activities, is scheduled for 3 p.m., Dec. 5, in the Senate Chambers of the University Center. Panelists will include R. Jeannine McHaney, director of Women's Athletics, Dr. Charles S. Hardwick, vice president for Academic Affairs, and a representative to be named from the Women's Legal Council for Texas Tech.

Activities for Dec. 6 include a theater interpretation of the roles of women in nine plays from the Greek times until present by Midge Verhein, Wisconsin theatrical performer, 12 noon in the University Center Courtyard. At 3 p.m. a panel discussion on reverse discrimination will be held in the Senate Room. Representatives from the School of Law, the School of Medicine, Southwestern Bell Telephone Co. and a local bank will conduct the discussion.

The symposium will close with Sen. Kent Hance's speech on "Community Service," 8 p.m., University Center Ballroom.

Groups from Texas Tech and Lubbock communities are invited by WSO to purchase booth space in the University Center to represent their organizations.

More information about the programs during the symposium or booth space can be obtained by contacting Debbie Engle, chairperson of the Women in Action Committee, WSO, at 742-6480.

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CONTACT: Pat Broyles

ATTN: Fine Arts and Entertainment Editors

LUBBOCK--Helping Western man to bridge the "generation gap" is one of the goals of world renowned anthropologist Dr. Margaret Mead.

On Dec. 5 at Texas Tech University, Mead will speak on "Human Identity and Social Interaction." The 8:15 p.m. lecture will be in the University Center Theatre, and the public is invited to attend.

Mead has lived and studied among many societies in the South
Pacific islands. Her observations of social change and family life
in these societies have helped her understand contemporary Western
culture.

When not traveling the world to lecture on education, social roles, culture change and family life, Mead teaches on an adjunct basis at Columbia University. She also is Curator Emeritus of Ethnology in the American Musuem of Natural History in New York.

The 76-year-old Mead has been honored numerous times for her work and holds 18 honorary degrees. She was "Time" magazine's choice for "Mother of the World" in 1969.

Mead's most recent publications include an autobiography called "Blackberry Winter: My Earlier Years." She also writes a column for "Redbook" magazine.

The Texas Tech University Center Cultural Events Office in conjunction with the Women's Service Organization is sponsoring Mead's lecture. For tickets, which go on sale Wednesday, Nov. 16, call 742-3610.

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CONTACT: Dan Tarpley

LUBBOCK--"An Evening of Dance and Percussion" will be presented in the University Center Theatre at Texas Tech University, 8:15 p.m., Dec. 1, under the joint sponsorship of the Tech Dance Division, Lubbock Civic Ballet and the Texas Tech Percussion Ensemble.

A varied program of five dances will be presented, with music by such diverse composers as Dvorak and Jerry Roll Morton. Four choreographers are represented on the program: Diana Moore, Mannie Rowe, Kristina Gintautiene and Luke Kahlich.

Moore, associate professor in the Department of Health,
Physical Education and Recreation, is Dance Division program
coordinator as well as artistic director of Lubbock Civic Ballet.
Her experience includes seven years of ballet, modern and jazz
instruction at Texas Tech.

Rowe, head of his own dance company in Atlanta, Ga., has received international recognition as a dancer, with performances in France and Canada. He is the son of former professional baseball pitcher for Detroit, Lynwood "Schoolboy" Rowe.

Gintautiene, who is also director and choreographer for the Revolving Dance Company of Lubbock, is working on a Ph.D. degree at New York University in the creative arts. She has had experience in teaching and in choreography, with performances in Chicago, Cleveland, Detroit and New York. Lubbock audiences remember Kahlich, who received both
the bachelor's and master's degrees at Texas Tech and has been
a frequent performer here. He has received additional experience
with the Houston Contemporary Dance Theatre and with New York
University while on a doctoral teaching fellowship. Kahlich
is now artist-in-residence at Texas Tech as well as assistant
artistic director of Lubbock Civic Ballet.

According to Moore, one of the outstanding features of the program is the accompaniment of live music, with Ron Dyer conducting the Texas Tech Percussion Ensemble. Dyer, associate professor in the Department of Music, brings to the program several years' experience with the Dance Division on programs that have been praised for creative and dynamic qualities.

Wayland Winstead, known for his lighting designs and previous collaboration with the Dance Division, will serve as lighting designer.

Dancers for the production include Texas Tech University dance majors, members of the Lubbock Civic Ballet company and dancers of the Revolving Dance Company. The program ranges from a humorous, tongue-in-cheek version of the Garden of Eden to a piece in silence, to a "blues" number to give dancers opportunity to exhibit an array of talents and skills.



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CONTACT: B. Zeeck

LUBBOCK--Auguste Renoir, one of the greatest painters affected by Impressionism, will be the subject of an art seminar beginning at 10 a.m., Tuesday (Nov. 22), in The Museum of Texas Tech University.

Seminars are conducted by Rabbi Alexander Kline and sponsored by the Women's Council of the West Texas Museum Association. This is the 18th year for Rabbi Kline's lectures on art. The series this fall id devoted to the Impressionists. The cost per seminar is \$2.

Born in Limoges, France, in 1841, Renoir began his career as a painter of porcelain. Although he studied with many artists, the strongest influence on his early work, with its heavy impasto and dark color, was Gustave Courbet. As Renoir worked later with Claude Monet, his color became lighter.

Eventually he turned from landscapes and painted group studies and portraits. His cafe scenes, paintings of dance halls and river banks are noted for a lyrical gaiety.

Renoir traveled widely in Italy, Germany, Holland, Spain and England. As his work progressed, he placed increasing emphasis on drawing, more solid form, and he departed from open-air painting.

renoir/add one

He continued to paint in later life, although arthritis made working more and more difficult. His late works are mostly nudes or near nudes, noted for their mature, serene beauty and the artist's use of vibrant red as the dominant color.

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6-11-15-77

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LUBBOCK--The Star of Bethlehem has become a compelling tradition among Christians who accept the event as signaling the birth of Jesus of Nazareth.

The event 2,000 years ago was a phenomenon noted by a single writer who wrote of the brilliant star which led three wise men from their home countries to seek a tiny child born in the town of Bethlehem in Judea.

Possible explanations for the phenomenon will be explored in a Moody Planetarium show beginning at 3 p.m., Saturday, at The Museum of Texas Tech University.

"Star of Bethlehem" will be repeated at 3 p.m. on each Saturday and Sunday through Dec. 18. The Museum will be closed Dec. 24 and 25, but the Moody Planetarium show will be shown during the holiday season at 3 p.m., Dec. 27-30.

The star is recorded in the Bible only by the book of Matthew, which mentions it four times in the second chapter.

Except for the moon, astronomers of the time called almost any object appearing in the heavens a star: a comet, planet or meteor, as well as an actual star.

star of bethlehem/add one

By looking at historical records and computing the actions of several known celestial events, the "Star of Bethlehem" tries to unravel the mystery of what could have been seen 2,000 years ago.

Planetarium shows cost \$1 for adults and 50 cents for children.

Preschool children are not encouraged to attend.

-30-

7-11-15-77

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CONTACT: B. Zeeck

LUBBOCK--Those were the days! With daytime office hours, evening hospital rounds, and nighttime calls to the country over unpaved roads in a Model T Ford, Dr. O. W. English began his practice of medicine in Lubbock.

Dr. English will recall events of half a century ago when he gives a Gallery Talk at 4 p.m., Sunday (Nov. 20), at The Museum of Texas Tech University.

The Gallery Talk is sponsored by the Heritage Projects

Committee of the Women's Council of the West Texas Museum

Association. Dr. English will relate his remarks to a special exhibit at The Museum, the doctor's office as it appeared in the early 20th century.

"The office at The Museum was a little before my time,"

Dr. English said. "I didn't use a horse and buggy, but I did

make calls in the country."

When Dr. English or others of the Lubbock medical community made calls to Shallowater or Wolfforth or some other small community, residents in need of medical attention would gather in one place to save the doctor time. There were, however, emergencies.

Dr. English remembers being called to the country--8 or 10 miles from Lubbock--to attend to a young boy stung by ants. Although he brought the child to town, there was no remedy. The bites proved fatal, and the memory lingers in Dr. English's mind.

He recalls another bad night. He, his wife and their two small children were together in the Model T when the car stuck in a sand bar.

They walked through a dust storm to a farm house about a mile distant only to find no one at home. They returned to the car, but the night was cold, and they decided to try again. This time the children were crying when a farm woman admitted them to her small home. Although they couldn't stay in the house, they did find some shelter, sleeping on cottonseeds in a shed room. When morning came, the farmer used his tractor to pull the doctor's car out of the sand bar.

The memory is still vivid as are other memories of what it was like to practice medicine in the early days of Lubbock County. Dr. English will share those memories Sunday with the public. There is no charge for the Gallery Talk.



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CONTACT: B. Zeeck

LUBBOCK--Herbert Lederer of Vienna, famous for his original "One-Man Theater"---Theater fuer einen Schauspieler---will perform in German at 7:30 p.m., Sunday, Nov. 20, in the Qualia Room of the Foreign Languages Building at Texas Tech University.

The public is invited to his performance of "Playboy Nestroy," and there is no charge for the event. Lederer's appearance at Texas Tech is sponsored by the American Council for the Study of Austrian Literature.

Since 1960 Lederer has been doing the writing, adapting, directing, staging, producing and acting in his performances.

Since 1970 he has produced more than 25 different presentations at his Theater am Schwedenplatz in Vienna. In 1966 he founded the Sommer-Theater im Pongau near Radstadt, Salzburg.

Tours have taken him to Germany, Italy, Poland, Switzerland, Great Britain and Canada. In all, he has performed more than 3,000 one-man presentations.

He is the author of "Theater fuer einen Schauspieler,"

"Kindheit in Favoriten" and "Nestroy: Funken der Heiterkeit."

He also has written and adapted dramatic works for theaters other than his own.

lederer/add one

His United States tour began in New York in October. He expects to tour South America and Asia before returning to Vienna next year.

Lederer holds the doctoral degree. He was born and educated in Vienna and acted and directed in many theaters before establishing his own.

-30-

4-11-15-77

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CONTACT: Jimmy Tate

LUBBOCK--Dr. David K. Davies, chairperson of Texas Tech
University's Department of Geosciences, has received two awards
from the Gulf Coast Association of Geological Societies.

Davies received the "Best Paper Award" for his presentation on "Effects of Sandstone Composition and Diagenesis on Reservoir Quality." The paper was co-authored by William R. Alomon of Cities Service Oil Co., Tulsa, Okla.

Davies also received the "A. I. Levorsen Award" for research in sandstone reservoirs.

Papers to the Gulf Coast Association of Geological Societies are presented from all over the world and cover a variety of topics.

The selection committee is composed of private, university and government geologists.

Davies said he is studying ways to get as much oil and gas out of the ground as possible. The Texas Tech geosciences department is studying sandstone reservoirs from all over the world, he said.

"I think this demonstrates that the Texas Tech department is doing important research that interests both university and private geologists," the Texas Tech professor said.

Dr. Grover E. Murray, past president of Texas Tech, and Dr. Alonzo D. Jacka, both professors of geosciences, also presented papers at the convention.

The Gulf Coast Association of Geological Societies is one of the largest and most active geology groups in the world, according to Davies.

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CONTACT: Nita Gilger

LUBBOCK--Dr. Clifford Ashby, Texas Tech University theater arts professor, will speak on "Trouping through Texas: Harley Sadler and His Own Show," at the American Society for Theatre Research and the Theatre Library Association meeting, Thursday through Sunday (Nov. 17-20), in New York. His presentation is scheduled for Saturday.

The conference will feature notable speakers and authorities in entertainment and theater. Activities will be held at the New York Public Library, Lincoln Center.

Ashby headed the Harley Sadler Tent Theatre Revival as part of the Lubbock Bicentennial effort. He also is on the Theatre Advisory Panel of the Texas Commission on the Arts and Humanities. His duties are to review projects to determine worthiness of applicants for commission grants.

Harley Sadler, an early day tent showman, directed his traveling show throughout West Texas from 1918-'47. The company, which often numbered 40 persons, included an orchestra and usually traveled by motorcade.

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CONTACT: Jimmy Tate

LUBBOCK--"Art and Alchemy," a talk-slide presentation, will be presented by John C. Pavlik of Fisher Scientific Co., Pittsburgh, Pa., Nov. 30, 7:30 p.m., in room 101 of the Chemistry Building at Texas Tech University.

The presentation is sponsored by the South Plains Section of the American Chemical Society and the Texas Tech Chemistry Department.

"Art and Alchemy" traces the early developments in chemistry, metallurgy, pharmacology, medicine and related fields. The slide presentation will show the various apparatus of the 17th and 18th century laboratories.

Emphasis will be on the practice of alchemy, a combination of crude science, mysticism, theology and philosophy.

The Fisher Collection, gathered from across the world, is the largest of its kind. It consists of more than 40 oil paintings plus hundreds of etchings, engravings and prints.

Pavlis is curator of the Fisher Collection of Alchemical and Historical Pictures and creative director of Fisher's advertising department.

CALENDAR

NOV.	7	Annual meeting of the West Texas Museum Association,
		The Museum, 7:30 p.m.
		World-at-large Forum, University Center, 7:30 p.m.
NOV.	7-8	Women's golfStephen F. Austin U. tournament
		Texas-New Mexico Dairy Tech Society, Lubbock
NOV.	7-11	Winter Sports Week, University Center
		Videotape, "Ghost Town Skiers," University Center,
		10 a.m4 p.m.
NOV.	8	Faculty Woodwind Quintet, Recital Hall, 8:15 p.m.
		Art Seminar, Claude Monet, The Museum, 10 a.m.
NOV.	9	Film, "The Bank Dick" & "International House,"
		University Center, 8 p.m.
NOV.	10	West Texas Museum Association Women's Council fall
1101.	10	luncheon, Lubbock Women's Club, noon
		Women's basketballAngelo State, San Angelo, 5:30 p.m.
NOV.	11	Film, "Dog Day Afternoon, University Center, 1, 3:30,
NOV.	TT	
		6, 8:30 p.m.
		Isn't Program, Recital Hall, 8:15 p.m.
NOV.	11-12	
		U., Denton
NOV.	12	Children's program, Rock Painting, University Center,
		10 a.m.
		FootballSouthern Methodist U. at Dallas, 2 p.m.
		Women's basketballWestern Texas at Slaton, Slaton
		High School, 7 p.m.
		Women's swimmingUniversity of Colorado, Boulder,
		7 p.m.
· NOV.	12-13	"Sky Ramblings," Moody Planetarium, 3 p.m.
NOV.		Film, "Take the Money and Run," University Center,
		3 p.m.
NOV.	14	Fall Festival of the Arts, University Center Courtyard,
	-	10 a.m5 p.m.
NOV	14-18	Videotape, "Famous Comedies," University Center,
1101.	11 10	10 a.m4 p.m.
NOV.	15	Concert, Tequila Mockingbird, Recital Hall, 8:15 p.m.
NOV.	13	Women's basketballU. of TexasEl Paso, El Paso, 7 p.m.
NOV.	16	Film, "Ivan the Terrible," University Center, 8 p.m.
NOV.		Women's basketballHardin Simmons at Lubbock, Women's
1404.	1/	Gym, 6:30 p.m.
NOV	17-19	"The Marriage of Figaro," Tech Opera Theater, University
NOV.	1/-19	
17017	1.0	Center, 7:30 p.m.
NOV.	TΩ	Film, "The Shootist," University Center, 1, 3:30, 6,
/		8:30 p.m.
(also Nov.		19) Women's Volleyball AIAW regionals, University of
		Texas, Austin
		Women's swimmingUniversity of Houston, 1 p.m., Rice
		U., 7 p.m., Houston
NOV.	18-22	"Elizabeth I," University Theatre, 8:15 p.m.

