New Mexico Geological Society

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Front Matter

(Usually includes Dedication, President's Message, & Conference Organizer's Message.)

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This is a section from the 1985 NMGS Fall Field Conference Guidebook.

Annual NMGS Fall Field Conference Guidebooks

Every fall since 1950, the New Mexico Geological Society (NMGS) has held an annual Fall Field Conference that explores some region of New Mexico (or surrounding states). Always well attended, these conferences provide a guidebook to participants. Besides detailed road logs, the guidebooks contain many well written, edited, and peer-reviewed geoscience papers. These books have set the national standard for geologic guidebooks and are an essential geologic reference for anyone working in or around New Mexico.

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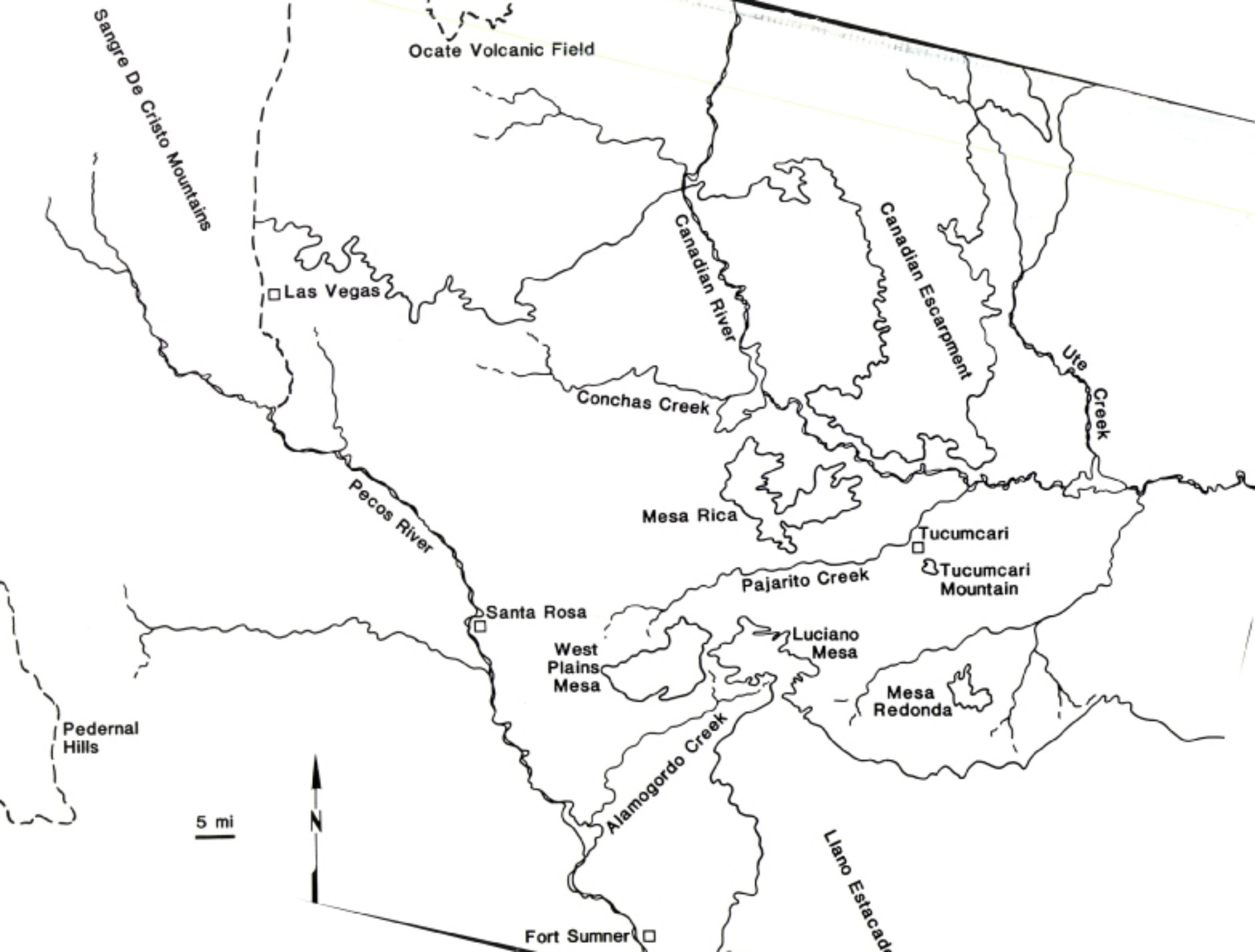
NMGS has decided to make peer-reviewed papers from our Fall Field Conference guidebooks available for free download. This is in keeping with our mission of promoting interest, research, and cooperation regarding geology in New Mexico. However, guidebook sales represent a significant proportion of our operating budget. Therefore, only *research papers* are available for download. *Road logs*, *mini-papers*, and other selected content are available only in print for recent guidebooks.

