The supercontinent of Pangea breaks apart forming the Central Atlantic Ocean and Gulf of Mexico. Europe is flooded, and the southern continents of South America, Africa, India and Australia are still connected, forming Gondwanaland. Dinosaurs roam freely from Antarctica to China.
Presentations and Speakers

The First Biennial Virginia Garrett Lectures on the History of Cartography and the Texas Map Society hosted a joint meeting at The University of Texas at Arlington on October 2 - 3, 1998. Following is a summary of the presentations from these meetings:

Virginia Garrett Lectures on the History of Cartography

Mapping and Empire: Soldier-Engineers on the Southwestern Frontier - October 2

The meeting was chaired by Richard Francaviglia (UTA Professor of History and Director of the Center for Greater Southwestern Studies)

David Buissere

UTA Garrett Professor of History

Spanish Military Engineers in the New World before 1750

This talk took us back to the origins of the sixteenth-century engineers, when Charles V called on the Italian engineer Pacciotto to design the citadel of Antwerp. Other Italian engineers followed, notably Tiburcio Spanoqui, who in 1581 designed forts to close the strait of Magellan, and Juan Bautista Antonelli, who later in that decade began drawing many maps and plans of Spanish cities around the now threatened Caribbean. One Spaniard, Cristóbal de Rojas, served in this early phase, but many others are found in the second phase of mapmaking, during the 1670s and 1680s. Towards the end of that time, their activities extended further afield, to Buenos Aires and Valparaíso, for instance, and after that came the third phase, beginning with the foundation of the corps of engineers in 1711, and the sending of Alvarez Barreiro to map parts of Texas.

time of the invasion of Mexico, and continued until the state of cartography associated with European rivalry there during the eighteenth century. Similar political considerations governed Spanish charting of the coast of California, where threats of territorial advance by the Russians and British similarly incited the Spanish authorities to initiate cartographic programs.

Dennis Reinhartz

UTA Professor of History

Spanish Military Mapping in the Northern Borderlands after 1750

The maps of the Spanish military engineers, showing the northern borderlands of New Spain from 1750 to Mexican independence, were instrumental in the reorganization of the frontier administration and the restructuring of frontier defenses against hostile Indians and against French, British and Russian incursions. Thus Spain was able to reclaim and establish a firmer control of this critical periphery of its empire in the New World. The cartographic efforts of the Spanish Royal Corps of Engineers officers Lopéz de la Camara Alta, Lafora, Mier and others also pointed the way to the later mapping of the region by Humboldt, Pike and the American Corps of Topographical Engineers.

Paula Rebert

DeKalb, Illinois

Unknown Works and Forgotten Engineers of the Mexican Boundary Commission

This talk concerned the work of the Mexican side of the U.S.-Mexico boundary commission, which was appointed after the U.S.-Mexican War to establish the boundary between the two countries. Each side between 1849 and 1857 drew over fifty large-scale maps of the boundary, permitting an interesting comparison to be made. The Mexican surveyors confined their attention strictly to the boundary, and were not as numerous as the North Americans. But their work was excellent, and has been consistently underrated. Rebert's research confirms that the most effective mapping of the borderlands occurred when U.S. and Mexican surveyors and cartographers worked cooperatively.

Michael Mathes

Plainview, Texas

Spanish Maritime Charting of the Gulf of Mexico and the California Coast

This talk offered a highly detailed analysis of Spanish charting in two very different areas. In the Gulf, it took in the early mapping of Pineda, around the
Jenkins Garrett, outgoing president, gave a short speech of welcome. He emphasized the role of the collector in encouraging the growth of university cartographic collections, and was encouraged by the recent development of scholarly interest - both for teaching and for research - in maps. It was necessary, he concluded, to continue to educate the academics in this respect.

**John Miller Morris**  
*Professor at the University of Texas at San Antonio*  
**Table Land cartography:**  
**Spanish and American mapping of the old Llano Estacado**  
This speaker traced the beginning of European delineation of this distinctive region of west Texas and eastern New Mexico. He began by illustrating an excellent 1688 Spanish map attributed to the Pedro (Pierre) Vial expedition, then discussed the rather inferior version of Popple (1733). He also discussed the maps and photographs of the nineteenth century. Josiah Gregg showed the Llano well in the 1840s, when it was described as "arid tableland." There were striking contrasts between artistic images and photographs of the nineteenth century, and numerous "real estate promotion" maps. Professor Morris showed that a remarkable number of Spanish place-names survive, and concluded with the idea that "table-land cartography is ironic," because much of the area is essentially featureless.

