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VISTAS

TEXAS TECH RESEARCH. SUMMER 2003 VOLUME 11 NO. 2



LAND *of the* AGES

UNCOVERING OUR PAST
at the LUBBOCK LAKE LANDMARK

VISTAS

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editor's note

SUMMER 2003 VOLUME 11 NO. 2

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THE ANCIENT HISTORY OF THE LLANO ESTACADO ALWAYS WILL BE PRESERVED AT THE MUSEUM OF TEXAS TECH'S LUBBOCK LAKE LANDMARK. AN ARCHAEOLOGICAL PRESERVE GRACED WITH THE COMPLETE RECORD OF ANIMAL AND HUMAN OCCUPATION OF THE AREA FOR THE PAST 12,000 YEARS. MAKING TEXAS TECH AND THE LANDMARK KNOWN THROUGHOUT THE WORLD. THE MORE RECENT HISTORY OF THE SOUTH PLAINS IS PRESERVED IN THE TREASURE TROVE OF THE UNIVERSITY'S SOUTHWEST COLLECTION/SPECIAL COLLECTIONS LIBRARIES BUILDING. WHERE RANCH RECORDS DETAIL THE DAY-TO-DAY LIVES OF REAL COWBOYS. TWO MORE RECENT LUBBOCK PIONEERS ARE RESPONSIBLE FOR THE CREATION OF THE MILDRED AND SHIRLEY L. GARRISON GERIATRIC EDUCATION AND CARE CENTER AT THE TEXAS TECH HEALTH SCIENCES CENTER. FORGING OUT A LIFE ON THE LLANO ESTACADO, EARLY HUMANS AND, LATER, RANCHERS DETERMINED THE COURSE OF THE REGION. THESE EARLY SETTLERS MADE SURE THAT HIGHER EDUCATION AND HEALTHCARE WOULD BE A PART OF WEST TEXAS WITH THE ESTABLISHMENT IN 1923 OF TEXAS TECH UNIVERSITY. NOW REVOLUTIONARY RESEARCHERS WITHIN THE TEXAS TECH UNIVERSITY SYSTEM ARE DISCOVERING NEW KNOWLEDGE. MAKING LIFE FOR ALL WEST TEXANS THAT MUCH MORE RICH AND FULFILLING. - KIPRA D. HOPPER, EDITOR

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LAND OF THE AGES

BY KIPPRA D. HOPPER





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CATCHING BREATH

asthma

is a debilitating disease that is on a constant increase among adults in the United States. Of the U.S. adult population, 4.5 percent suffer from asthma, and 16.4 percent reported wheezing in the previous 12 months.

To better understand the worsening epidemiological trends of asthma, researchers at Texas Tech University Health Sciences Center and the University of Texas at Houston School of Public Health analyzed data from the third National Health and Nutrition Examination Survey. This research focused on data taken from 18,393 U.S. adults, aged 20 years and older, to determine why the occurrence of asthma and wheezing has been on the rise.

"This is a very challenging disease to diagnose," said Ahmed Arif, M.D., Ph.D., first author of the research study and assistant professor in the Department of Health Services Research and Management at Texas Tech University Health Sciences Center. "Asthma is not a disease where one can assume cause and effect. Many things must be taken into consideration to properly diagnose a patient."

Different variables attribute to the prevalence and severity of asthma increasing in the general population. Independent variables included in the analysis were selected based on risk factors and classified into five broad conceptual categories of demographics, socioeconomic, indoor air quality, allergies and other characteristics.

Through demographic analysis, researchers found that Mexican-Americans and men in general, exhibited the lowest prevalence of asthma, when compared with other race and ethnic groups and women. Though the occurrences of asthma did not vary significantly by region, researchers observed a pattern when data were stratified by race and ethnicity. Again, Mexican-Americans living in the South region of the United States had the lowest prevalence of asthma, while other race and ethnic groups had the highest prevalence in the Northeast and Midwest regions.

Arif said a variety of factors could explain the decreased risk of asthma among Mexican-Americans. These aspects include genetic factors, differences in health beliefs and behaviors among Hispanic subgroups, protective psychosocial effects, a diet rich in fruits and vegetables, and differences in migration patterns.

"There have been very few studies conducted on the occurrence of asthma among Mexican-American adults in the past," said Arif. "It is intriguing that this racial group has the lowest prevalence of asthma."

Causes of this disease not only involve who a person is and where they live, but also how they live. Arif said the severity of asthma can be affected by various environmental factors.

The relationship between smoking and asthma is controversial. Although smoking is an established risk factor for chronic bronchitis, no clear link between asthma and smoking has been established. Most would assume that the act of smoking would have a large effect on a person's asthma. This specific research shows that, while both current and past smoking were strong predictors of wheezing, smoking had no real effect on asthma. "It is possible that the asthmatics may have quit smoking due to the strong irritant effect of smoke and therefore we were not able to observe any association between smoking and asthma," said Arif.

Indoor air quality tends to threaten those patients with this specific disease. The use of space heaters, furnaces or gas stoves may affect indoor humidity levels, which might indirectly contribute to the growth of house dust mites. These attributes could have a possible link to asthma, but Arif cautions that this topic must be explored further.

Random allergies around the home also are reoccurring causes for asthma. Pet ownership has been directly linked to the occurrence of asthma in both adults and children, while hay fever is also a well-established risk factor for the disease.

Arif said the relationship between asthma and obesity has been gaining a lot of interest in the medical world. Asthmatics generally think that if they exercise, they will be running the risk of an asthma attack. This train of thought may result in asthma sufferers to increase their time spent indoors, thereby predisposing them to indoor air allergens and dust mite antigens. Researchers believe that a lack of regular exercise has an effect on obesity and asthma.

In general, a person with asthma needs to know how to avoid attacks. Arif said any person diagnosed with asthma should receive adequate information from a health care professional pertaining to medications and causes of the disease.

Researchers, armed with new study results, are determined to find the reasons for the increase in asthma in the United States and to stop the wheezing and incapacitating threat for individuals with the disease of not being able to catch a breath. ←



gender
bender

female

and male sex may pose a difference in whether a person is susceptible to injury of the anterior cruciate ligament (ACL) in the knee. A dynamic team is often the key to making a great scientific breakthrough, and two researchers at Texas Tech University Health Sciences Center, who are studying gender differences in the rate of ACL injury, could be the next twosome to leave its mark in the annals of scientific research.

James Slauterbeck, M.D., an orthopaedic surgeon, and Daniel Hardy, Ph.D., a cell and molecular biologist, have used their diverse backgrounds to find out why the rate of ACL injury in females is as much as 10 times higher than it is in males. A study Slauterbeck helped conduct during his sports medicine fellowship was the inspiration for this research. "My colleagues and I noticed that several female athletes tore their ACLs, but the number of male athletes with the same injury was much less," Slauterbeck said.

These observations piqued Slauterbeck's interest in the topic, and he brought his insight about the possibility of hormonal effects on the rate of ACL injury with him to the Texas Tech Health Sciences Center. He decided to approach the Cell Biology and Biochemistry Department about looking at this clinical problem from a basic science perspective, and Hardy and Slauterbeck teamed up on the research project soon after.

One focus of their research is the manner in which the ACL repairs in women versus the way it repairs in men. This process, known as remodeling, is not consistent between the two sexes. The basic premise of remodeling, known as Wolff's Law, states that increased load on the ACL should increase the strength of the ligament. However, pound for pound, women's ACLs are smaller than men's.

"The more load you put on a ligament, the bigger it should get, but this doesn't appear to happen the same in women as it does in men," he said. "For some reason, Wolff's Law doesn't seem to hold in the same way in females, and we want to know why."

Hardy and Slauterbeck have focused intensively on the genes that control remodeling and how their expression differs by gender. Both researchers say this research area is unique to Texas Tech.

The research has garnered attention from the national medical community. Slauterbeck will accept an award from the National Athletic Trainers' Association for a study he and Hardy conducted that was funded by the

organization. The award, known as the Kenneth L. Knight Award for the Outstanding Research Manuscript, is the most prestigious award the National Athletic Trainers' Association gives out each year.

"The association funded a clinical study, in which we took a group of girls with ACL injuries and identified where they were in their menstrual cycle at the time of the injury through a sample of their saliva," Slauterbeck said. "We were able to put the girls in groups and identify when they were at greatest risk."

Slauterbeck and Hardy found that a significant number of the subjects sustained their injuries on the first or second day of their menstrual cycle. Although this finding does not necessarily confirm that hormones are the only reason behind the increased risk for ACL injury, Hardy said this study verified that he and Slauterbeck are on the right track.

"Saying that hormonal differences affect the injury rate in females would justify the prediction that perhaps the injuries would occur at a higher rate at some time during the menstrual cycle," he said. "That's what we found."

The outcome of this and other studies that Slauterbeck and Hardy have conducted have provided evidence for the validity of their ideas, but they acknowledge that the factors that influence ACL injury are extremely complex, and they have a lot of work ahead of them. A source of incentive that keeps both of them motivated hits very close to home. Both men have young daughters, and each of them would like to find out how hormonal differences influence ACL injury susceptibility in order to prevent either of their daughters from sustaining such an injury.

The effects of an ACL injury do not disappear after the scars from surgery have faded away. For girls who sustain damage to their ACL early in life, that damage can cause pain that serves as a reminder of the injury for the rest of their lives. Both Hardy and Slauterbeck believe that a full understanding of the extent to which hormones affect ACL susceptibility to injury will ultimately enable scientists to develop ways to prevent such injuries from occurring.

"If there is a molecular component to susceptibility, and if we can somehow alter that so we cut the rate in women, that will have a huge impact on human health," Hardy said. ←



pioneers

of Texas are immortalized in the 50-year-old and more than 100-foot-long Pioneer Mural by painter Peter Hurd. Located in Texas Tech University's Holden Hall Rotunda, the artwork just has received a clean bill of health from a well-known art conservator.

Perry Huston, a conservator of fine art specializing in paintings, recently conducted an examination of the fresco in March 2003. Huston's examination yielded good news for the Hurd fresco: The work is in good, stable condition, especially for a painting that soon will celebrate its 50th anniversary.

Huston, who has been an art conservator for more than 35 years, developed the conservation department for the Kimball Art Museum in Fort Worth and has directed major conservation projects nationwide, including commissions for private collectors, museums, universities, the Library of Congress and the U.S. Capitol.

Hurd's fresco depicts 16 Lubbock pioneers from all walks of life. The painting is more than 12 feet high and completely encircles the rotunda in Holden Hall, stretching for 108 feet. The pioneer mural was the largest painting project Hurd undertook and the seventh mural of his career.

Cecilia Carter, Texas Tech's public art manager, said having Huston examine the fresco is an important part of making certain the art will survive for many years to come. The conservation examination was funded by The CH Foundation. "The purpose of the examination was to determine and record the condition of the mural," said Carter. "The record serves as a point of reference against which changes in condition can be measured in the future. Normally these changes are insidious and not easily detectable over the long life of art objects. Timely treatment interventions resulting from the inspections can be expected to prevent degradation and devaluation of the piece over time."

According to Huston's examination report, the paint is in good condition, and the attachment of the fresco's plaster is stable and secure. However, some fine cracks were noted, as well as drip lines, dust and grime layers, and even some graffiti.

Hurd was born in Roswell, N.M., in 1904, and he was an apprentice to painter N.C. Wyeth. Hurd specialized in regionalist paintings and was well-known for his landscapes and portraits, focusing on capturing light and at-



mosphere. He painted in 1967 a portrait of President Lyndon B. Johnson, which hangs in the National Portrait Gallery in Washington, D.C. Hurd died in 1984.

Hurd began painting the fresco in Holden Hall in February 1953, when the building housed the first Texas Tech Museum. After studying old photographs and biographical material on the pioneers to be painted, and only after several months of preparatory work, did Hurd, his wife, Henriette Wyeth, and his assistants, Manuel Acosta and John Meigs, begin painting in Holden Hall's rotunda. Hurd and his assistants completed the project in October 1954.

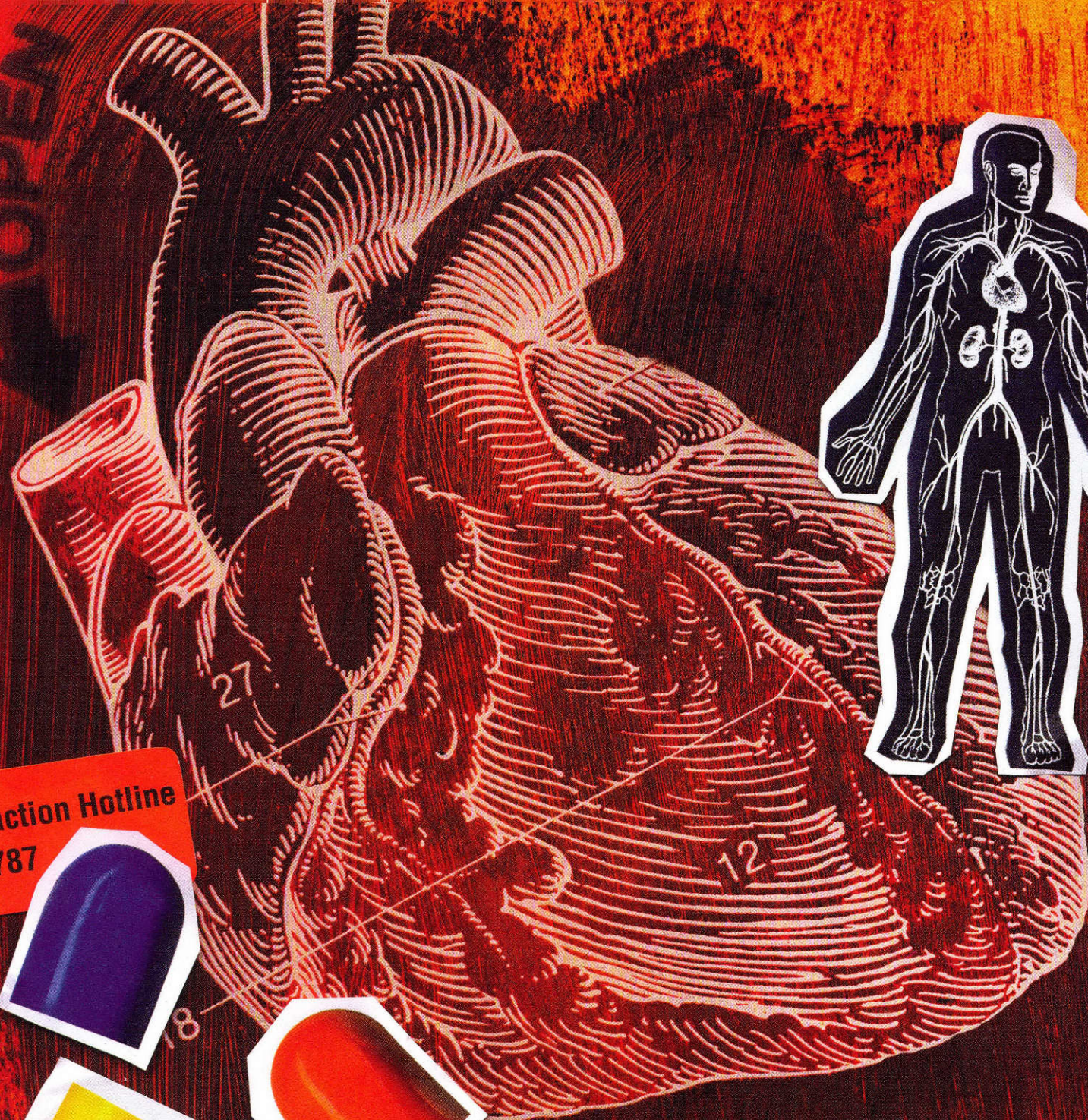
After the completion of the fresco, Hurd wrote a short essay on the painting for a souvenir booklet distributed at its dedication. In the text, he discussed the difficulties inherent in painting frescoes. "Anyone familiar with fresco techniques knows that you paint in feverish haste and with terrific concentration," Hurd wrote. "You strain yourself and all your resources during the moment of availability of the plaster. Time slips away, the plaster dries and corrections are difficult. Unless the area is completely scraped

away and redone, only minor retouching is possible. Knowing this, the painter must feel absolute dedication to, and passion for, his task while the plaster is wet."

However, despite the difficulties of the genre, Hurd said that he relished working on the fresco, writing, "In having a wide horizon, I could give great scope to the vast South Plains landscape, a pet subject of mine for many years. In that landscape I have set the figures, buildings, vehicles, and, I hope, the color, the life and the weather, which is so characteristic to this area."

Hurd also wrote about the importance of making the fresco resonate with the viewer. "These are eminently paintable subjects: the mystery and miracle of rainwater in a dry country, the rain itself, or well water, or any kind of water," Hurd wrote. "These are things I have put into the mural in an effort to make people feel as I do the great miracle of human existence – how supremely wonderful it is that we are alive on this planet, a tiny portion of the infinite galaxies, mysterious and forever challenging. If I have managed to get a little of that feeling into the Lubbock mural, I am happy." ←

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LESSONS OF THE HEART

remedy

through accurate medication for the 1 million heart attacks each year in America is the goal of researcher James P. Tsikouris, Pharm.D., who hopes his work will save copious lives. Imagine you had a heart attack and were at risk to die an early death. Now imagine the clinician you have entrusted your life with gives you a medication that is not best suited for the cardiovascular condition you have experienced. This problem is of particular concern for Tsikouris, an assistant professor at the Texas Tech University Health Sciences Center, who is performing research with colleagues to find the best suited medication for diseases affected by the Renin Angiotensin System (RAS).

Tsikouris said RAS is a key component for cardiovascular diseases.

"When stimulated in various cardiovascular conditions, the RAS causes a number of adverse cardiovascular and circulatory effects, including retention of fluid, elevation in blood pressure, and a progressive worsening of the heart's pumping action," he said.

A common class of drugs inhibit the Renin Angiotensin System, said Tsikouris. "Nine medications in one drug class that inhibit this system are called ACE inhibitors," he said. "We want to know if they all work the same at reducing adverse cardiovascular outcomes."

Tsikouris said the problem with these drugs is many clinicians might not be prescribing the best medication in the class for cardiovascular diseases, such as heart attacks and heart failure.

"A lot of people believe these drugs all work the same," he said. "However, no one has compared these drugs head-to-head to provide evidence suggesting the relative benefits of each in the body."

Tsikouris said the preliminary results of the team's research suggest certain medications within the class may be better suited for various cardiovascular conditions.