add one/calendar

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NOV. 19
             Film, Fred Astaire Festival, University Center, 8 p.m.
             Make It With Wood contest, El Centro, Home Economics
             Bldg., 7 a.m.-1 p.m.
             Women's swimming--Lamar University, Beaumont, 2 p.m.
             Football--University of Houston at Houston, 7:30 p.m.
             Women's cross-country---AIAW National Championship,
             UT-Austin at Georgetown
             Women's basketball--West Texas State at Canyon, 7 p.m.
NOV. 19-20
             "Sky Ramblings," Moody Planetarium, 3 p.m.
NOV. 20
             "The Marriage of Figaro," Tech Opera Theater, University
             Center, 2:30 p.m.
             Film, "Triumph of the Will," University Center, 8 p.m.
NOV. 21
NOV. 22
             Women's basketball---Abilene Christian U., Women's
             Gym, Lubbock, 7 p.m.
NOV. 23
             Classes dismissed at 12:30 p.m., offices close at
             5 p.m. for Thanksqiving Holiday
             Library and Museum close at noon
NOV. 24
             Library and Museum closed
NOV. 24-26
             Women's Plainview Basketball Tournament, Wayland
             College, Plainview
NOV. 25
             Library open, 8 a.m.-12 noon
NOV. 25-26
             Museum open, 10 a.m.-5 p.m.
NOV. 26
             Football--U. of Arkansas at Lubbock, 2 p.m.
NOV. 26-27
             "Star of Bethlehem," Moody Planetarium, 3 p.m.
NOV. 27
             Museum open, 1-5 p.m.
             Library resumes regular schedule
NOV. 28
             World-at-large Forum, University Center, 7:30 p.m.
             Classes resume at 7:30 a.m.
             Men's Basketball--Oklahoma Baptist at Lubbock, 7:30 p.m.
NOV. 28-
             Videotape, "Famous Fights," University Center,
DEC. 2
             10 a.m.-4 p.m.
NOV. 29
             Tech Singers concert, Recital Hall, 8:15 p.m.
             Women's basketball--Hardin-Simmons U., at Abilene,
             6:30 p.m.
NOV. 29-30
             Travel Fair, University Center
NOV. 30
             Courtyard Concert, Ladd, University Center, 11 a.m.-
             Film, "Pat and Mike," University Center, 8 p.m.
             Men's Basketball--New Mexico State at Las Cruces,
             8:30 p.m.
DEC. 1
             Women's basketball--U. of Texas--El Paso, at Lubbock,
             Women's Gym, 7:30 p.m.
             Evening of Percussion and Dance, University Center,
             8:15 p.m.
DEC. 1-3
             American College Theater Festival, University Theatre,
             matinees and evening performances daily
             Board of Regents meeting, Administration Bldg.,
DEC. 2
             8:30 a.m.
             Tech Choir Concert, Recital Hall, 8:15 p.m.
             Carol of Lights, 7 p.m.
             Men's Basketball-McNeese State at Lubbock, 7:30 p.m.
             Film, "Murder by Death," University Center, 1, 3:30,
             6, 8:30 p.m.
             Women's basketball--McMurry at Abilene, 7 p.m.
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add two/calendar

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DEC.	2-3	Bankers Agricultural Credit Conference, University Center
DEC.	3	Men's BasketballAir Force, at Lubbock, 7:30 p.m. Film, Marx Brothers Festival, University Center, 8 p.m.
DEC.		Dance and Swim, Aquatic Center, 10 p.m. "Star of Bethlehem," Moody Planetarium, 3 p.m. Children's Christmas Concert, Tech Symphony, University Center, 3 p.m. Film, "Paper Chase," University Center, 7 p.m.
DEC.	5	Margaret Mead, Speakers Series, Municipal Auditorium, 8:15 p.m. Violin-piano recital, James Barber and Judith Burganger,
DEC.	5-9	Recital Hall, 8:15 p.m. Christmas in the Courtyard, University Center, daily concerts, 11 a.m. Videotape, "Ski America," University Center, 10 a.m4 p.m.
DEC.	6	Guitar recital, Jim Bogle, Recital Hall, 8:15 p.m. Women's basketballWest Texas State U., at Lubbock, Women's Gym, 7 p.m. Tech Marching Band Scholarship Concert, Municipal Coliseum, 8:15 p.m. Last day of classes for advanced students in Law School
DEC.	7	University Women's Club & Newcomer's Club, Christmas Open House home tour benefit for Paul W. Horn fellow- ship, 10 a.m12:30 p.m.
DEC.	7-10	Women's volleyballAIAW Nationals at Brigham Young U., Provo
DEC.	7-17 8	Law School finals examinations Women's Swing Choir concert, Recital Hall, 8:15 p.m. Women's basketballAbilene Christian U., Abilene, 7:30 p.m. Men's BasketballAthletes in Action at Lubbock,
DEC.	9	7:30 p.m. Boar's Head Christmas Dinner & Madrigal Concert, University Center, 6:30 p.m. Last day of classes for first-year law students Film, "Silent Moview," University Center, 1, 3:30,
DEC.	10	6, 8:30 p.m. Puppet show for children, University Center, 10 a.m. Women's basketballNew Mexico State at Lubbock, Women's Gym, 3 p.m. Violin-piano recital, Patrice Barnett, Marilyn Arland, Recital Hall, 8:15 p.m. Men's BasketballSouth Alabama, Lubbock, 7:30 p.m.
DEC.	10-11 12-16 16-17	"Star of Bethlehem," Moody Planetarium, 3 p.m. Final examinations Men's BasketballVolunteer Classic: Tennessee,
DEC.	17	Dartmouth, Utah at Knoxville Fall semester ends Residence halls close, 10 a.m.
DEC.	19-23 23-30 23-26 24-25	Library, 8 a.mnoon Library, 8 a.m5 p.m. University holidays Museum closed Library closed

add three/calendar

DEC. 26-30	Museum open, 10 a.m5 p.m. "Star of Bethlehem," Moody Planetarium, 3 p.m. daily Library, 8 a.m5 p.m.
DEC. 27-30	Men's BasketballRainbow Classic: Hawaii, Brigham Young, Rhode Island, N. Carolina, Stanford, Providence, Lafayette, at Honolulu
DEC. 30 DEC. 31- JAN. 1	Ranching Heritage Center closes for winter season Library closed
DEC. 31- JAN. 1	Museum closed
Jan 2-6	Library, 8 a.m5 p.m.
JAN. 3	Musuem resumes regular schedule
JAN. 4	Men's BasketballSamford at Lubbock, 7:30 p.m.
JAN. 7	Library, 8 a.mnoon Men's BasketballU. of Texas at Austin, 7:30 p.m.
JAN. 8	Library closed
JAN. 9	Men's BasketballTexas Christian U., Lubbock, 7:30 p.m. Spring semester begins Residence halls open, 10 a.m.
JAN. 10-11	Spring registration
JAN. 11	Library, 8 a.m5 p.m. Women's basketball, North Texas State, at Lubbock, Women's Gym, 7:00 p.m.
JAN. 12	Classes begin, 7:30 a.m. Library resumes regular hours Men's BasketballBaylor U. at Waco, 7:30 p.m. Women's swimming, UT Invitational, Austin

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CONTACT: Nita Gilger

LUBBOCK--Works by Texas Tech University art professors,
Wayne Greene and Ken Dixon will be displayed in the Art Department
Gallery, Nov. 13-Dec. 11, 1-5 p.m. daily, except Saturdays.

Greene, a sculptor, will exhibit stone sculpture made of native Southwest stone.

Dixon's works include watercolor painting and photo-drawings, a method of photo-sensitizing paper with watercolor as the coloring agent.

The artists have shown their works in national and regional exhibitions.

The art exhibit will be closed for the Thanksgiving holidays, Nov. 24-27.

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CONTACT: Dan Tarpley

LUBBOCK--Texas Tech University's Department of Geosciences has received a grant of \$15,200 from Amoco Production Company, Houston, to support basic geological research in sandstone reservoirs.

Dr. David K. Davies, chairperson of the Department of Geosciences, announced receipt of the grant presented by Eddie Williamson of Houston, representing Amoco.

"The grant," Dr. Davies said, "will support a graduate student who will undertake the research." Williamson said the award is made in the belief that advances in basic science are vital to continuing exploration efforts by the oil industry.

Williamson delivered a check for \$8,700 to Davies to support the first year's research.

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CONTACT: Worth Wren

ATTN: Business Editors

LUBBOCK--How to start a new small business and how to improve an already operating small business are the key questions to be answered at two seminars at Texas Tech University Nov. 29 and Dec. 1.

Specialists in problems relating to small businesses will discuss such topics as opportunities in the Lubbock area, financial planning, sources of capital, record keeping, business regulations, taxes and insurance and management problems.

The seminars begin at 7 p.m. each of the two days in the Lubbock Room of the University Center on campus.

The federal Small Business Administration is assisting with the seminars, and the Better Business Bureau, the State Comptroller's Office and the Texas Employment Commission are participating.

Businessmen and -women from the region will talk about their own business methods and experiences. Any interested person is invited to attend.

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CONTACT: Prabhu Ponkshe

LUBBOCK--The Smithsonian Institution has given the "go ahead", with funding, for a team of Texas Tech University researchers to begin investigations into the possibility of transplanting forage producing North American salt tolerant plants in Egypt.

Ground work for the project was completed earlier this year.

Drs. Joe R. Goodin and David E. Foster, both of Texas Tech, will visit Egypt late this year to organize field research and identify entomological problems associated with seed production.

The trip and the field research will be funded through the Smithsonian Institution Foreign Currency Exchange Program.

The Texas Tech researchers are studying the possibility of transplanting the four-winged saltbush in Egypt. The saltbush not only thrives under desert conditions, but produces high protein forage for livestock. The biological name of the plant is "Atriplex canescens."

Goodin is on the biological sciences faculty and Foster is of the entomology department.

Goodin and his co-researcher in biological sciences, Dr. David

K. Northington, have investigated salt tolerant plants, or halophytes,

from the southwestern United States, the Mediterranean region,

South America and Australia.

egypt/add one

"Although most halophytes produce toxic chemicals in saline water, atriplex canescens is an exception. Our research indicates that salinity does not increase the content of toxic chemicals in Atriplex," Northington said.

The two biologists visited Egypt early this year to lay the groundwork for future joint research on halophytes with Egyptian institutions. That trip was also funded by the Smithsonian.

Foster's entomological research on the saltbush will identify relationships of different species to the host plant, rank species in order of abundance, gather preliminary life history data on selected insect species, and examine various means of control.

Biological research on the Atriplex canescens has so far concentrated on the search for improved ecotypes and analysis of production methods.

Depending upon research results, Texas Tech will train

Egyptian scientists to minimize that country's reliance on external assistance.

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CONTACT: Roe Burnett



LUBBOCK--The Research and Training Center in Mental Retardation of Texas Tech University is sponsoring a regional training conference on the severely handicapped, Wednesday through Friday noon, (Sept. 14-16).

Representatives from community agencies, mental health and mental retardation centers, state schools and educational service centers are expected to attend. The conference will be held at the Lubbock Memorial Civic Center.

Speaking at the conference will be Dr. Gerard Bensberg, director, Research and Training Cneter, Texas Tech; Dr. Norris Haring, director, Experimental Educational Unit, University of Washington; Dr. Wayne Sailor, associate professor, Department of Special Education, San Francisco State; Dr. Jim Burkeholder, acting chairperson, Department of Pediatrics, Texas Tech University School of Medicine; Dr. Vic Baldwin, director, Teaching Research Division, Oregon College of Education, and Dr. Bruce Balow, director, Autism Project, University of Minnesota.

Other speakers will be Leslie Davis, Suffolk Developmental
Center, New York; Dr. David Yoder, chairperson, Department of
Communicative Disorders, University of Wisconsin; Ellen SomertonFair, director, Pennsylvania Training Model, Slippery Rock State
College, and Dr. Keith Turner, coordinator, Early Childhood Handi-

training conference/add one

capped Program, University of Texas at Austin.

In addition to the formal presentations, the speakers will conduct small group sessions with the participants of the conference. The sessions will be informal and will pertain to issues and concerns in serving the severely handicapped.

Some of the topics to be covered during the conference include "Organization and Administration of Education Programs for the Severely Handicapped," "Monitoring the Health Needs," "Serving the Autistic Child" and "Developing Communication Skills."

A registration fee of \$5 is required to cover incidental conference costs. Persons wanting more information or are interested in attending the training conference on the severely handicapped are asked to contact the Research and Training Center in Mental Retardation at 742-3131.

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CONTACT: Dan Tarpley

LUBBOCK--Texas Tech President Cecil Mackey will induct a grain sorghum researcher into the Hall of Achievement during the annual meeting of the Food and Fiber National Institute of Achievement, Sept. 13-14, in the Lubbock Memorial Civic Center.

The induction, planned during Food and Fiber's banquet,
Sept. 13, will highlight the opening of a new display on grain
sorghum at The Museum of Texas Tech University.

Nominees from whom the inductee will be chosen are Frank

L. Gaines of Lubbock, Nicholas W. Kramer of Plainview, Glen

H. Kuykendall of Tulia, J. Roy Quinby of Plainview, the late

Joseph C. Stephens of Chillicothe, and Robert E. Karper of Lubbock.

The nominees, all major contributors to the development of grain sorghum, were selected by a committee chaired by Dr. George G. McBee, professor of agronomy and plant physiology at Texas A&M University. Committee members were: Dr. W. F. Bennett Sr., associate dean, College of Agricultural Sciences, Texas Tech; Elbert Harp, executive director, Grain Sorghum Producer's Association; Dr. Fred R. Miller, assistant professor, sorghum investigation, Soil and Crop Sciences Department, Texas A&M University; and Othel Neely, executive vice president, Texas Seed Trade Association.

As part of its original concept, Food and Fiber recognizes individuals whose achievements have exerted significant and continuing influence on agriculture and the American way of life.

Two men have been honored: Eli Whitney, for his invention of the cotton gin, and Dr. Mark Francis for his research which lead to the eradication of "Texas" tick fever.

Gaines, Karper and Kramer were employed by the Texas A&M University Agricultural Experiment Station in Lubbock. Gaines helped develop new sorghum varieties, including the combine-type sorghums, and Karper directed sorghum breeding work throughout the state as superintendent of the station. Karper was also instrumental in the production of 47 new varieties of sorghum. Kramer's contribution to grain sorghum research was the production of hybrid sorghum seed.

Kuykendall, Quinby and Stephens worked at the Chillicothe,
Texas, Agricultural Experiment Station. Kuykendall, however,
went on to work for the DeKalb Agricultural Association, where
he established an extensive sorghum breeding program. Quinby
worked closely with Stephens for over 20 years and was instrumental
in developing a method, using male-sterile plants, for the
production of sorghum hybrids. He also worked out the inheritance
of stature genes in sorghum, resulting in the production of uniform,
short-stature sorghums to reduce harvesting costs. Stephens,
discoverer of male-sterility in sorghum, worked at the Chillicothe
station from 1925 until his death in 1964, devoting 40 years to
sorghum research. His work ultimately led to the hybridization
of sorghums on a commercial scale.

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LUBBOCK--A Bronze statue, "Remuda Roper," by Rogers Aston of Roswell, N.M., has been given to The Museum of Texas Tech University by the artist.

"The cowboy was a hardy breed and the Remuda Roper was the top hand in his outfit," Aston said. "His ability to pick the best horses and his deft flick of his loop to snake just the right horse out of a spooky, milling herd of horses called for a special ability."

He said the figure in the bronze he created represents the alert, experienced cowhand as he sets about his important work.

