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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 1979 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.

Free Downloads

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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Stoner, Madison, Wis.

Beck & Paul, Lithographers, Milwaukee, W

16. Guadalupe Church.
17. M. E. Church.
18. Presbyterian Church.
19. Episcopal Church.
20. Oldest Building in Santa-Fe.
21. Palace Hotel, P. Rumsey & Son.
22. Exchange Hotel, Reed & Bishop.
23. Capitol Hotel, Gray & Bailey.
24. Herlow's Hotel, P. F. Herlow.
25. Santa-Fe Planing Mill, P. Hesch.
26. Cracker Factory, D. L. Miller & Co.
27. Post Office.
28. Depot.
29. Gas Works.
30. Fisher Brewing Co.'s Brewery.



Skylab 4 oblique photo of Santa Fe Country, looking north. Black letters: A: Albuquerque; EB: Española basin; HB: Hagan basin; SF: Santa Fe; T: Taos. White letters: J: Jemez Mountains; M: Manzano Mountains; S: Sandia Mountains; SdC: Sangre de Cristo Mountains; TS: Tusas Mountains. Photo courtesy of Technology Application Center, University of New Mexico.

GUIDEBOOK OF SANTA FE COUNTRY

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RAYMOND V. INGERSOLL

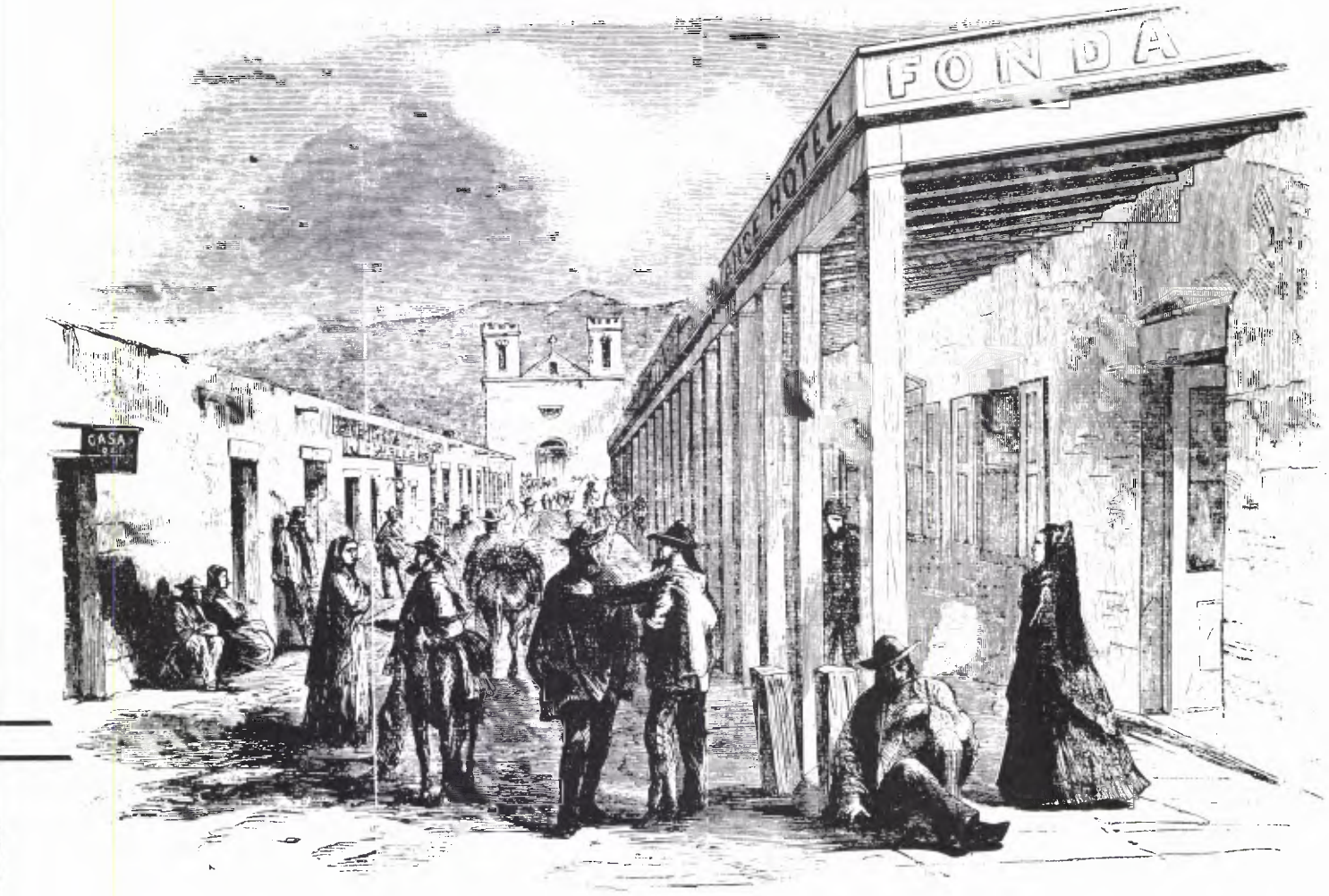
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LEE A. WOODWARD

