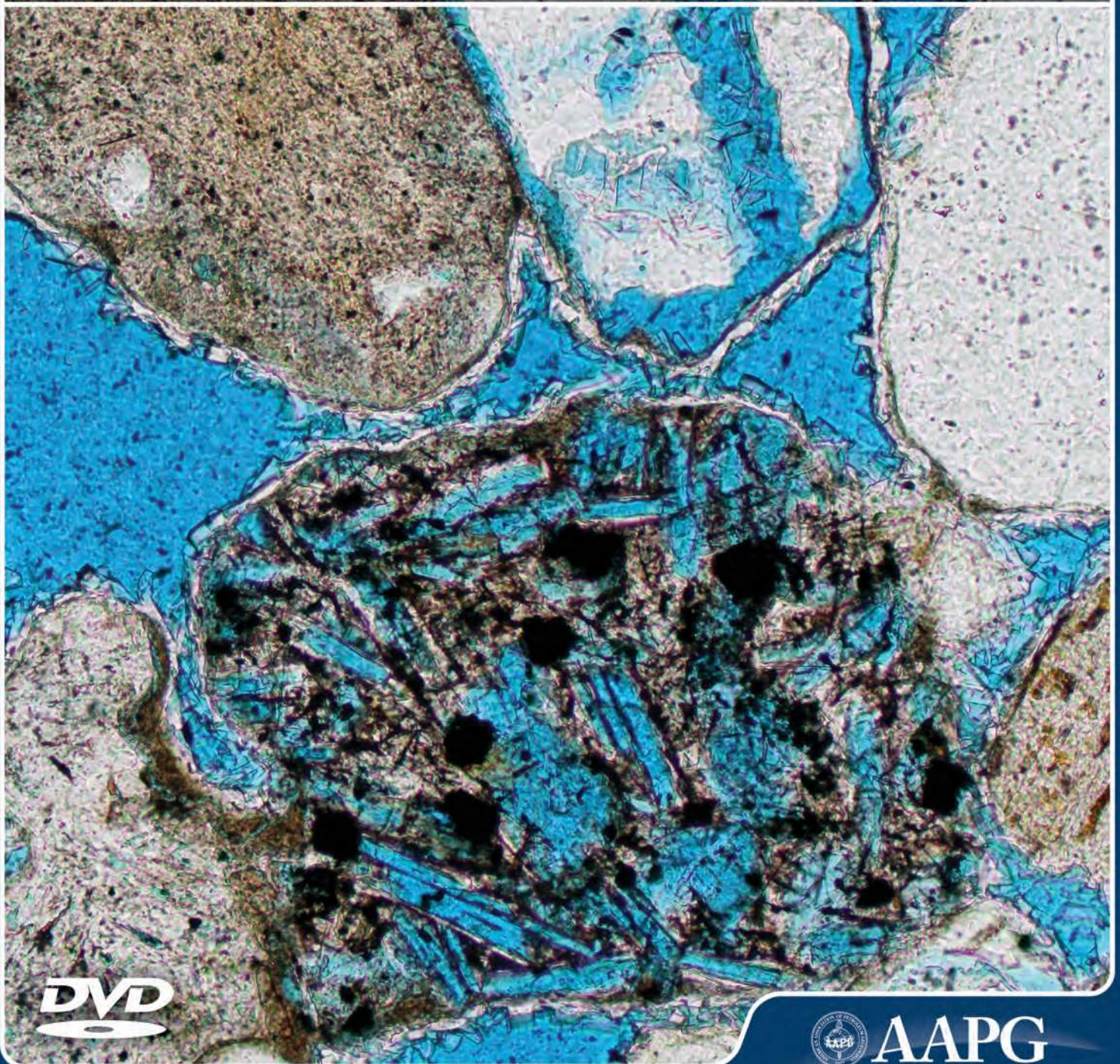


AAPG Memoir **109**

By Dana S. Ulmer-Scholle, Peter A. Scholle,
Juergen Schieber and Robert J. Raine

A Color Guide to the

Petrography of Sandstones, Siltstones, Shales and Associated Rocks



DVD



AAPG

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of Sandstones, Siltstones, Shales
and Associated Rocks*

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Dana S. Ulmer-Scholle, Peter A. Scholle,
Juergen Schieber and Robert J. Raine

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COVER: Primary and secondary porosity within a volcanic arenite from Pliocene–Pleistocene Gila Group from southern New Mexico.