"Certain agents within the class are known to penetrate tissue of blood vessels better than others, thereby better targeting the RAS, and according to our research may have greater effects on markers of adverse cardiovascular outcomes than some of the other drugs in that class," he said. "A couple of these drugs are Quinapril and Ramipril."

Tsikouris said the research consists of comparing various drugs within this class of ACE inhibitors. "We measure markers of disease risk to see if there is any difference in these drugs, and how they affect the disease

process," he said. "We administer these different types of ACE inhibitors to patients and take blood samples after a period of time to determine the different effects these inhibitors have had on cardiovascular diseases. We do this by measuring the various substances in the blood."

The preliminary results of this research have been presented at The American College of Clinical Pharmacy Research Forum, and currently are being reviewed for publication. When ultimately completed, this line of work will include data from more than 200 patients. Tsikouris said without understanding the true relative effects of the medications within this class, people's cardiovascular conditions might not benefit greatly, if at all, due to improper medication selection.

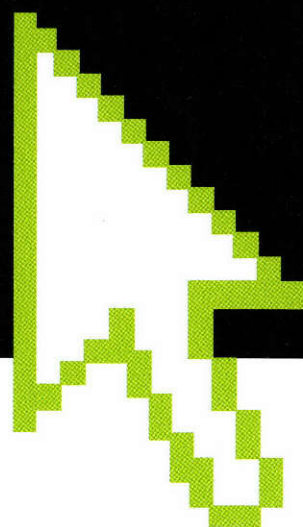
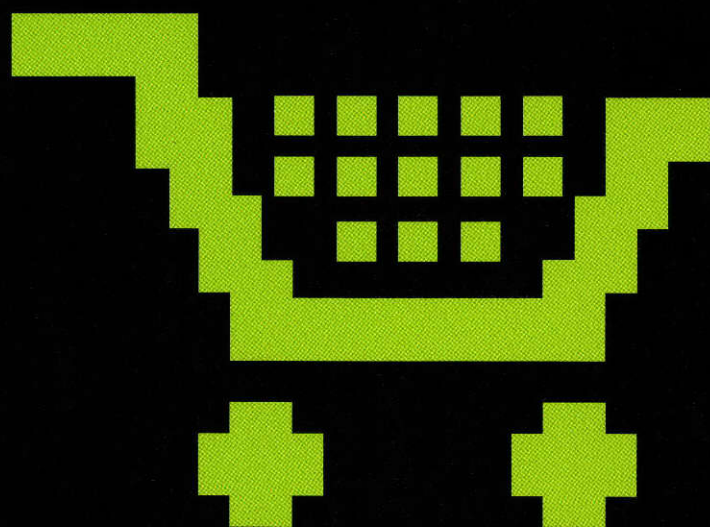
"If clinicians believe these drugs all work the same, and that is not true, we may be treating patients with one drug in that class of inhibitors when they might benefit more from another drug," he said.

Tsikouris said this research may be beneficial for patients as well as clinicians. "From the patients' standpoint, they should know if they're on a particular medication that it is proven to be a medication that will benefit them properly," he said. "For example, if a patient has heart failure, four to five ACE inhibitors out of nine in the United States have been proven effective to allow people to live longer. The remaining drugs have not been proven effective for heart failure, but people are prescribed these drugs because they are in the same drug class and often are priced lower, despite not being studied and proven effective."

Tsikouris said stimulation of the RAS contributes to development and worsening of cardiovascular diseases and that optimally inhibiting this system is critical to improving care.

"Sometimes people with cardiovascular disease develop it because it is hereditary, or due to other risk factors," he said. "Regardless, when the Renin Angiotensin System is revved up, it usually causes a worsening of the cardiovascular disease process."

Tsikouris said cardiovascular disease affects many Americans yearly. "Approximately 1 million people each year have a heart attack, and approximately 500,000 people are diagnosed with heart failure each year," he said. "These are pretty substantial numbers, and Renin Angiotensin System is a key component for each of these diseases." ←



\$ BUYER BEHAVIOR \$

internet

buying more and more frequently involves pop-up advertisements here, heavy content there. How is a Web-browsing shopper supposed to get around? This question is facing consumers and companies alike as the Internet becomes an enduring feature of the shopping landscape. Understanding consumers' shopping preferences is no easy task, but researchers at Texas Tech University's Institute for Internet Buyer Behavior are asking the tough questions.

"We saw an opportunity to explore an aspect of the Internet and the World Wide Web that was not being considered by researchers," said Glenn Brown, Ph.D., director of the Institute for Internet Buyer Behavior and an associate professor in the Texas Tech Rawls College of Business Administration. Brown explained that most existing institutes or research centers around the United States that focus on Internet buyer behavior are researching the topic from the technical or vendor's point of view.

"What we did not see was the consumer's point of view. When we started this institute, our researchers were working in one of the few places, if not the only one, that was focusing on buyer behavior on the Internet, as opposed to the technical and marketing aspects," explained Brown.

What vendor would not want to delve deeply into the thoughts of their consumers and unlock the secrets of a shopper's thought pattern? Best Buy, the leading United States electronics retailer, funded the institute in 2000 for that very purpose. This research has immediate practical implications for both the vendor and the consumer, said Brown.

"From the vendor's standpoint, the mistake companies often make is to think of the Web as an alternative distribution channel that will be an independent profit center," said James Wetherbe, Ph.D., executive director of the Institute and Stevenson Chair of Information Technology at the Rawls College of Business Administration. "Rather, we have found that the synergies between an online presence and traditional brick-and-mortar stores are strategic and meaningful."

The complexity of investigating online behavior required a different approach to the research. "Internet buyer behavior, like a lot of business phenomena, does not fit neatly into one business function," said Brown. "The Internet is an intersection of information systems, marketing and behavioral decision making. To do this research well, we need a cross-functional team of researchers."

Wetherbe and Browne put together an "A-team" of researchers: Roy Howell, Ph.D., professor of marketing; James Wilcox, Ph.D., professor of marketing; and James Burkman, Ph.D., assistant professor of information systems and quantitative sciences.

Brown said that with so many choices and with any commodity product, if a Web site is not user-friendly, shoppers will just click to another site. "We are trying to understand layout, browsing habits and ways that people actually navigate through a shopping task," he said.

Among the different areas of research within the institute, the A-team members conduct an annual survey of Texas Tech students about their buying habits and Web site preferences for a variety of consumer products, including clothing, toys, automobiles, electronics and appliances, as well as investments and money management.

Results from the institute's research indicate that students prefer handling the merchandise before closing the deal. Although the majority of students prefer to learn about products online, when asked where they shop, 73.8 percent said they preferred stores, compared with 21.9 percent who would rather shop online, Brown said. Although the Internet is a successful new shopping medium, some consumers said that they like to go to the actual physical store because going is a social experience for them, he said. "They prefer to use the Internet for research, but they like to go to the store to buy."

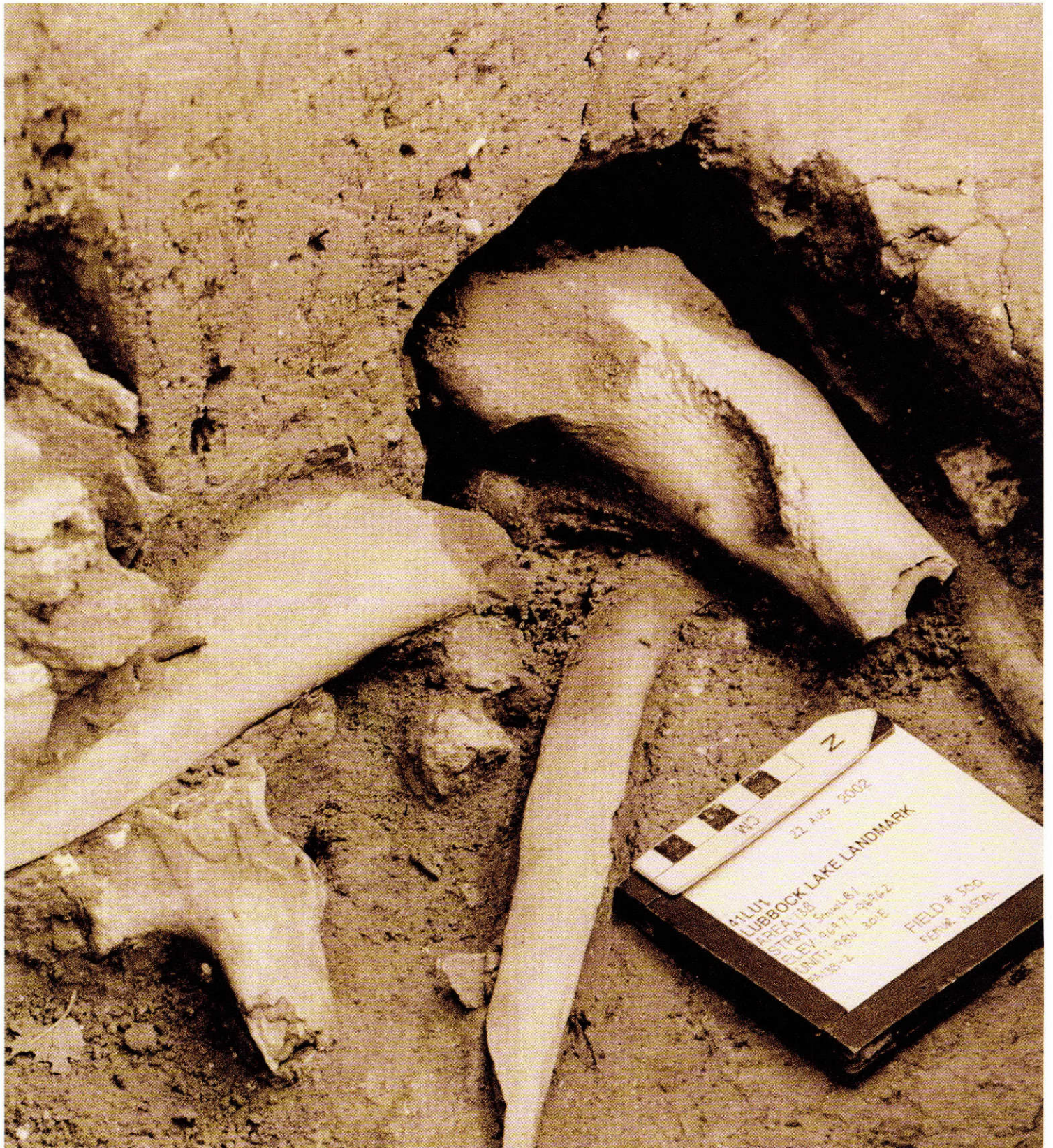
Although surveys are an efficient method of research, they are not the only method used by the institute. "The only way to understand browsing patterns and preferences, as well as how people are actually using the Internet to shop, is to watch them do it," Brown said.

Participants are given a shopping task while a tape recorder and ethnographer, a researcher who systematically records human cultures, are present during the process. Brown said, the ethnographer actually participates with the respondent and asks questions as to why and what they are doing. "We also have software that tracks the entire movement with every click that the respondent makes with the mouse," said Brown.

The purpose of this research is for investigators to understand why people have difficulty shopping, he said. Navigation is not always ideal, and search function problems can lead a consumer to jump to another Web site.

The ultimate benefit for the Internet consumer from this research is that vendors will have better Web sites, making the shopping experience easier and more efficient. The benefit for the vendors is increasing the number of sales they make, said Brown.

Maneuvering one's way around a store should be convenient any way a consumer looks at it. No more shopping hassles – whether consumers are shopping inside or out – so they may browse all they want. ←



LAND *of the* AGES

THE STORY IS IN THE BONES:

The Lubbock Lake Landmark is one of the most intriguing archaeological sites in North America, telling the story of the Great Plains Grasslands

She has stood in front of bulldozers to protect a precious piece of land that holds treasures of peoples, environments, animals, plants and cultures on the Southern High Plains. Eileen Johnson has toiled for more than 30 years to conserve the Lubbock Lake Landmark, to ask questions, to find answers and to guard the archeological preserve. One of the few sites in North America with a complete record of human existence for the past 12,000 years, the Landmark is one of the most important archaeological localities on the continent.



Johnson, who holds doctorates in zoology and vertebrate paleontology, is director of the Lubbock Lake Landmark and professor of museum science at Texas Tech University. She has devoted herself to this rare archaeological and natural history site for the rich record it offers of life on the Llano Estacado, called "Palisaded Plains" by the early Spanish explorers. Johnson's longtime efforts will leave the

Landmark safe for the future generations of scholars who can study the site for decades and centuries to come.

BY KIPPRA D. HOPPER
PHOTOGRAPHS BY MELISSA GOODLETT

The Landmark's regional research program extends beyond the 315-acre premiere archaeological and natural history preserve on the northern edge of the city of Lubbock, to the prairies of Wisconsin, the Northern High Plains, the grasslands of Mexico, to the pampas of Argentina. Johnson has further hopes of expanding the work north into Canada. By using the complete record of animal and human occupation at the Landmark as a model, Johnson and her team of researchers and volunteers wish to understand how life was lived on the entire North American grasslands. By comparing other archaeological locales to the Landmark's record, researchers hope to better understand the natural and cultural heritage of the New World.

"We have at the Landmark an unparalleled cultural record spanning 12,000 years. Few sites in the New World have that kind of record. Equally important, we have a detailed geologic record that includes the changing water systems, the changing environment and climate, and the plant and animal life. We have undoubtedly the most extensive record of animal life for the last 12,000 years in the New World in one place. That's what we know already. Can you imagine what researchers will be able to find out 100 or 200 years from now?" she wonders.

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The Lubbock Lake Landmark is located in a meander of an ancient valley, Yellowhouse Draw, near ancient springs that flow out of the Ogallala Aquifer, an underground river of water that stretches from Texas to North Dakota. Yellowhouse Draw today is an intermittent tributary of the Brazos River. Up until the 1880s, a natural, spring-fed lake (known as Long Lake) existed in the area of Lubbock Lake. The abundant water and sheltered draw provided a haven for plants, animals and humans, beginning with the Clovis (11,100 years ago) and throughout the Paleoindian Period and continuing through the Archaic (8,500 to 2,000 years ago), Ceramic (2,000 to 500 years ago), Protohistoric (500 years ago) Periods to the Historic Period (300 years ago to today). Stories from each of these periods are written in traces left behind in geological stratigraphy, or layers of various sediments representing different periods of time. Strata after strata at the Lubbock Lake Landmark reflect the periods, changing climates, environments and cultures.

From the Ice Age well into the Historic Period, large animals roamed the entire Southern Great Plains, and they and their hunters used the springs, playas and salinas of the Plains as they traversed the region. During periods of prolonged drought, animals always would be found at the springs, such as those located along Yellowhouse Draw. Humans used an atlatl, a launched spear, to slaughter the animals, particularly those trapped in the marshes and bogs around the springs. This practice

continued, particularly at Lubbock Lake, well into the Historic era. Evidence discovered at the Landmark indicates the Plains have been home to a vast array of Ice-Age animals, including the elephant-like mammoth, two types of horses, camel, ancient bison, giant short-faced bear and giant armadillo, all of which have been discovered at the Landmark.

About 11,000 years ago, the climate of the Southern Plains began to become drier, and the mammoths and other large animals disappeared, but the bison remained, and in turn, provided food, housing, tools and weapons for the Plains' native residents for the next 11,000 years. When the Spanish explorer Francisco de Coronado traversed the Llano Estacado in 1541, he found the region well-populated by both Native Americans and bison, reporting that not a day passed that he did not see bison, even though he covered nearly a thousand miles. The Spaniards spent the next 150 years exploring the vast region where they were awed by the Plains and the abundance of game, giving Lubbock Lake the name, Punta de Agua, or "point of water." The Spaniards lost their designs on conquering the Plains after the 1700s invasion of the Comanches – nomadic, horse-mounted people who pushed out of the Rocky Mountains and deep into Texas, striking Spanish ranches, missions and settlements.

The Comanche raids caused the Spaniards to abandon much of their frontier.

In the 1780s, residents of Spanish New Mexico succeeded in making an uneasy peace with the Comanches and began a lively trade enterprise. Known as comancheros, traders annually trekked from Northern New Mexico across the semi-arid Llano Estacado to favorite Comanche campsites, located along the eastern escarpment of the

Caprock, the thick, resistant caliche layer at the top of the Ogallala Formation. In such places as Lubbock Lake, Quitique in Briscoe County, Tahoka Lake in Lynn County, or Cañon Rescate, or Ransom Canyon in east Lubbock County, comancheros for nearly 100 years swapped blankets, guns, tobacco and hardware with the Comanches for buffalo robes, meat, slaves, and in later years, cattle by the thousands, stolen from early-day ranchers in West Texas.

As the empire of the United States expanded westward in the early 1800s, the government sent exploring parties onto the Great Plains. In 1872, Col. Ranald Mackenzie led a military scout across the southern Llano Estacado into New Mexico, following cart and cattle trails left by the comancheros. Once Mackenzie discovered the favorite haunts and hiding places of the Comanches, the military forcibly removed the tribes from their beloved Comancheria, the Llano Estacado. By the end of 1874, several military incursions into the region virtually ended Native American domination and opened the region for the rapid decimation of the once-vast bison herds that lived on the grass-rich prairies. Within a decade following 1875, the entire Plains became filled with cattle. Farmers had begun raising crops on the South Plains in the 1880s and 1890s. Irrigation subsequently would make the Llano Estacado, the largest non-mountainous land formation in North America, one of the richest agricultural empires in the world.



For thousands of years, people on the Southern High Plains used the water resources in Yellowhouse Draw until the area went dry in the early 1930s, the victim of too many thirsty people and their bountiful crops. In 1936, a project to dig out, and hopefully renew, the Lubbock Lake springs turned up arrowheads, or Folsom points, and other evidence of Paleoindian peoples. Two teenage boys found the first evidence, a Folsom point, and they took the find to W. Curry Holden, founder and director of the West Texas Museum (now the Museum of Texas Tech). Holden governed the first archaeological explorations at Lubbock Lake in 1939 and 1941 under the sponsorship of the Works Progress Administration. He hired Joe Ben Wheat, a young Texan who later would become a noted Paleoindian expert. Almost everywhere his crew dug, they soon hit water. Although the springs never came back, the water table had been breached and an artificial reservoir created. The Folsom deposits lay deep below the water table, and only a few Paleoindian artifacts were recovered.