The statue shows the roper, his head held high, shaking out the loop of his lariat. The figure has motion within it, indicating that the roper is moving carefully into position to make his throw.

Aston lived on a ranch in Arizona as a youth and later operated his family's ranch holdings in New Mexico. He has said he hopes to express in his bronzes the memory of days of riding after sizable wild horse herds. Also characteristic of his work are bronzes of the American Indian which he treats with great dignity.

aston/add one

Aston is president of Franklin, Aston & Fair, Inc., an independent oil company in Roswell. He served as curator of the Robert H. Goddard Rocket and Space Museum of the Roswell Museum and Art Center for 18 years. He is a past president of the Board of Regents of New Mexico State University at Las Cruces.

In addition to his many civic and business interests, he has had a long interest in the creative arts and earned his degree in that field from the University of Southern California.

In the late '40s he began wood carving as a hobby. His wood carvings are a part of his private collection. More recently he became interested in the lost wax method of sculpturing and has been working exclusively on figures to be cast in bronze. His works speak of his respect for the strength of character apparent in the hectic, two-fisted empire-building days of the Old West, and he pictures the pioneers in a sympathetic light.



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CONTACT: Jimmy Tate

LUBBOCK--The National Science Foundation (NSF) has awarded
Texas Tech University's Department of Chemistry an \$18,000 grant
to continue the study of organic reactions of the element selenium.

Chemistry chairperson John L. Kice, project investigator, said he is studying the organic reactions that take place with selenium to help biochemists and physiologists understand how the element works in the human body.

Selenium is an element found in small quantities in the earth's surface and is related to sulphur. It is used in xerography, a photo-copying process widely applied, especially in diagnostic medicine. Selenium is found in high concentrations in the plains region of the United States in many plants that grow in the area.

According to Kice, there is a strong correlation between the amount of selenium in the soil and the incidence of heart disease, but he says it may just be a coincidence.

"Chemical and Engineering News" states in a May, 1976, issue that in 55-65 age group, heart disease was lowest in selenium rich states, including Texas. The highest heart disease rates were in states with low selenium contents.

High selenium content has also been correlated with areas with low numbers of cancer victims, but again, Kice said, it may just be coincidence, worth checking into.

selenium grant/add one

He said little is known now about selenium and that through the research he is doing something might be discovered that could be useful.

Kice began the study in September, 1976, and the grant will continue through Dec. 1, 1979.

"So far we've made enough progress to open interesting avenues for further exploration. We should continue to study selenium reactions for several years since there has been fairly little research accomplished so far," Kice said.

-30-

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CONTACT: Pat Brovles

ATTN: Farm and News Editors

LUBBOCK-- The American Volkmann Corporation of Charlotte, N.C., has donated a "Two-for One Twister" to the Textile Research Center (TRC) at Texas Tech University.

This type, considered a significant advancement over conventional ring twisters, is designed to produce plied yarn at least twice as fast as older models. The twister incorporates four types of Volkmann machines and will work with four different spindle sizes. A unique feature is that it can twist and singe at the same time, a great advantage in processing of thread.

James S. Parker, director of the Textile Research Center, said that because of the twister's great versatility it will be used for producing two and three ply yarns in a variety of research programs. Cotton, wool, mohair and man-made fibers will be used on it.

"Since we first learned about this new concept of twisting, we have wanted this machine in our operation," Parker said. "We consider it to the latest development is plying yarns."

Valued at \$40,000, it is the only one of its kind in the Southwest. Parker said that the TRC's fabric work has increased considerably withing the past two years and a greater demand for plied yarns will make the twister an asset to the TRC's research.

Peter Philipp, vice president of the American Volkmann Corporation, said that he was delighted that the twister could be donated to the TRC.

"We feel that the utilization of this machine will be most helpful to the research program here," Philipp said. "We are pleased that our equipment can be involved in the work done for many organizations around the world by the Texas Tech institution."

The TRC at Texas Tech employs a full-time staff of 55 researchers. Current emphasis is on open-end spinning, garment development for geriatric and handicapped persons and the utilization of wool and mohair in yarns and fabrics produced in the cotton system of manufacturing. -30-16-12-16-77

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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Two Texas Tech University students, Johnny Johnston and Mark Walthall, were awarded \$800 scholarships, sponsored by Farmland Industries, Inc., of Kansas City, Missouri.

Farmland is the nation's largest farm supply and marketing cooperative.

To be eligible, students must be legal residents of the state in which the university is located, have an agricultural background, major in an area directed by the university's college of agriculture, be in the upper third of their class, and have parents who are members of some type of agricultural cooperative.

Johnston, son of Mr. and Mrs. G. B. Johnston, Jr., Lockney, is a junior majoring in the Department of Agricultural Education of the College of Agricultural Sciences.

Walthall, son of Wanda Walthall, Anton, and Walter C. Walthall, Shallowater, is a senior majoring in the College's Department of Plant and Soil Science.

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CONTACT: Marcia Lundy

ATTN: Ag Editors

LUBBOCK--Four Texas Tech University College of Agricultural Sciences students were recently awarded \$700 Clayton Fund Scholarships, sponsored by Anderson-Clayton Company, an agri-business complex.

The four are Mark Alexander, James Cromer, Jesse Reyes and Steven Speegle.

To be eligible for the annual scholarship students must have an interest in agricultural production and maintain high academic standards. Recipients are selected by the Scholarship Committee of the College of Agricultural Sciences.

Alexander, Lovington, N.M., is a freshman majoring in agricultural engineering.

Cromer, of San Saba, is a junior majoring in agricultural engineering.

Reyes, of Ralls, is a sophomore majoring in agricultural economics.

Speegle, Valley Mills, is a junior in agricultural engineering.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's swimming team will compete in three meets this weekend (Nov. 18-19).

The swimmers will face the University of Houston at 1:00 p.m. Friday in Houston and Rice University at 7:00 p.m.

"Houston, who will probably win state, undoubtedly will place high in national competition," Tech coach Anne Goodman prophesied. "They count two Olympic swimmers on their team, and they possess a great deal of depth. However, I am ambitious for the Raiders to face this stiff competition, attempt to meet the challenge and swim faster."

In the match with Rice, Goodman predicts a Tech win.

"Rice has a couple of good swimmers but little depth, and I don't foresee troublesome competition with them," Goodman said.

On Saturday the Raiders travel to Beaumont to face Lamar University at 2:00 p.m.

"The meet with Lamar should be the best of the weekend,"
Goodman said. "Tech and Lamar are very evenly matched."

Last weekend the Raiders were defeated in their season opener against the University of Colorado in Boulder. Goodman attributed the loss to the altitude and a stronger-than-expected team.

swim team/add one

After a week of good workouts Goodman expects particularly strong performances from Denise Shipman of Richardson in the butterfly and freestyle, Priscilla Smith of Albuquerque in the backstroke, Dana Martin of Albuquerque in the breaststroke and Meda Morgan of El Paso in the freestyle.



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CONTACT: Nita Gilger

LUBBOCK--Most people are aware of the energy problem, but they are not willing to implement the methods to conserve energy.

This finding is one of several in an award-winning paper,

"Residential Energy Conservation: Homeowners' Attitude, Existing

Features, Action and Plans," by Texas Tech University-trained home
economist Marsha Davidson.

Davidson's paper recently took first place at the American Association of Housing Educators meeting in Tucson, Ariz. There were approximately 35 entries in the student competition.

Davidson completed the Master of Science in Home Economics at Texas Tech this summer. She now lives at 4150 Beaverbrook, Dallas.

The study was designed to analyze the impact of the nation's energy problems on the family's attitudes and decisions concerning energy conservation features in residential housing.

Davidson's study, conducted early this year, involved 64 homeowners in the standard metropolitian statistical area of Dallas.

The values of the homes were \$15,000-\$50,000 and the ages of the homes were between one and 30 years.

Of the owners who were interviewed about what they were doing to conserve energy in their homes, 69 per cent said they

energy savings/add one

had no plans to make changes in their personal actions to save energy.

Most homeowners said they would "continue their present lifestyle as long as they could afford it."

Yet, according to Davidson's research, "if houses were caulked and weatherstripped, the equivalent of 580,000 barrels of home heating fuel could be saved each winter."

There also is a loss of 60 per cent of heating effectiveness through windows. By installing storm windows and insulating the house the homeowner would realize large savings.

Respondents were most positive about replacement of appliances with energy-conserving ones and about turning down thermostats.

Homeowners were less willing to insulate walls, turn off lights and put in weatherstripping and caulking.

In the Dallas study Davidson found no significant relationship between age, sex, family composition, education, occupation, family income, age and value of the house and personal attitudes concerning the energy problem.

"The study shows a need for energy conservation education for the masses," Davidson said.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's volleyball team, champions of the Texas West Zone, will compete this weekend in the AIAW Regional Tournament at The University of Texas at Austin.

Last weekend the Raiders took seventh place in the Texas State Tournament.

"The regional tournament is a qualifying one for the national competition," said Tech volleyball coach Janice Hudson. "The first and second place teams will advance to nationals at Provo, Utah, in December. We have had good practices this week and physically we should be ready."

Regional competition will feature a 16-team field, with collegiate volleyball teams from Arkansas, Oklahoma, Louisiana and Texas.

The Red Raiders, competing in pool play Friday, will face Tulane at 10:00 a.m., North Texas State at 2:00 p.m. and Lamar at 6:00 p.m.

"Our game with Lamar on Friday will really reveal our probable fate in the rest of the tournament," Hudson explained.

"Lamar is seeded second, and, if we can beat them, we should be able to do well in the championship round on Saturday."

The top two teams from each pool will advance to the championship round, and in order to avoid playing Lamar twice the Raiders will need to take first in their pool.

Hudson will start Connie and Sonja Pittman, Monahans;
Lisa Love, Arlington; Lisa Pipes, Big Spring; Christy Cotton,
Richardson; and T. J. Jones, Monahans. Barbara Lueke and Lisa
Burgher of Houston are also expected to see action at the
regional competition.

THE DALIAS TIMES HERALD

November 9, 1977

Greetings:

The 1970's have evolved into the "Decade of the Career Woman." Women are now a major factor in the nation's work force and are virtually indispensable in positions ranging from educators to executives.

The Dallas Times Herald will publish a special section on Sunday, December 18, 1977, to spotlight the outstanding women of the Dallas area. You are invited to tell our 750,000 readers about your outstanding businesswomen by advertising in this commemoratory section.

For further information and appointments, contact Becky Stapp, Special Section Coordinator, at 744-6665.

Sincerely,

Becky Stapp

Special Sections Coordinator

Classified Advertising

BS/mc

DALLAS TIMES HERALD

CLASSIFIED ADVERTISING

FACT SHEET

Section: Women In Business.

Date: Sunday, December 18, 1977.

Style: Full Size Section. Ten columns by

21% inches deep per page, with

pictorial/editorial front.

Make-Up: Advertising from companies showcasing

their outstanding business women.

Rates: Regular rates apply.

Sizes: Display ads only, 4-inch minimum,

full page and double truck maximum. Full page measured as 3,010 lines, double truck measured as 6,321 lines

Color: Color available for ads of 1,000 lines

or more. Regular color rates apply.

Promotion: Cover page and fact sheet. Reader box

on page one of "Living" section.

Promotional ads for several days before

publication of section.

Deadline: Tuesday, December 13, 1977



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CONTACT: B. Zeeck

LUBBOCK--A mill built in New Mexico more than 100 years ago stands today as an historic treasure.

The water-powered mill near Rociada has been converted to a restaurant, but it would need little but operating belts to put it into milling service. It is an adobe structure built in 1876 by Jean Pendaries, who emigrated from France in 1856 and established several businesses in Las Vegas, N.M., before going into sheep ranching near Rociada.

The mill is one of hundreds of "finds" discovered by a

Texas Tech University research team exploring, documenting and

cataloguing historic engineering sites in New Mexico.

The team, led by Dr. Joseph E. Minor, program director, is working with the New Mexico State Planning Office. Minor is a member of the faculty of the Texas Tech Department of Civil Engineering.

Eighty of the sites are being nominated for the New Mexico State Register of Historic Sites, and approximately a score may be nominated for the National Register of Historic Places.

To date, more than 500 New Mexico sites have been designated as having special historical interest, and eventually documentation of each of those sites will be stored by computer for future reference.

engineering history/add one

Documentation includes specifications for the man-made structures, old and new photographs, recorded oral history and whatever detail is of historic significance.

Historian William L. Cumiford is project manager for the New Mexico survey. He said that more than 1,000 questionnaires were distributed throughout New Mexico, and 130 responses led to the discovery of many sites almost forgotten because of disuse or their remote locations.

"We are interested in both successes and failures," Dr. Cumiford said. "We need to know why the failures occurred."

One of the historic failures was Lake Avalon, the first large surface water development in the Pecos River basin. Built originally in 1890, the Avalon dam failed twice before being taken over by the U.S. Reclamation Service in 1905 and rebuilt. Lessons learned in the early failures helped with later design success.

One of the most remarkable engineering feats of its day was the 41-mile long "Big Ditch" constructed for gold mining operations in 1868. It carried water from the Red River in the Rio Grande basin to the Elizabethtown area in the Canadian River basin.

Shorter, but equally interesting, was the Truchas irrigation system. It is only about three miles long, but it combined natural channels and channels dug by hand to divert water from the Quemado River to the Rio de Truchas, with laterals dug to carry water to fields along the route.

engineering history/add two

While the mill and some of the historic irrigation sytems lie in remote areas of the state, there is in urban Bernalillo County the Charles Ilfield Company warehouse, New Mexico's first large structure made of poured concrete.

The research team uses a variety of resources in it search for data. Libraries are starting points. Then there are old record centers, particularly the New Mexico State Records and Archives Center. Government agencies furnish some material. The New Mexico Highway Department, Cumiford said, is particularly helpful in supplying information, especially on bridges.

Cumiford said the project will be completed next spring.

Working with him on the New Mexico project are program manager Randall D. Henson and research associate Wendell Bell.

The New Mexico project is the third for history of engineering researchers at Texas Tech. They also have done surveys of historic engineering water supply systems in the Southwest and of historic engineering sites in Texas.

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LUBBOCK--A pre-game reception for ex-students, alumni, and supporters of Texas Tech University is scheduled for 5:30 p.m.-6:45 p.m., Saturday (Nov. 19), at the Marriott Hotel, 2100 South Braeswood, Houston, near the Astrodome.

The reception precedes the Texas Tech-University of Houston 7:30 p.m. football game in the Astrodome.

The Houston chapter of the Texas Tech Ex-Students Association invites all exes, friends and supporters of Texas Tech to the pre-game activities at the Marriott Hotel.

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CONTACT: Mark Haller

ATTN: Sports Editors

(EDITOR'S NOTE: You may wish to add scores of Tech-UTEP game before publication.)

LUBBOCK--The Texas Tech University women's basketball team will play Hardin-Simmons, Thursday (Nov. 17), at 6:30 p.m. in the Women's Gym on the Texas Tech campus.

Last weekend the Raiders defeated Western Texas 76-47 in the season "home" opener in Slaton. This will be the first game of the fall season to be played in Lubbock.

Tech coach Gay Benson was pleased with the offensive play of her team against Western Texas. Season high point scorers are D'Lynn Brown, sophomore from Stratford, and Marilyn Payton, senior from Cooper.

"Our defense is very strong with a good press, but we started the season a little weak on offense," Benson said. "Our offense looked much better against Western Texas."

Hardin-Simmons coach Peggy Williams scouted the Raiders in a scrimmage earlier in the season to prepare her team for the clash.

The Techsans faced The University of Texas at El Paso there Tuesday night and practiced in Ropesville on the trip back to Lubbock.