Managing Editor
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new mexico geological society

Thirtieth Field Conference
October 4-6, 1979



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PRESIDENT'S MESSAGE

Welcome to the Thirtieth consecutive Fall Field Conference of the New Mexico Geological Society. The annual miracle has occurred; another guidebook and field conference have materialized from that vaguely defined, loosely organized, constantly changing pool of volunteer labor that sustains the Society year after year after year. Some of the larger fish this year include General Chairman Tony Budding, Caravan Chairman and perennial Society workhorse Bill King and Guidebook Editors Ray Ingersoll, Lee Woodward and Harold James.

A special vote of thanks to Louann Jordan and Betty Wistrand for making arrangements for Wednesday afternoon and evenings' activities at El Rancho de las Golondrinas.

This past August, the Society lost the services of Harold James, not to accident or ill health, but to the Montana Bureau of Mines and Geology. Harold accepted the Geological Editor's job with the Montana Bureau this past spring, and is now operating out of Butte. I suppose it's only fair that Harold will finally be paid for doing the same job he's done gratis for the NMGS for years, but I wish Montana weren't so far away. Harold's enthusiasm, attention to detail, editing skills and photography will be sorely missed. I'm not talking about his new beard.

I hope you enjoy your visit to Santa Fe country, and that the following three days will offer each of you the appropriate mix of geology and good times.

James M. Robertson
President

EDITOR'S MESSAGE

This guidebook contains a wealth of new information on a diversity of subjects concerning the geology of Santa Fe country. The response from my "Call for Papers" was almost overwhelming, and the guidebook easily could have been much larger. Predicting the length of a guidebook three months before the authors' deadline for submission of manuscripts is a tricky business. However, it is a necessary task if the guidebook is to be completed before the fall field conference. As soon as it became obvious that accepted papers were surpassing the ability of the binding to hold them, Jon Callender (our new Managing Editor) came up with the idea of Special Publication 8 on the Archaeology and History of Santa Fe Country. This Special Publication is being distributed with the purchase of every Guidebook 30, but it also is for sale separately. Tell your nongeologist friends about this interesting volume and help spread the good word about the Society! Guidebook 30 and Special Publication 8 each will stand on its own merits, but together, I think they provide an attractive, informative and interesting set.

Shortly before this guidebook went to press, news of the passing of Charlie Read (see below) and Ted Galusha reached the editors. The Society and the geologic community owe much to the efforts of these men, and Society members lament their untimely deaths. (See Kues and Lucas, this guidebook, for a summary of work that Ted Galusha was so central to.)

Raymond V. Ingersoll
Editor

DEDICATION



Charles Brian Read
1907-1979

On August 30, Charles Brian Read passed away suddenly and unexpectedly in Houston, Texas. The editors felt that it would be especially fitting to dedicate this guidebook to the memory of Charlie Read because of his significant contributions toward the geology of Santa Fe country and because of his long and active association with the New Mexico Geological Society.

