“In opportunity for geological study no mining school in the United States is more favorably located,” boasted the first publication inviting students to enter the State School of Mines and Metallurgy in El Paso, Texas, in 1914.

Besides offering a natural laboratory for geological research, the city was the home of the “second largest smelter in the world... fully supplied with equipment for the most modern methods of treating such ores of copper, lead, gold, and silver as are suitable for smelting. It will in reality be the main metallurgical laboratory for the students...”

The mining school had been desired by El Pasoans for many years before the Texas Legislature voted to make it a reality in 1913. The city was a popular convention site for mining organizations, being at a crossroads for travelers from Mexico and the mining centers of the western states. The idea that a mining school was needed in El Paso was brought up repeatedly at conventions. In 1902 the El Paso Herald had an editorial on the subject.

At the 1903 International Miners’ Association meeting, a resolution was introduced in support of “the proposed school of mines of Texas for El Paso.” State Representative W. W. Bridgers introduced a bill for that purpose. He favored having the community provide the site at no cost to the state and conducted a publicity campaign, but his effort failed. Among the reasons for the failure were El Paso’s remoteness from the rest of the state—a condition that has continued to haunt the city to this day—and the presence already of mining engineering instruction at the university in Austin.

Meanwhile, in 1907, citizens rose to another educational challenge when the El Paso Military Institute was chartered. It opened its doors on September 3, 1908, on an eighteen-acre site just east of Fort Bliss (now part of the main post). The land had been donated by August Meisel and the three buildings—a main building with classrooms and offices, a dormitory, and an assaying laboratory—were designed by the prominent Trost & Trost.
architectural firm. The contractor was Otto Kroeger. Another four acres were donated by Charles R. Morehead, Capt. T. J. Beall, and the heirs of the estate of Capt. Charles Davis.

The military school was attractive to prominent families from a wide geographic area, and especially to those professionals such as mining engineers working in Mexico who wanted their sons educated in the United States. It opened with thirty-eight students. Those who did not live in the dormitory could ride the Fort Bliss streetcar from town and walk across the post to the campus.

During the institute's second year, Henderson E. "Harry" VanSurdam came to oversee the athletics program. He was soon named superintendent of the school, and still coached a championship basketball team in 1911 and a football team that defeated the University of New Mexico. Enrollment was about eighty.

As the revolution in Mexico developed during that period, many of the students' families were forced to flee that country, sometimes with only the clothes on their backs. Now unemployed, they could no longer afford to keep their sons in the school and enrollment declined drastically. By January of 1913, the school was placed in the hands of a receiver.

VanSurdam, aware of the interest in a state mining school, proposed to his board of directors that the institute property be offered for that use. In February he urged the Chamber of Commerce to buy his school and give it to the state for the mining school.

The time seemed ripe in Austin for the suggestion. Senate Bill 183 was introduced in the Thirty-third Legislature by State Senator Claude B. Hudspeth and Representatives Richard Burges and Eugene Harris. It was adopted unanimously by the Senate and on March 26, 1913, was passed by the House. Governor O. B. Colquitt signed the act into law on April 16, 1913. The Military Institute graduated its last class in May.

In the same vein as Bridgers' earlier act, the legislation mandated that the citizens of El Paso would provide the site—in this instance, the buildings of the El Paso Military Institute and its twenty-two acres. The cost was fifty thousand dollars, a hefty sum for a town of forty thousand to raise. The Chamber of Commerce for some time had had a School of Mines Committee. That group decided that, rather than commit the organization to such a debt, it would persuade local businessmen to guarantee the funds. As the weeks passed, some urgency was felt.

The legislature had placed the school under the authority of the University of Texas Board of Regents. Within ninety days after the act went into effect, that body was to appoint the faculty for the school. When the regents met on June 9, 1913, they passed a resolution asking for notification as soon as the people of El Paso were ready to deliver title to the land and buildings. They had to wait a little longer while El Pasoans continued diligently seeking the necessary financial support.

Not quite a year after the bill had become law, on April 13, 1914, Robert Krakauer, president of the Chamber, announced that the monetary goal had been reached. More than fifty men and firms had pledged the fifty thousand dollars.