Admission to Thursday's game is \$2 for adults, \$1 for students and free to Tech students with proper ID.

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CONTACT: Roe Burnett

LUBBOCK--The Department of Classical and Romance Languages of Texas Tech University will present the first of its Distinguished Visiting Professor Lectures, Monday (Nov. 21), 7:30 p.m., in room 226 of the Business Administration Building.

Dr. Jean-Yves Guerin, visiting professor of French literature from the Sorbonne, Paris, France, will lecture on "The New Philosophers."

The speaker will introduce the conceptions of a group of French thinkers who have created a furor in contemporary French philosophical circles with the publication of their 14 books.

The group, which mainly consists of former Marxists, proclaims the dangers of Marxist ideology.

A panel consisting of Dr. Kenneth Laine Ketner, professor of philosophy; Dr. Theodore M. Klein, professor of classical and romance languages; Dr. Joel C. Weinsheimer, professor of English, and Dr. Diane S. Wood, professor of French, will participate in a question-and-answer session following the lecture.

Dr. Guerin is replacing Dr. Alfred Cismaru, professor of classical and romance languages, who is on a faculty development leave.

Dr. Guerin's field of special interest is 20th century French theater. He is the author of the book "Le Theatre d'Audiberti et le baroque" and numerous articles.

dr. guerin/add one

He is working on a second book which studies the concept of the baroque in contemporary French culture.

The public is invited to attend the lecture and a reception. The reception will be at 2305 29th St.

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CONTACT: B. Zeeck

ATTENTION: Building and Real Estate Editors

LUBBOCK--Dr. Kishor C. Mehta of the Department of Civil Engineering at Texas Tech University has been named chairperson of the Subcommittee on Wind Loads for the American National Standards Institute (ANSI).

Mehta has gained nationwide recognition as an authority in wind engineering through his work with the Texas Tech Institute for Disaster Research. The institute was organized following the 1970 Lubbock tornado and emphasizes research in wind engineering.

The 11-member wind loads subcommittee is a long-standing group within the American National Standards Committee of the institute. Its area of concern is described as the "most advanced portion of the standard" in recent years.

At the subcommittee's last meeting, Oct. 31-Nov. 1, members agreed to revise the wind loading standard for the United States by 1980.

The ANSI provides machinery for creating voluntary standards used widely by industry and commerce and often by municipal, state and federal governments.

"Wind is the area in which there is the most inquiry," Mehta said,
"and questions fall into a broad range of categories, ranging from such things
as the gust response of high-rise buildings to the loading of a guardrail."

While it is difficult, he said, to answer all questions, they give feedback to the subcommittee for consideration of revisions in the standards.

The eventual goal of the ANSI, Mehta said, is worldwide agreement on standards which could expand trade, increase productivity and lower building costs.

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CONTACT: B. Zeeck

LUBBOCK--Happy VI, the new Red Raider mascot, will make his debut Thanksgiving Day, with the masked Raider guiding him at a full gallop around the Texas Tech University football stadium.

The 13-year-old Happy VI is successor to Happy V who died last week.

Masked Raider Larry Cade has been working with the horse for the past week and a final tryout was run at 10 a.m. Tuesday (Nov. 22). Result: The new mascot is considered ready to meet cheering crowds in Jones stadium during the Texas Tech-Arkansas game which starts at 1:45 p.m. Thursday, Thanksgiving Day.

The jet black gelding is a gift to Texas Tech from Anne Burnett Tandy and her 6666 Ranch.

In addition to the 6666's gift, contributors to the Red Raider in recent years include: Ince-Miley Trailer Sales, which furnished a trailer for two years; Willie Lusk Boot Shop, which has furnished boots for the masked rider; Burney Chapman, blacksmith, who has furnished numerous services; True Grit Western Wear, Red Raider clothing; Lubbock Implement Company, Inc., and Frances R. Knox of Green Acre Stable, financial support.

One year an anonymous donor supplied a \$200 scholarship for the Red
Raider. Clarence Scarbauer Jr. of Midland made a gift of Happy V. Charcoal
Cody, loaned as the mascot for several years, was owned by Bill Price of Lubbock.

Among recent mascots only one was a mare. Tech Beauty produced two foals during her reign as the Red Raider's mount.

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LUBBOCK--Two Texas Tech University landscape architecture teams have tied for Merit Awards in the student design competition of the Texas chapter of the American Society of Landscape Architects (ASLA).

Team members included Alice H. Althaus, Malcolm R. Hester and Robert D. Lanham on one team and Randall V. Gilbert, Brett B. Long and Stephen M. Metzler on the other. Hester has been honored also with a \$300 ASLA scholarship awarded by the Texas Chapter.

All the students are senior landscape architecture majors who worked on the competition for two and a half weeks in a design class.

A Texas A&M team took the Honor Award in the competition which drew 30 entries from three universities, Texas Tech, A&M and Oklahoma State University. Tech had nine entries.

The problem related to the new Hyatt Regency Hotel complex in Dallas and required a design incorporating parking areas, a fountain, amphitheater, cafe and circulation systems for pedestrians and vehicles.

Base information was provided by Myrick, Newman and Dahlberg,
Inc., planners and engineers in Dallas, who had the contract for the
actual work. Walter Dahlberg of that firm served on the competition
committee with Texas Tech Prof. Joe Verdoorn and Robert Walker, Houston
landscape architect. The committee prepared the problem for the
students.

Tech students traveled to Dallas to obtain base information and to see the site with which they were working.

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LUBBOCK--James O. Powell, editorial director of the "Arkansas Gazette," will visit and talk with journalism classes and faculty at Texas Tech University, Nov. 28-29.

The Department of Mass Communications has brought several professional journalists to the Texas Tech campus as a part of its instructional program.

Positions held by Powell include reporter for the "Alabama Journal," Montgomery, the "Columbus Free Press," Georgia, and the "Tampa Tribune," and "Miami Herald," Florida.

Powell also served as administrative assistant to Sen. George

A. Smathers of Florida and later became editorial writer and associate
editor of the "Tampa Tribune."

The editor covered Fidel Castro's "war crime" trial of Major Sosa Blanco in Havana, Cuba, and was chairperson of a media group touring mainland China for 26 days in 1973.

Powell is a member of the American Society of Newspaper Editors, the National Conference of Editorial Writers, the Inter-American Press Association, and the International Press Institute.

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LUBBOCK--Three plays by French playwrite Jean Tardieu will be performed by Texas Tech University students and faculty, Dec. 1-3, 8 p.m., and Dec. 4, 2:30 p.m., in the Qualia Room, Foreign Language and Mathematics Building.

"Ce que parler veut dire" or "What Speaking Means" is the first play. It include dramatizations on the deformations of language in the use of slang in families.

Nine roles will be performed by Dr. William T. Patterson,

Texas Tech professor of classical and Romance languages, Shannon D.

Nielson, sophomore advertising student of Temple, Janan Cull, sophomore

English major, and Paula Holmgren, sophomore marketing major, both

of Dallas, Nancy J. Wang, junior bi-lingual secondary education

major of Tiawan, Danny W. Grant, freshman from the Phillipines, and

Tina Isaac, junior French major of Corpus Christi. Elmer E. Brixey,

graduate French major, Leon V. Komkov, freshman pre-law student,

and Lan T. Tran, junior mathematics major, all of Lubbock, also will

be in the play.

The second play, "Il y avait foule au manoir" or "There Was a Crowd at the Manor," satirizes the abuse of monologues in drama and complications in murder mysteries.

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LUBBOCK--The wagon, which served man from the time the wheel was invented until about the 1920s---and still serves well in many parts of the world---is usually relegated in the United States to a junkyard or woodpile.

But not all wagons. Wherever Dr. Bob J. Roberson, a Levelland dentist, can find one he rescues it, studies it, restores it and, likely as not, presents it to a museum.

He has added four to the collection at the Ranching Heritage Center of The Museum of Texas Tech University. Earlier this year he gave the center two -- a spring wagon and a freight wagon.

The most recent gifts are a half-scale farm wagon, a buckboard, another spring wagon and an elegant Brunswick carriage.

Using a three-foot stack of old catalogues, Roberson searches for the original specifications on a wagon, including the manufacturer's paint scheme. He has developed carpentry and blacksmithing skills to re-form parts that are missing, and hires a professional blacksmith only for the most intricate parts.

Mrs. Roberson paints the wheels. A son-in-law, Robert L. Watkins of Levelland, assists with the restorations.

The half-scale farm wagon, the spring wagon and the Brunswick carriage were found by Roberson on the Kenneth Sutton Ranch in Eagle County, Colo. The buckboard was rescued from a Lamar County, Tex., junkyard.

The wagons found on the Sutton Ranch, Roberson said, were brought there by Will Taylor who homesteaded the ranch in 1889.

"They probably were brought to the ranch at that time,"
Roberson said.

The half-scale farm wagon was the kind used by wagon salesmen. Because of the small size it could be transported throughout the salesman's territory to show prospective purchasers how the wagon was built. Although small, it is a precise model of the full-scale farm wagon.

"It's possible that Taylor acquired this wagon," Roberson said,
"to give his children a vehicle to drive around the ranch."

Taylor's wife probably used the spring wagon, he said, to drive to Eagle when it was necessary to shop, taking any surplus produce with her and bringing home stores for the ranch. It has five springs on the undercarriage and is painted the same wine and yellow colors it had when it was new.

The Brunswick carriage could seat four comfortably. Its floor is carpeted, the seats upholstered in black leather, and---mounted on relatively delicate metal posts---there is a flat canopy, lined with velvet and trimmed with white fringe.

The Brunswick was made by the Columbus Buggy Works, Columbus, Ohio, and is advertised in a 1892 catalogue used by Roberson in making decisions for its restoration.

The buckboard was the "pickup" of the countryside in its day, Roberson said. It is a four-wheeled carriage with an unsheltered seat attached to a flexible board extending from the front to the rear axle.

It did not have springs but was fairly comfortable, Roberson said, because of the flexibility of the long boards running from front to rear. Like the pickup, it could be used for travel alone or to haul materials and supplies.

Patrick Butler, curator of history for The Museum, said the buggies will remain on display in the David DeVitt and Mallet Ranch Building through December.

"The buildings at the Ranching Heritage Center depict the life of pioneer ranchers," he said. "The great western migration across the North American continent was accomplished by wagon, and that vehicle was essential wherever families settled.

"Dr. Roberson's contributions demonstrate the diversity of the horse-drawn vehicles, and their authenticity is of great value in helping visitors understand the West."

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CONTACT: Nita Gilger

LUBBOCK -- Texas Tech University students can ski and study nature and Indain culture while earning three hours of humanities credit in Santa Fe, N.M., between the fall and spring semesters.

An information meeting about the study trip will be held Monday (Nov. 21) in the University Center Blue Room, 5-8 p.m.

The course, "The Culture Continuum," will be a "humanistic investigation exploring the nature of ancient and contemporary Native American cultures." Philosophy, music and visual arts will be used in teaching the course.

Texas Tech University faculty members who will lead the course are Edna Glen, art professor, Fran Scott, philosophy instructor, and Arthur Follows, music professor.

Instructional activities include on-site studies at ancient and inhabited pueblos, gallery and museum tours, lectures, independent studies and group sessions, visits with resident musicians and studio artists, and observation of craft processes, and participation in Indian festivals.

Skiing opportunities will be afforded students at the Santa Fe Basin, Taos Ski Valley, Red River and Angel Fire.

Registration and orientation for the course is Dec. 7, Room 209, University Center, 5-8 p.m.

The course is Dec. 27-Jan. 10 and includes 14 instructional days. Housing and classroom facilities will be at the Chaparral Inn, and Glorietta Baptist Conference, Glorietta, N. Mex.

The Division of Continuing Education is offering the course and also will give students the opportunity to register for the spring semester of classes at Texas Tech.

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LUBBOCK -- Graduation ceremonies for 19 Lubbock sixth-ninth graders enrolled in the Kinderschule, a German class, were held in the Foreign Language and Mathematics Building at Texas Tech University this week.

Kinderschule was originated at Texas Tech in 1954 by Dr. Theodor W. Alexander. Classes are held twice a week for seven weeks for local public school students.

Goals of the program are to create enough interest in the city to encourage the public school system to include German in its curriculm, to interest youngsters in the study of languages and provide teaching experience for Texas Tech students who plan to become teachers.

Thursday's ceremony included certificate presentations by Dr. Thomas I. Bacon, professor and chairperson of German and Slavic Languages Department.

Students presented some aspects of what they learned in Kinderschule. They sang, presented dialouges, and gave visual presentations of numbers and teaching aids to demonstrate how they learned German in their class.

Dr. Rosemarie E. Petrich, Texas Tech professor of Germanic and Slavic languages is director of Kinderschule. There also are nine teachers, two of whom are Texas Tech graduate students and seven advanced undergraduate German majors.

"We are trying to introduce the students to German and give them a working knowledge of the language," Petrich said.

A reception was held for the students and their parents. A large German chocolate cake was served with German writing on the top.

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LUBBOCK--Several major airlines and Lubbock travel agencies will participate in the Texas Tech University Center (UC) Travel Fair, Nov. 29-30, UC Courtyard, along with the Texas Tech International Programs Office.

Travel Fair is designed to help students, faculty and the general public with travel needs.

Information booths will be set up to provide information and money-saving ideas. They will be manned from 10 a.m.-6 p.m., Tuesday, and 10 a.m.-3 p.m., Wednesday.

Texas Tech Slavic Club will perform Slavic dancing, Tuesday, 11:30 a.m.-1 p.m., in the Courtyard.

Tony Mosiman, member of the Committee for International Education Exchange, will speak on "New Trends in Student Travel," Tuesday, 7:30 p.m., UC Senate room.

Travel Fair if free and open to the public.

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LUBBOCK -- An Industrial Advisory Board for the Department of Engineering Technology at Texas Tech University met for the first time Friday (Nov. 18) on the Lubbock campus.

Friday's meetings were devoted to orientation of the 10-member board. The group met Saturday to deal with organizational matters.

Members of the board include: Jack Clark, Phillips Petroleum, Bartlesville, Okla.; Frank Gallegos, Sandia Laboratories, Albuquerque, N.M.: Mike Huereca, Fisher Controls, Marshalltown, Iowa; A. L. Kincheloe, Darbyshire Steel, El Paso, Tex.; Jack D. Jones, Southwestern Public Service, Amarillo; Joe D. McKay, Brasher Goyette & Rapier Architects, Lubbock; Jack Patterson, Texas Instruments, Lubbock; Mike Sackash, Reda Pump Co. TRW, Midland; Norman E. Williams, Dresser Atlas, Midland; and Jack Wirtz, Page & Wirtz Construction Co., Lubbock.

Huereca, Kincheloe, Jones and Williams are graduates of Texas Tech. Kincheloe has been named a distinguished engineering graduate.

Dr. Larry B. Masten, chairperson of the Department of Engineering Technology, said that the board will assist the department with development of long range plans, advising on curricula and instructional and organizational matters, recruitment of new faculty, and assistance in other areas which will contribute to the academic goals of the department.

All members of the board serve without compensation.



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LUBBOCK--The Texas Tech University Law School Moot Court team will compete in national competition in New York City, Dec. 12.

The national finals, sponsored by the Young Lawyers Association of the Bar of New York City, will include some 22 teams from top law schools in the nation.

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

The team earned the right to compete at the national level by going undefeated in the regional meet in Austin in October. The Texas Tech team competed against law schools from Texas, Arkansas and Oklahoma.

The topic for this year's competition concerns the rights of associate lawyers in a firm to unionize. According to Hunt, the topic brings up questions which revolve around professionals being allowed to unionize and organize and under what conditions.

In moot court competition a hypothetical case is presented as if to the U.S. Supreme Court or other appeals court. One team must appeal the decision and the other must defend it.