Mr. Read was born in Dublin, Texas, April 26, 1907. He attended Tarleton College (1925-1926) and attained a B.A. degree in botany from Texas Technological College in 1928. From 1928 to 1930, he pursued his interests in geology and botany at the University of California at Berkeley, during which time he was also a Research Associate of the Carnegie Institute of Washington. He interrupted his studies at Berkeley to accept a position with the U.S. Geological Survey at the specific invitation of David White, eminent paleobotanist and coal geologist. He was a Research Geologist with the Survey until his retirement in 1966. He also held the position of Faculty Associate with the University of New Mexico (Geology).

Mr. Read was a member of the organizing committee that formed the New Mexico Geological Society in 1947. He was the fifth president of the Society (1951-52), and was elected an Honorary Member in 1956. He co-edited the Rio Chama Country guidebook (11). He was Chairman of the 1st, 2nd, 7th, 12th and 14th Road Log Committees and Co-Chairman of the 18th field conference.

During Mr. Read's tenure with the U.S. Geological Survey, he became internationally known for his work in paleobotany, of which the most significant were studies of Devonian, Carboniferous and Permian fossils in the Appalachian region.

During World War II, he was assigned to study red bed copper deposits, especially those of White Mesa, Arizona and Pintada, New Mexico. This was followed by oil and gas investigations with the Survey's Fuels Branch. In 1943, he moved to Albuquerque and opened the New Mexico Office at the University of New Mexico. The scope of the Albuquerque office's activities was enlarged to include coal studies, and he developed the zone concepts of coal reserve estimates (U.S. Geological Survey Circular 89, 1950)

during this period. Subsequently, he evaluated underground atomic explosions in Nevada and with Project Gnome near Carlsbad, New Mexico. While in New Mexico, he authored or co-authored numerous geologic maps and stratigraphic papers; his refinements of Pennsylvanian nomenclature and paleogeography in New Mexico were particularly significant. His recognition of the unique fossil associations uncovered in the Kinney Clay Pit led to the development of what has proven to be one of New Mexico's finest fossil localities.

Charlie Read played a major role in the growth of New Mexico geology both directly through his personal investigations and indirectly through his direction of Survey investigations, and the counseling and guidance of numerous students and geologists. All of us have benefited from his having been here, and those of us who knew and respected him experience a deep personal and professional loss.

Edward C. Beaumont
Vincent C. Kelley
Stuart A. Northrop

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FIELD CONFERENCE SCHEDULE

WEDNESDAY, October 3 — **REGISTRATION DAY**

2:00-7:00 p.m. Registration: El Rancho de las Golondrinas, La Cienega, N.M. (15 mi south of Santa Fe).

4:30-5:30 p.m. Social Hour.

5:30-7:00 p.m. Dinner.

7:00-9:00 p.m. Outdoor entertainment.

THURSDAY, October 4 — **FIRST DAY**

7:30-8:00 a.m. Assembly of auto-caravan at DeVargas Shopping Center for tour of northern Sangre de Cristo Mountains via Pojoaque, Nambe, Truchas, Harding mine, Penasco, Ranchos de Taos and Espanola. (Bring your own lunch.)

FRIDAY, October 5 — **SECOND DAY**

7:30-8:00 a.m. Assembly of auto-caravan at junction of St. Francis Drive and 1-25 for tour of Hagan basin via Galisteo, Cerrillos, Ortiz mine, Golden and Madrid. (Bring your own lunch.)

SATURDAY, October 6 — **THIRD DAY**

7:30-8:00 a.m. Assembly of auto-caravan at Lamy Junction (8.3 mi southeast of Santa Fe, 1-25) for tour of southern Sangre de Cristo Mountains via Glorieta, Pecos, Tererro, Pecos mine and Cowles. (Bring your own lunch.)