By the late 1940s, irrigation wells had drawn down the water table considerably, making the Folsom-age deposits accessible. Holden permitted new excavations in 1948, 1949 and 1951, to be carried out under the direction of E.H. Sellards, director of the Texas Memorial Museum at the University of Texas at Austin. Sellards and his team had been exploring a series of "Early Man" sites, including the famous Blackwater Draw in Eastern New Mexico. Geologist Glen Evans and paleontologist Grayson Meade were in charge of the intermittent field work between 1948 and 1955 at

Lubbock Lake. They discovered a series of Folsom Period bison kills, and in another location, charred bison bones that produced the first-ever radiocarbon date for Paleoindian material. Evans and Meade were able to document a complex sequence of natural and cultural deposits, including bone beds associated with Folsom artifacts. The West Texas Museum conducted additional work at the site in 1959 and 1961. During this period, the researchers took advantage of the lower water tables and the almost vertical walls of the dredged-out waterway.

Johnson began the current research program in 1972 under the auspices of the Museum of Texas Tech, with excavations conducted under a Texas Antiquities Committee permit. Since then, Johnson and her research partner, geoarchaeologist Vance Holliday, Ph.D., have organized field research every summer with internationally recruited volunteers at the Landmark. The hallmark of the team's work has been meticulous documentation borne out of the realization that at Lubbock Lake, most archaeological deposits are the result of one-time events. The smallest trace can be a crucial clue to unraveling a "day-in-the-life" occupational episode – a bison kill, an overnight camp, a meal – sealed by the almost unbroken deposition of wind-borne dust, overbank flood mud, or pond and marsh deposits at the site.

"I've been working with the Landmark's record now for 30 years, and we have looked at less than 5 percent of what's there, and it is just an incredible treasure trove of information. That's one of the more exciting things about the Landmark. We have a great deal of research emphasis there,



research is year-round, but the vast majority of the Landmark is in the bank, so to speak. During its discovery in 1936, the research approach at Lubbock Lake was very different from what it is now. What that means is that 50, 100, 200 years from now, the approach is going to be very different. Technology and methodology will be different, and researchers will be able to learn even more than what we're learning now," she notes.

Johnson describes archaeologist and historian Holden, as an incredible visionary, and herself as a disciple of Holden's. While at Texas Tech, Holden was responsible for the creation of many of the cultural entities that are now riches at the university and in Lubbock. Holden founded the Anthropology Department, the History Department, the Southwest Collection, the new Museum of Texas Tech University, the Ranching Heritage Center and the International Center for Arid and Semi-Arid Land Studies. He was a co-founder in 1928 of the Texas Archaeological and Paleontological Society.

The Landmark currently serves as a field laboratory for geology, soils, and radiocarbon dating studies, as well as continuing as an active archaeological and natural history site. A research and educational unit of the Museum of Texas Tech, the Landmark is a non-profit organization by virtue of its governance through the university. The primary mission of the Landmark is stewardship of the site through preservation and maintenance; research through integrated interdisciplinary investigations; collections care through documentation and management; and dissemination of knowledge through scholarly, educational and public programming and publications. The Landmark's collections and resources are held in public trust for the people of the State of Texas. The Landmark benefits the public and scholarly communities by being both a research and educational facility, and for its revelation and preservation of both Texas' and the nation's cultural and natural heritages. As an archaeological preserve, the Landmark is government-protected from destruction by widespread population growth, urbanization and vandalism. Lubbock Lake Landmark is designated as a National Historic Landmark and a Texas State Archaeological Landmark. The documentation and specimens from Lubbock Lake excavations primarily are housed in the Anthropology Division of the Museum of Texas Tech. The materials generated by Evans and Meade in the late 1940s to early 1950s are at the Texas Memorial Museum and the Texas Archaeological Research Laboratory at the University of Texas at Austin.

The governance of the Landmark by the Museum is different than that of any other archaeological site, Johnson says. "Curry Holden's view of the Landmark was, first off, that it should always be preserved, and secondly, it should always be a combination, or joint venture, of research and the public. The public has a right to know, to have access and to be a part, and the Museum always has kept that focus. We've added the curation of the collections and the long-term preservation of the collections, not just the Landmark landscape itself, but the record that comes out of it. We have now, certainly Texas', but probably this country's, premiere curatorial facilities for anthropological collections. The Museum is truly a leader in that respect, and coupled with our Museum Science Program, our Heritage Management Program, the graduate Interdisciplinary Program at Texas Tech, and the variety of other departments and researchers that participate, a program like the Landmark's just doesn't exist anywhere else."



Johnson is just as impressed with historians', biologists', paleontologists', geologists', artists' and other scholars' work at the Landmark, as she is with her own Quaternary interests because, she emphasizes, she deeply believes in interdisciplinary work. "I don't like boundaries. I don't like these academic boxes. Too many other people have these blinders on, and they can only see this little bit of a question and answer, and they don't see the rest. It's the rest that makes that little bit important. You can't really interpret that little bit without seeing all the rest. You have to impart that idea to the students and to the public who work with you. No one thing signifies the site, but all of the intertwined aspects make the Landmark significant: the different records that are there, the outer aspects of the public involvement, the education, the training and the world perspective that we have."

Although Johnson acknowledges that she certainly has had a strong hand in directing the Landmark since 1972, she says the work is very much a team effort. She praises current Museum Director Gary Edson, M.Ed., as being wonderfully supportive, and she says she has been grateful for the various Texas Tech administrators who over the years have championed the Landmark. The commitment of the university, the Museum and administrators to Johnson's work enables her to be meticulous and tenacious in executing the Landmark's various programs.

Researchers in last summer's excavation uncovered a bison skull and worked feverishly to unearth the find during the archaeological season,

but volunteers had to leave the skull intact, protecting and encasing it, until next summer. "I would have preferred to have gotten the bison skull out this past summer, but I tell all my students and everyone that works with me that we're under no timeframe. There's no bulldozer out there. There's no reservoir going in. We're there to recover the maximum amount of data and be as careful as possible. Therefore, with something as fragile and as significant as the skull, we need to take our time and not rush it. If we can protect the skull from one season to the next, that really is the better thing to do. The anticipation of unearthing the find also entices the students to come back for the next season. Recently, a mammoth skull eventually took us three seasons to recover. You just can't rush those things and get the information that you need and keep the artifact stable. While we have a very heavy emphasis on, and our orientation is, research, we're also obviously involved in education and training. We want the students to know how to do things right.

"There were times that there were fights to save the Landmark, and I've been in front of bulldozers stopping any destruction at the site, because the Landmark belongs to the public. The site is not something that's alien and secretive. Our cultural heritage and natural heritage are within the Landmark, and it's the public's to enjoy and it's theirs to protect from whomever or whatever it needs protection from, either at the moment or on the long-term." Johnson also firmly believes that the programs at the Landmark that teach children at a young age about cultural and natural

heritage are some of the best ways to preserve the site for future generations. "In our programs, children descend into history, natural history and cultural activities and are introduced to the preservation ethic. They take their exciting, new knowledge home to their parents, thus continuing the Landmark's public support."

Like the early investigators at Lubbock Lake, Johnson and her team currently are researching bison evolution. The Landmark has a premiere record that traces bison evolution for the last 12,000 years, and researchers now are documenting the changeover from ancient bison to modern bison. The preliminary results, Johnson says, indicate that two significant changes took place, at different times. The changeover from ancient bison to modern bison happened on the Southern Plains about 7,000 years ago, which is a time period researchers are finding was key for the Plains. "We see that changeover in the species, and the first change is that ancient bison just get smaller. By around 7,000 years ago, that reduction in size is complete, and you have the emergence of modern bison then. But, another change takes place somewhere around 4,000, maybe 4,500 years ago, where you actually get a shape change in some of the bone, and that's a functional change. You're not getting a different species, but that animal is behaving differently. Our preliminary results and interpretations seem to indicate that modern bison were more mobile, they migrated more, than ancient bison. Ancient bison stuck more to home, they had a smaller home range and territory that they traveled in, so that's a big behavioral change. That has implications on how humans hunt bison and what season of the year they hunt. Because bison was the major game animal, people were affected by these changes."

A major change in climate happened about 7,000 years ago, and again, about 4,500 years ago, and researchers have found that the two major changes they see happening in bison appear to be more or less timed to these major climatic or environmental changes, affecting the cultural changes as well. "From our phytolith specimens, or small silica bodies in grasses and other plants, across the Llano Estacado, we can trace the rise of the short-grass ecosystem to about 7,000 years ago," Johnson explains.

Material has been recovered from an area known as a processing station, where bones are broken for marrow extraction and for use as tools. Folsom and later Paleoindian peoples hunted and killed ancient bison around the ponds and marshes in Yellowhouse Draw. Archaeologists call locations where bison were both killed and butchered "kill or butchering locales."

During the Summer of 2003, research teams looked very intensively at the site's record of the last 2,000 years, investigating two different topographic settings where they believed two different kinds of activities took place – plant processing and game processing. Teams have found a series of large game animal processing stations that date within the last 1,000 years, from the late Ceramic peoples, up to the Comanche period of the early 1800s. Within this series of processing stations, the primary game animal is modern bison, Johnson explains, but other animals are involved. A series of the processing stations are very well strat-

ified, with the largest and most extensive station being the oldest.

"We're working in another area that's on the uplands, an area that overlooks the valley. The area also dates to the same time period of the last 1,000 years all the way up to the Comanches. We have several different ideas as to what the area really represents, but the processing area is different in that it may have been used for processing plants. While we don't have all of the information in, that's at least the working hypothesis right now. We have a series of pits overlaid on one another that were dug into the ground in this one spot for more than 1,000 years by different cultures that came through the region. That in itself is interesting, because it doesn't seem to matter what culture we're talking about, they're doing the same sorts of activities, and frequently in the same spot, as the culture that preceded them. Even though cultural identities changed, still a good deal of continuity of functions, tasks and activities was going on," she says.

For the pits, or processing stations, to have been visited and revisited for the same purpose for so long indicates that the site was significant to the people in the region. She proposes that if indeed the cultures were processing plants at the site, then the type of plant that they needed and sought had to be abundant. While the pits change, some similarities remain through time. Johnson says the site is a very complicated area because people are digging the pits generation after generation in the same location. Researchers have a general outline of some of the earlier, middle and later pits and have been able to period-date them, based primarily on radiocarbon dating. The pits are unlike any scholars have seen on the Southern High Plains, Johnson says.

"This threw us for a while. Now we think bison bone actually was being used as fuel. We have a few large pieces of bison bone broken for marrow that are charred, but most of the bones we find are just very small pieces that are all highly, highly charred. Perhaps the main activity at the pits, instead of plant processing, actually was processing the bones for marrow and grease production. When the people finish boiling the bone, they perhaps used it as fuel for the fires, which is a totally different aspect of activities," she says. "Anything that we learn is new information, absolutely new."

During the past summer's excavations, researchers were able to uncover and define a new stratigraphic unit. "Geologically that's important for us, but also culturally it's very important. Determining the relationship of two of the Landmark's bone beds, two of the processing stations, was difficult for us before we understood this new stratigraphic unit. We understand now, after all this time, that the stratigraphic records of both of the processing stations are not identical, therefore, the cultural activity is not occurring during the same period. We now know cultures followed cultures at the plant and bison processing stations, and we add to this a better understanding of this new subunit, and we see much more clearly the relationship between these two bone beds," Johnson says.

With the archaeological record at the Landmark as a model, the regional research crew is exploring sites on the Southern Plains to gather the same kinds of information from other important points where

bison once had roamed. For the last eight years, the research crew has used the Landmark as the focus and the home base, but now the team traverses the entire Southern High Plains into the Rolling Plains to explore sites from Amarillo to Abilene; from San Jon, Clovis and Portales, in New Mexico; to Quitique, home of Caprock Canyons State Park; and further east out on the Rolling Plains. Researchers are working with a variety of sites in different topographic settings from different time periods as comparative material to the Landmark's records. "The sites represent a particular time period, or a few time periods within that entire record, but none of them have the Landmark's entire record. The regional work is all comparative, complementary and supplemental and is very, very important to our program," she explains.

A camp on the edge of an extinct playa near San Jon, New Mexico, is one of Johnson's favorite spots. The San Jon site overlooks the Tucumcari Basin, toward Tucumcari, New Mexico. "If you stand in one spot, you're absolutely on the very edge of the High Plains, and you turn around, and you're looking at the entire Southern High Plains. It's just an incredible setting," she describes. Before researchers started working at San Jon, only one known, excavated, early Archaic site had been

Despite 30 years of work, Johnson and her team of researchers just now are beginning to study the record of the people who were in these areas and to look at the resources that would have been available.

found in this region, and that was at the Landmark, which has a bison kill dated to 8,000 years ago. At San Jon, the regional research crew has been working for the last few years at a campsite, dated the same time period, which is the second, excavated, early Archaic site identified in the region. The San Jon playa has a series of overlapping playas that repeatedly existed and went extinct. Then the most recent playa was breached, and all of the water gushed out into the Tucumcari Basin, probably about 2,000 years ago. "The San Jon site is very wonderfully complex geologically, but also archaeologically as well. At this campsite at San Jon, we have a complementary record, same time, different activities, totally different topographic settings, at opposite ends of the High Plains, giving us the best view of this time period that there is for the moment," Johnson says.

Closer to home, the Landmark team has a groundbreaking research agreement with the city of Lubbock. The Museum and the city of Lubbock have a joint venture to evaluate city-owned property before any destructive work goes on, adhering to state and federal laws regarding historic preservation of public lands, providing an incredible opportunity within research parameters rather than salvage work, Johnson says. "Working with the city people has been terrific. They're really interested in the science and the educational and training opportunities for students, as well as, of course, the information for their planning purposes."

At the location of a new amphitheater in Mackenzie Park in Lubbock, Johnson and her volunteers found a site that dates primarily from the

last 4,000 to 5,000 years, thus mirroring the upper record of the Landmark. Johnson says her crew has discovered some new activities at the Mackenzie Park site, where they have named two new stratigraphic units.

"In a time span of three years, we have come across three new stratigraphic units we've never seen before. Earth scientists get excited about this. It has geomorphic, chronological and cultural implications because of the types of activities and materials we're finding, the landscape setting and time period. We've got a cone, or a delta, that was built up. It's not in the riverbed itself, but it's up on the valley margin, and it's probably associated with an extinct spring that was there, which was probably what drew the people there," Johnson says.

Over the last few years, researchers have been trying to model the use of the region by differing cultures and to determine what was drawing people where. Johnson and her colleagues are finding that water is a key resource. Johnson says she has an idea that at these large archaeological sites, that even though the Yellowhouse Draw creek may have been flowing, and water would have been available up and down the valley, the people still are concentrating around the springs. The springs probably had more of a concentration of a variety of resources that the

people were looking for, she explains, and even though the people did traverse up and down the valley and across the High Plains, the larger congregation of people may have been around the greater resources.

Despite 30 years of work, Johnson and her researchers just now are beginning to

study the record of the people who were in these areas and to look at the resources that would have been available. The water systems of playas throughout the last thousands of years have changed, Johnson notes. In differing time periods, the playas had water year-round, but in other periods, the playas have no water. At other times, the playas and salinas are seasonal, having water only during some parts of the year.

"Playas are very interesting in that they are, in a sense, islands of resources, and they have not been explored to the extent that they should be for their cultural associations," Johnson declares. The Landmark started a program 10 years ago to investigate as many sites around playas and salinas on the Southern High Plains that teams possibly could explore. On the Southern High Plains, 25,000 playas and 40 salinas can be seen on the surface of the land. That number does not count the extinct playas, some of which the Landmark team has surveyed.

"Salinas are very important. They're not playas; they're not related to playas; they don't form geologically the same way. Salinas are salt basins, and the water is very saline. They vary in size from very small, to several that are very, very large. For example, the Tahoka Lake salina basin itself is more than 160 acres in extent, so it's quite large. These salinas attracted people throughout time, and some of them have a stratigraphic record. We're working with one stratified salina basin that goes back to 25,000 to 30,000 years ago, and we have found cultural material there, but of course not as old as 30,000 years old yet, but from 11,000 years forward. Although Holliday has conducted extensive



geological studies of the region's playas, the salinas just haven't been studied very well geologically," Johnson comments.

With incredible similarities to Texas, farther south Johnson is investigating the pampas of Argentina. "The grasslands of Argentina look like the grasslands of Texas. Cattle are the main industry in Argentina. Calves, gauchos, cowboys, you name it, Argentina is like Texas. The frontier approach there is with Spanish forts, and it's just amazingly similar to our line of military forts," she says. In Argentina, no bison roamed the grasslands, but the main primitive herd animal was guanaco, animals that are not quite as large as bison, but are a type of camel. Johnson helped to identify the first guanaco kill site ever in Argentina. "The earliest finds were in marsh deposits along the river, and I noted that those looked like local beds at the Landmark, with bone piles similar to what we see in early bison kills," Johnson recalls.

While each of the sites Johnson and her team have studied has different kinds of animals and different peoples, and while no communication existed between the different peoples, the commonality of their cultures comes from the grassland setting. The globalization of some of the activities, which researchers have seen on a local level at the Lubbock Lake Landmark, was happening on a very large scale elsewhere. The environmental changes, the climatic changes, the shift in wind patterns, the shift

in seasons, the cultural changes, all are happening on the Southern Grasslands as well as on the Northern Grasslands, Johnson finds, although the timing varies, as the changes occur later in the south. Researchers bring the regional archaeological information to bear, giving a much broader perspective to the Landmark's record.

At the Lubbock Lake Landmark, the internationally recruited volunteers and Texas Tech students will continue to dust away with gentle brushstrokes the bison skull still encased in the earth, the Paleoindian artifacts hidden in surprising places, and the archaeological, geological and historic record of an ancient land. Perhaps what these archaeological explorers learn most comes from observing their director, Eileen Johnson, dedicating her life to understanding the grasslands of the Great High Plains and adhering to rigorous research methodology. One volunteer this past summer recalled seeing Johnson come into the laboratories of the Landmark with a dead skunk. Johnson, the eclectic scientist, carefully placed the road kill she had found out in the field, surrounding the dead animal with protective fencing, waiting for the animal to undergo natural deterioration. Johnson and her researchers then can compare the bones of the ancient animals they uncover beneath the earth to the modern wildlife that still roams the Lubbock Lake Landmark. ←

TRAUMA

**CAUTION: FAILURE TO
FOLLOW INSTRUCTIONS
COULD RESULT IN INJURY**



You may never see the inside of a trauma center or hope never to have someone you know there. But, unfortunately, everyday thousands of Americans receive treatment for traumatic injuries. The National Center for Injury Prevention and Control estimates that more than 40 million injury-related emergency department visits occurred in 2000. The No. 1 killer or disability producer in this country is trauma injury.