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Ocate Volcanic Field
Sangre De Cristo Mountains
Las Vegas
Canadian River
Canadian Escarpment
Ute Creek
Conchas Creek
Pecos River
Mesa Rica
Tucumcari
Tucumcari Mountain
Pajarito Creek
Santa Rosa
Luciano Mesa
West Plains Mesa
Mesa Redonda
Pedernal Hills
Alamogordo Creek
5 mi
N
Fort Sumner

MAP, Nº4

Showing continuation of Fort Smith and Santa Fe Route from Tucumcari Creek to Santa Fe.

BY

1st. Lieut. **J.H.SIMPSON**, Corps Top[l] Eng[rs]

1849.

Note. *The Figures from 57 to 64 denote the several camps. The road taken by Emigrants via Ojo Vernal and San Miguel, rougher than Cañon Blanco and Galisteo route, but probably shorter and better watered. Pasturage an alternation of buffallo and murquite grass beyond Tucumcari Creek rather scant; a search for better generally rewarded. Wood abundant except at Galisteo. Water sometimes abundant, always sufficient. Exploration & survey terminated at Santa Fe, June 28th 1849.*

P.S. Duval's Lith. Steam Press Phil[a]

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36

Santa Fe Mountains

Road to Ind[n] Pueblos

Vegas
Military Station

Pecos
Old Pecos

Fort. Marcy
SANTA FE

Agua Fria

Ojo Vernal

San Mignal

64 no water

Senegulla

Rio de Sta Fe, or Rio Chiquito

Cuchiti

Rio Galisteo

Galisteo
62 water brackish

Domingo

Pine no water
Cedar
62
Canon Blanco

Fresh with logs found in this pond

Road to Albuquerque

Algodones

Puerto

Bernalillo

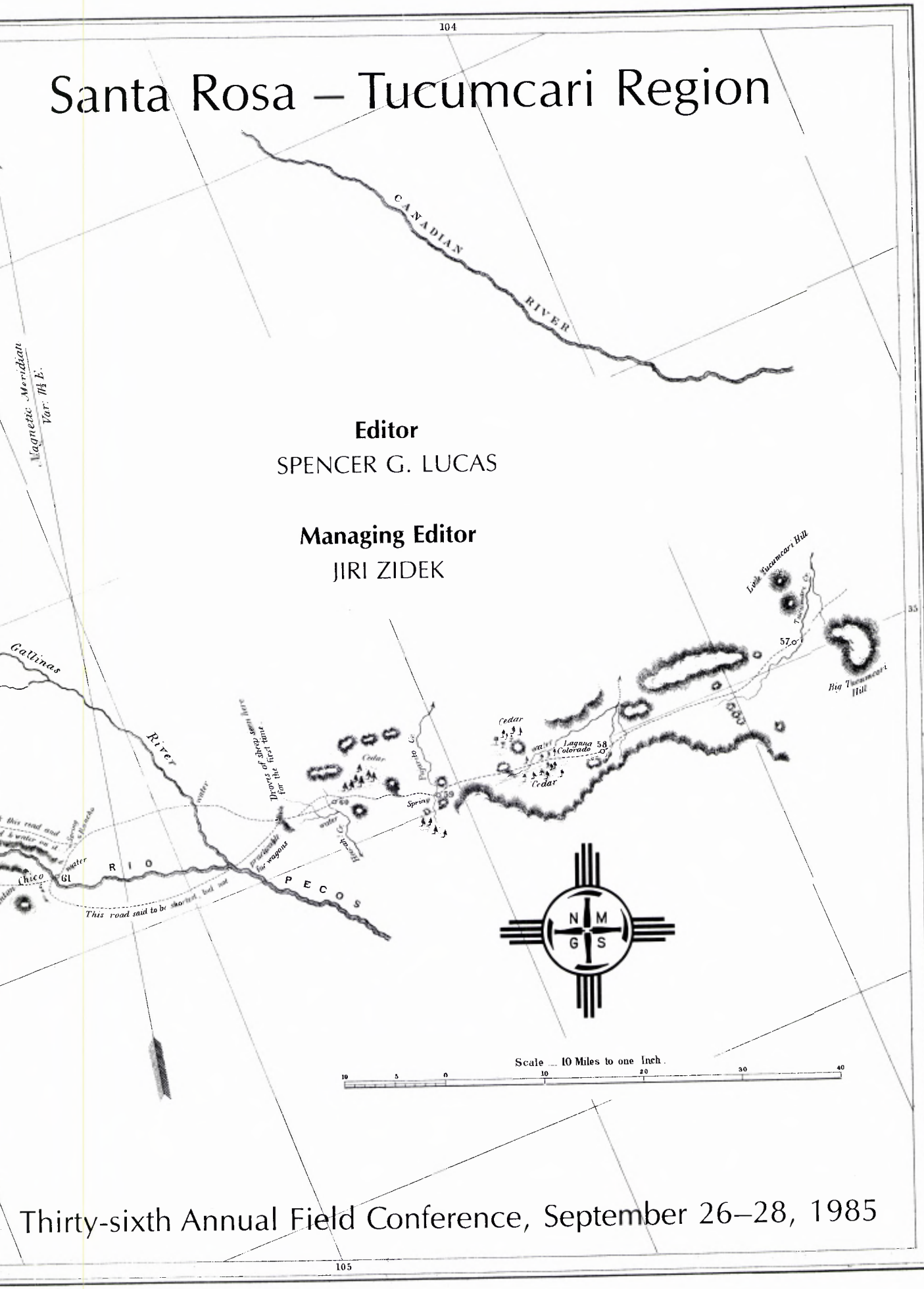
RIO DEL NORTE

Military Station
Albuquerque

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New Mexico Geological Society

Santa Rosa – Tucumcari Region



Thirty-sixth Annual Field Conference, September 26–28, 1985

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PRESIDENT'S MESSAGE

Welcome to the Thirty-sixth Annual Fall Field Conference of the New Mexico Geological Society. This conference and the guidebook that accompanies it represent eighteen months of planning and hard work by Spencer Lucas, Conference Chairman and guidebook editor. Special recognition is also due to Jiri Zidek, the NMGS Managing Editor and Chief Editor–Geologist, New Mexico Bureau of Mines and Mineral Resources, for his editing and design of the guidebook. The services of Welex and Schlumberger and the conference scholarships provided annually by the Los Alamos Geological Society are also deeply appreciated.