On April 28, 1914, the Board of Regents formally accepted from the City of El Paso the site and buildings for the School of Mines that would be established as a department of the university. The legislature had appropriated fifteen thousand dollars for operating the school, on the condition that the site would be given to the state.

Stephen Howard Worrell, chief of the Testing Laboratory, Bureau of Economic Geology and Technology in Austin, a veteran in the mining engineering profession, was named dean of the new school. A 1901 graduate of The University of Texas, he had taught at the Colorado School of Mines and had worked at mines in Idaho and several locations in Mexico.

The treasurer's report to the regents indicated sufficient funds were on hand to operate the school until March 15, 1915, and should the need arise, they could appeal to the legislature for more funding.

The warranty deed to the property was effected April 30 and the first payment for the property was made to J. J. Mundy, representing the institute, on May 21.

The school's first budget was adopted by the regents on May 30, 1914. Under salaries, it provided Worrell $2,500 per year as dean and professor of mining and metallurgy, $2,000 for a professor of engineering, $1,500 for a professor of geology and coal mining, $250 for a bookkeeper, and $540 for a janitor. Supplies and equipment were also covered under this budget.

The Chamber of Commerce had already directed that work be started on remodeling the buildings. When Dean Worrell arrived in the summer of 1914, he set to work attracting students, preparing a booklet, making speeches to organizations, and granting press interviews extolling the school: "The money value of the equipment per student is generally larger in the smaller college." Mining engineering, he advised, was a field of study that provided employment offers to graduates.
Dean Worrell worked with the regents to find faculty for his school. The professors were Arthur K. Adams, a Harvard graduate, geology and coal mining; John W. Kidd, engineering; and F. H. Seamon, chemistry and assaying. Tom J. Dwyer, whose degree was from Texas A & M, was an instructor in engineering and R. R. Barberena, an advanced student, was a tutor in Spanish. A former student of the Rolla School of Mines, Vere Leasure, was student assistant in chemistry. Several lecturers, among them El Paso attorney L. H. Davis, were listed in the catalog under their specialties; his was mining law.

Like Worrell, the faculty members brought to their students extensive professional experience as well as the necessary background in education and teaching. H. D. Pallister, who succeeded Adams in 1915, had taught at the Pennsylvania State School of Mines and worked at coal mines in the United States and Canada.

The school’s first publication listed the courses required to graduate as an E. M.:

First year—mathematics, drawing, chemistry, fuels and furnaces, surveying, mineralogy, crystallography, and blowpipe analysis, physics.

Second year—geology, metallurgical chemistry and assaying, metal mining, thermodynamics, hydraulics, and air compression, mechanics laboratory, applied mechanics and strength of materials, Spanish.

Third year—coal mining, ore dressing, milling and concentrating, economics of mining, metallurgy of smelting processes, metallurgy of leaching processes, ore deposits and economic geology, mine management, plus summer courses in surveying, shop work, mining, and field geology. The summer work involved eight hours per day for six weeks.

The one-time registration fee was thirty dollars, with laboratory fees of a dollar and a half to twenty-five dollars per course. The dormitory rooms were six or eight dollars per month, depending on size, and board was eighteen dollars per month.

In September 1914, the front pages of the newspapers were filled with news of the Mexican Revolution and the war in Europe. President Woodrow Wilson was recalling the U.S. Marines from Veracruz, Mexico. Ty Cobb was leading batting averages in baseball.

The opening of the School of Mines was not even mentioned in the September 28 El Paso Herald account of a meeting of the Board of Regents. The board was concerned because enrollment at the university in Austin was down by 29 to 1,929, due to a slump in the cotton market; students from El Paso had decreased from 30 the previous year to 21.


Although war news kept the school off the front pages, by late October it did earn a headline on the sports page. The October 26 Herald proclaimed: “Miners Defeat Y.M.C.A. in Hard Game.” Dwyer was coach of the eleven-man team whose captain was O. P. Walker. The Herald account was probably the first to call a Mines team “Ore Diggers”—a term that continued to be popular for many years. “Hats off to the Texas School of Mines,” the
Students walked from the Fort Bliss street-car stop, through the post to its eastern edge, to reach the School of Mines in 1914-1916. The twenty-five-room dormitory, left, and the thirty-four-room Main Building, right, had been built by the El Paso Military Institute. When that school closed, they were acquired by the community and donated to the State of Texas for the new mining school. In the distance are the Franklin Mountains; Sugar Loaf Mountain is nearest the Main Building.