The evolution of trauma care has grown over the last 30 to 40 years to an incredible capability. According to the *Journal of Trauma*, since 1991, the total number of trauma centers has more than doubled, increasing from 471 to 1,154 centers.

Trauma care also has evolved with better types of care and much improved outcomes for patients. Ten years ago, 4 out of 10 patients needed operations for their spleens or chests after suffering motor vehicle crashes. Now that number has changed to 1 in 30. The need for major surgery has declined because trauma care is quicker and more advanced than in the past.

Studies have shown that when the most severely injured patients are treated at trauma centers, the reduction in the percentage of deaths felt to be preventable improved and can surpass 50 percent. Although the availability of care for injured patients has improved and the quality of care advanced, challenges remain to ensure the optimal number and distribution of trauma centers available to communities.

Level I trauma units are at serious risk in many cities throughout the country. The main reason is a lack of appropriate funding to balance the high cost of care for these injured patients. The American College of Surgeon's Committee on Trauma Classification System of

Trauma Center Levels stipulates that in order to achieve Level I status, a trauma center must have the immediate availability of trauma surgeons, anesthesiologists, physician specialists, nurses and resuscitation equipment. As well, the committee stresses the need for providing leadership and comprehensive trauma education prevention and research. Level I status is forced to achieve all of this with the cost that is historically unsupported by the types of patients involved, who are most commonly poorly or non-funded.

One could look at the growing number of trauma patients seen on a daily basis and say we should continue to create more trauma centers to meet the demand or need of care. But potential measures could be used to lower the number of trauma victims and the financial drain of their care.

The key to lowering the number of trauma patients, lowering the cost of initial care of the trauma patient, and addressing patients' rehabilitation needs is simple. Funded research can provide us avenues and information on how to better educate our communities about how to be safe and how to make homes and work environments safer.

A perfect example is injury in our elderly population. Approximately 10 percent of our trauma patients are older than 65 years of age, yet they use 25 percent of our hospital stays and costs. As health researchers, we want to address the ergonomics of an assisted-living home in order to make the environment safer. We want to design tubs with gates so that people will not have to climb into bathtubs; we want to lower their beds to make access easier for residents; we want to add in-depth medication evaluations

and education for patients. These actions are just a few ways to help improve the safety of the elderly's living environments. Unfortunately only 1 percent of our federal dollars that goes toward overall health care research proceeds toward trauma research. Simply doubling this number of dollars could make a major impact in reducing the number of trauma victims and could go a long way toward supporting these financially burdened trauma centers.

I see injuries on a daily basis that could be prevented, such as burns from someone trying to fill a lawnmower when it is running, injuries from someone trying to iron clothes on a bed or on the floor with a toddler in the area, damaged bodies of car crash victims who were not wearing their seatbelts or who were under the influence of alcohol or drugs. A countless list of injuries could be prevented.

A number of advances have occurred over the last 20 years. But focus on trauma prevention could help us to make major strides unequaled by the advances and care we have seen today. We must continue to influence our communities and legislators to focus on the need for increased funding for researching trauma prevention. This increased funding can go a long way to support financial burdens suffered by many trauma centers today.

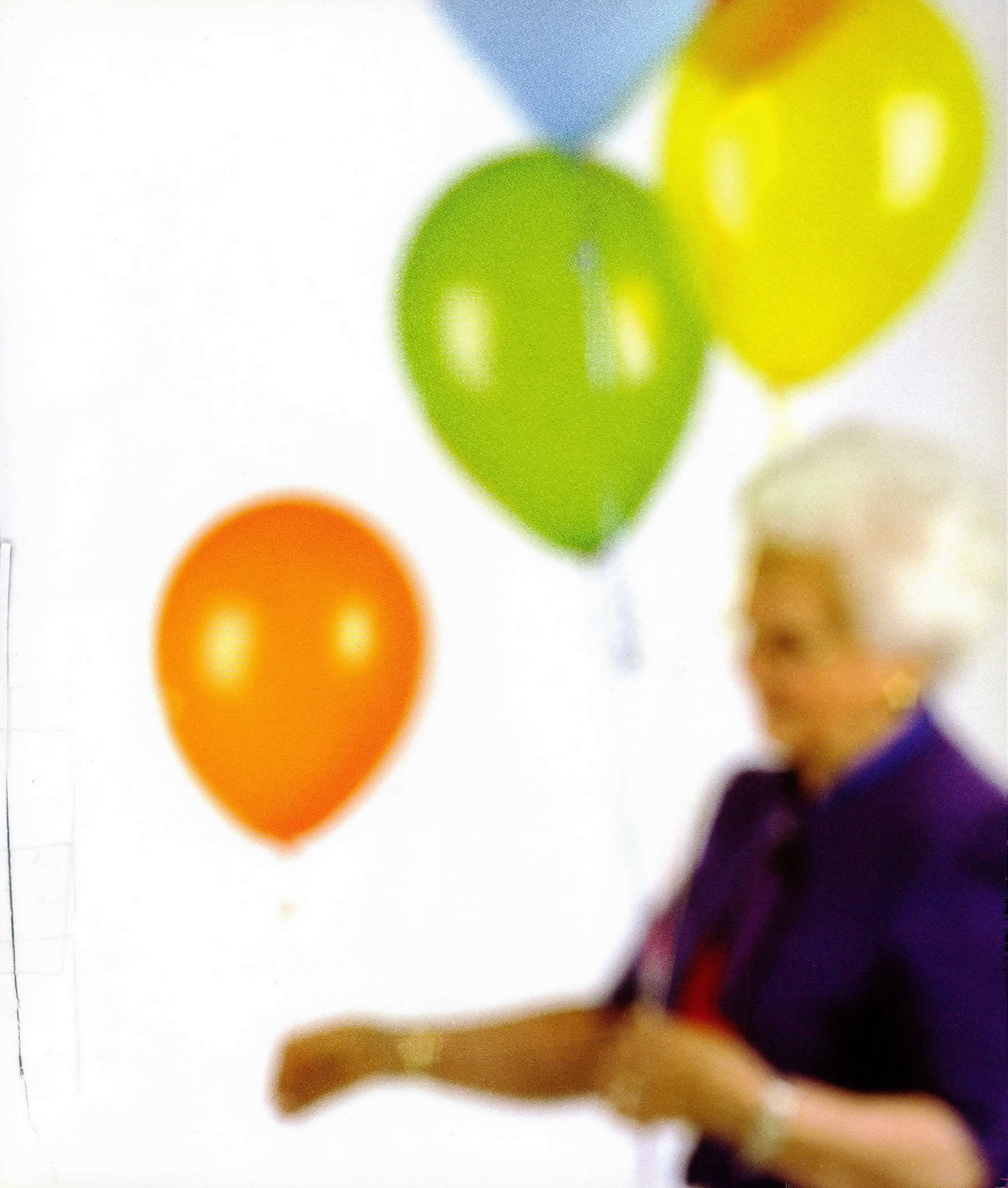
Trauma medical care, you don't appreciate the treatment until you need it. We have done a good job of making daily life safe, but we can do much better. ←

BY JOHN GRISWOLD, M.D.

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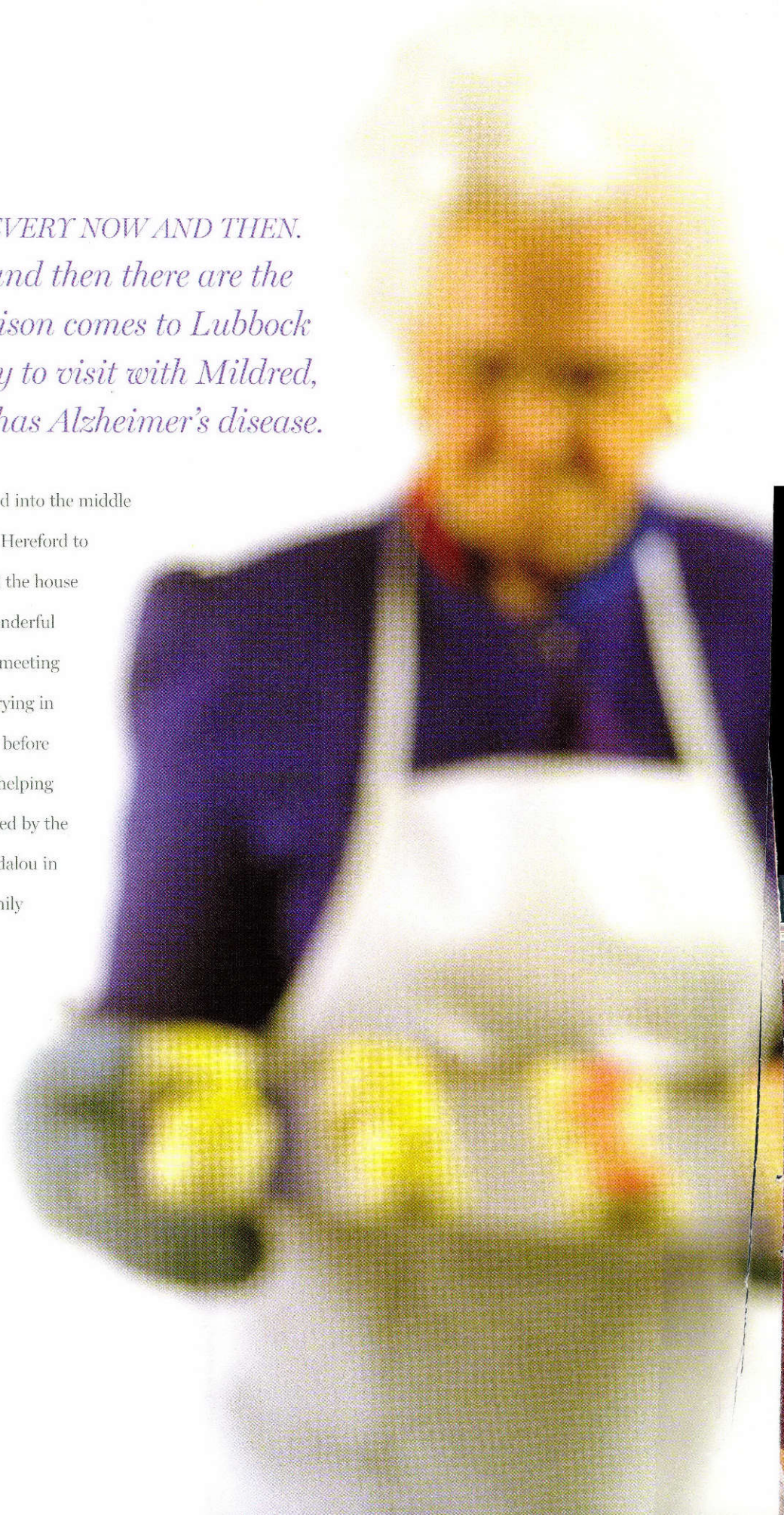
Living Partnership

story SUZANNA CISNEROS MARTINEZ
photos MELISSA GOODLETT



HE BRINGS HER A NEW DOLL EVERY NOW AND THEN. Some days, she talks to him, and then there are the bad days, but Shirley L. Garrison comes to Lubbock every Monday through Friday to visit with Mildred, his wife of 62 years. Mildred has Alzheimer's disease.

Life has changed for the Garrisons since Mildred moved into the middle stages of Alzheimer's. On weekends, he heads home to Hereford to go to church, check the mail, do odds and ends around the house and check on business. ¶ The Garrisons have had a wonderful and successful partnership as husband and wife. After meeting in a church youth group in 1939, they dated until marrying in 1941. Shirley's first career was as an agriculture teacher before going into the Army. He later stayed with the military helping restore agriculture in Europe, which had been devastated by the fighting in World War II. ¶ The Garrisons moved to Idalou in 1948 and began a farming career. From there, their family legacy began with the purchase of land and other partnerships in ranching, cattle feed and banking. All these years, Mildred was the loyal supporter, maintaining the status of mother to their three children, and homemaker. "She has always been a very loving wife and supportive of the things I wanted to do. Whether it was being active in the Methodist church, being a Camp Fire leader, taking our children to their music classes, she was very active with her family," Shirley Garrison said.



Now Mildred Garrison is a resident of the Mildred and Shirley L. Garrison Geriatric Education and Care Center. The Garrisons donated funds toward the construction of the geriatric and education care facility as a legacy they would leave to their family, as well as their contributions to the field of geriatric medicine. "Mildred and I have been very fortunate. The good Lord allowed us to prosper, and now it is our time to give back," Shirley Garrison said. He was Mildred's primary caretaker in the beginning stages of her illness. But as many families and friends of people who suffer from the disease know too well, the job requires assistance from professional caregivers, especially when the ailing person is into the advanced stages of Alzheimer's disease.

"Alzheimer's is an illness of the brain where tangles of neurons replace the healthy nerve cells. Eventually that leads to forgetfulness and confusion," said Laura K. Baker, M.D., medical director of the Garrison Center and professor in the Department of Family Medicine at Texas Tech University Health Sciences Center.

Baker said the symptoms are a very slow progression through the years. "In the beginning, the person may be fine and carry on a conversation with someone, and then the next day, they may not remember the person or what they discussed," Baker said. "Unfortunately, the ending stages may be with the patient not being able to eat or talk."

The Texas Tech University Health Sciences Center joined forces with the Sears Methodist Retirement System Inc. to design this state-of-the-art teaching nursing home. The Garrison Center is a 72,000-square-foot facility that features a five-wing design and includes 120 beds, 60 for skilled care and 60 for Alzheimer's and other age-related dementia care.

"We need to be responsive to what clearly are demographic changes that are going on in the nation, in Texas, and particularly, in West Texas," said Barbara Cherry, R.N., M.S.N., M.B.A., director of Interdisciplinary Programs in Aging at the Texas Tech University Health Sciences Center.

"We know that the best way to train health professionals is to expose the students to real-world medicine. We want to expose students to real people with real health problems. We need to be relevant to the patient base that our health professionals will encounter in their practices. In view of the rapidly growing elderly population, we will need to have health professionals educated on the needs and concerns of the elderly," Cherry said.

One of the unique aspects of the Garrison Center is the educational opportunity for the students with an interdisciplinary approach. Students from all schools, Medicine, Pharmacy, Allied Health Sciences and Nursing, will have the opportunity to train together in this environment.

"All disciplines are involved in the care of a resident; therefore students should be in a setting that offers this kind of interdisciplinary education. Important too is that the medical students know the role of a nursing student or that a pharmacy student be aware of what the allied health student's role is, as well. They are all dependent upon one another. We want to create a culture that will offer a good working relationship of the disciplines after the students are out of school," Cherry said.

Cherry also said that the Garrison Center is unique in its environment in that all students walk away with different perspectives. "This is not your ordinary, stereotypical nursing home," she said. "It is giving our students a different, positive perspective on how wonderful care can be for the elderly."

*"Life goes on.
Our enjoyment and
our embracing the
world around us do
not stop because we
walk into the door
of a nursing home.
Residential care can
be something
wonderful."*



*visitation, cooking and gardening. These concepts
Details, such as the old time soda shop, rekindle
that's the key to the Garrison Center's success."*

The third tier of the Garrison Center will include research. Dubberly said the residents and their families have the right to choose whether they participate in any research program. "Because our guiding principle is resident care, we have a very careful process of determining what appropriate research is."

The comprehensive, multidisciplinary care will keep Sears Methodist Retirement System Inc. and Texas Tech University Health Sciences Center leaders in geriatric care, while continuing to search for long-term solutions to care for older Americans.

Dubberly said, currently, only 3 percent of students interested in any area of medical care are interested in geriatric care. "Senior adults are the largest group of health care consumers. So, whenever you step back and look at those two things combined, you can see where we have a challenge for the future of health care."

Shirley Garrison said the issue of geriatric health care is an issue that should interest all people. "Every family is affected by it, whether it is your mother-in-law, uncle, wife or any other family member or friend. Alzheimer's disease knows no boundaries. The disease doesn't just affect Caucasians, Hispanics, rich individuals or poor ones. Everybody is the same when it comes to these issues," he said.

Dubberly said seeing the change of perspective with the students' learning experience is exciting. "One of the most interesting things is to see the students come in here and we ask them, 'Who's interested in doing geriatric care?' Everybody is sheepishly looking around, avoiding eye contact, with no one raising their hands. And at the end of the day working at the Garrison, we ask them that question again. More than half of them raise their hands. They now know that this is a good place to be. There is hope here. There is life here." ←



A PENNY SAVED

BY TIFFANY TUBBS-BERRY
PHOTOS ARTIE LIMMER



Financial planning is as cyclical as life. First, we undergo a birth; last, we face death; and in between, we live a full life. For every time period, people have a certain financial concern. Texas Tech University researchers in the College of Human Sciences are turning the life cycle into a lucrative financial future of rest and comfort.

As a baby is born, so was the financial planning program born at Texas Tech 14 years ago. "The program has a vision of increasing the financial knowledge of families and individuals and preparing professionals for the financial services industry," said Vickie Hampton, Ph.D., CFP, associate professor and area coordinator for the personal financial planning program in the college. Hampton explained that issues facing everyday life are intertwined with the academic structure of the program, including financial planning fundamentals, risk management, investing, tax planning, retirement planning, employee benefits and estate planning. The program is a well-rounded structure for students to be exposed to, she said. "Financial planning is a big part of survival in any economic situation, and no better place exists than Texas Tech for students to receive the education for the career," said Hampton.

As the program itself went from a child to a young adult, outside experts acknowledged and encouraged the growth. The program entered into a partnership with Certified Financial Planner Board of Standards Inc. in 2002 in order to increase graduate opportunities. The board funded a grant for approximately \$2 million over the next seven years to the program. The support will put the program in the forefront of financial planning education and essentially will create many new and diverse partnerships within the university, said Hampton. Texas Tech is one of the 20 original programs registered by the CFP Board in 1987. Certified Financial Planners' Board of Examiners registered six additional degree programs from Texas Tech for a three-year period, beginning Sept. 12, 2002, and running through Sept. 30, 2005. A total of nine program possibilities created a unique opportunity for students from undergraduate to doctorate, as well as law. Areas in which college students can immerse themselves in financial planning include: a bachelor's degree in personal financial planning; a bachelor's degree in agricultural and applied economics, with a minor in personal financial planning; a master's degree in personal financial planning; a joint master's degree in personal financial planning and a doctoral degree of jurisprudence; a joint master's degree in personal financial planning and master's degree in business administration; a joint master's degree in personal financial planning and master's in finance; a doctoral degree in consumer economics and environmental design with an emphasis in personal financial planning; a doctoral degree in business administration – finance concentration – with a minor in personal financial planning; and a doctoral degree in agricultural and applied economics, with a minor in personal financial planning.