I take this opportunity to thank Frank Kottlowski and his staff at the New Mexico Bureau of Mines and Mineral Resources for their support of the Society and its publishing program. Orin Anderson, NMGS Publications Chairman, reports regularly to the Executive Committee on stock inventory and makes recommendations on inventory reduction sales and reprint needs. Equally important is the efficient and cheerful help of Jill Collis, secretary, and Norma Meeks, who has been managing our sales distribution from the Bureau Publication Office for many years.

The 1986 Fall Field Conference will be headquartered in Truth or Consequences under the leadership of Bob Osburn, Conference Chairman, and Russ Clemons and Greg Mack, coeditors of the guidebook. This meeting promises lots of great geology for softrockers and hardrockers alike. Plans are also underway for a fall field conference in the Las Cruces–Deming area in 1988, but 1987 remains open. Suggestions from the membership on the possible location of the 1987 field conference should be forwarded to the Executive Committee

This concludes my seventh year as an officer of the Society and my second term as president. There is no other organization I could have served with a greater pleasure. Nevertheless, the time is ripe for new blood and new ideas to be injected into the Society's leadership. If you know of someone who would make a good Society officer, please send your nomination to the Executive Committee or Nominating Committee.

I look forward to seeing each of you again at the 1986 Fall Field Conference in Truth or Consequences.

Jerry E. Mueller, *President*

EDITOR'S MESSAGE

On 22 September 1853, Jules Marcou spent four hours studying the stratigraphy and paleontology of an isolated butte he called Pyramid Mountain, an outlier of the Llano Estacado about 13 miles southwest of the present site of Tucumcari. Marcou's subsequent publication of his studies, particularly his assertion that the strata under most of the western plains of North America are of Jurassic age, initiated a scientific debate that lasted almost 40 years. It also put the geology of east-central New Mexico on the scientific map.