During the actual competition, four oral arguments are given.

The appealing team speaks first for approximately 25 minutes, followed by the defending team who speaks for 30 minutes. The appealing team presents a short rebuttal speech to conclude the 30-minute time limit.

The winner of the case is determined by the skill of the team members and their preparation, according to Hunt. The judges for the final round of competition will include Justice Harry A. Blackmun of the U.S. Supreme Court and other high appellate judges and legal scholars.

The oral presentation constitutes 60 per cent of the total score and the legal brief makes up the remaining 40 per cent. The brief is prepared early in the year and is filed at the beginning of regional competition. It is later submitted to a committee in New York and is judged again, Moore said.

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

All three members of this year's team have served on several prior teams.

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

Hamilton graduated from Post High School. He is the son of Mr. and Mrs. Thomas B. Hamilton of 5212 26th St., Lubbock. He 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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LUBBOCK--'Twas the Day Before Christmas and creatures were stirring all over the house--including puppy dogs, kitty cats, a bird family, a mouse family and a rabbit.

The Day Before Christmas is a new exhibit at The Museum of Texas Tech University, yet a traditional display. It opens Sunday, Nov. 20.

The Musuem traditionally has a tree and a Christmas setting, but this year there is something special for children between the ages of 3 and 10. Animals have been added to the display, and children may register for a drawing, to be held Jan. 3, to win one of them. Registration boxes are near each animal in the exhibit area.

There is one dog and one puppy, one cat and one kitten, one rabbit and the bird and mouse families. There will be only one animal for each child whose name is drawn, except winners could receive the bird family, its nest and the bed in it, or the mouse family and their furniture. Winners need not be present at the drawing although all who register will be invited to come at 4 p.m., Jan. 3.

The major portion of the exhibit features furnishings and costumes from The Museum collections, and it depicts a typical family of the early 1900s readying their home for Christmas day.

From bringing in the family tree to cooking Christmas dinner, the scene brings back recollections of what the special holiday was really like at the turn of the century. Some figures are wrapping last-minute gifts. Children are trying to be good for just 24 hours more.

The public is invited to enjoy the scene. There is no charge. The exhibit will be on view through Dec. 30, Tuesday through Saturday from 10 a.m. to 5 p.m. and Sundays, 1 to 5 p.m. The Museum will be closed Dec. 23-26, 31, and Jan. 1-2.

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CONTACT: Jimmy Tate

LUBBOCK--High school seniors interested in Army ROTC
Scholarships should begin preparing applications now, according
to Lt. Col. George T. Kimbro, professor of military science at
Texas Tech University.

"About 700 full-tuition four-year scholarships will be awarded to students who enter college in the fall of 1978,"

Kimbro said.

The scholarships pay all tuition costs for four years, books, laboratory fees, plus an additional monthly allowance of \$100 for up to 10 months of each school year, Kimbro said.

Kimbro said that with rising college costs, the Army ROTC Scholarship could easily be worth more than \$12,000 over the four-year period.

"That's a big financial burden for parents to have to assume and for most families this scholarship can be a big help," he said.

Students who apply for and receive an Army ROTC Scholarship must agree to serve at least four years of active duty as an Army officer upon graduation.

To be eligible for a scholarship, a student must be a United States citizen, be at least 17 years old by Oct. 1, 1978, and under 25 on June 30, 1982. He or she must also be able to pass a physical examination. Applicants should plan on entering college next fall and be able to finish by June 30, 1982. —more—

rotc 'scholarships/add one

Kimbro stressed that students should begin preparing applications soon.

The deadline for returning completed applications to the Army is Dec. 15, and applicants must take either Scholastic Aptitude Test or the American College Test no later than November to be considered.

Students interested in an Army ROTC Scholarship should see their counselor or write Army ROTC Scholarship, Fort Monroe, Va., 23651.

Those interested may also contact the Texas Tech Department of Military Science at (806) 742-2141 or 742-2142.

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CONTACT: Nita Gilger

LUBBOCK--Thirty-three contestants from 40 West Texas counties participated in the District I Make It Yourself With Wool Competition in the Texas Tech University El Centro, Home Economics Building, Saturday (Nov. 19).

Winners in the pre-teen division were Angela Dawn Edwards, first place, and Mindi White, first alternate, both of Tulia; Kimberly Watson of Dumas, third place, and Angela Stark of Tulia, honorable mention.

Junior division winners include Denise Thompson of Kress, first place; Julie McClurg of Tulia, first alternate, Suzan Renee Yauck of Darrouzett, third, and Mary Margaret Timmons of Lubbock, honorable mention.

Senior division winners were Romona Skinner of Childress,
Texas Tech University home economics education major, first place;
Theresa Draluk of Crowell, first alternate and third place; and
Shirley Lewis, Texas Tech senior home economics education major
of Guthrie, honorable mention.

The winner in the adult division was Mrs. Terry Flores of Stratford.

Winners in the junior, senior and adult divisions will advance to the state Make It Yourself With Wool Contest in San Angelo, Dec. 3.

make it with wool/add one

The state winners will go to the National finals in Denver, Colo., Jan. 17-19, 1978.

Local merchants contributing prizes for the winners were J.J. II's Fabrics, Fabric Mart, Hancock Fabrics, Fabric World, Hemphill-Wells, Dunlap's and Singer Company.

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CONTACT: Roe Burnett

LUBBOCK--Texas Tech University's Center for Professional Development will host a supervisory development program on Wednesday nights, Nov. 30-Jan. 4.

The program provides a condensed course in principles of effective management and supervision and ways to improve managerial performance.

The seminar will be held in the conference room, Building X-15, 2-5 p.m. on each date. The first unit, Nov. 30, will concern an "Overview of Supervisory Managment." The Dec. 7 unit will focus on the "Functions of Supervision and Delegation."

The third unit, Dec. 14, will provide information on "Leadership and Motivation." "Communication" will be the topic of the Dec. 21 unit. The final unit of the seminar, Jan. 4, will concern "Discipline and Absenteeism."

Cost for attending the seminar is \$175 which includes tuition, study materials, graduation certificates and coffee breaks.

Organizations which register three or more persons will receive a \$25 discount per registrant. Enrollment is limited to 25 persons.

Instructing the seminar will be Dr. Michael White, who received the Ph. D. from the University of Georgia in Business Administration.

For more information contact the Center for Professional Development, 742-3170.

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CONTACT: Marcia Lundy

ATTENTION: Ag Editors

LUBBOCK--It may take a pest to control a pest. Dr. David E. Foster of Texas Tech University's Entomology Department is directing research to determine whether a moth-like insect might be used as a control of the troublesome perennial broomweed.

The insect being studied is a tortricid moth, or <a>Synnoma <a>lynosyrana, which feeds solely on the perrenial broomweed.

The moth is a native insect to the western United States, and has been around for some time, but no one has ever investigated its possibilities as a natural control of the broomweed, according to Foster. Previous control of the perennial broomweed has consisted of using chemicals or intensive range management.

"We don't have anything yet that definitely points to this insect as a means of controlling perennial broomweed, but our research should show whether this kind of control would be possible," Foster said.

Perennial broomweed has become a problem for ranchers, particularly in the West Texas area, where much of the pasture land has been overgrazed in the past years. The perennial broomweed takes over the land when the grass is overgrazed, according to Foster. It is toxic to livestock, but they generally won't eat it unless other forage is lacking.

The larval stage of the moth has been found to create webs in the perennial broomweed and the feeds on the leaves of the weed at night.

According to Foster, infestations of the plant by this larva, over a period of time, result in killing the weed.

Among the aspects looked at by Foster are the exact effect of the moth on the weed, how quickly the weed is affected by the moth, how rapidly the moth breeds and what diseases and predators affect it.

Foster said that in the past the moth has only been found in isolated spots, even though it should be able to cover wide areas where perennial broomweed grows.

The Texas Tech professor said he suspects some sort of disease or predator may restrict the moth's infestation of the broomweed and this needs to be determined before the moth could be effectively used as a means of control.

"We hope to learn enough about the life cycle and reproductive potential and mortality factors of the moth so that we can eventually manage or manipulate populations of this species to help control perennial broomweed," Foster said.

He will discuss the occurrence of the insect in West Texas and its association with perennial broomweed at the national meeting of the Entomological Society of America Nov. 27-Dec. 1 in Washington, D.C.

Foster's study is supported by a State Legislature appropriation for research in the control of noxious weeds and brush.

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CONTACT: B. Zeeck

ATTENTION: News and Energy Editors

LUBBOCK--The Center for Energy Research at Texas Tech
University will do more than look for new solutions to national
energy problems.

Dr. Ernst W. Kiesling is directing the educational program. Short courses and seminars are planned for architects, engineers, designers, home builders, contractors, code officials, realtors, appraisers and lending agencies.

"Other areas in which we can assist will emerge in time,"
Kiesling said, "and, in addition, there will be opportunities
for the public to learn how to conserve energy without sacrificing
quality of life.

"Our objective is to help the public in technology transfer, from the research laboratory to practical use."

The program will reach from the elementary school level through adult education. Assisting in planning are faculty from throughout the university.

Kiesling is chairperson of the Department of Civil Engineering at Texas Tech and an authority on solar energy.

"The general public," he said, "has a great interest in solar energy, in home insulation and in general energy conservation.

But I think that there has been such a mass of information published

energy/add one

and broadcast concerning the problem and possible solutions that people now need help in finding rational directions.

"Complacency and procrastination could be our worst enemies," he said. "There are measures to be taken now."

Kiesling said the educational program, sponsored by Texas Tech's Center for Energy Research, will attempt to clarify problems and possible solutions in the areas of insulation, fire protection, alternate sources of energy, energy laws and policy.

The Center for Energy Research has a two-year appropriation of \$500,000 from the State Legislature for research and education.

Kiesling said the specific dates for the start of the educational program have not been established, but a variety of learning opportunities in both professional and public areas will start after the first of the year. He said individual programs will be offered throughout West Texas.

"People are working in agriculture and transportation, and we hope to bring the results of that research into the public education program. In agriculture, also, we will be attempting to help with information in regard to production, processing, animal shelters, feeding, irrigation well efficiency and environmental concerns.

"We expect to develop programs in private and commercial transportation energy conservation.

"In residential conservation, we will be looking at water heating and space heating and cooling. The same problems will be topics for other public education programs dealing with commercial buildings."

energy/add two

For cities and towns, there will be educational program in water treatment, street lighting, sewage treatment and solid waste disposal.

"One of the problems," Kiesling commented, "is that programs are suggested nationally, but residents of the southwest really need to know how to adapt broad concepts to their particular climate. We hope to assist by showing the public economically sound ways to adapt concepts and policy to their environment, whether it is the home or business. Air conditioning and transportation are examples."

Backing the educational programs of the center is research at Texas Tech. This ranges from basic scientific studies to legal aspects of the energy question.

Core projects relate to transportation; housing; agricultural; irrigation; wind, solar, biomass and other energy sources which would be used as alternatives to petroleum.

In addition, the Center for Energy Research has made seed grants to begin studies in almost a dozen fields.

Dr. Richard A. Bartsch, a chemist, will be studying carcinogenic by-products from biomass energy sources and looking particularly at pollutants which might be in water flowing from a plant producing energy from biological wastes.

In economics, Drs. James E. Jonish, Ronald D. Gilbert and Lewis E. Hill propose to study the impact of energy supplies on the growth of the United States GNP (Gross National Product). This would be a statistical analysis of the effect of dwindling energy supplies

on the nation's growth performance and the effect of diminished supplies on specific subsectors of the economy.

Law Profs. Frank F. Skillern and Bruce M. Kramer are concerned with legal problems related to residential use of solar energy.

They will review local building codes, zoning requirements and other possible restrictions as they relate to solar energy, a resource that has developed rapidly since most codes and requirements were adopted by governmental bodies.

Agricultural economist Dr. Hong Y. Lee will study the maze of rate structures for transporting agricultural goods, in a search for ways to simplify the structure and economize on transportation costs. Because of the complexity of the problem, he said he would concentrate on livestock and meat aspects.

Other studies will deal with state energy policy and administration; an effort to chemically remove mineral matter in coal, including sulphur, to make it environmentally acceptable for burning; chemical storage of solar energy; process steam usage in Texas; and a project related to fusion research.

Dr. William M. Marcy of the Department of Systems in the College of Engineering will coordinate a technology assessment project. In this, all researchers will exchange data and determine interrelationships of information gained through research.

Dr. Stanley R. Liberty is director of the Center for Energy Research.

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ATTENTION: Fine Arts Editors

LUBBOCK--The work of Douanier Henri Rousseau will be discussed in the final session of a fall Art Seminar series on "The Impressionists."

The seminars are led by Rabbi Alexander Kline and are sponsored by the Women's Council of the West Texas Museum Association. The last of the fall seminars will take place at The Museum of Texas Tech University at 10 a.m., Tuesday (Dec. 6). The cost is \$2.

Rousseau began to paint regularly when he was 40 years old and is credited with contributing much to a modern interest in primitives.

He was a popular painter with an appreciation of the naive, and this is illustrated particularly in his work, "Aerial Navigation," a peopled landscape with a difference. In the sky is a primitive airplane and an early gas-filled airship.

Rousseau is considered the first of the primitive painters, expressing an artist's wish to rediscover a basic, "authentic" element in art and striving for the least intellectual and most spontaneous works.

Born in 1844, Rousseau lived until 1910. His work was greatly admired by the masters of his time, Pissaro, Gauguin, Apollinaire and Picasso, and a banquet organized in his honor in 1908 by Picasso has made art history.

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CONTACT: Jimmy Tate

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LUBBOCK--Materials for spring registration at Texas Tech University and schedules of classes will be distributed to students, beginning Dec. 5, from the second floor conference room of West Hall, according to Don Wickard, registrar.

Hours for distribution of materials will be 1:00 p.m.-6:00 p.m., each day, Monday, Dec. 5, through Friday, Dec. 9.

Materials will not be distributed from Dec. 10, 1977, through Jan. 1, 1978. Distribution will resume Jan. 2, through Jan. 6 and Jan. 9 from 8:00 a.m.-5:00 p.m., Wickard said.

During the spring registration, Jan. 10 and 11, materials will be available, 7:30 a.m.-6:00 p.m.

Registration is scheduled in the coliseum for two days only, 8:00 a.m.-5:00 p.m., Tuesday, Jan. 10, and 8:00 a.m.-6:00 p.m., Wednesday, Jan. 11, Wickard said.

Late registration will begin Thursday, Jan. 12, and will be conducted from the Registrar's Office in West Hall and departmental offices, Wickard said.

Feb. 11 is the last day for May, 1977, degree candidates to file their intent to graduate.

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ATTN: Oil Editors

LUBBOCK--Three Texas Tech University geosciences professors presented theories in petroleum exploration and production at the annual meeting of the Gulf Coast Association of Geological Societies in Austin.

Dr. Grover E. Murray, past president of Texas Tech and
University Professor of geosciences, presented the opening address
entitled "Indigeneous Precambrian Petroleum," petroleum produced
from the Precambrian geologic period.

Murray said most petroleum exploration has occurred in areas where the rocks are relatively young. He said U.S. geologists should consider searching for petroleum in sedimentary deposits of Precambrian age, which cover large areas of the world.

Murray commented that Russian geologists have had significant discoveries of hydrocarbons in Precambrian rocks, which range in age from 600 million years to 4.7 billion years. Murray suggested that U.S. geologists "take a hard look at the petroleum potential of Precambrian rocks."

Dr. David K. Davies, professor and chairperson of the Department of Geosciences, discussed the "Porosity and Permeability of Gulf Coast Hydrocarbon Reservoirs."