**Lisa Davis-Allen**  
*Associate Professor at the University of Texas at Tyler*  
**A National Palette: Dutch Identity through Maps and Paintings**  
This speaker, who teaches the history of art, put forward the idea that in the Netherlands of the seventeenth century there was a common color code between maps and paintings. She showed how the somber browns and greys of the map-colorists found their counterparts in the similar hues of artists like Rembrandt, contending that this was part of the Dutch persona, developed in the break from the southern (Spanish) part of the country. In the ensuing discussion, it was suggested that Professor Davis-Allen might wish to take this comparison further, and to see from English and French examples if her contention also held good in those countries.

**Jeff Dunn**  
*Dallas, Texas*  
**Automobile road maps:**  
**20th-century icons**  
The speaker began by explaining both that in the late nineteenth century most people traveled by railroad, and that the movement towards better roads - and their mapping - began with the bicyclists of the 1890s. Then the automobile clubs joined the (cycling) Whealmen, but became more prominent than they as the ownership of automobiles rapidly grew during the early years of the twentieth century. At first the roads had no names or numbers, so that the maps had to rely on close directions and on odometer distances. After about 1920 the Rand, McNally company introduced the system of blazed trails, and then the mid-1920s saw the coming of federal and state numbering; all these developments can be traced on road maps, which are still relatively easy to acquire.

**Chris Scotese**  
*UTA Professor of Geology*  
**A Look at Earth History through Maps**  
Dr. Scotese has for some years been mapping the shape of the earth through geological time. His focus goes back about 600 million years, but he is especially interested in how the continents have moved and changed shape from that early time until the recent past. He showed the meeting remarkable images of the tectonic features of the ocean floor, as well as time-sequences showing processes such as desertification. As he put it, the earth has been either an ice house or a hot house, and we are presently in the ice house. Dr. Scotese, now with UTA's Department of Geology, has been working on these maps since he was an undergraduate, in Illinois, and insisted on viewing geological change from a multi-disciplinary perspective. His work draws us far into questions of climate and also allows us to project the position of the tectonic plates into the future. He explained as well how the concept of punctuated equilibrium has been adopted by many theorists, positing change in terms of sudden transformations rather than in terms of steady change. The presentation underscored the importance of maps in scientific interpretation.

**Kit's Cartographic Corner**  
Kit Goodwin introduced maps shown by Bill Benson, Stuart Gleichenhaus, Bob Highbarger, Mike Mathes, Ben Scott, Gary Tong, and Leslie Wagner. As usual, the material was very varied and the audience made some useful comments on it.
Gerald Saxon
Associate Director of Special Collections
Branch Libraries and Programs
for the UTA Libraries

Henry Washington Benham:
A U.S. Army Engineer during the
Mexican-American War

Benham attended Yale and West Point, where he graduated first in his class and later joined the Corps of Engineers. He was one of the few engineers with Taylor’s army near Saltillo in 1847. He served for eighteen months in Mexico and, while stationed there, gave the army commanders excellent advice. Thus he constantly observed the enemy and accurately reported on their strength; he also recommended what turned out to be a most prudent retreat to the easily defensible narrows at Buena Vista. He does not seem to have composed maps in the course of the battle of Buena Vista, but he did afterwards compose maps to show its various phases, and what the terrain was like in and around Saltillo.

Ralph Ehrenberg
Formerly Chief of the Division of Geography
and Maps at the Library of Congress

United States Military Mapping
of the American Southwest
during the Nineteenth Century

This speaker gave a masterly survey of US military mapping, beginning with the early efforts of Lewis and Clark, at the beginning of the nineteenth century. He described how these two explorers used a special wagon to carry their surveying equipment, and how after 1815 many French engineers came to West Point, so that their mapping styles became the norm. After a period of relative inactivity there was a great burst of mapping in the 1840s, with the five Fremont expeditions, which included the remarkable maps of the Prussian cartographer Preuss.