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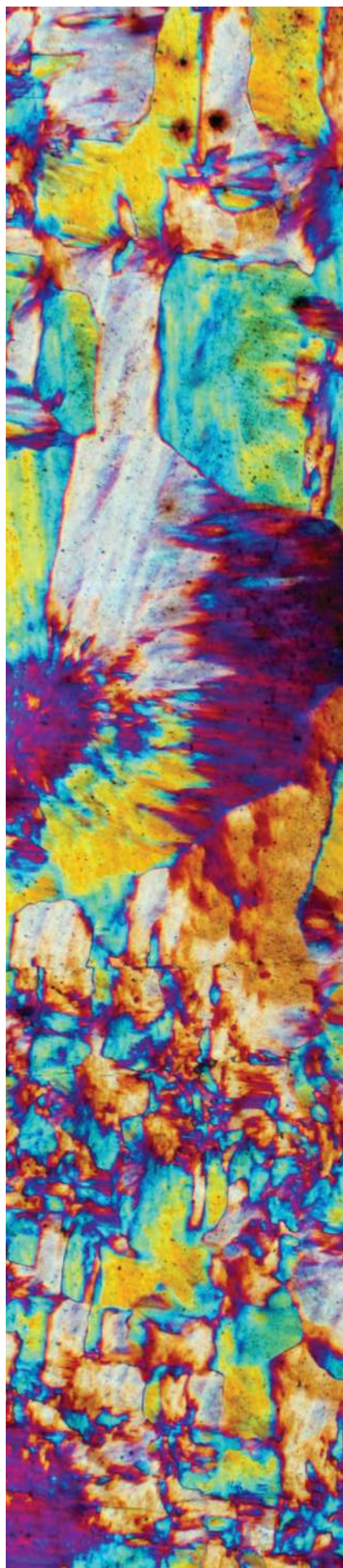
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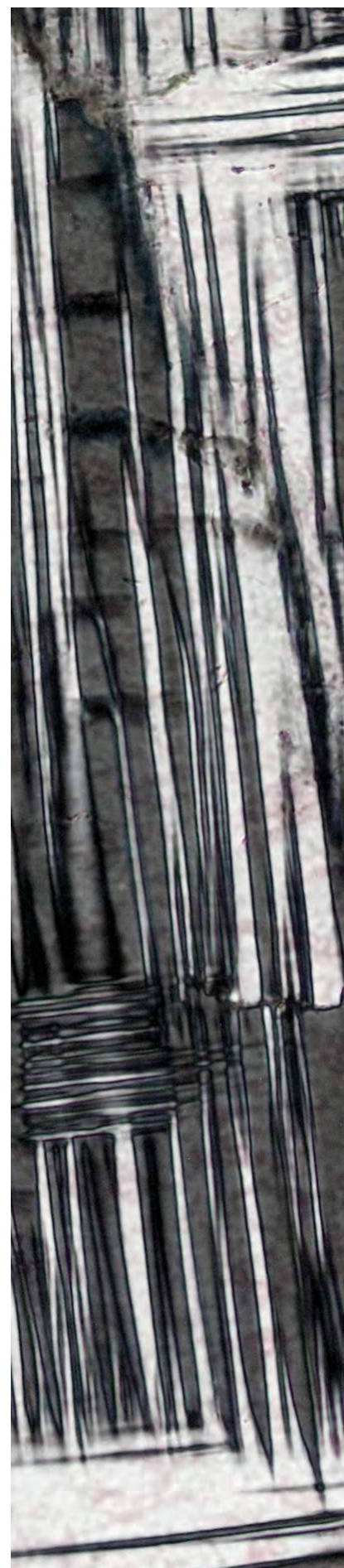
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ABOUT THE AUTHORS



Dana S. Ulmer-Scholle

Scholle Petrographic, LLC, P. O. Box 386, Socorro, NM 87825 U. S. A.
(e-mail: ulmerscholle@gmail.com)

Dana developed an early love for geology while growing up on the classic Upper Ordovician outcrops around Cincinnati, Ohio. She received a B.S. degree in 1981 from the University of Cincinnati. Dana completed a M.S. degree (1983) at Southern Methodist University working on the Mississippian Arroyo Peñasco Group of New Mexico. After a stint working for ARCO Exploration Co., she returned to SMU for a Ph.D. (1992). Her dissertation research concentrated on evaporite-related diagenesis in upper Paleozoic carbonate rocks from New Mexico, Wyoming and Greenland.

Dana has worked, or consulted, for a number of companies including Amoco Oil and Gas Co., ARCO Exploration, ARCO International, Mobil Research, and Maersk Oil and Gas. Currently, she is the co-owner of Scholle Petrographic, LLC, a petrographic consulting company. Dana is also an Associate Research

Professor at the New Mexico Institute of Mining and Technology. She teaches carbonate-related courses including petrography and depositional/diagenetic models. Her research interests include CO₂ sequestration in carbonate and siliciclastic systems, carbonate sedimentology and diagenesis, petrography, low-temperature isotope and trace element geochemistry, fluid inclusion analysis and fluid flow histories in sedimentary rocks. While at New Mexico Tech, she has also been involved in environmental investigations that include heavy-metals bioremediation and fate-and-transport of heavy minerals in the environment. She is the author, coauthor or editor on numerous papers, reports, books and CD-ROMs with AAPG Memoir 77 receiving the Robert H. Dott, Sr., Memorial Award (2005).