As a high school student goes off to college, so the program went

off to explore new realms. While establishing a solid future for college students majoring in financial planning, the program directors decided to reach out further. Because one of the more attainable things in college is a credit card and students of any age, income or credit history have access to the piece of plastic and the thousands of dollars of debt that goes with it, the program developers took the next step to ensuring all Texas Tech students' financial futures with the Red to Black Program. The Red to Black Program was created in Spring 2001 as a free financial counseling service to students at Texas Tech and also as a program for research into financial attitudes and behaviors of students.

"The program is a joint effort by the College of Human Sciences personal financial planning program and the Texas Tech Vice President of Student Affairs," said Dottie Bagwell, Ph.D., AFC, director of the Red to Black Program. "We want to provide a free service for students to establish positive financial behaviors." One of only four in the nation, the Texas Tech Red to Black Program is the only such program of its kind in the State of Texas. Within the program, 12 student peer counselors provide one-on-one counseling with students, and four student peer educators are trained to give presentations on financial topics.

Bagwell said a growing need exists for teaching financial responsibility, and according to a recent poll by the U.S. Federal Reserve, the average balance on a credit card is \$8,000, and the average number of credit cards per household is 10.

"Through this program, we can conduct research on these college students and their demographics, which will help us better serve their needs," Bagwell said. "Also our personal financial planning students are learning valuable communication skills through hands-on experience."

Bagwell said that the program covers financial help for students during their college careers and during the time they are looking for jobs. Another area of help is in premarital financial counseling. PowerPay, a financial software program, is used to aid students in their debt reduction and to give them a target payoff date to follow as they learn to be responsible, Bagwell said. Financial responsibility does not come easily to everyone, she noted, so the program caters to each individual. "We visit with student clients about their goals and what they would like to accomplish, then we take it one step at a time, so that the student is not overwhelmed." Some of the most common problems that students encounter include credit card debt, budgets on student loans, insufficient checks, organization of bills and finances, and security in saved money, Bagwell explained. "Red to Black is a way to share financial concerns with peers who understand and have the training to help. We believe that a relationship exists between academic success and financial success," said Bagwell. "If a student can decrease the stress from financial struggles, then they are more likely to do better academically."





**DEBT
FREE**

Adulthood sets in, and the worrying begins. No more worries of simple things, but anxiety about the major life choices that rack the brain. One of those choices is retirement. Many adults are struggling with saving for their futures. At Texas Tech, the Center for Financial Responsibility was created to aid in solving the struggle, as well as to be a research center that advocates having a positive impact on retirement in the United States.

"Texas Tech has created financial planning educational opportunities that no other university can duplicate," said Bill Gustafson, Ph.D., associate professor of personal financial planning and director of the Center for Financial Responsibility in the College of Human Sciences. "We are taking the lead in educating for future financial success with the center." Working with professionals in the field is one of the important goals of the center, he said. "We wanted to designate the center for that purpose of helping professionals with their retirement decisions."

By developing information and assistance packages for teachers and education personnel in Texas, the center researchers are encouraging people to seek out financial guidance, he said. The center targets teachers in Texas, particularly those who qualify with the Teachers Retirement System. "The spending behavior by teachers is an interesting aspect to research. How teachers allocate their money and plan for their future is what we are trying to find out," said Gustafson.

The center researchers also conduct focus groups that provide some answers to questions, such as what financial assistance is needed regarding planning for the future. The center personnel want to make approaching a financial service professional easy, said Gustafson. One of the largest concerns with adults when

thinking about retirement is their debt management. "How am I going to manage my debt and save for the future? How can I pay for my children's college? These questions and many more can turn hair gray," said Gustafson.

The center encourages development through on-site delivery, as well as Internet help through its Web site, www.hs.ttu.edu/cfr. When delivering its services online, the center connects financial planning practitioners to individuals. "This is particularly an interest to rural areas that do not have access to that service. The Web site can be used as a guide," he said. The center's researchers travel to rural areas, as well, and meet the needs directly with in-service programs.

Financial planning has a domino effect. If a consumer can saturate one area, the change will flow into the next, and eventually becomes a cycle of responsible planning, said Gustafson. "You can have it done by you, for you, or to you, but financial planning you will do," he said.

From youth to wise old days, the program has created a path for those who want a safe and responsible financial journey. "We are training the people who are going to mold the financial planning of the future, and it is wonderful to be the university that raises the bar, and sets standards throughout academia," said Hampton.

Just as the little things make life special, the little things within the financial planning program make it special. Career development and personal attention can invigorate the eldest of financial ideas and create a program that spurs the mind from young to old. ←





T O Z
LPED-4
RECTD-5
KOSKP-6
SILFPO-7
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SILFPO-12

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SIMULATION
HUDSPETH PETERS, MARY TEXT
HERNANDEZ, JOEY PHOTOS
8/03

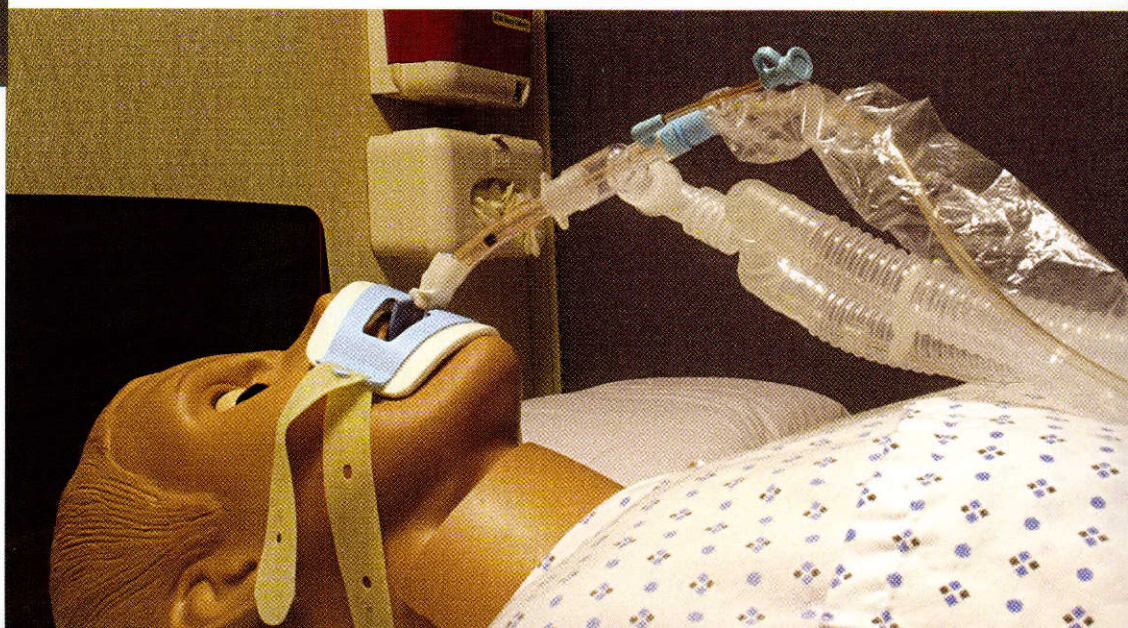
Modeling the medical actions that future healthcare providers will have to accomplish when they finish their training is now an integral part of a high-tech education for students in nursing schools. The Texas Tech University Health Sciences Center School of Nursing faculty teaches students through simulation, which offers an examination of a problem often not subject to direct experimentation by means of a simulating device.

The School of Nursing's Clinical Simulation Center provides a unique environment where students learn through simulation. The center plays an important role in interdisciplinary activities for the Health Sciences Center. Faculty members and students from the schools of Nursing, Medicine and Allied Health Sciences use the facilities and available equipment to enhance teaching and student learning.

Sharon Decker, R.N., M.S.N., professor of clinical nursing and director of clinical simulations for the School of Nursing, said simulation is an important learning tool. "Simulation has been used by nursing as a tool to promote the acquisition of professional skills," she said.

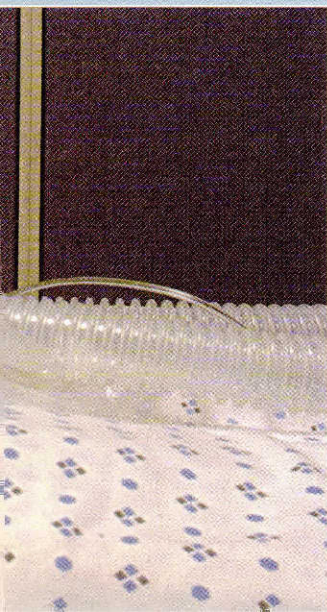
"Simulated experiences are promoted through the use of sophisticated mannequins, many of which have been revolutionized over the past five years through the integration of computer technology," Decker said. Examples of this innovation include two intravenous training arms that utilize virtual reality technology, a birthing mannequin that simulates the entire labor and delivery experience, and three mannequins, (adult, child and neonate), that integrate virtual reality to assist students in obtaining certification in advanced cardiac life support and pediatric advanced life support through the American Heart Association. Other mannequins simulate heart, lung and bowel sounds, and one of the mannequins has an added feature for generating blood pressure readings.

Decker said most schools of nursing in the United States and Canada have an area where students can practice and master required professional skills prior to performing those procedures in the actual patient care setting. "The Clinical Simulation Center here at the Health Sciences Center isn't the largest in the country, and it doesn't have the most advanced of the computerized mannequins, which are very expensive, but the center definitely would be placed in the top 20 in the country," she said.

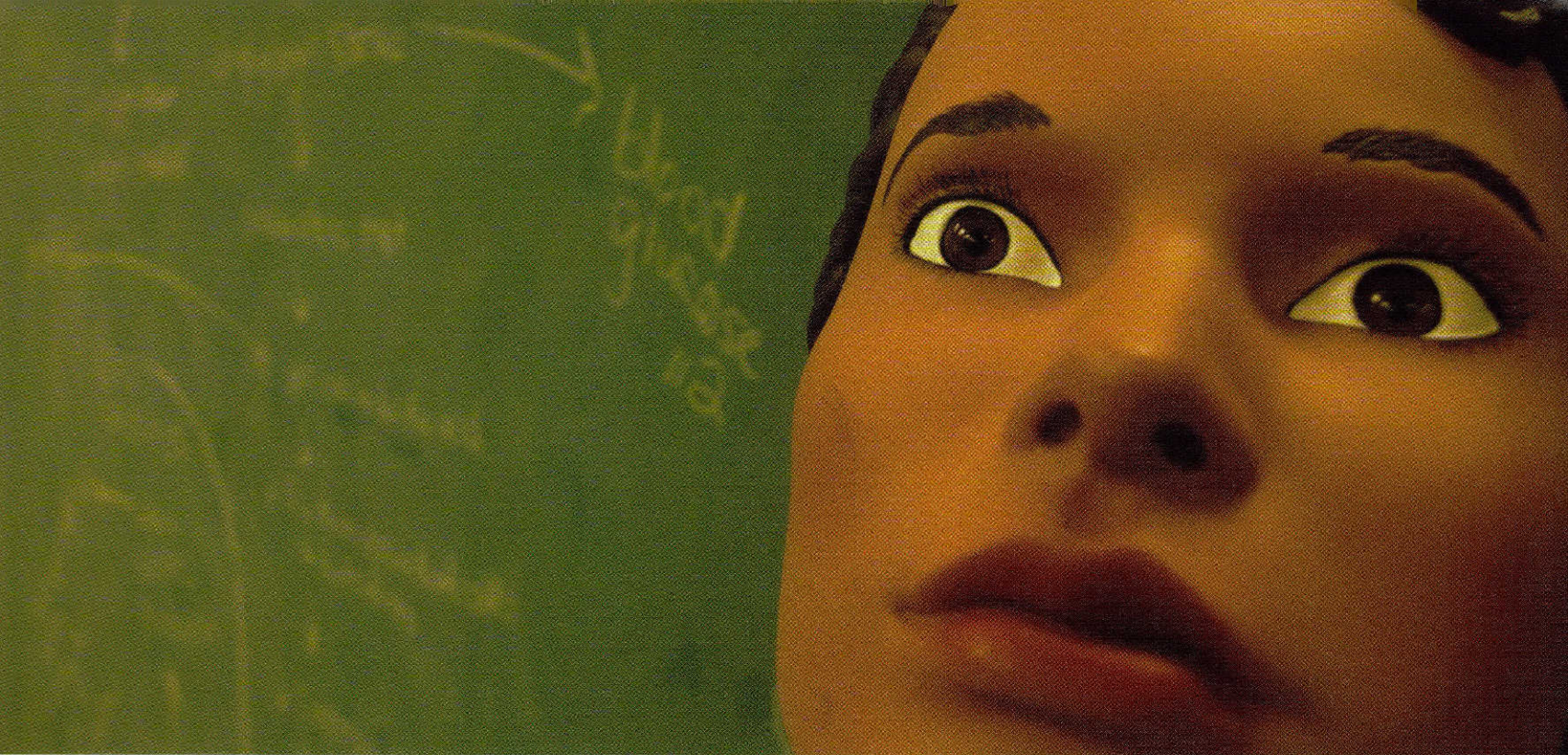




EDUCATION RESEARCH HAS SUPPORTED THE IDEA THAT THE USE OF SIMULATION IN THE LABORATORY DECREASES STUDENTS' ANXIETY, PROMOTES STUDENTS' MASTERY OF SKILLS AND ENHANCES STUDENTS' CRITICAL THINKING AND CRITICAL JUDGMENT.



“Changes in the use of simulation and the depth of this usage throughout the educational process have occurred over the past decade, and these changes have been driven by several factors.” The use of simulation centers has grown, first, because of the advent of computer technology that has provided unique realistic simulators, and secondly, because of students’ familiarity with computers and their expectations that this tool be integrated into the educational process. Third, faculty members recognize the advantages of integrating computer technology into the teaching and learning process. Education research has supported the idea that the use of simulation in the classroom or laboratory decreases students’ anxiety, promotes students’ mastery of skills and enhances students’ critical thinking and critical judgment. >



"CHANGES IN HEALTHCARE DELIVERY REQUIRE NURSES TO THINK CREATIVELY, COMMUNICATE EFFECTIVELY, UNDERSTAND TECHNOLOGY, MANAGE INFORMATION AND MAINTAIN COSTS, WHILE PROVIDING COMPETENT PATIENT CARE."

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The School of Nursing's Clinical Simulation Center is a 12,000-square-foot environment, located on the third floor of the Health Sciences Center. Two rooms in the area are subdivided into 13 hospital-type accommodations and are equipped with electronic beds, overbed tables, bedside tables and chairs. Two other rooms, which are subdivided into 13 additional cubicles, simulate a clinic-type setting. The simulated emergency and critical care areas have wall suction and oxygen outlets, realistic crash carts and defibrillators with electrocardiogram (EKG) simulators. An apartment-style setting includes a living room, dining area, bedroom, bathroom and kitchen to simulate the home-health setting that future nurses may be working in.

The Clinical Simulation Center administrators obtain financial support through several means, Decker said. State funds provide a minimal amount of support, which is used to maintain the daily operations of the center. Students who are enrolled in clinical courses pay a small usage fee, and this money supports the purchasing of supplies needed to practice and develop proficiency in clinical skills prior to performing these procedures in patient-care settings.

Center administrators find other funding through donations and grants. Decker said great support has come from several local foundations, specifically the CH Foundation. "The CH Foundation has consistently supported the mission of the Clinical Simulation Center

by providing funding that has enabled the purchase of several highly sophisticated mannequins that incorporate computer technology," she said.

"Multiple additional mannequins and simulators are available to promote student skill competency and critical thinking in an effort to provide the public with health care professionals who have mastered the skills required to provide competent, compassionate health care," Decker said.

Along with the Clinical Simulation Center is a computer area, named the Clinical Simulation Center West. The Clinical Simulation Center West provides nursing students with more than 60 software programs that supplement lecture materials provided in classes and clinical rotations. Students also have access to multiple NCLEX-RN licensure examination preparation software packages.

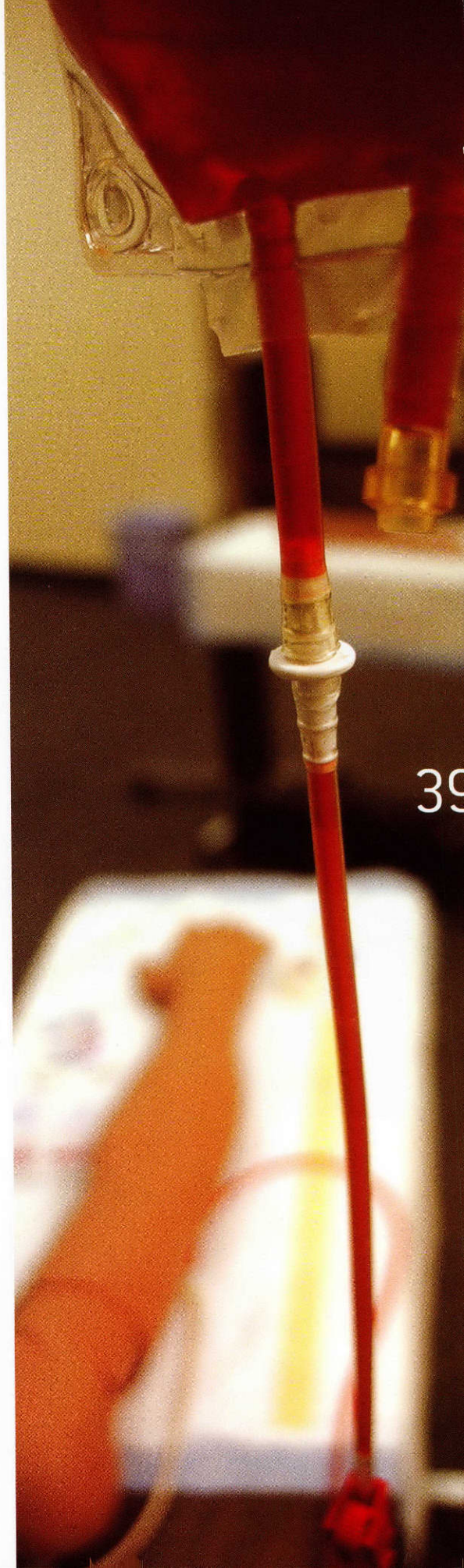
The majority of testing within the School of Nursing is provided through 20 computers in a special testing area. "The testing area allows students the opportunity to become familiar with the skill of taking tests on the computer prior to taking the licensure examination, which is computerized," Decker said. Students are able to make personalized appointments to take the examination, which proves to be extremely beneficial to students who work outside the home and who have families.