Davies said the productivity of a large number of wells could be significantly increased at minimal cost. Sands considered to be full of water could produce water-free oil, he said.

Davies urged that geologists pay attention to clay minerals deposited in the pore spaces of sands. These clays can control quality of a hydrocarbon reservoir and often cause serious production and completion problems. Such problems can be overcome through correct design of drilling and stimulation programs.

Dr. Alonzo D. Jacka presented two papers at the conference.

The papers discussed hydrocarbon productivity of carbonate reservoirs in Texas.

One of Jacka's papers was an invited contribution to a special symposium devoted to carbonate rocks.

More than 2,000 geologists were in attendance.

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LUBBOCK--The public is invited to a Star Party to be held by the South Plains Astronomy Club beginning at 6:30 p.m., Friday (Nov. 18), in the parking lot of The Museum of Texas Tech University.

If the skies are cloudy Friday, the party will be held the following evening, Saturday (Nov. 19), at the same time.

Several telescopes of various sizes will be set up for participants to view astronomical objects. There also will be facilities for some astro-photogrpahy.

Coffee will be provided in the lobby of The Musuem to offset a possible chill in the night air.

The South Plains Astronomy Club is an orgnization of local and area residents who enjoy star gazing. Membership is open to the public.

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LUBBOCK--Dr. Mary Jeanne van Appledorn, professor of music at Texas Tech University, has been chosen by the American Society of University Composers (ASUC) to perform at the ASUC national meeting at the University of Houston, Nov. 11.

Dr. van Appledorn will perform her own "Concerto for Trumpet" at the piano and Richard Tolley, professor of music, will be the featured soloist.

"Concerto for Trumpet" contains three movements: Fast and Spirited; Broad and Slow, and Fast and Brisk. The Flugelhorn will be used in the opening and closing of the second movement.

Dr. van Appledorn is chairperson of music theory, composition, graduate studies in music and Symposium of Contemporary Music at Texas Tech. She was recently elected to the American Society of Composers, Authors and Publishers.

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LUBBOCK--The Music Department and Dance Division of Texas
Tech University will present "Experiments in Music and Dance,"
Friday (Nov. 11), 8:15 p.m., in the recital hall.

The program includes electronic and avant garde music and improvisational dance choreographed by Luke Kahlick of the Dance Division. Featured in the program will be the Holtkamp organ and ARP 2600 synthesizer.

Stuart Hinds will "conduct" two loudspeakers playing an electric parody, "Overture to Ampzilla." Tom Koester will perform two numbers for amplified piano from George Crumb's "Makrokosmos I," Judson Maynard, professor of organ, will perform Stuart Hind's "Dreamscape" for the dance "Lincoln's Dream."

Two electronic works, a movement from Mary Helen McCarty's "Voyages: Columbus/Apollo 11," and Xenakis' "Orient-Occident," will be presented. "Orient-Occident" will be accompanied by improvised dance.

The program is free and open to the public.

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CONTACT: Jimmy Tate

LUBBOCK--Three visiting professors will present public lectures in November, December and February at Texas Tech University, sponsored by the Department of Classical and Romance Languages. Each will be at 7:30 p.m. in room 266 of the Business Administration Building.

Dr. Jean-Yves Guerin, visiting professor of French from the Sorbonne, Paris, France, will present the first lecture of the series entitled "The New Philosophers," Monday, Nov. 21.

Guerin will introduce to American readers a group of young French philosophers who are attacking Marxist ideology.

The second lecturer in the series will be Dr. Janet Diaz, visiting professor of Spanish from the University of North Carolina at Chapel Hill.

Diaz will speak on "Vicente Aleixandre: a Profile of the Man and his Work," Thursday, Dec. 8.

Aleixandre, a Spanish poet, was little known in the United States until he was awarded the Nobel Prize for Literature in 1977.

Dr. Boyd G. Carter, emeritus professor of Spanish at the University of Missouri at Columbia, will give the final lecture, entitled "Adventures in Research and Writing," Feb. 22.

Carter will speak of his long experience as a researcher.

He will join the Texas Tech faculty in the spring semester as Visiting adjunct professor of Spanish.

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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's volleyball team, champions of the TAIAW West Zone, begin play Friday (Nov. 11) at The University of Texas at Arlington.

The Red Raiders won the Zone Tournament at McMurry College in Abilene in late October.

The Tech team, boasting a season record of 36-13 entering the tourney, will be pitted against strong teams from Lamar University, Stephen F. Austin State University and Baylor University in the preliminary pool play. The Raiders will play Stephen F. Austin at 11:15 a.m., Friday, Baylor at 2:45 p.m. and Lamar at 6:15 p.m.

"If we can beat Lamar, Baylor and Stephen F. Austin, we should be able to advance to the championship round on Saturday and do well there," said Janice Hudson, Tech volleyball coach.

"One of our star spikers, Lisa Love, was injured two weeks ago, but I think she will be strong enough to start."

Hudson plans to start Christy Cotton of Richardson; Lisa
Love, Arlington; Lisa Pipes, Big Spring; Sonja Pittman and Connie
Pittman, Monahans; and Teresa Jones, Monahans.

The top four teams from the State tournament will advance to the AIAW Regional Tournament, to be held at The University of Texas at Austin, Nov. 18-19.

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LUBBOCK--Texas feed lots market from 3.5 to 4 million feeder cattle annually. The receipts from the sale of beef cattle account for as much as 40 per cent of the \$6 billion total agricultural income generated in the state.

Although feeder cattle result in so much revenue each year, systems for grading incoming these cattle for potential finished value have been haphazard at best and incorrect at worst.

Dr. Robert A. Long of Texas Tech University's Department of
Animal Science made the statements in explaining why it is important
to determine more accurate methods of grading feeder cattle as they
enter feed lots.

The current system, according to Long, puts cattle of the same type in one pen. They are fed for about 140 days and then slaughtered. Long said this often results in some of them being overfed and developing too much fat, some being underfed and a few ending up just right.

His system separates the cattle according to frame size and muscling.

Large frame cattle need to be fed heavier amounts than small frame cattle because the former take longer to reach maturity. On the other hand, a long-term feeding plan would put too much fat on small frame cattle, Long said.

More muscling on cattle results in a higher yield in the edible portion of the carcass. The greater the muscle to bone ratio when the cattle come into the feed lots, the less fat they will have, he explained.

In Long's research the cattle will be separated by age and by frame size and muscling characteristics, decided by measurements taken at the beginning of the test.

There will be four groups, including small framed and heavily muscled, small framed and lightly muscled, large framed and heavily muscled and large framed and lightly muscled.

The groups will be fed identical rations, and individual consumption will be recorded by an electronically-activated feeder and a computer-operated measuring system.

Each steer will have in its ear an electronic tag, containing an identification number and its initial measurements.

Each time the steer enters the feeder stall, which has a capacity of one, it will break the beam of an electronic eye which will activate the computer recording system.

By putting its head through a ring to get to the feed, the steer will cause the computer to record its number, the time of day and the weight of feed in the feeder. When the steer leaves the stall, the computer will re-weigh the feed to compute the amount of feed the steer has consumed and add that to the steer's feed record.

The record will be kept on a 24-hour basis to determine how much and when a steer eats. This will enable Long to decide how much feed it takes to put one pound of weight gain on a steer, based on its frame size and muscling.

feeder cattle standards/add two

A pilot study has already indicated that frame size and muscling do have considerable effect on the efficiency of gain in cattle, Long said.

Long's research should provide standards to enable feed lot managers to separate incoming feeder cattle according to size and muscling so they can be fed to optimum weights, resulting in higher grades of meat.

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ATTENTION: Fine Arts Editors

LUBBOCK--The bronze statue, "The Thinker," by Auguste Rodin is widely known throughout the world, but less known is the violent controversy the work of this most celebrated sculptor of the late 19th centruy caused when it first appeared.

Discussing the work of Rodin on Tuesday (Nov. 15) will be Rabbi Alexander Kline in an illustrated seminar at The Museum of Texas Tech University.

It is one of a fall series on Impressionist artists, sponsored by the Women's Council of the West Texas Museum Association and open to the public at \$2 for each lecture. Seminars begin at 10 a.m., each Tuesday, at The Museum.

Rodin's work is noted for its realism, his profound accuracy in portraying the human body, but his public commissions aroused violent debate. Calais refused to erect his great "Burghers of Calais" according to his design. His Balzac monument was refused by the commissioning committee of the Societe des Gens de Lettres.

He offered a new form in sculpture, the fragment as a finished work with some parts highly polished and others hidden in uncut block. He was noted for this and for his expression of emotion and movement, symbolism and distortion and a sensitivity of modeling.

"The Thinker" was a part of a commission left unfinished at his death in 1917. It was to be part of a door for the Musee des Arts Decoratifs, a commission which was the origin of the "Gate of Hell," ("The Thinker," "Three Shades," "Paolo and Francesca").

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(cq)

LUBBOCK--MayBelle Hutson Chitwood, noted parasitologist,
has been awarded an honorary doctor of science degree by Northern
Michigan University at Marquette.

Mrs. Chitwood is a former Lubbock resident and the daughterin-law of R. M. Chitwood, a state legislator who worked for the
establishment of Texas Tech University and the man for whom the
Tech dormitory, Chitwood Hall, is named. She is the sister of
Alton W. Hutson whose biography, written and published in 1975
by Dr. W. Curry Holden, parallels the story of the growth of Lubbock
and the South Plains.

Mrs. Chitwood was honored as a nationally known research scientist. She is the former director of the Primate Parasite Registry, University of California Primate Research Center, Davis, serving there from 1972 to 1975.

She studied at Texas Tech in 1926-'27 and later at Rice
University, the Marine Biological Laboratory at Woods Hole, Mass.,
and George Washington University before receiving her degree in
zoology from the University of Maryland. For 40 years she was a
research scientist with the USDA, working primarily in Beltsville,
Md., where she was the leader of the Parasite Classification and
Distribution Unit from 1969 to 1972. She is the co-discoverer of
Philippine Capillariasis, a disease which can be fatal to man.

Last year she was elected to life membership in the Helminthological Society of Washington, D.C. She was president of the society in 1972 and that year the members presented her with their Anniversary Award for outstanding service and for leadership in research on nematode parasites of both animals and plants.

She is author or co-author of more than 50 scholarly publications, some of them written with her husband, the late Dr. Benjamin G. Chitwood.

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CONTACT: Worth Wren

LUBBOCK--At the age of 76, Dr. Margaret Mead, world famous anthropologist, has not stopped working.

On her Dec. 5 visit to Texas Tech University she will discuss modern society from the vantage point of a scientist who has lived among and studied many societies in the South Pacific islands. She has applied the knowledge gained to extensive studies of Western culture.

Mead continues to teach on an adjunct basis at Columbia University, to work as Curator emeritus of Ethnology in the American Museum of Natural History in New York and to travel the world talking about her views on education, social roles, culture change, family life and personality.

The anthropologist, psychologist, teacher, lecturer, writer and observer of change will speak at Texas Tech, Monday, Dec. 5, at 8:15 p.m. in the University Center Theatre. The public is invited to attend.

In a recent article in "Cosmopolitan" Mead may have summed up her hope for modern society.

"We must remember that this is not an easy time to live in, for women or men! If we considered that more often, we'd all quit blaming ourselves so much!"

mead/add one

Her honors fill many single-spaced, typed pages, and they include 18 honorary doctorates and "TIME" magazine's choice as "Mother of the World" in 1969.

Her written works span almost 50 years. In 1928, her first study resulted in a best-selling book, "Coming of Age in Samoa." In 1972, she published "Blackberry Winter: My Earlier Years," an autobiography. "Ruth Benedict: A Biography" came in 1974, and she continues to write for "Redbook" magazine.

University Center Cultural Events is sponsoring her visit to Texas Tech. For ticket information call 742-3610.



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ATTENTION: Energy Editors

LUBBOCK--Dr. Darrell L. Vines of the electrical engineering faculty at Texas Tech University has been elected the Southwest Region 5 director of the Institute of Electrical and Electronics Engineers (IEEE).

The 17,000-member region covers all or part of 12 states:
Texas, Oklahoma, Louisiana, Arkansas, Missouri, Kansas, Colorado,
and parts of New Mexico, Wyoming, Nebraska, South Dakota and
Illinois.

IEEE directors are responsible for the organization's publications, policy for registration of electrical engineers, member services including continuing education and technical activities, and student activities including the regional student paper contests.

Vines has just completed a three-year term as chairperson of the western area of Region 5. He has served in several offices, including chairperson, of the South Plains Section of IEEE. He was instrumental in promoting the South Plains Section's sponsorship of conferences on the energy problem in 1974 and pulse power in 1976.

His election as director marks the first time Texas Tech University has been represented on the national IEEE Board of Directors.



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CONTACT: Marcia Lundy

LUBBOCK--In 1976, grain sorghum crops in Texas grossed more than \$647 million. That year Texas was responsible for two of every five bushels of the grain harvested in the United States.

The book "Grain Sorghum in the United States" relates that information and much more of importance to sorghum producers in Texas and across the country. The research project for the book was funded by the Food and Fiber National Institute of Achievement. Prinicpal investigator for the institute's grant was Dr. James W. Kitchen of Texas Tech's Park Administration and Landscape Architecture Department. Graduate student Paul D. Hutchison was the author.

The book describes the various species of grain sorghum and their uses. It traces the history of the plant's development and predicts future developments for the plant and for farming in general.

Primary use for the grain in America is as a livestock feed, according to the book. However, the text continues, this converts to human consumption by being incorporated as protein in the meat Americans eat. The secondary use of grain sorghum in this country is as an export.

However, around the world, grain sorghum is an important food source, used in alcoholic beverages, bread, confectionaries, porridge and other food products.

In the United States, according to the processing method, the book said grain sorghum has been and is used in such things as snack items, baby foods, thickening agents, sorghum flour, meat processing, pet foods, insulation board, adhesives, charcoal briquettes, paper making, polishes, weed killers, medicines, poultry feeds, baking products, building materials, explosives and a variety of other products.

With improved planting and production methods, along with increasing yields made possible by hybrids, grain sorghum may increase even more in importance in this country and worldwide as a food and as a source of other important products, according to the author.

In the future, farmers are likely to harvest grain sorghum, originally planted with fertilizer, herbicides, fungicides and insecticides already on it, with equipment powered by solar or atomic energy. In fact, the book indicated much of the machinery may be remote-controlled by the farmer from a central headquarters.

It also predicted growing sorghum and other crops on the floor of the ocean, the development of multi-headed sorghum species, the conditioning of soil by ultrasonic waves, and the inbreeding of characteristics in the plant to improve the hardiness and yield of the crop.

Grain sorghum is an important food crop for both animals and humans around the world, and all indications point to its continued growth as a world food crop, the author said.

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CONTACT: Jimmy Tate

LUBBOCK--Dr. Mario Del Chiaro, professor of art at the University of California, Santa Barbara, will speak to members and guests of the Archaeological Institute of America, Nov. 13, in room 102 of the Art Building at Texas Tech University.

The speech is sponsored by the Lubbock Society of the Archaeological Institute of America and the Departments of Art and Anthropology at Texas Tech.

Del Chiaro will present an illustrated report of his excavation of Giacchio Forte, an Etruscan site in Tuscany, Italy.

The Etruscan civilization flourished from about 800 to 400 B.C.

Del Chiaro has participated in archaeological excavations in Italy, Sicily, Greece, Turkey, Egypt and Yugoslavia.

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CONTACT: Duron Hobbs

LUBBOCK -- Staff workers at The Museum of Texas Tech
University have been "growing" a dinosaur since June 1, and
now the beast---or the skeleton of it---is almost ready to
go on public display.