During the 1850s this activity was maintained, with Parke in New Mexico and the transcontinental railroad surveys; it was at this time that the surveyors also produced many remarkable views, as well as maps, both still found in the congressional papers.

Feature Map
We should like in each issue of The Neatline to feature a map that appeals to one of our members, and you are invited to submit such maps to the editor, preferably in the shape of a glossy black and white 8 x 10 print, with a short commentary.

This map brilliantly recreates an area now al
most unrecognizable, since the streams and woods, so well portrayed, are now overlaid by massive roads and a variety of suburban structures.
Annual General Meeting
During the annual election at the meeting, the following officers and board were elected:

**President**
Mr. Paul Gervais Bell  
5555 Del Monte T3  
Houston, TX 77056  
Term expires 2000

**Vice-President**
Dr. Dennis Reinhartz  
Department of History  
UTA Box 19529  
Arlington, TX 76013-0529  
Term expires 2000

**Secretary/Treasurer**
Dr. David Buisseret  
2901 Norwood Lane  
Arlington, TX 76013  
Term expires 2000

**Board members**

- **Mr. Howard Clark**  
  11218 Hermosa Court  
  Houston, TX 77024  
  Term expires 2000

- **Mr. John W. Crain**  
  5956 Sherry Lane  
  Suite 1414  
  Dallas, TX 75225  
  Term expires 2000

- **Mr. Mark David**  
  2613 Club Lake Trail  
  McKinney, TX 75070  
  Term expires 2000

Ms. Lisa Davis-Allen  
3432 Wynnwood  
Tyler, TX 75701  
Term expires 1999

Ms. Katherine Goodwin  
UTA Libraries  
Box 19497  
Arlington, TX 76019  
Term expires 1999

Dr. John Miller Morris, Jr.  
8905 Bell Mountain Drive  
Austin, TX 78730  
Term expires 1999

Dr. Kenneth F. Neighbors  
Route 5 Box 246  
Bowie, TX 76230  
Term expires 1999

Mr. Jack Jackson  
2809 W. 50th Street  
Austin, TX 78731  
Term expires 1999

Mr. Paul Pressler  
5118 Holly Terrace  
Houston, TX 77056-2100  
Term expires 1999

Treasurer’s report

Balance, 1 January 1998: $3170.51  
Dues and fees: 4360.00  
Interest: 49.28  
Total: $7579.79

Payments
Meeting expenses, Austin: $1380.18  
The Neatline: 698.52  
Postage: 157.60  
Refund of fee: 35.00  
Outstanding payment (UTA payment): 1242.36  
Payment due for second Neatline: 500.00  
Total: $4013.66  
Balance: $3566.13

About the Neatline: named after the fine line that is often used to border maps. The Neatline is published on occasion by the Texas Map Society, in cooperation with The University of Texas at Arlington. For more information contact: Professor David Buisseret, Secretary/Treasurer at Texas Map Society, Department of History, The University of Texas at Arlington, Box 19529, Arlington, TX 76019-0529. Phone: 817-272-2898

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**PROVISIONAL PROGRAM**

**Texas Map Society**

**April 9-10, 1999 • San Antonio, Texas**

**Friday, April 9**

3:00 p.m.  
Tour  
Tobin International, Ltd. [Aerial surveying firm]  
114 Camp Street

5:00 p.m.  
Reception  
Walter Mathis Home  
401 King William Street

6:30 p.m.  
Dinner  
On your own

**Saturday, April 10**

Presentations will be at the Alamo Library, Alamo Plaza

9:00 a.m.  
Registration  
Foyer of the Library

10:00 a.m.  
George Nelson  
“Historic Maps of San Antonio and Vicinity”

11:00 a.m.  
Preston Figley, Murray Hudson, and Mike Heaston  
“[Map Dealers Panel Discussion]”

12:00 noon  
Lunch

1:30 p.m.  
James B. Oliver  
“Mapping the Historical and Archaeological Features of the San Antonio Missions”

2:30 p.m.  
Lewis Burtley  
“Camels and Cartography: Lt. Echols in the Texas Big Bend, 1859-1860”

3:30 p.m.  
Kit Goodwin  
“Kit’s Kartographic Korner: Maps from Members’ Collections”

6:30 p.m.  
Dinner  
Riverboat Trip on the San Antonio River  
The River Walk—on your own