The Main Building at the original campus was a two-story brick structure with finished basement. The assembly hall seated 300. There were also offices for faculty, classrooms, chemical and geology laboratories, and rooms for drawing, surveying instruments, blueprints, and the mineralogical collection. The building had a total of thirty-four rooms.
reporter wrote, "as game a bunch of fighters as ever played football in El Paso." The game was played at
Washington Park, and the victorious score was 7-6. "The
'Ore Diggers' were outweighed many pounds to the man
and for the most part were outplayed individually, and
yet their 'never give up' spirit won for them in the
last quarter."

Since the course of study took three years, there was
no graduating class in 1915. The student publication, the
Prospector, observed on a joke page: "Who said the School
of Mines did not have a graduating class this year? For
any information on the subject, see Capt. Kidd."

Leasure, however, had attended the mining school at
Rolla, Missouri, and Lloyd Nelson the one at Socorro, New
Mexico, before entering the new Texas school. Clyde Ney,
the Louisianan, was also eligible to graduate in 1916. The
ceremony was held the evening of May 30 in the assembly
court of the college.

The discomfort of the honored students can only be
imagined as they sat through the musical portions of the
program: "Somewhere a Voice Is Calling," sung by Miss
Zula Robinson, accompanied by Mrs. V. L. Bean, pianist,
Miss Minna Edwards, violinist, and Miss Ruth M. Augur
(who would later serve as school registrar for several
years), cellist, and "La Golondrina," sung by a quartet
with obbligatos by the violinist and the cellist. Judge
Beauregard Bryan presented the diplomas, and Rabbi
Martin Zielonka of Temple Mount Sinai gave the address.
The Rev. Henry Easter gave the invocation and the
benediction.

By the time of this first commencement, the United
States was still nearly a year away from entering the
European war, but the army was faced with action on its
doorstep. The previous March Pancho Villa's forces
had raided Columbus, New Mexico, and Brig. Gen. John J.
Pershing's Punitive Expedition had left Fort Bliss for
the deserts of northern Mexico. As tensions increased
both along the border and overseas, more troops were
brought to the post and the school began to notice a
water shortage.

Another less ominous change was in store for the school.
A September 3 news item indicated the School of
Mines would allow girls to enter a two-year academic
program. The first coeds among the thirty-nine students
in fall of 1916 were Ruth Brown and Grace Odell. A female
registrar was also on the campus, Mrs. Ella E. Walker.
Although Grace Odell did not remain at the school very
long, Ruth Brown attended from 1916 to 1919, then
transferred her credits to the University of Kansas where,
in 1920, she received her Bachelor of Science degree. She
married Eugene McCluney in 1922 and they resided in
Fort Worth, where she worked in a laboratory and taught
high school chemistry. In 1983 she was honored at the
UTEP Homecoming. Her recollections of those early days
have appeared in NOVA Quarterly (June 1975, May 1984).
"Getting to and from school was not a problem," she
related, "it was just unpleasant after I left the Fort Bliss
streetcar and walked the rest of the way. It was a little
over half a mile, across the parade ground, past the
stables, then on a long stretch of sandy, rocky road to the
school. During the first year Fort Bliss grew by leaps and
bounds and a large area of tents sprang up to house the
troops. More stables were built and the odoriferous
inmates brought flies in great numbers.

"I enrolled in the same freshman courses that the
mining students had. As I remember them, they were:
English with Mr. [H.E.] Harris, College Algebra with
Tom Dwyer, Physics with Cap Kidd, and Chemistry with
F. H. Seamon," she related.

A fire of unknown origin occurred in the Main
Building in late October. "Most of us lost our books in the
fire," said Mrs. McCluney, "and I can remember my grief
over losing my brand new chemistry apron.