Standing 13 feet tall, the skeleton reaches 35 feet from tooth to tail. It took about a dozen people and more than 1,500 man hours to reconstruct the example of Allosaurus fragilis, relic of the Jurassic period of the earth's history. The animal lived about 150 million years ago.

The many spiked teeth give evidence that Big Al, as he has been dubbed, and his kind were flesh eaters, but it is thought that they were more scavengers than ravagers.

Huge as he is, Allosaurus fragilis did not attain the size of Tyrannosaurus rex, a skull of which is on display at The Museum. Tyrannosaurus rex looked much like the Allosaurus fragilis but lived more recently, about 75 million years ago.

Big Al is the pet name given to the Allosaurus by Dr. John P. Brand, The Museum's curator of earth sciences and director for the project to reconstruct the dinosaur.

Sixty per cent of the bones of the Allosaurus fragilis came to The Museum from the Cleveland-Lloyd Quarry in Emery County, Utah, in 1963. At that time there was no space to construct the skeleton, but two years ago plaster casting of the actual bones began in preparation for construction.

dinosaur/add one

Bones not in the original purchase were duplicated by the University of Utah or were constructed by Dr. Brand and his staff. Assembly began last June 1.

Brand said the real bones, now part of The Museum's permanent collection, were not used in the construction for two reasons: first, they are extremely heavy and fragile, and second, if the actual skeleton had been used, the bones would no longer be available for study.

The armature which supports the skeleton is made of metal and is completely encased in the dinosaur's bone structure.

The brain case of the Allosaurus is not included in the standing skeleton but will be placed in a nearby display. Brand said that, for all the mass of bones and the great bulk of muscles and skin that made up this giant lizard, the Allosaurus' brain was only about the size of a golf ball.

Technically, Allosaurus fragilis is a bipedal dinosaur of the late Jurassic period. Although it is likely that his kind wandered over West Texas, Brand said, the only Morrison formation, where such fossils are typically found, is in extreme northwest Texas in Dallam County, and no evidence of Allosaurus has been noted there.

Allosaurus fragilis will be displayed at The Museum in an exhibit including other skeletons of more recent vertebrates. The exhibit is expected to open early in 1978.

Private funding made possible the initial purchase of the Allosaurus fragilis bones and construction of the model.

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CONTACT: Jimmy Tate

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LUBBOCK--Poet Donald Justice will present a poetry reading session, Nov. 7, 8 p.m., in the Chemistry Building on the Texas Tech University campus.

Justice's presentation is sponsored by the Texas Tech English
Department. It is free to the public.

Justice will also hold an informal question-and-answer session Nov. 7th, 11:30 a.m., room 308 of the English Building. It is also free.

He is currently a professor of English at the University of Iowa and author of "The Summer Anniversaries," "Night Light" and "Departures."

He is also editor of "The Collected Poems of Weldon Kees," and co-editor of "Contemporary French Poetry."

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CONTACT: Prabhu Ponkshe

LUBBOCK--If it is physical labor and a woman can do it, certainly a man can do it equally well. And one blue collar worker can do almost everything that another blue collar worker can.

These may well be chauvinistic statements but they are also proving to be myths, as engineering research indicates that there are certain physical jobs which either sexes can or cannot perform well and that even among males and females there are certain jobs which one individual can perform and others cannot.

The research is being conducted by Drs. M. M. Ayoub and Jerry D. Ramsey of Texas Tech University's Industrial Engineering Department. Ayoub is studying, among other things, male and female performance, while Ramsey is concerned with environmental effects in work situations.

"In a simple comparison, a female's capacity is 60 per cent that of a male when it comes to manual handling of loads, but females are better at estimating the amount of weight they can lift from their past experiences. In jobs involving dexterity, fine manipulation or precision, as in micro-electronics, females are better than males," Ayoub explained.

The question is: who can do what kind of work, under what conditions and for how long?

A pioneer in the field and a nationally recognized authority an ergonomics, also called biotechnology, Texas Tech is engaged in finding answers to this question.

"As more and more females enter the armed services, there will be questions of finding suitable jobs for males as well as females. Private industry will also be faced with similar questions as an increasing number of women apply for

blue collar jobs traditionally assigned to men," Ayoub, who is also director of Tech's Institute for Biotechnology, explained.

An ongoing project at the institute is designed to provide the U.S. Air Force a set of criteria by which jobs can be assigned to men and women according to physical characteristics.

"There are some 300 different types of jobs within the Air Force. We are matching the type of work with strength, physical work capacity, or stamina, and size of the individual, the ultimate objective being to improve human performance and productivity in blue collar jobs," Ayoub explained.

Besides human performance and productivity the research will also help in reducing industrial injuries, such as back injuries caused by manual handling of loads.

Biotechnological research is also finding effects of heat, wind and humidity stress in outdoor as well as indoor situations. Ramsey is investigating these effects.

"Using a technique called the Wet Globe Bulb Temperature (WGBT) we can specify various sets of 'ideal' conditions for labor jobs," Ramsey said.

Radiation from a heat source, whether it be a furnace or the direct light from the sun, natural or induced humidity, and wind can individually or collectively produce physiological responses that affect an employee's performance, Ramsey said.

It is difficult to set individual degrees of temperature, humidity and radiation that can be called "ideal" because it is the combined effect of these factors plus the metabolic or internally generated heat that affect human performance. The WGBT method is assumed to represent all these thermal factors in combination.

biotechnology/add two

Ramsey has served as chairman of the Standards Advisory Committee on Heat Stress of the Occupational Safety and Health Administration. He and Ayoub are recognized authorities in their individual subjects, according to a survey of American universities recently completed by a magazine, "The New Engineer."

Texas Tech offers five graduate and undergraduate courses in biotechnology and human performance. Research facilties include biomechanics laboratories, climatic chambers, noise-sound chambers, a vibration laboratory, and work physiology laboratories, which contain a treadmill, bicycle ergometer, EKG, EEG and other monitoring equipment.

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LUBBOCK--President and editor of the "Kansas City Star,"
W. W. Baker, will visit Texas Tech University as editor-inresidence, Oct. 30-Nov. 1.

Baker will speak to students in newswriting, reporting and mass communications classes. He also will visit the "University Daily" newsroom and with the Mass Communications Department faculty.

Baker joined the "Kansas City Star and Times" in 1947 as a reporter. Later he served as copy editor, makeup and picture editor and editorial writer. In '63, he was named associate editor, and in '67, editor. Baker became executive vice-president in '71. He has been president and editor since '75.

The visiting editor is a member of Sigma Delta Chi, the Kansas
City Press Club, the American Society of Newspaper Editors, the
American Newspaper Publishers Association and the National Conference
of Editorial Writers.

He is trustee of the University of Kansas City and member of the Board of Directors of the Heart of America United Way and the Board of Regents of Rockhurst College.

Baker's visit is one in a series of the editors-in-residence program in the Mass Communications Department.

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LUBBOCK--Four Texas Tech University Army ROTC cadets earned trophies in the Eastern New Mexico University Orienteering Meet, Oct. 15-16. The cadets also are members of the Lubbock Orienteering Society at Texas Tech, sponsored by the Department of Military Science.

Winning trophies were Gerald Gibbons, senior, second place on the Red course for men; Greg Koenig, sophomore, third place on the Red course for men; Heath Davenport, senior, first place on the Red course for women and Lynn Smith, freshman, second place on the White course for women.

Orienteering involves navigating cross-country with a map and compass in order to locate control markers in a race requiring speed, accuracy and mental decisiveness on the part of the competitor.

The winner posts the fatest time around the course. The course on which the individual competes is based on his age and orienteering experience.

The Eastern New Mexico University Meet included four courses: White, Orange, Red and Blue. Each course is progressively more difficult, with White for the beginner through Blue for the most experienced.

A total of 13 Texas Tech Army ROTC students competed in the meet, with a total of 126 people in competition from seven organizations.

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ATTN: Entertainment and Fine Arts Editors

LUBBOCK--They all come from Spanish-speaking regions of the United States. They, the dancers, have formed Ballet Hispanico of New York, the featured attraction at Texas Tech University, Friday, Nov. 4.

Texas Tech University Center Cultural Events is bringing the dance company to campus for three days, with the public performance at 8:15 p.m., Friday, Nov. 4, in the University Center Theatre.

Ballet hispanico combines the knowledge of all its members, including the dance rhythms of the Caribbean, festive dances of Mexico, Spanish flamenco, Latin American folk traditions, the life of city streets and American modern dance and jazz.

Their performance will include "Sedalia," with music by Scott Joplin; "Deer Dance," with authentic Mexican music; and "Echoes of Spain," with music by Albeniz, Mandrill and the Temptations.

While in residence, Ballet Hispanico will conduct a variety of classes for Tech students. On Wednesday, Nov. 2, the group will present a free lecture-demonstration, open to anyone of any age, at 7 p.m., in the Center Theatre.

Tickets for the Friday performance are available at the University Center Ticket Booth, 742-3610. Tech students with IDs can buy \$3 tickets. Tickets for the general public are \$6 and also may be purchased at Hemphill-Wells in the South Plains Mall.

The performance was made possible by a grant from the National Endowment for the Arts and assistance from the Texas Tech Latin American Student Association (LASA).

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CONTACT: Jimmy Tate

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LUBBOCK--Texas Tech University received more than \$7 million in research grants last year, up almost \$3 million from the preceding year.

Expertise on the part of the working staff of the Office of Research Services (ORS) in helping to prepare and process the applications plays a major role in funneling those research funds to the university.

The staff assists faculty members in completing applications and informing them of new sources of research funds.

Dr. George F. Meenaghan, ORS director, gives credit to William E. Schulze, assistant director, Janie E. Blount, accounting clerk, and Peggy L. Boyd, administrative assistant, for doing most of the detailed work which has resulted in this increased flow of funds to the university.

"Basically our job is to help faculty members complete correctly, forms required to receive a grant," Schulze said.

The faculty investigator does most of the technical writing, and the ORS works out the budget and makes sure all of the guidelines set by the agency are followed.

"We also monitor the progress of the proposal and may have to revise the budget or make minor adjustments. We act as a liaison between the investigator and the agency," Schulze said.

The process starts when a faculty member designs and writes his description of the proposed project. He then submits this proposal to the department chairperson for approval.

After it is approved by the chairperson and dean, the proposal is forwarded to the ORS.

ORS makes certain that all necessary forms are filled out correctly and helps the faculty member work out a budget.

Proposals are then signed, usually by Dr. J. Knox Jones Jr., vice president for Research and Graduate Studies. The university representative must sign the proposals to assure compliance with stipulations the university must follow.

Another program the office is starting is the collection of information from faculty members concerning their research interests. Then, when the Research Office receives information about an agency that is funding a research project in which a faculty member may be interested, the office contacts him about the availability of the grant.

"Some professors know where the money is and others don't, but this way we may be able to save the professor some time if we know his specific interests and can inform him about a new grant or funding agency," Schulze said.

Schulze said that from Sept. 1, 1976-Aug. 31, 1977, 250 of 395 proposals submitted by Texas Tech faculty members, including the Medical School faculty, were funded.

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LUBBOCK--Biological sciences Prof. Jerry D. Berlin of Texas

Tech will report on research into cellulosic fiber development of

fiber modification later this month in North Carolina.

He will address the symposium on "Cellulosic Fibers--Current Concepts and Frontiers" in Raleigh, Thursday and Friday (Oct. 27-28). The symposium is sponsored by the Fiber Society, Inc.

He also will participate in a seminar for the Fiber and Polymer Science and Textile Sciences Programs in the Department of Textile Technology at North Carolina State University, Raleigh, Wednesday (Oct. 26). Emphasis will be on possibilities for modifying cotton fiber development.

"I will explain findings from microscopic examinations of cotton fibers," Berlin said. "The presentation will deal with cotton fibers on a sub-cellular level and the structural changes that occur within each cell."

Some of the changes found in cotton fibers when elongation is started are nuclear enlargement, nucleolar enlargement and dispersal of phenolic compounds, according to Berlin.

The elongation stage, occurring for the first 20 days after the period of cell expansion, is characterized by cell structure events associated with the formation of the central vacuole, plasma membrane and primary cell wall.

berlin-symposium/add one

Berlin will also discuss build-up of the secondary cell wall as one of the major features of the thickening stage of the cell. Numerous intracellular changes also occur, he said.

At the Fiber and Polymer Science and Textile Sciences Programs, Berlin will point to possibilities for control of fiber development, chemical treatment and genetic selection.

Chemical treatment would require application of chemicals to plants at specific time points to control events associated with fiber development, he explained.

Genetic selection may involve completely different methods for evaluating desirable genetic traits from those currently being used. Several possibilities based on microscopic data will be discussed.



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CONTACT: Dan Tarpley

LUBBOCK--A pre-game reception and buffet luncheon for ex-students, alumni and supporters of Texas Tech University is scheduled for 11 a.m.-1:30 p.m. Saturday (Oct. 29) at the Villa Capri on I-35 in Austin.

The reception and luncheon precede the Texas Tech-University of Texas 2 p.m. football game in Memorial Stadium. The Villa Capri is about three blocks from the stadium.

Bill Von Rosenberg of Austin, president of the Austin chapter of the Texas Tech Ex-Students Association, said all exes, friends and supporters of the Texas Tech Red Raiders are invited to the pre-game activities at the motel.

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LUBBOCK--The annual Texas Tech University Century Club dinner, featuring a musical performance by Guy and Ralna Hovis of the Lawrence Welk Show, is scheduled for 6:30 p.m., Friday (Nov. 4) in the University Center.

All Century Club members are invited. Membership is based on an annual gift of \$100 or more to the Texas Tech Loyalty Fund. Any individual or couple joining by Nov. 3 for the first time is eligible to attend, according to Larry Byrd of Dallas, 1977 club chairperson.

Ralna (English) Hovis, former Texas Tech student and graduate of Lubbock High School, began singing professionally at age 13.

While attending Texas Tech she performed at Six Flags Over Texas.

She then began a career as a nightclub entertainer in Dallas. She moved to California in 1966 to expand her singing career.

Guy Hovis, native of Mississippi, worked part-time on his singing career while obtaining an accounting degree and serving in the U. S. Army. He moved to California in 1966 and ultimately signed a contract to sing regularly on the Art Linkletter "House Party" show.

Both performers joined the Lawrence Welk Show in May, 1969. The couple have sold more than half a million records.

A reception for members of the Century Club in the University Courtyard at 5:45 p.m. will precede the dinner.



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LUBBOCK--Installation of a satellite receiving system at KTXT-TV, Texas Tech University's educational channel, began this week.

The system will pay off in transmission of improved pictures and more flexible programming for viewers.

Station manager John W. Henson said the real value of the installation, to be completed and operational next year, lies in its potential.

"It means," Henson said, "that we can receive four programs at one time instead of two and that we will transmit with a better signal.

"The reception of four programs at one time will permit us to video tape more programs for delayed broadcast and permit us flexibility in scheduling to give viewers of this area more convenient times to see such programs."

With the new antenna, resembling a radar dish, the station can choose from several programs being transmitted by PBS by satellite and fit them into its educational services, as well as into programming for general viewing.

The present schedule calls for testing to start approximately Dec. 1.

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CONTACT: Marcia Lundy

LUBBOCK--Horses are valuable only if they are capable of being trained. The easier and quicker they are to train, the more valuable they become.

So says Texas Tech University horse specialist Jim Heird, who is conducting an IQ test for horses.

A previous test examined the differences sex made in the horse's intelligence. Heird is using a similar system to determine whether early handling or the lack of it makes any difference in a horse's ability to learn.

Three groups of yearlings will be used in the tests. One group includes those used by Tech in its horse program. These are handled on a regular basis by students. The second group consists of yearlings that have not been worked with at all. The third group includes yearlings that have been handled only on a limited basis. Groups two and three are on loan from area ranches.