Over the past decade, health care delivery has become more demanding, while patients are experiencing more complex, unpredictable health care problems. "These changes require nurses to think creatively, communicate effectively, understand technology, manage information and maintain costs, while providing competent patient care," Decker said. "To fulfill this obligation to society, nurses must think critically while demonstrating excellence in clinical judgment."

Baccalaureate nursing programs are required by accrediting organizations to facilitate and evaluate students' critical thinking and clinical judgment. Educators are challenged to prepare nurses who demonstrate more independence in clinical decision-making, while the nurses participate as full partners in delivering health care and in shaping health policy. To meet this challenge, nurse educators need access to multiple resources, and the use of simulation in the teaching and learning process has proven to be a critical resource to educators.

The real proof that the Clinical Simulation Center is a valuable tool is the impact it has had on the nursing students, the individuals that the center is meant for. "Our Clinical Simulation Center has been and is an essential part of my education in the field of health care," said De' John Pearson, a senior nursing student. "I have put in countless hours of preparing myself for my career. Working with state-of-the-art equipment, which will prepare me for my future, is priceless."

Pearson said he is fortunate to be at a nursing school that provides the high-tech equipment of the Clinical Simulation Center, and that he appreciates the chance to familiarize himself with the >



tools and the surroundings that he soon will be working in every day as a nurse. He said his patients likely will appreciate his education and experience as well.

Cherish Brodbeck, a junior nursing student, said the Clinical Simulation Center has greatly impacted her career as a student nurse. "The education has enabled me to visualize the clinical setting in a safe and protected environment," she said. "I believe that I will be a better nurse because of the opportunities I've had to learn and experience technology as it occurs in the nursing profession."

Brodbeck said the Health Sciences Center nursing students have been blessed with greater opportunities and access to health care education by having the Clinical Simulation Center, which focuses on nursing skills, experiences and settings.

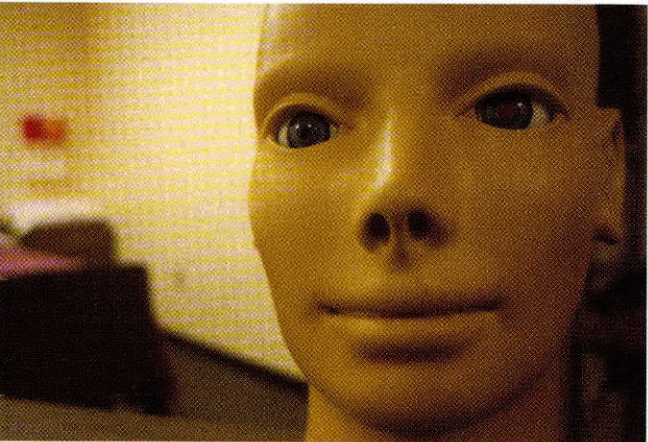
The School of Nursing faculty members also are an important part of the success of the Clinical Simulation Center. "Learning is enhanced through the use of faculty associates who staff the Clinical Simulation Center outside of scheduled class time," said Darla Scarrow, R.N., M.S.N., F.N.P., clinical instructor in the School of Nursing. "The faculty associates are very patient and supportive of the students, yet they provide honest critiques to ensure that the students are well-prepared to demonstrate skills and critical thinking, when applied to simulated scenarios, during testing."

Scarrow said another way students' educations are enhanced is through their ability to check out equipment for practice on their own. "Many students want and need the benefit of repetition of skills, either in the Clinical Simulation Center or in their homes, where they can practice, for example, taking vital signs of family members," she said.

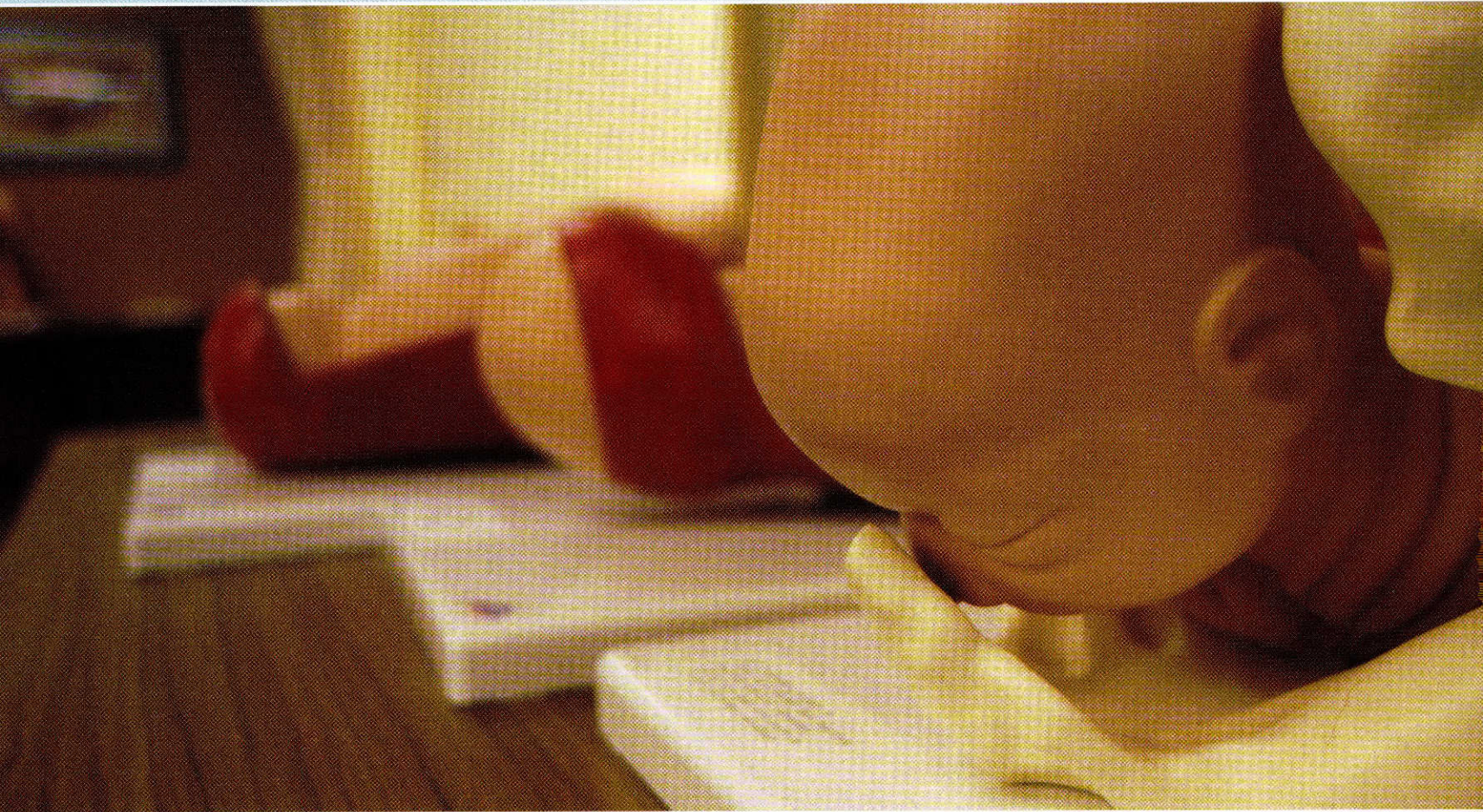
Students learn quickly to take advantage of the space, supplies, equipment and computer-enhanced teaching, both during class times and outside of class, she said. Practicing with equipment on their own provides additional reinforcement for those students who need a less stressful environment in which to study.

Bryan Richardson, a senior nursing student, said the Clinical Simulation Center has been a valuable resource in his education. "I have spent countless hours in the Clinical Simulation Center practicing my skills and polishing my techniques on nursing procedures," he said. "A wide variety of resources are available and the faculty is friendly and always available to answer questions. I believe that I would not have been as knowledgeable and well-prepared for my career as a nurse if the Clinical Simulation Center was not available to me as a student."

To practice is to learn. To practice is to teach one's self. With the Clinical Simulation Center, Texas Tech Health Sciences Center School of Nursing students learn their professional skills and medical procedures through a high-tech approach, preparing them for the bedside and for the patients they someday will care for. ←

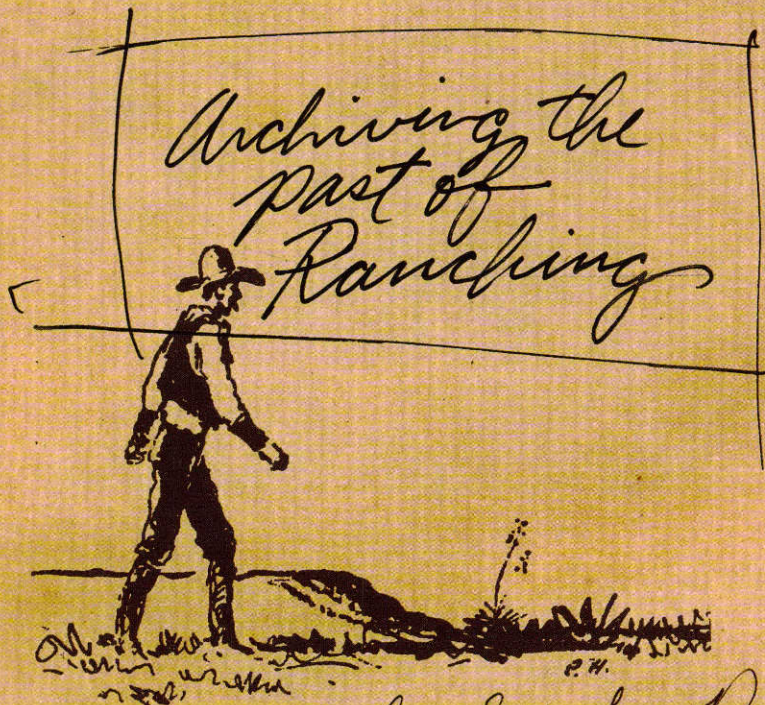


TO PRACTICE IS TO LEARN. TO PRACTICE IS TO TEACH ONE'S SELF WITH THE CLINICAL SIMULATION CENTER, TEXAS TECH HEALTH SCIENCES CENTER SCHOOL OF NURSING STUDENTS LEARN THEIR PROFESSIONAL SKILLS AND MEDICAL PROCEDURES THROUGH A HIGH-TECH APPROACH, PREPARING THEM FOR THE BEDSIDE AND FOR THE PATIENTS THEY SOMEDAY WILL CARE FOR.





Capt. McEntire bags a white tail deer at the U Ranch.
SWCPC 778, E1, 98



story by Sally Logue Post
photos provided by
Southwest Collection



NO STATE IS AS CLOSELY TIED TO THE MYTH OF THE COWBOY as is Texas. From boardrooms, to college campuses, from local honky tonks, to working ranches, the hat and boots that represent the romantic, macho figure of the cowboy are staples in our largest cities and smallest communities.

The cowboy image is personified by John Wayne's slow talking tough guy; Roy Rogers riding Trigger to save the girl; and Ben, Little Joe and Hoss living on the Ponderosa. While a grain of truth exists in all of these fictitious portrayals, the realities of cowboys and ranch life can be found in thousands of boxes housed in the Texas Tech University Southwest Collection/Special Collections Libraries Building.

The Southwest Collection is home to more than 23 million leaves of manuscript records, 8,000 oral histories, 8,000 reels of microfilm, 70,000 books, 1.5 million photographs and editions of more than 1,500 different newspapers.

The ranching heritage collections are the largest in the archive, encom-

passing more than 2.4 million pages of manuscript records, more than 500,000 photographs and dozens of reels of microfilm that detail the day-to-day lives of real cowboys and the ranches on which they lived and worked.

Johnny Davenport is one of those cowboys. In the 1950s, Davenport had the distinction of being the last cowboy hired by the famous Matador ranch, which covered parts of Motley, Cottle, Floyd and Dickens counties on the South Plains. He lived and recorded the last chapter in one of the state's great ranching empires.

The ranch was formed in 1879 when five investors put up \$10,000 each. Three years later, a group of Scottish businessmen bought the 300,000-acre ranch and 70,000 head of cattle for about \$1.25 million.



"CAN COWBOYS REALLY THINK?" PHOTOGRAPHED BY JOHNNY DAVENPORT AT RED HILLS, NOVEMBER, 1958, MATADOR, TEXAS.

By 1951, when the Scottish company sold the ranch, the property was valued at \$19 million and had won a long-standing reputation for producing quality beef cattle.

In hundreds of boxes secured inside the Southwest Collection Building are the payroll logs, cattle records, business correspondence, photographs and other records that detail the rise of the Matador Land and Cattle Company to a place of legend among Texas ranches.

Personal letters and ranch diaries give a glimpse of what life was like on a working ranch. Davenport didn't realize it at the time, but the snapshots he took of the last cattle round ups on the Matador in late 1958 and early 1959 would become an important part of the history of the ranch that ultimately would be housed in the Southwest Collection's ranch archives.

"I had been given a camera a couple years before, and since it fit in my pocket, I carried it around and just took pictures of whatever struck my fancy," said Davenport.

Years later, Davenport shuffled through those pictures and began thinking he might have something worth saving.

"We had a sense that the last roundups were something big, but we never knew how big. The boys talked about what would happen to the

wagon when the work was over. When someone told us that it was going to the Cowboy Hall of Fame in Oklahoma City, Oklahoma, we thought that was the funniest thing we ever heard. There wasn't even such a thing at the time," Davenport said.

But the wagon did end up in the Cowboy Hall of Fame, when it opened in 1965. As for Davenport's pictures and handwritten memories, they now are found in a white three-ring binder, which Davenport hopes to publish as a book. For scholars and those who are just curious, that binder is one of the many treasures in the Southwest Collection.

The Southwest Collection began in the 1930s, when Texas Tech Anthropology Professor William Curry Holden and Librarian Elizabeth West began to collect materials relating to the history of the South Plains region.

Their first donation came from then Texas Technological College Board of Regents member Clifford Jones. He secured the papers of the Espuela Land and Cattle Company, which is the British company that founded the Spur Ranch. The Spur covered parts of Dickens, Kent, Crosby and Garza counties on the South Plains. Later, Jones, who became president of Texas Tech in 1938, helped secure the Spur Ranch papers. Jones had a particular interest in the Spur and other ranches, as he had been the Spur Ranch manager

for a number of years, said Tai Kreidler, head of archives and manuscripts at the Southwest Collection and executive director of the West Texas Historical Association.

Those early ranch records became the core of what would become the Southwest Collection.

"Elizabeth West understood how unique manuscript items could expand a library's mission," said Kreidler. "When Ms. West retired, Curry Holden began to worry that these specialized collections would not be properly supported."

His solution was to work toward getting approval from the Texas Tech Board of Regents to establish a permanent home for the archive. In 1948, the board gave tentative approval. In 1952, the archive became a distinct entity, and in 1955, the Southwest Collection began operating out of the West Texas Museum.

"With those moves, the collection grew," said Kreidler. "By 1962, the collection had moved to the old Library Building, now the Mathematics and Statistics Building, where it shared space with the History and Political Science Departments. It occupied the main floor reading room and all five floors of the stacks."

With its move into its own building in 1996, the Southwest Collection/Special Collections Library was ready to move into the next millennium.

"The new building, just north of the University Library, gives us 79,000 square feet of space for the collections, for displays and for scholars to work," said Kreidler. "The collection has grown to include politics, petroleum history, immigration, urban development, commercial and business growth, water development and a substantial collection of photographs that chronicle Lubbock's growth."

The new building also signaled the beginning of the digital age for the Southwest Collection. Thousands of manuscript pages and photographs are available to scholars and interested Internet researchers around the world, said Monte Monroe, Ph.D., archivist of the Southwest Collection.

"We have had scholars from around the world use our archive," said Monroe. "One scholar from Oxford, England, accessed our manuscripts collections relating to the Gold Star mothers of World War I. Through our online catalogue, another researcher in California, who was looking for material on match-making and lonely hearts clubs, found that the Southwest Collection had some material on mail-order brides and correspondence from a Texas rancher searching for potential wives."

One of the many photograph collections that soon will be partially digitized and put online is a natural complement to the Southwest Collections' ranching manuscripts. Frank Reeves served as the livestock reporter and a photographer for the *Fort Worth Star-Telegram* for half a century.



We had as visitors to the Journal Office Saturday Mr. W. R. McIntire, and his son, Mr. G. H. McIntire, of Dallas, Texas, Mr. G. C. Legg and sister, Miss Lula May Legg, of Smyrna; and Miss Mattie Mobley and Miss Mary Woodruff, of Atlanta. They had been out driving to Kennesaw Mountain, the battle fields and points of interest in Marietta. Mr. W. R. McIntire belonged to Leyden's Artillery during the Civil War and the company met in reunion at Smyrna the past week.

At the reunion of Co. A, 9th Georgia
Battalion of Artillery, held at Smyrna,
Ga., July 28th to 28th, the following
resolutions were offered as a
memorial to Major Austin Leyden and
Lieutenant A. S. Talley:

Be it resolved: 1st. That their names
be perpetuated in the minds and the
hearts of the surviving members of
their command.

2d. That we will ever remember with
pleasure the thoughtful care and affable
manner toward their men, and our
pleasant associations in after years.

3d. That a copy of these resolutions be
sent to the families of our beloved of-
ficers, the Atlanta Journal and The
Marietta Journal.

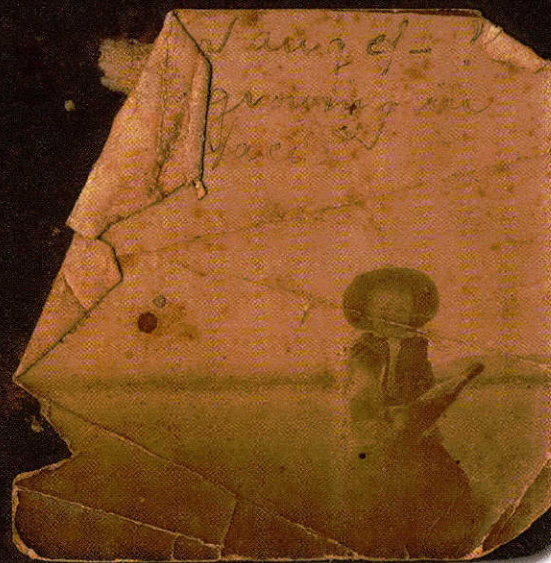
W. E. McENTIRE, Chairman.