"I still marvel at the ingenuity of the faculty the rest
of that year. Classes met on the first floor of the dormitory
and a temporary sheet-iron building was used as a chemis-
ty laboratory. As I look back on the experience, I feel very
grateful for it. It showed me that all you need for good
education is dedicated teachers and interested students."

With the declaration of war in April 1917, male
students left for military service. The bright spot that
spring, according to the first coed, was the building of a
new campus near the American Smelting and Refining
Company smelter on a mesa overlooking downtown El
Paso. While awaiting the completion of new buildings, the
school temporarily held classes in Vilas School and Rabbi
Zielonka's synagogue.

Dean Worrell had been out of town when the disas-
trous fire occurred. Upon his return, he explored plans to
sell the site to Fort Bliss, but an unusual series of legal
obstacles got in the way. Not until 1941, when another
war was bringing expansion to the post, was the sale
completed, at a price of $7,700.

The search for a new site closer to the downtown
area ultimately ended with the selection of a 22.9-acre
area bounded by Kerby and North Kansas streets, with
the Old Fort Bliss military reservation to the west. Dean
Worrell went to Austin to seek funds from the legislature
and in an emergency measure on February 28, was
granted $100,000 for new buildings.

On April 24, 1917, the Board of Regents approved the
new site for the State School of Mines. As had occurred
with the original site, El Paso civic leaders had come
forward to donate the property. The board acknowledged
The dormitory at the former El Paso Military Institute near Fort Bliss was similar in construction to the Main Building—two stories with finished basement. It had twenty-five rooms for students and also housed the steam heating plant for both large buildings.

The Assay Office was a one-story brick building that served as the assay laboratory on the first campus. Its equipment included furnaces, balances, and crushing machinery.

As rooms in the new buildings were completed, classes moved in. By November 8, 1917, the Herald was able to report: “A jolly crowd of boys and girls are enjoying college life at the Texas School of Mines buildings. Classes of the School of Mines and the College of the City of El Paso have been held in these attractive new quarters for over a week. Although only one building is sufficiently completed for holding classes, the school work is being carried on smoothly and successfully.”

The school was reached “by way of an ancient hack, termed the stage coach, which meets Smelter [street] cars and carries the students back and forth over a rocky road. This, however, will be changed when the city finishes the construction of a paved road that will lead from the mesa to the high school.”

There was no football team that fall because there was no practice field, but in 1918 a new Miner team under Tommy Dwyer won two of the season’s five games—better than 1917’s record of one tie game (with El Paso High).

the generosity of V. E. Ware, H. T. Ware, Winchester Cooley, J. C. Ross, Jr., and A. S. Valdespino.

Construction of new buildings began in the Rocky hills overlooking the Rio Grande in June 1917. One of the land donors, V. E. Ware, was a contractor and helped build the new school.

The first cluster of buildings included Main (now called Old Main), Burges (now Graham Hall), Chemistry Hall (now Quinn Hall), the power plant (now part of the Geology Building) and the mill.

At about this time, the need for teacher training was being discussed by the faculty and people in the community. Rabbi Zielonka advocated the founding of a municipal college, and felt that students could start immediately by taking scientific courses at the School of Mines “until such time as the Municipal University was equipped.” In November of 1917 the Prospector was shown as representing both the Texas School of Mines and the College of the City of El Paso. History had been added to the curriculum and enrollment was up to sixty-one.
This aerial photo of Fort Bliss, taken about September 1916, shows the campus of the School of Mines at the upper left, a cluster of buildings just beyond the main post. Mexican revolutionary skirmishes along the border, especially the Villistas' attack on Columbus, New Mexico, in March of 1916, led to the Punitive Expedition of 1916-1917, under Brig Gen. John J. Pershing, who had become the Fort Bliss commander in 1915. A tent city, called Camp Pershing, mushroomed between Dyer Street, the largest street in lower foreground, and the civilian community of Lynchville at left center. This increasing military activity at Fort Bliss, along with a destructive fire in the Main Building on October 29, 1916, led to the decision to relocate the School of Mines. Courtesy Millard McKinney.