132 years later, east-central New Mexico is still on that map as one of the classic Mesozoic terranes of western North America. This guidebook, and the field conference it elucidates, explore this terrane and the challenging problems it poses for the stratigrapher, paleontologist and sedimentologist. Furthermore, due attention is given to the Proterozoic, Paleozoic and Cenozoic of east-central New Mexico, rocks no less fascinating or complex than the Mesozoic strata. In short, there is something for every geologist in east-central New Mexico and, I hope, in this guidebook.

In 1972, the New Mexico Geological Society, primarily following the experienced leadership of Vincent Kelley, first made east-central New Mexico the site of its annual field conference. It is almost superfluous to say that our understanding of the geology of this part of the state has expanded dramatically since that conference. However, it is not in any way superfluous to stress that the guidebook written for that conference is one of the pillars that support our understanding of the geology of east-central New Mexico. I only hope that this guidebook will be another such pillar. And, if nothing else, I want this field conference to make clear to its participants why I, and many other geologists, are so captivated by the geology, history and scenery of the canyons and plains between the Canadian and Pecos Rivers.

As a devout "workaholic," I volunteered to organize this field conference and edit this guidebook with but a dim perception of the enormity of these tasks. I soon learned that such tasks are beyond the capabilities of one person, and that without the collaboration of many cheerful and competent people, you would not be reading these words. Therefore, I want to thank all those who offered their time, expertise, energy and enthusiasm for this guidebook. Special appreciation goes to Jiri Zidek, managing editor par excellence; to Barry Kues and the other members of the road-log committee for obvious reasons; to Ruth Briggs and Rosemary Griego for word-processing; to Gary Weadock for drafting; to Petley Southwest, Inc. and Linda Wells-McCowan for the cover illustration; to Wayne Lambert and the Museum of New Mexico for photographs; to the Department of Geology of the University of New Mexico for vehicles and diverse help; to the Santa Rosa Chamber of Commerce for rolling out the red carpet; to Russ Jentgen and Jim Olson for arranging most of the logistics; to members of the New Mexico Geological Society Executive Committee for advice and support; and, finally, to Jim Cheek, Dave Spear and their staff at the University of New Mexico Printing Plant for their patience and professionalism.

Spencer G. Lucas, *Editor*

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Department of Geology, University of New Mexico ..... Diverse help
W. Lambert ..... Photography

1 9 8 5
FIELD CONFERENCE SCHEDULE

Wednesday, September 25 Registration Day

5:00-9:00 p.m. Registration: Holiday Inn, Santa Rosa, New Mexico. 5:00–?
Cocktail party: Holiday Inn, Santa Rosa.

Thursday, September 26 First Day

7:30 a.m.	Rendezvous at Club Cafe in Santa Rosa. Registration for late arrivals will be held at first stop.
7:45 a.m.	Buses depart for first day's tour (lunch provided).
6:00 p.m.	Mexican-style dinner at Knights of Columbus Hall, Santa Rosa.
8:00 p.m.	Speaker: Dr. Mary Kraus, University of Colorado.

Friday, September 27 Second Day

7:45 a.m.	Buses depart from Club Cafe for second day's tour (lunch provided).
6:00 a.m.	Barbecue dinner at Park Lake in Santa Rosa.

Saturday, September 28 Third Day

8:15 a.m. Caravan departs from Club Cafe for third day's tour (lunch provided).
4:00-5:00 p.m. Return to Santa Rosa.

CREDITS

Front Cover: Drawing of Tucumcari Mountain by Linda Wells-McCowan from a photograph courtesy of Petley Southwest, Inc., Albuquerque, New Mexico. (Photographer: Robert Petley)

Front End Sheet: LANDSAT false-color composite image of east-central New Mexico; U.S. Department of Agriculture and Technology Application Center, UNM.

Frontispiece: Photograph by Wayne Lambert of Bulldog Mesa from Tucumcari Mountain. View is S5°W. Camera station is in SW74 sec. 31, T11N, R31E. Lambert photograph No. 85L13. 6 April 1985, 8:36 a.m. M.S.T.

Title Page: Map of route travelled by Captain R. B. Marcy and Lieutenant J. H. Simpson through east-central New Mexico in 1849; from Simpson (1850).

Back End Sheet: Geologic map adapted from Dane, C. H. and Bachman, G. 0., 1965, Geologic map of New Mexico: U.S. Geological Survey, scale 1:500,000.

Photographs: K. K. Kietzke, B. S. Kues, W. Lambert and S. G. Lucas.

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