J. B. DASH, Secretary.

—Lieut. W. R. McIntyre, of Dallas,
Tex., entertained a congenial party of
young people at dinner last Saturday at
the Kennesaw house in Marietta. The
party consisted of Miss Lula Legg, of
Smyrna; Miss Mary Woodruff and Mattie
Mobley, of Atlanta; Messrs. George Mc-
Intyre, of Dallas, Tex., and Mr. Crawford
Legg, of Smyrna.



... of the family
joying Solid, & home,
in fort.



During his career, he compiled about 66,000 negatives and prints that make up what is considered one of the finest collections of ranching photographs in the country, said Janet Neugebauer, archivist of the photographs unit of the Southwest Collection.

The Frank Reeves collection recently has been processed and made available to the public for research. Getting 66,000 photographs ready for public use is no small feat. Neugebauer took three years to organize and identify many of the photos.

"This is one of the largest collections of ranch photographs in the country," she said. "The photos cover time from 1914 through 1975 and provide significant visual documentation of the ranching industry."

Other ranch photographs from the Southwest Collection are part of two "traveling trunks" supplied by the Southwest Collection to public schools and any civic group in search of a program topic.

Two trunks are available: one on the "Ranching Frontier," the other on "Women Settlers on the Texas High Plains."

The "Ranching Frontier" trunk covers the era of the cattle trailing industry and the history of some of the major ranches in Texas, and includes maps, photographs, puzzles, clothing, recipes, worksheets and quizzes that make the history trunk meet state requirements for use in classrooms, said Steve Bogener, coordinator of exhibits and outreach at the collection.

"The Southwest Collection is not a bunch of dusty papers," said Bogener. "This is a living archive, and these trunks help bring history alive to young people and adults."

Bogener and his staff give tours of the Southwest Collection facility and regularly dig into the various collections. They have created about 100 exhibits and displays during the past five years.

Any collection, no matter how large or small, is treated basically the same, and Abel Ramirez and his staff begin the process. Ramirez is the registrar and in charge of processing for the Southwest Collection, which means he and his staff end up touching almost every piece of paper that is donated.

"I initiate a paper trail for every donation," Ramirez says. "I let the donor know that I will send them a receiving report of what was donated; a deed of gift, which is the legal document that transfers ownership of the material to the Southwest Collection; and of course, a thank you letter."

Ramirez and his staff begin processing each donation by determining the condition of the papers and by doing a preliminary inventory, which is a list of items in each container. All paperclips, staples and other metals are removed from the donated papers at this point. The papers are then placed in acid free file folders and placed in acid-free containers.

After 12 years of handling all that paper, Ramirez has gotten pretty good at sizing up the job. "My specialty is processing huge collections. I can look at a huge donation and am able to decide how best to organize it," he said.

A lot of paper comes through Ramirez's office in the corner of the Southwest Collection Building. On average, he says, one person per day comes in bringing about three and a half linear feet of material. To know just how much paper that is, imagine a regular cardboard file box like those found in most offices. Each box measures 10x12x15 inches. Each box holds a



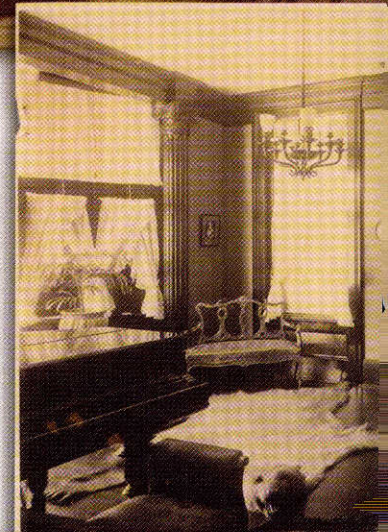
linear foot or about 2,000 sheets per container, which equals three and a half boxes, or 7,000 pieces of paper a day, coming into Ramirez's office. Some of the collections are quite large: The JA Ranch collection totaled about 200 boxes.

The JA Ranch papers are a major part of the ranch collection. The JA is the oldest ranch in the Texas Panhandle and has been in the possession of one family since the Panhandle was first settled in the mid-1870s.

Irish entrepreneur John Adair and his wife, Cornelia, founded the ranch in partnership with the legendary Charles Goodnight. John Adair's initials became the new ranch's brand.

The Adair's were from New York City. In 1874, the couple traveled to Colorado. During a buffalo hunt, they met Charles Goodnight, who was the guide for the hunt. Goodnight told them stories of the Palo Duro Canyon in Texas and how he thought cattle would thrive on a ranch in the area.

Goodnight had been a rancher and an Indian fighter. Goodnight was the scout who found the trail leading to a Comanche Indian camp where Cynthia Ann Parker, mother of Chief Quanah Parker, was recaptured by whites after initially being captured by the Comanches when she was a child. During the Civil War, Goodnight spent time chasing Native Americans and ban-



mits all over the Texas Panhandle and the Llano Estacado.

The stories around that Colorado campfire turned into a partnership between the Adair's and Goodnight in 1876, with the Adair's supplying the funds for the ranch, and Goodnight the expertise. Adair bought the first 12,000 acres for 75 cents an acre. The ranch grew to more than 1.3 million acres and more than 100,000 head of cattle.

Goodnight spent 11 years as ranch manager. He blazed a trail that became heavily used by ranchers driving their herds north to Dodge City, Kansas. He pioneered the use of artificial watering facilities for his herd and was a believer in improving stock through breeding. Goodnight also is credited with being the first rancher to build fences of barbed wire.

Those innovations and more are detailed along with the day-to-day ranch business and correspondence in the JA Ranch collection at the Southwest Collection. However, this was one collection that wasn't brought to Abel Ramirez's office.

"The JA Ranch was a major job for us," said Ramirez. "We went to the ranch headquarters, near Palo Duro Canyon, which is near Amarillo, and had to box up everything and bring it to Lubbock. The papers were stored in a vault in the ranch manager's office. We opened the door and here was all this stuff full of dust. There also were papers in the basement of the house, and they had suffered water damage."

Checking for damage and whether papers need to go to the conservation lab for preservation is also part of Ramirez's job. "If a page is torn, we can put it into a sleeve to keep it together, but some things need more work," he said.

The conservation lab is the domain of Sara Holmes, conservator for the archive. Conservation can take many forms, from using high-tech microscopes to very low-tech plastic trash cans.

The lab deals with a myriad of tricky problems. Sometimes the answer is as simple as water in a big trash can or a sink. "A trash can, or any good plastic container, with a lid that seals can be used to make a humidity chamber," Holmes said. "It's a simple process of putting a small amount of water in the can,

placing the paper on a rack above the water and sealing the lid. The paper will absorb enough water vapor so it relaxes."

Communication between Ramirez's office and the conservation lab also is vital. Conservators need to know if a possibility exists that mold could be present in the papers. Mold spores are everywhere, so keeping the temperature and humidity stable and at proper levels are important so that the mold does not have a chance to grow.

"Some mold growth, such as those on water damaged manuscripts, should be removed by a conservator who is wearing a respirator to avoid breathing in potentially hazardous mold spores," she said.

Mold is also one of the reasons that paper can appear spotted, what's commonly called "foxing" in conservation labs. If books or manuscripts are foxed, high temperatures and humidity can cause a reactivation of the mold that will increase the number and size of the spots already present.

The acid used in papers in the 19th and 20th centuries is a common concern in the lab. Sulfuric acid was used to make wood pulp paper. In addition to the chemical process introduced to make wood pulp paper, the lignin content of wood pulp is a major cause of degradation. Lignin is a substance that is part of the cell wall of plants. When present in a living plant, such as wood, lignin is resistant to degradation, said Holmes. But when present in wood pulp papers, lignin works to raise the acid levels of the paper.

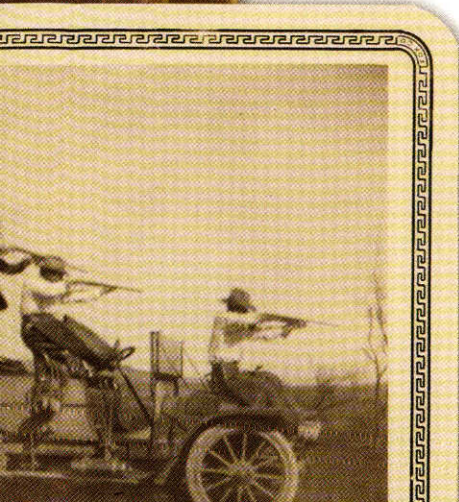
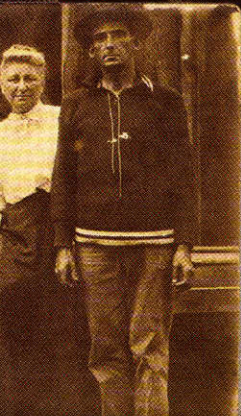
"Once it was realized that wood pulp paper degraded so quickly, methods were devised to chemically remove lignin from the pulp before paper is made," Holmes explained. "That is the reason you can buy a cheap paperback book that has lignin in the paper or a nice hardback that has a little note near the copyright that the paper is made according to a special standard. Both books have wood pulp paper, but the one without the lignin will last longer than the other."

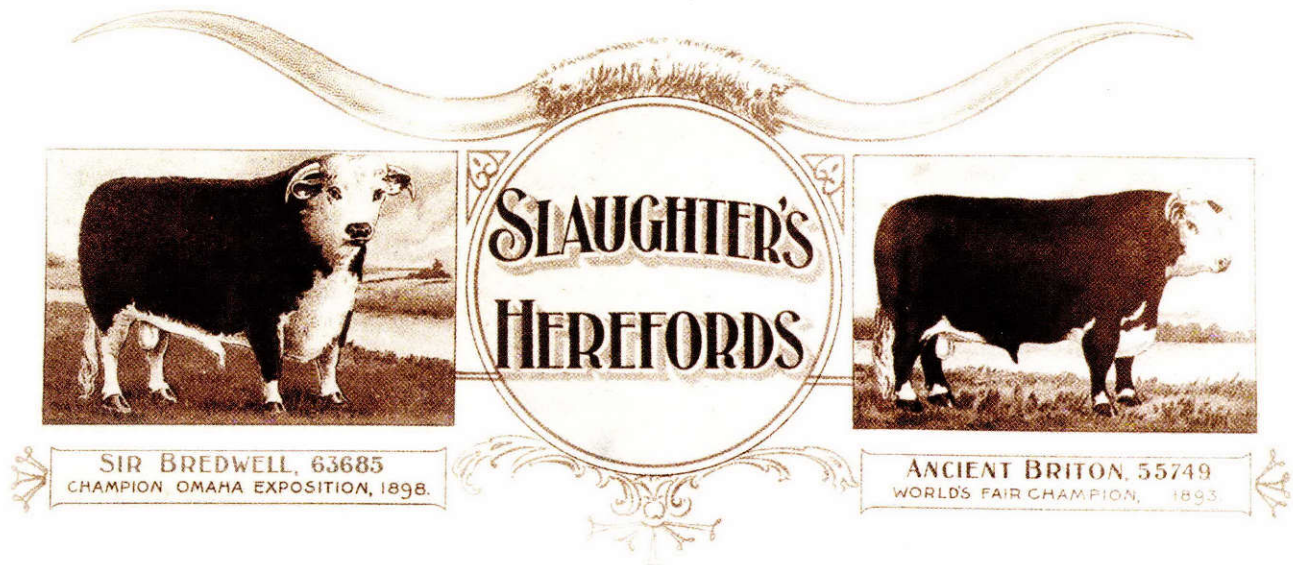
Conservation also is a detailed process that begins with evaluation and paperwork. "We begin with a thorough documentation of the condition of the paper before we do anything," Holmes said. "It's vital that we keep records of what the book or document was like when we got it, and what has been done to it. We'll even take before and after photographs. Some scholars will request reports from the conservation lab so they know what's been done to a document. They want to know the book or document's original state and know that no changes have been made."

Not every document that comes to the conservation lab gets the kid glove treatment. For some papers, simply putting them into acid free folders is enough. Holmes notes that fixing everything is not possible.

"We have to make choices and prioritize what gets treated and how. We have to know what the document is, whether it's something very rare or something that could have a high research value, and whether it's something that would be handled often. In those cases, we may spend more time on the document," she said.

Bruce Cammack, associate librarian for rare books, ran the conservation lab in the interim before Holmes was hired in March 2003. He echoes Holmes' lament that the archivists cannot spend a great deal of time on every document. But, he stresses that archivists know the importance of being aware of what is being saved.





"We should not just focus on expensive, high-profile items, like Gutenberg Bibles and Medieval manuscripts, while ignoring such seemingly commonplace collections as our ranch records. A single handwritten note might speak volumes to an attentive and careful researcher," he said.

Looking through any one of the dozens of boxes of U Ranch papers paints a picture rich in color of what living and working on a ranch was like. The U Ranch is near Big Spring in Sterling County. The letters are full of gossip, business news, and always, the weather. One 1908 letter from the manager of the Cumberland Gap Hotel in Cumberland, Tennessee, reports the price of hotel rooms, "\$2 a day, \$7 a week and \$25 per month, children half rate," a bit of local gossip, "they're building a new road..." and of course, news about the weather, "the weather is fine here now, sleep under cover every night."

Several letters date from the early 1930s from a pilot, Paul Vance, who dropped the daily newspaper out of a low-flying airplane. The letters, dropped with the paper, are full of chatty news about family and friends. One letter apologizes for not dropping the paper one day, and promises to "drop two today to make up for it." The letters also reveal humor: "Mister McEntire, you have no idea what a pleasure and comfort it is for us U.S. Air Mail Pilots to fly over your ranch. Every thing is so peaceful and serene like. Why, so long as I have been flying I have not seen one discontented cow."

Numerous poems and letters were written among family members. The letters, now on browning, brittle paper, focus on the weather, when father and son would get to see each other, and one brags about a child's first tooth.

"I knew I had to do something with all these papers. They were stored in the basement, and I was afraid they wouldn't last through another generation," said Ruth Caldwell, owner of the ranch and great granddaughter of the founder, William Randolph McEntire. "My grandfather wrote a lot of poetry. He was a brilliant, philosophical, romantic

man. His writing was from the heart. When you put his poetry and letters in chronological order, you can see what was on his mind."

Those old papers with their news of the weather and family also fascinated her husband, Lee Caldwell. "Lee used to pull out those boxes and try to sort through them, but he'd get so interested, we just couldn't make any headway," she said.

For Caldwell, who also grew up on a ranch, his appreciation of the U Ranch has grown over the years. "When Ruth and I were married 35 years ago, we didn't spend too much time on the ranch," he said. "In the last 10 to 15 years, I've come to appreciate the ranch and feel I'm really a part of it. I'm proud to be part of this history and glad we could preserve it."

The U Ranch was divided in 1965, with half in the hands of Mrs. Caldwell's aunt. A few years ago, the Caldwell's had the opportunity to buy back that half. And it appears the U will stay in the family a while. The Caldwell's son lives on the ranch and operates it now. "I wouldn't want to be without this ranch in our lives," says Caldwell. "We truly are blessed."

For Mrs. Caldwell, donating the papers to the Southwest Collection is a relief. "I love this ranch. It's been in our family for more than a hundred years," she said. "A lot of people don't think what they have is important. But they need to have someone look at their material and evaluate it. It's not just old paper, it is history. It's a weight off my shoulders knowing everything is preserved for our children and grandchildren or for someone who just might be interested in the history of ranches."

No shortage exists of those interested in the Lone Star State's ranches. From those trying to do genealogical research on their families, to scholars writing books, to students doing research, the Southwest Collection gets hundreds of inquires a month about its ranching and other collections.

For Texas Tech History Professor Paul Carlson, Ph.D., the Southwest

Collection is a treasure trove of history for scholars doing research on the American West and many other subjects. "I've produced half a dozen books from material in the Southwest Collection," he said. "It's vital that someone has collected these materials for the future, or it would be lost to us."

Don Walker, Ph.D., an associate professor in the Texas Tech Department of History, agrees with Carlson that the Southwest Collection is critical. Both Carlson and Walker teach classes on the American frontier and ranching history. "If you look at what is in those collections one at a time, you see a business record or what was bought on a particular day," said Walker. "But if you put all those things together over a stretch of time, you get a snap shot of the relative health of the ranching industry. Then, if you combine those business records with the personal letters and diaries, you get a very good picture of the social and cultural aspects of what the life of a cowboy and life on the ranch were really like."

The myth of the American West and the cowboy is strong, and the millions of pages of manuscripts and thousands of photographs in the Southwest Collection allow the real image of those hardworking men and women to come to life.

"The cowboy is the symbol of independence, of freedom and of manhood," says Carlson. "Look at all the people who dress up in boots and hats to look like a cowboy. So many modern impressions are more myth than real. What's in the Southwest Collection is reality."

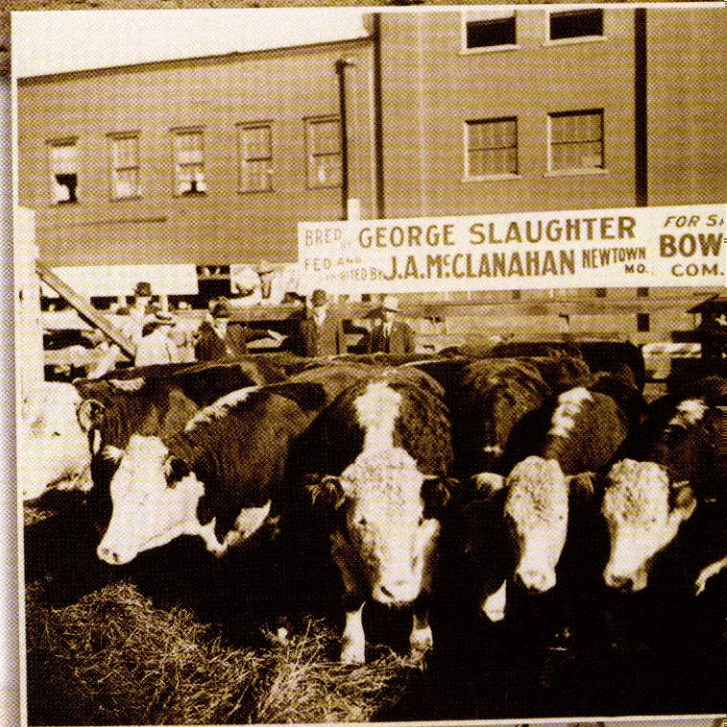
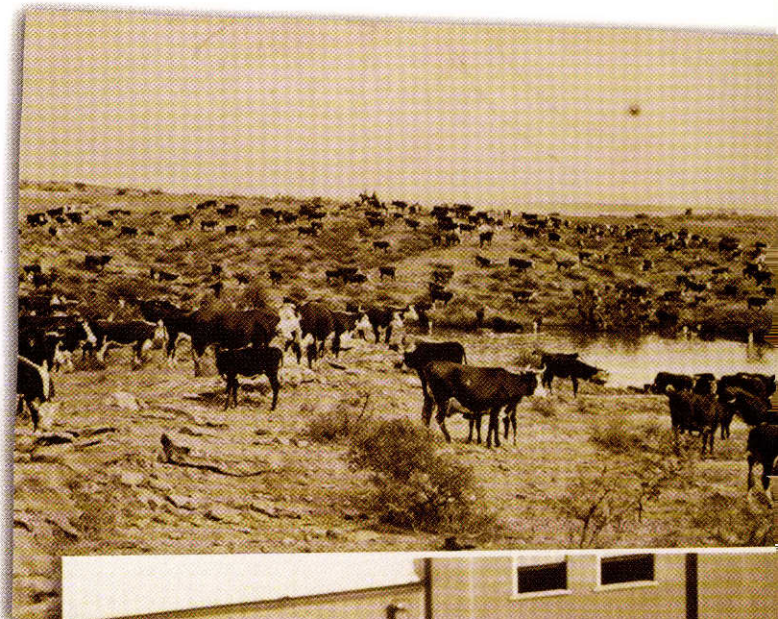
Walker's method of dealing with the misconceptions his students have about cowboys and the Old West is to have them do research in the collection and produce a five-minute presentation for class that is then given to the Southwest Collection.