The El Paso Smelting Works was pictured in the 1914 publication announcing courses at the State School of Mines and Metallurgy. It was described as the second largest smelter in the world, processing copper, lead, gold, silver, and other minerals. In 1917 the school was relocated as a neighbor of the smelter, which became part of American Smelting & Refining Co., now known as Asarco. The company donated 4.43 acres of its adjacent land to the college in 1919 and another 117.11 acres in 1940.
Steven Howard Worrell was the first chief administrator of the School of Mines, serving as dean from September 1, 1914, until September 20, 1923. After leaving the college, he spent two years in Mexico in engineering work, then went to Hawaii where he died in 1938.

The first Miner football team, pictured in the January 15, 1915, Prospector, won its very first game, 7-6, over the YMCA in October 1914. Their practice field was on the original campus, now part of Fort Bliss. Seated, from left, are Leonard Butchofsky, George Johnston, Baylor Foster, Fred Chesney, Alfred Black, Henry Becker, Lynn Pomeroy, and Claudius Smith; standing, Coach Tom Dwyer, Bill Race, Vere Leasure, James Biggs, Orban Walker, Keith Davey, and Carroll Ronan. Biggs became an Army aviator in the early days of United States involvement in World War I and he was killed in action in France in October 1918. In 1925, the army flying field near Fort Bliss was named in his honor and in 1948 Biggs Field became Biggs Air Force Base. When the Air Force returned the field to the Army it continued to bear his name. Courtesy Millard McKinney.
Architecture

The distinctive architecture of The University of Texas at El Paso has been associated with the campus since its earliest days.

Classes began at the first campus, near Fort Bliss, in 1914, but by 1916 it was apparent that a change was needed. The post was experiencing a military buildup, due to revolutionary conditions in Mexico and to the war overseas. A water shortage was affecting the school. Finally, a fire in the main building in October made a move imperative.

Stephen Howard Worrell, who headed the School of Mines as dean, was away on a trip at the time of the fire. He and Robert E. Vinson, president of the University of Texas, learned about it from the dean’s wife, Kathleen L. Worrell.

A new site was found on the other side of the Franklin Mountains, on the mesa overlooking downtown El Paso. A faculty colleague had once said of Dean Worrell: “When his missus speaks up the Doc listens.”

He listened well when Mrs. Worrell showed him a copy of the National Geographic Magazine for April 1914 and suggested that the rugged mountain setting for the new campus looked like Bhutan. An article in the magazine, “Castles in the Air,” featured photographs by John Claude White, a Victorian British political officer once in charge of the tiny Himalayan kingdom. Mrs. Worrell felt that White’s photographs could become the models for the new campus buildings.

Some persuasion was required to bring around various committees, architects, and the other officials involved with creating the new campus. The distinguished El Paso architect Henry Trost executed plans for the original cluster of four buildings perched on an outcropping of andesite.

The first of the buildings, Main, has long been considered a classic example of the features that distinguish Bhutanese architecture: low hipped roof, ornamental frieze of tile and brick below the roof line, battered outside walls increasing in thickness toward the bottom by seven inches per ten feet, and deep-set windows in the lower stories. During the years since 1917, many buildings have been added to the campus, some more obviously Bhutanese than others.
The El Paso Centennial Museum, built as a community project for the 1936 anniversary of Texas' independence from Mexico, was designed by Percy McGhee. In his attention to detail, he included distinctive sculptures at the front entrance modeled after Buddhist prayer wheels. He also was faithful to the Bhutanese style in designing the original Library-Administration Building (1938) in collaboration with Austin architect Robert Leon White, Bell Hall (original section, 1947), Hudspeth Hall (1947), Cotton Memorial (1947), Student Union (first section, 1948), Magoffin Auditorium (1951), Science Building (1951, later renamed Psychology), Miners Hall (1951) and the Women’s Gym (1951).

If UTEP were located in Bhutan, several of the campus buildings would be taken for lamaseries, the homes of Buddhist monks. The identifying characteristics of the lamasery-like buildings are the ornamental bands of maroon brick around the uppermost levels, into which are set circular mosaic designs known in the Tibetan language as mandalas. The mandalas on UTEP’s buildings follow the traditional circular form and employ mainly red, yellow, and blue tiles, the colors favored in representing Tibetan dieties.