The yearlings will be put through a maze consisting of a short aisle and two stalls. Feed will be placed in the stalls on an alternating basis. They will be put through the maze until they can choose the stall with the feed 8 consecutive times, or 11 out of 12 attempts. Results will be judged on the basis of an arbitrary scale set up prior to the testing.

horse IQ/add one

Many people believe a three-year-old horse that has never been worked with is as easy to handle as one that has been handled continuously during that period, according to Heird.

These tests should show if that is true, he said.

An accurate test of horse's IQ could eliminate much of the trial and error in buying a new horse, Heird said.

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LUBBOCK--Nominations for the Thomas Jefferson Award, recognizing public officials who have achieved distinction through the defense and preservation of news media's freedom, will be received by the Texas Tech University Mass Communications Department until Nov. 30.

Nominations may come from local, state or national press and broadcasting associations and any news medium or individual.

Persons or groups interested in nominating a candidate must supply evidence of the nominee's interest in speech and press freedom and protection.

Representatives from the Texas news media associations, faculty of the Tech Department of Mass Communications and its Advisory Committee membership will select the recipient.

The first Thomas Jefferson Award was presented to Sen. Sam

J. Ervin Jr. of North Carolina in 1973. Ervin, noted for his

defense of the First Amendment, is regarded as "one of the finest
constitutional authorities ever to serve in the U. S. Senate."

In '74, Gov. Edwin W. Edwards of Louisiana was chosen.

While in office Edwards transformed the treatment of media.

He created a cooperative spirit among the state political offices and agencies and the Louisiana media corps.

thomas jefferson/add one

The '75 recipient was Rep. Robert W. Kastenmeier of Wisconsin. Kastenmeier was named "the most articulate voice" in the U. S. House of Representatives in supporting legislation for a newsman's "shield law."

Texas attorney Leon Jaworski was chosen for the award in '76. His defense of an independent press and his contention that a free press deters misconduct were evidenced by his role as special prosecutor in the Watergate case.

Gov. Ella T. Grasso of Connecticut, the '77 recipient, is credited with passage and implementation of "sunshine" laws, or freedom of information laws.

Nominations should be submitted to the Department of Mass Communications, Thomas Jefferson Award, Texas Tech University, Lubbock, Texas 79409.

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LUBBOCK--"Lubbock and Texas Tech: The Recent Past" is the theme of a documentary program, Scope, to be presented by the Texas Tech University Programs Office in the University Center Courtyard, Oct. 31-Nov. 3, 9 a.m.-4 p.m.

The presentation will be in the form of a pictorial display assembled from the Southwest Collection and focusing on the Tech campus and Lubbock.

Slide presentations demonstrating the growth of the campus and its building projects will be shown from 11 a.m.-3 p.m. The slide show has been produced by the History of Engineering Department.

Informal talks on comparisons of life at Texas Tech and Lubbock in the past and today will be given by long-time Lubbock residents.

The Southwest Collection is a repository for historical documents of Texas Tech, Lubbock and the Southwest.



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LUBBOCK--The aura of Christmas will radiate throughout the Texas Tech University campus at the turning on of approximately 15,000 colored bulbs for the Carol of Lights on Dec. 2.

A tradition of Texas Tech, the annual Carol of Lights is a delight to people throughout the South Plains.

The ceremony launching the illumination, conducted by the Residence Halls Association (RHA), will begin at 7:00 p.m. in the Science Quadrangle. Theme for the 1977 Carol of Lights is "Light the World With Christmas Joy."

To enhance the yuletide mood of the gathering crowd, taped Christmas carols will begin at 6:30 p.m. The Saddle Tramps, men's spirit organization, will lead a torchlight procession around the circle at 6:55 p.m.

The ceremony proper will begin with an invocation, followed by the welcome by Don Hase, president of RHA. The Texas Tech Choir and the Texas Tech Trombone Ensemble will open the musical program. The Trombone Ensemble will be led by Robert W. Deahl, music professor, and the choir will be directed by Gene Kenney, director of choral activities.

Kyung Wook Shin, music professor, will sing "O Holy Night."

He will be accompanied by the Trombone Ensemble. The audience

will be led by Shin in singing "O Come All Ye Faithful."

Jennifer Phelps, chairperson of the Carol of Lights, will give a short presentation preceding the lighting ceremony.

A brass fanfare will herald the illuminating of the lights at 7:30 p.m. The lights will outline the seven buildings around the campus circle.

Shin, accompanied by the Texas Tech Brass Choir, will lead the audience singing more Christmas carols. The Choir will conclude the program with "We Wish You a Merry Christmas."

Members of Chi Rho, a Catholic fraternity, will make and place 1,500 luminaries along the sidewalks and street around the circle. The greenery for the traditional wreath in front of the Science Building will be placed by members of Women's Service Organization and Alpha Phi Omega, a service fraternity.

Work began on the stringing of the lights in early November.

Buildings to be lit in the 1977 Carol of Lights will include

Administration, Chemistry, Science, Social Science, Holden Hall,

Home Economics and Mass Communications.

Preceding the ceremony will be a banquet hosted by RHA to honor those who help with the Carol of Lights.

The idea for the outlining of the campus with Christmas lights was conceived in 1958 by Harold Hinn, former member of the Texas

Tech Board of Regents and Foundation Board. Hinn sponsored and raised funds for the lighting of the West Engineering, Social Science, Chemistry and Administration buildings.

In 1961 the name "Carol of Lights" was coined and the number of lights and buildings continued to grow. The tradition has been continued almost every year.

In response to the energy situation, Texas Tech has reduced the number of buildings to be strung with Christmas lights, and they will burn from 6 p.m.-ll p.m., Dec. 2-26.

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CONTACT: Worth Wren

ATTN: Agricultural News Editors

LUBBOCK--Texas Tech University has joined in the research to find ways to control the imported pest, the fire ant, as a result of \$200,000 in state funds spread over two years.

Texas Department of Agriculture Commissioner Reagan V. Brown announced in Lubbock Wednesday the funds would be coming to Texas Tech, \$100,000 each of the next two years, to help fight the fire ant.

Already infesting some 36 million Texas acres, the fire ant poses a safety and economics problem for farmers and ranchers and a health hazard to all people in the infested areas, according to a report by the state agriculture department. The fire ant has infested more than 160 million acres in nine Southern states.

Westward movement of the ant in Texas has come as far as the Kerrville area.

Texas Tech research, centered primarily in the Departments of Entomology and Biology, will focus on "determining the potential of the red imported fire ant (from South America) becoming established in West Texas," according to Dr. Darryl P. Sanders, chairperson of entomology in the Tech College of Agricultural Sciences.

The research will investigate the related ant species in West Texas and the potential for crossbreeding to occur between the fire ant and the other species, Sanders said. Tech scientists will examine temperature, humidity and other related environmental conditions within the fire ant nest and the ability of the ants to alter these conditions. The research also will identify any potential predators or parasites that could halt the fire ant spread.

Fire ants have been spreading at about five to 12 miles per year over the nine-state region, from Florida and North Carolina to Texas, state agriculturists report. The Texas A&M Agricultural Experiment Station at College Station has for several years investigated methods of controlling the pest through genetics and chemicals that will not contribute to environmental pollution.

That research will continue, and Texas Tech and the experiment station efforts will be coordinated to prevent duplication, Sanders said.

Texas Tech work also will evaluate the existing quarantine measures being used by state and federal agricultural authorities.

The vicious fire ant not only attacks and sickens people and farm animals but also builds large mounds that present hazards to farm work and destroy terrain. The ant also feeds on newborn livestock and poultry or crops.

"Mirex," the controversial pesticide, has been used in South
Texas and apparently has been an effective pesticide in controlling
fire ants, but, unless an extension is granted, an Environmental
Protection Agency order will take the chemical off the market after
June 30, 1978, because of its environmental pollution characteristics.

Texas Tech's research also joins with efforts by Mississippi State University scientists, who are working on a biodegradable Mirex formulation.



Minutes of the Second Meeting of the Graduate Council 1977-78

Time and Place: Thursday, October 13, 1977, Holden Hall Conference Room.

Attendance: Members - Baker, Beckner, Berry, Bethea, Havens, Henton, Jones (presiding), Lockhart, Marshall, Sauer (student representative), Sosebee, Whitehead

Ex officio - Langford, Oden

Dr. Jones announced the results of the recent election of Graduate Council members. New members are Dr. Robert J. Baker, representing Sciences and Mathematics; Dr. Weldon E. Beckner, representing Education; Dr. Richard E. Saeks, representing Engineering; and Dr. Ronald E. Sosebee, representing Agricultural Sciences. New appointed members are Dr. Robert M. Bethea and Dr. Murray C. Havens (replacing Dr. Albert Karnig for this academic year). Ms. Kay Sauer, of the College of Home Economics, is the new student representative.

Agenda

- 1. The Minutes of Meeting No. 1, held on September 8, 1977, were approved as distributed.
- 2. The following students were admitted to candidacy for the doctorate on the recommendation of their departments:

Mr. Eddie H. Breashears--Physics

Mr. Billy C. Covington--Physics

Mr. John P. Ford--C.E.

Mr. Salih M. Jadallah--B.A.

Ms. Camille P. Koehler--B.A.

Ms. Grace M. LeMonds--Ed.

Mr. Robert J. Marks--E.E.

Ms. Margaret Jeanel Smith--Ed.

3. Graduate Faculty

Council members considered and approved 24 nominees for Graduate Faculty membership (16 for probationary membership). Two faculty members currently holding probationary status were granted regular Graduate Faculty membership.

4. Committees of the Graduate Council 1977-78

Dr. Jones announced the following committees of the Graduate Council for 1977-78:

Committee on Graduate Faculty

Thomas A. Langford, Chairperson

Robert J. Baker

Weldon E. Beckner

June M. Henton

Philip H. Marshall

Committee on Programs

William E. Oden, Chairperson

J. Wilkes Berry

Robert M. Bethea

Murray C. Havens

Ronald E. Sosebee

Committee on Admission and Retention Standards

William E. Oden, Chairperson Maysie J. Hughes Bill C. Lockhart Richard E. Saeks Carlton J. Whitehead

Committee on Student Affairs

Thomas A. Langford, Chairperson Robert J. Baker Weldon E. Beckner J. Wilkes Berry Robert M. Bethea Ex-officio student member of the Council, Kay Sauer

5. Course additions, deletions, and changes

Council approval was given for change in title and description of two courses in Food Technology, deletion of one course, and addition of four courses. Changes in number and level were approved for a course in Agricultural Sciences. The proposed changes will be forwarded to Administrative Council for consideration.

6. Proposal on academic probation policy

Council members considered a proposal from the College of Business Administration to change the policy of placing a student on academic probation when any semester's grade-point average is not at least a B. Business Administration proposed calculating the student's cumulative grade-point average to determine the need for probation or suspension.

Dr. Jones pointed out that action regarding probation or suspension does not appear on transcripts.

Council members agreed that probation and suspension procedures, for the present time, should continue to be based on a review of work in each semester or the summer session.

7. Non-Graduate Faculty members on doctoral committees

Dr. Jones reported on a proposal that non-members of the Graduate Faculty be permitted to serve on doctoral committees in addition to the minimum of three Graduate Faculty members required by the Graduate School. After considerable discussion, Council members agreed that in special cases non-Graduate Faculty members may serve as supernumerary members of doctoral committees provided that written application and justification by the student's advisor and departmental chairperson is submitted for review and approval by the Office of the Graduate Dean.

8. Other matters

Dr. Oden reported that the Committee on Programs met on October 11 to review the revised proposal for a Master of Science in Atmospheric Science. The Committee is prepared to endorse the proposal when it comes before the Council at the November meeting.

Dr. Jones reported that graduate enrollment, 2876 students, is at an all-time high for the fall semester.

Applicants for Graduate Faculty membership from non-academic units such as the Library, Counseling Center, Research and Training Center, etc., are encouraged to submit their applications for review to the academic unit with which they are likely to be most closely associated. In instances where this is not feasible, the Graduate Council will assume a special responsibility for reviewing the credentials of such applicants.

The next meeting of the Graduate Council will be November 3, 1977.

The meeting adjourned at 4:05 p.m.



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CONTACT: Roe Burnett

LUBBOCK--Texas Tech University's Tuba Ensemble will present a recital, Tuesday (Nov. 1), 8:15 p.m., in the Recital Hall, University Center.

The program offers barbershop harmony, a jazz waltz and contemporary music. Solo performances by Melinda Wilson and Ronald Ozment will highlight the recital.

Wilson, a Lockney High School senior, will perform "Suite for Euphonium" by Lendall Teague, Plains band director.

Ozment, a Texas Tech freshman from Austin, will play the Sonate (1943) by Paul Hindemith.

The recital is free and open to the public.

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LUBBOCK--The annual Region 16 University Interscholastic

League (U.I.L.) marching contest will be held Nov. 1-2 at Texas

Tech University Jones Stadium.

Fifty-six area bands will compete for division ratings ranging from I (superior) to V. The bands range from class C to AAAA.

Judges for the marching contest will be Jim Priest, Hereford
Junior High School band director; Clyde Wilson, Midland High
School band director, and G. T. Gilligan of Kermit.

Solo and ensemble twirling competition will be held in conjunction with the U.I.L. marching contest. Judges of twirling will be Dub Crain, Dumas High School band director, and Buddy Postlethwaite of Arlington.

Contest directors will be Dean Killion and Robert Mayes, directors of Texas Tech bands.

The contest is open to the public and there will be no admission charge. Competition will begin at 9 a.m. and continue through 2:30 p.m. each day.



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LUBBOCK--A viola recital will be given, Nov. 4, 8:15 p.m., in the Texas Tech Recital Hall by Susan Schoenfeld, a new university string faculty member.

The program, designed to introduce Schoenfeld, will consist of three selections for the viola: Sonata, in G minor by Pietro Locatelli; the Sonata, Opus 120, Number 1, in F minor by Johannes Brahms; and the Suite for Viola by Ernest Bloch. Schoenfeld will be accompanied by pianist Lora G. Deahl.

Schoenfeld received her training at Mannes College of Music and the Juilliard School of Music. She has taught at the National Conservatory of Bolivia and was founding director of the teaching program of the National Symphony of Costa Rica.

Prior to her employment at Texas Tech, Schoenfeld was Artist-in-Schools for the Albuquerque Public Schools.

The viola recital is free and open to the public.



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CONTACT: Mark Haller

ATTN: Sports Editors

LUBBOCK--The Texas Tech University women's volleyball team, with a perfect record in zone play, will begin competition this weekend (Oct. 28-29) at the Texas Association for Intercollegiate Athletics for Women (TAIAW) West Zone Tournament.

The single elimination tournament will be played at McMurry College in Abilene.

The Red Raiders, boasting a season record of 27-10 and a zone record of 11-0, will play Friday at 9:00 a.m. against Hardin-Simmons, at 11:00 a.m. against McMurry and at 1:00 p.m. against Abilene Christian.

The Raiders were seeded first in the tournament, with West Texas State University seeded second.

"I feel that Sul Ross will be a strong third seed in the tournament. This tournament will not be easy, but I feel that we can win it," said Texas Tech Coach Janice Hudson. "We have to win in order to qualify to go on to the state tournament in November."

Texas Tech is hampered by the injury of key player Lisa Love.

Hudson said she would play Love only as a last resort. The Red

Raider starters will be Connie Pittman, Sonja Pittman, Christy

volleyball team/add one

Cotton, Lisa Pipes, T. J. Jones and Nancy Landry.

Tech won its last outing against Angelo State University Tuesday night, 15-11, 7-15, 15-1 and 15-6.

The TAIAW State Tournament will be held Nov. 11-12 at The University of Texas at Arlington.

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