"I ask that they cover something that's not well-known. I also give them the option of interviewing a family member or friend who might have worked on a ranch," he said. "What I'm trying to do is make the point that everything is important in history. Every cowhand has a story to tell that adds to our history."

Every cowhand, like Johnny Davenport on the Matador Ranch, has a tale. The misconceptions that Walker and Carlson see are, in part, what has motivated Davenport to turn his pictures and memories into a book.

"People see Westerns, and the ridiculous things they show, and think that's the way it was," says Davenport. "Usually those things are as far from the truth as can be. It's important that the ranch way of life be recorded somewhere by someone. I didn't think about me being the one to do some of that."

But Davenport's photographs and handwritten descriptions of the final days of the Matador are an eloquent look at a cowboy's life. A lifestyle lovingly recounted by those who lived it is carefully preserved in thousands of boxes and books on the Texas Tech campus. The documents are preserved, so that the reality of ranch life will exist when those who are interested look beyond the Hollywood image of the American West. ◀



The Treasure Trove

WRITTEN BY SALLY LOGUE POST ❖ PHOTOGRAPH BY JOEY HERNANDEZ



FOR CURIOUS SOULS WHO WANT TO know who played fallback for the Southern Methodist University Mustangs in 1965, to research the connection between science and literature, or to read through the papers of some of Texas' most powerful politicians, he or she can find all that information and much more in the Southwest Collection/Special Collections Library Building at Texas Tech University.

The archive began in the 1930s with papers from the major ranches in West Texas. Today the collection contains more than 23 million leaves of manuscript records, 8,000 reels of microfilm, 70,000 books, 1.5 million photographs and negatives, and editions of more than 1,500 different newspapers and about 8,000 oral histories. The oral history collection is one of the oldest in the United States.

"From ranching to sports, from water and the economy, to advertising and politics, the Southwest Collection/Special Collections has become a premiere archive for the history of this region," said Monte Monroe, Ph.D., archivist at the Southwest Collection.

The Southwest Collection's traditional collection territory ranges from the Oklahoma Panhandle to the North, to the Brazos River on the East, to the Eastern slope of the Rocky Mountains on the West, and to the Rio Grande River in the South. In recent years, however, collections have been acquired from throughout the United States.

While the great ranches of the High Plains and Texas are the heart of the Southwest Collection, the archives are also an unknown treasure for sports fans. Texas Tech's athletic history is stored here. The records of the now defunct Southwest Athletic Conference, as well as the papers of John Mechum, founder and first franchisee of the New Orleans Saints, are housed at Texas Tech. The archive also is home to the broadcasting collection of Dallas-based radio and drive-in movie pioneer Gordon McLendon.

The archive additionally has a large collection of railroad history, including one archive that features architectural drawings of more than 300 depots and other buildings of the Atchison, Topeka and Santa Fe Railway. Oil played a big role in the area's development and is represented in part by the records of the Texas and Pacific Coal and Oil Company, which document the mining and oil production of the late 1800s and early 1900s near the company-owned town of Thurber, in West Texas. Water is also important to the region, and the archive holds a broad range of material that details the history of water use

and conservation in this region. The archive details the political influence of the South Plains and houses the papers of former Gov. Preston Smith, former Congressmen George Mahon and Kent Hance. Papers from a variety of state officials include those from former Attorney General Waggoner Carr, and State Senators William Bledsoe and John Montford and many others.

A recent emphasis of the Southwest Collection/Special Collections Libraries has been on the collecting of natural history materials. The James Sowell Family Collection in Literature, Community and the Natural World, is a unique archive of materials that supports the natural history initiative at the university. The rare book collection includes leaves from the Gutenberg Bible and the Magna Carta. In the collection also are letters written by Thomas Jefferson and Queen Isabella of Spain and works by great British and American authors, such as Joseph Conrad, Walt Whitman and James Dickey. The Southwest Collection is also home to the Vietnam Archive, which is the largest collection of material on the Vietnam War outside the U.S. government. The building features the Coronelli Globe, a geographical and artistic masterpiece created in 1688 by Franciscan priest, Vincenzo Coronelli and is one of only three in the United States.

The staff at the Special Collections Library recently has started to digitize, and make available online, a number of unique collections, such as the Winston Reeves Photography Collection, which features thousands of ranching photographs. Also online are the Howard Hampton papers, a frequently requested genealogical collection with original documents dating back to 17th Century Virginia, and the Austin Criswall and Elizah P. Lovejoy papers, relating to 19th century abolitionism and Civil War African-American troops. Also online are the Mooar Family papers, relating to buffalo hunters, Comanche Indian raids and early ranching on the South Plains of Texas.

H.B. Paksoy, Ph.D., associate archivist, has digitized all of the materials from the original Archive of the Turkish Oral Narrative, a unique collection devoted to literature, anthropology, music and historical material concerning Turkey.

From sports to politics, from ranching to oil, from entertainment to natural history, the Southwest Collection/Special Collections Library Building is packed full of treasures for serious scholars, genealogists and those who are just curious. ◀

IM POW ER SH ED

CARING
FOR THE

story by Angela Loston / photos by Artie Limmer







Helping abused children and their families cope with the sexual or physical victimization they have experienced, aiding diabetic patients in managing their disease, and teaching internal medicine patients ways of alleviating stress caused by their medical conditions all are part of the field education of psychology students as they prepare for their careers as healthcare providers.

Escalating medical costs and limited healthcare access are closing the doors to individuals who do not have the financial means to seek proper medical care. At Texas Tech University, doctoral students in the Department of Psychology are meeting the needs of underrepresented groups in Lubbock by offering free behavioral and mental health services in the community. The students' work is a part of a federally funded research project in the Department of Psychology, granted to Gary Fireman, Ph.D., associ-

ate professor and director of the Psychology Clinic in the Department of Psychology. The project is providing training for doctoral students and free health services to traditionally underserved populations.

Since the start of the Fall 2003 semester, graduate students have gone directly into the community providing services, ranging from counseling patients about mental health issues to providing parental training. Volunteering at various locations throughout Lubbock, the students have worked at agencies, such as the Children's Advocacy Center of the South Plains, the Texas Tech Health Sciences Center and Sunrise Canyon Psychiatric Hospital.

"This is a wonderful collaborative outreach program for Texas Tech and the community," Fireman said.

As a part of the research project, Fireman assessed the effectiveness of the treatments provided by doctoral students as well as the students' atti-



CHILDREN'S ADVOCACY CENTER: DAKESA SCHOOLER, CONNIE HINDMAN, ELIZABETH IBANEZ
PREVIOUS PAGE: GARY FIREMAN, PH. D.

tudes toward working with underserved populations. This population includes individuals from lower socioeconomic backgrounds, minority groups, rural residents, immigrant populations and migrant workers.

"The real value of this work is three-fold for Texas Tech," Fireman said. "The purposes of this research project are building relationships and partnerships in the Lubbock community, providing services to underserved populations and doing research on training."

Fireman, who received a \$124,000 grant for the project, said 19 clinical and counseling psychology students are involved with the one-year project. To prepare them in becoming volunteer healthcare providers, Fireman said the students received training both in the field and in the classroom. Fireman said the students gained valuable skills in working with underserved populations.

"From their experiences, the students became more knowledgeable about

working with underserved populations in addition to improving their clinical skills in health and child psychology," he said.

Kimberly Crosby, a doctoral student in clinical psychology with a specialization in child psychology from Deming, N.M., said the training she received was beneficial for her to counsel child abuse victims at the Children's Advocacy Center. Crosby said she received training through group supervision meetings and meetings with her on-site supervisor. Each week, Crosby and other students met with Fireman to gain training that aided them in their work at the center. At these meetings, Fireman offered Crosby and the students feedback on their cases and gave them articles to read on behavioral psychology.

Along with meeting with Fireman, Crosby said she met with Dakesa Schooler, her supervisor at the Children's Advocacy Center, for weekly individual supervision, in which Crosby would discuss her clients' cases with

Schooler. Crosby said Schooler would advise her on what type of therapy would be appropriate for the children she counseled. While counseling the children's parents, Crosby monitored their progress through assessment forms they had completed. From these forms, she was able to determine which type of treatment she should provide them.

"The main focus is for the children to feel safe and secure so that they are willing to talk to me," Crosby said. "I feel they open up more and more as each session comes along, and that is an indication to me that they are feeling more comfortable with each session."

As Crosby's supervisor, Schooler, who is the director of clinical services at the Children's Advocacy Center, said her job was to support Crosby through every case she was assigned. Schooler said Crosby and other doctoral students volunteering at the center played a vital role in providing one-on-one therapy for children who have experienced physical or sexual abuse. As volunteers at the center, the psychology students also prepared children and their family members for trial through mock courtroom sessions.

"With the supervision meetings, I hope that I am able to guide them through every case that the students work on at the Children's Advocacy Center," Schooler said.

Lauren Hoffman, a doctoral student in clinical psychology from Albany, N.Y., said treating individuals from underserved populations differed from counseling patients at the Texas Tech Psychology Clinic. Unlike those

facilitate the healing process for both the victims and their parents. With the support groups, Ibanez said the center wanted to empower children and give them safety skills. Under the direction of Joaquin Borrego Jr., Ph.D., assistant professor in the Department of Psychology, Ibanez said she and Hoffman had developed treatments for the children.

"We try to create a comfortable environment that does not focus on retelling their stories," Ibanez said. "Support groups are set up to teach and empower them. Each child has different feelings. The groups will help the children to cope and overcome the abuse."

With the students' help, Connie Hindman, the executive director of the Children's Advocacy Center, said abuse victims and their families can begin to reconstruct their lives. Hindman said the support groups that the students have formed help parents to regain a sense of hope and to have an outlet to voice their concerns.

"Child abuse is a growing concern in this country," Hindman said. "Advocacy centers provide a way that the community can be involved in the fight against child abuse."

Along with working with abused children, Ibanez also conducted parental training classes at Harwell Elementary School. Once a week, she conducted the one-hour classes in both English and Spanish for parents within the community. The classes, which she taught alongside Borrego, were part of English as a Second Language program for adults.

"The most important aspect of working at these different agencies is to provide services that would have not been available to this underserved population."

clients, Hoffman said most of the families she treated at various health centers in Lubbock could not afford costly medical or therapy expenses. Oftentimes, she said the patients' medical problems stemmed from stress caused by financial obstacles and unhealthy diets. While working with underserved populations, Hoffman said she had to consider the patients' cultural backgrounds and life experiences.

"The most important aspect of working at these different agencies is to provide services that otherwise would not have been available to this underserved population," Hoffman said.

From October to December 2002, Hoffman said she advised patients on how to live healthy lives with diabetes while she worked at the Wellness Center. During the Spring 2003 semester, Hoffman began to help families of abuse victims cope while working at the Children's Advocacy Center.

Along with six other graduate students, Elizabeth Ibanez, a doctoral student in clinical psychology from Jacksonville, Fla., assisted in organizing support groups for sexually abused children and their family members at the Children's Advocacy Center. Ibanez said the support groups help to

"This project presented a great opportunity for us to work outside of a university setting," Ibanez said.

For the project, Eric Prensky, a doctoral student in clinical psychology from Hartford, Conn., worked for the Internal Medicine Clinic at the Texas Tech University Health Sciences Center, the Diabetes Education Center and the Wellness Center. While working at the Internal Medicine Clinic, Prensky said he shadowed doctors who were residents as they met with their patients. He also assessed patients' anxieties related to their medical problems. Through his evaluations, Prensky said he wanted to ensure that patients were receiving appropriate medical services to combat their symptoms.

"The Lubbock community benefits from our work in the sense that they are receiving services at no cost from graduate-level students," Prensky said. "They are being pointed in the direction of getting the appropriate care if needed."

As a volunteer at the Diabetes Education Center, Prensky organized a diabetes education group. For the group, he trained group members and talked with them about the impact of stress on diabetes and how to deal



ERIK PRENSKY, DOCTORAL STUDENT; PATTY VICKERS, DIRECTOR OF THE DIABETES EDUCATION CENTER

with stress effectively. Prensky said he also addressed the importance of exercise and abstinence from smoking and alcohol, to lessen the negative effects of diabetes. To help patients cope with diabetes, he conducted a monthly diabetes support group.

“The education that I provide enlightens a lot of people to the psychological aspects of their medical problems,” he said.

Patty Vickers, director of the Diabetes Education Center, said Prensky’s work aided the team of nurses, dietitians and physicians in their efforts in helping diabetic patients lead longer and healthier lives. Vickers said the support groups that Prensky led have helped patients to cope with having diabetes and have given them reassurance that someone has a genuine interest in their well-being.

“We have benefited greatly from the services that Eric has provided,” Vickers said. “We have enjoyed his participation, and we enjoy what he has brought to our clients. We value it.”

In May 2003, Fireman traveled to Washington, D.C., to discuss the ongoing research project, Clinical Training with Underserved Populations, with U.S. Senators Kay Bailey Hutchison and John Cornyn. While meeting with the two Texas senators, Fireman said he discussed how the project has been beneficial to Texas Tech, Lubbock and the State of Texas.

Helping people who need help is reward enough, the psychology students agree, but the field training through the research project is teaching the students to deal with various situations and individuals with a surplus of health and social problems in hard economic times. ←



Closing the Gaps

by William M. Marcy, Ph.D.



Texas is fortunate to have a statewide system of colleges and universities that are prepared to provide current and future generations of Texans an education unmatched in the world.

Yet, we are in a perplexing situation as the state and its citizens enter the 21st century. Despite the excellent institutions of higher education in the state, a significant number of young people in Texas choose not to go to college. Currently 76 percent of Texas adults do not hold a college degree. As the segment of the population that traditionally has been underserved by higher education grows, the percentage of college graduates will decline steadily unless substantially more underserved and minority populations choose to attend college. The unique public policy problem we face in Texas is not one of quality or availability of higher education; the problem is access to higher education. Large segments of our population do not or cannot avail themselves of opportunities to enter college.

In October 2000, the Texas Higher Education Coordinating Board released a major public policy initiative, dubbed "Closing the Gaps," that requires all Texas public universities to design and implement strategies to increase higher education enrollments by 500,000 students by 2015.

The release of the Closing the Gaps challenge coincides well with the new strategic plan for growth at Texas Tech University. Our plan is based upon the core belief that we must strive to attract a larger and more diverse population of students and provide them with quality programs that meet both their needs and the challenges facing the state. This core belief has led us to adopt a strategic plan that commits Texas Tech University to reach out to communities throughout Texas and establish not only programs in those communities but also links between those communities and our main campus in Lubbock.

Over the last few years, Texas Tech has opened academic recruitment centers in Dallas, Austin, Houston, San Antonio and El Paso. These centers offer thousands of Texas high school students their first glimpse of Texas Tech. As a result of these centers, our student population has grown from 24,000 in 1993 to an anticipated 29,000 in the Fall term 2004.

At the same time that we have enjoyed success in recruitment from urban centers of the state, we also are aware of large regions of the state

without sufficient higher education opportunities. One such area is the Texas Hill Country, one of the fastest growing rural areas in the United States. Because of the region's need for higher education opportunities, in addition to the Junction campus, Texas Tech has opened two new off-campus educational sites in the area. The communities of Fredericksburg and Marble Falls/Highland Lakes have welcomed Texas Tech and offered significant and crucial financial support to these efforts. The Texas Tech University Center at Junction has for 30 years offered a summer curriculum, accommodating both undergraduate and graduate students. Our Red Raider Camp for entering freshmen at Junction has provided them with a strong bond to Texas Tech even before starting class.

Trends in the state indicate that more than half of those entering college in the future will do so via community colleges. For those students who complete a community college education, Texas Tech seeks to offer a seamless transition to the final stages of higher education on our campuses. For that reason, we have formed strong partnerships with community colleges throughout the State of Texas and in Eastern New Mexico.

We now offer more than \$250,000 in scholarship money for our Transfer Scholarship program. These scholarships go to deserving and academically qualified community college graduates who wish to earn a degree at Texas Tech. We plan to increase funds for transfer scholarships each year.

Our expanded opportunities across the state are not limited to the Texas Hill Country. We recently have opened off-campus sites in both Amarillo and Abilene, with an initial emphasis on graduate engineering programs. As a result, professional engineers in these communities can remain at home and on the job while working toward an advanced degree.

Such expansion and partnerships across the state are keys to strategic growth for our university. While the university has a responsibility to the state's budgetary constraints, Texas Tech is attempting to meet the educational needs of the state's citizens. Part of our responsibility, as we work toward closing the gaps in higher education, is to ensure that all Texans who desire to work for a degree have access to the opportunity to earn one. ◀

WILLIAM M. MARCY, PH.D., IS THE PROVOST OF TEXAS TECH UNIVERSITY.

Vistas CAMPUS SCENES

When Marie Hall envisioned the F. Marie Hall Synergistic Center at the Texas Tech University Health Sciences Center, she wanted a place where students could gain respect for each health care field. At the new center, students from all schools interact with one another as well as study and relax. The center is equipped with a workout room, a big screen television, and a game room that includes pool tables, foosball and table tennis. Chancellor David Smith has said of Hall, "She is a leader in West Texas and has demonstrated the vision and compassion needed to inspire future healers. She has changed the landscape of this university and its programs in countless ways."



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