Two recent structures, located on the southern end of the campus, are the Business Administration Building and the six-story University Library. Both utilize the classic Bhutanese style and were designed by Jose Gomez of the El Paso firm Fouts Gomez Moore. The library, opened in 1984, inspired personnel of the UT System’s Facilities Planning and Construction office to do some research on Bhutan. Each floor has a different color motif for the carpeting, with accents in harmonizing colors found in Bhutanese tapestries and fabrics. Chairs, tables, and other furnishings suggest an oriental flavor in their lines and colors.
High sloping walls, hipped roofs, ornamental friezes of tile and brick below the roofline, and deepset windows are characteristics of the Bhutanese architectural style. This is a corner of the new Library Building, opened in 1984, with the maroon brick frieze that, were it in Bhutan or Tibet, would identify the building as a Buddhist lamasery.

The architectural style caught the attention of Bhutanese royalty several years ago when Dale L. Walker, director of the News and Publications Office, wrote to Queen Ashi Kesang and enclosed photographs of the campus. She responded:

'It is deeply moving to see a great new University built in a faraway America inspired by Bhutanese architecture. The buildings in your photographs are most similar to our Bhutanese dzongs and have the same shaped roofs and strong, simple lines. I think your new university buildings are beautiful, combining modern design so harmoniously with ancient Bhutanese architecture. I wish our new buildings in Bhutan could be so finely built!'

The student yearbook, after a lapse in publication after 1972, was resumed in 1985 under a new name. Instead of being called the Flowsheet, a mining term, it became Dzong-La, meaning "The Fortress at the Pass," an expression of the unique architectural face of the campus.

When a tapestry made in Bhutan especially for the University Library was unveiled in March of 1987, it brought a genuine personal touch from a Bhutanese monks' home to the university whose campus resembles so much those lamaseries half a world away.
These buildings—the College of Business Administration and behind it, the six-story University Library—strongly resemble the lamaseries of Bhutan which inspired their design. The architect for both was Jose Gomez of Fouts Gomez Moore Architects of El Paso. The two buildings were completed in the early 1980s.
This twelve-by-sixteen-foot tapestry, embroidered by Buddhist monks in the Bhutanese capital city of Thimphu, is titled "Thunder of summer storms like a dragon's roar reverberates across mountain and valley telling of the glory of the country." Commissioned by President Haskell Monroe through the Permanent Mission of the Kingdom of Bhutan to the United Nations, it was unveiled in March of 1987 and is permanently displayed in the atrium of the University Library.

Jigme Dorji, here standing in front of the oldest building, Old Main, is the only Bhutanese alumnus of UTEP. After completing his degree in 1978, he returned to Bhutan to become a hydraulic engineer.
Ruth Brown McCluney of Fort Worth, first coed at the School of Mines in 1916, shared the spotlight with Outstanding Ex James P. Maloney at Homecoming in 1983. After a career as an industrial chemist, she became a teacher.

Rough footpaths led from Kelly Hall, at left, to Main and Chemistry beyond, around 1920. The andesite hills are dotted with a few creosote bushes and some mesquite. Kelly Hall backed up to the hill, and students with classes on the second floor were inclined to use the windows as exits.

Alfred C. Black, member of the class of 1917, recalled in a 1977 NOVA interview that he won All-Southwest Conference honorable mention as a center on the Miner football team. Others in his class were Carroll Ronan, Lynn Pomeroy, Henry Becker, Raul Barberena, George Johnston, and Orban Walker. Black had a forty-year career as an engineer with the 11th Naval District.
Freshman class members shown in the 1922 Flow Sheet included two women students. They were not identified by rows, but the class list named: E. B. Baldwin; S. Esquivel; H. Falkenhegen; F. Groch; B. R. Haigh; J. L. Harris; J. C. Holford; Anne Kelly; W. Lee; G. D. McLean; E. Mizner; Peter O’Keeffe; A. M. Pergaun; J. G. Ragsdale, Jr.; C. E. Temple; and T. J. Woodside, Jr.