Peter A. Scholle

Scholle Petrographic, LLC, P. O. Box 386, Socorro, NM 87825 U. S. A.
(e-mail: scholle1@gmail.com)

Peter received his B.S. in geology from Yale University in 1965. After a year at the University of Munich in Germany, and another year at the University of Texas at Austin, he received a Ph.D. in geology from Princeton University in 1970. His dissertation work, on deep-water carbonate turbidites in the Italian Apennines, was supervised by Al Fischer.

Peter's professional employment included state and federal government, the petroleum industry, and academia. He worked for five years for various oil companies (Cities Service, Gulf and Chevron) and consulted for other oil companies for many years. Nine years were spent with the U. S. Geological Survey in Reston (VA) and Denver (CO), including three years as chief of the Oil and Gas Branch. He taught at the University of Texas at Dallas for three years and was Albritton Professor of Geology at Southern Methodist University in Dallas from 1985 to 1999. From 1999-2011, he was the New Mexico State Geologist and director of the New Mexico Bureau of Geology and Mineral Resources. He is now the co-owner of Scholle Petrographic, LLC.

Peter has devoted much of his time to carbonate research and writing. His major interests are in deepwater carbonates (especially chalks) as well as the diagenesis and petroleum potential of Permian rocks in many areas of the world. He has worked in nearly 30 countries and has written, coauthored, or edited nine books, about 200 papers and abstracts, 23 CD-ROMs, and a number of other computer or audio-visual products. Peter has been a member of AAPG and SEPM since 1976-77. He was an AAPG Distinguished Lecturer (1975-76) and received the AAPG President's award twice, the Sproule Memorial Award, the AAPG Certificate of Merit and the AGI Ian Campbell Medal for Superlative Service to the Geosciences (2013). He served as president and special publications editor of SEPM and is an honorary member of that society. He was also president of AGI and AASG (the Association of American State Geologists).



Juergen Schieber

Indiana University, Department of Geological Sciences, 1001 E. 10th St., Bloomington, Indiana, 47405, U.S.A. (e-mail: jschiebe@indiana.edu)

Juergen received a B.S. degree (1978) in geology from the University of Tübingen, Germany and a Ph.D. (1985) in geology from the University of Oregon where he worked on the relationship between basin evolution and the genesis of stratiform sulfide deposits of mid-Proterozoic sediments of central Montana. He is a Professor of Geology at Indiana University (2002-present) and previously worked at the University of Texas-Arlington (1996-2002).

Juergen is a specialist on shales. He has published extensively (100 papers, 20 guidebook chapters, two books, 215 conference abstracts) and has been an invited lecturer at universities in the US, Canada, Europe and Asia, at research organizations, industry short courses and symposia. His research interests include: basin analysis and sedimentology, sedimentology of shales, the genesis of black shales and sediment-hosted mineral deposits, evolution of the Belt Basin and the Devonian basins of the eastern US, geochemistry of sediments and planetary geology and sedimentary geology of Mars. Juergen is a member of the science team that currently explores the geology of Gale Crater on Mars with NASA's Curiosity rover.

Juergen's research is characterized by a holistic approach to shales; integrating field studies (facies, stratigraphy) with lab studies (thin sections, electron microscopy and geochemistry) in order to understand the various factors that are involved in the formation of shales. A key area of focus for his work is the experimental study of shale sedimentology via flume studies and related work. Funding for his research is provided by government agencies (NSF, DOE, NASA), foundations (Petroleum Research Fund), and industry via the Indiana University Shale Research Consortium (ExxonMobil, Anadarko, Marathon, Shell, Chevron, ConocoPhillips, Wintershall, Whiting, Statoil) and separate research agreements (Schlumberger/TerraTek; Pioneer Natural Resources). He consults on matters pertaining to shale sedimentology, shale fabric and pore structure, and also teaches short courses on shale sedimentology and facies analysis, as well as microscope-based petrography.



Robert J. Raine

Geological Survey of Northern Ireland, Belfast, Ireland, United Kingdom BT9 5BF (email: robertr@bgs.ac.uk)

Rob graduated in 2003 with an M.S. degree in geology from the University of Birmingham and remained there to study for a Ph.D. in geology. He studied the Cambrian and Ordovician carbonate sedimentology and stratigraphy of Laurentian passive margin sediments in northwest Scotland. During this time, he was also the assistant curator for the Lapworth Museum of Geology and took time out to work as a museum conservator.

In 2008, Rob joined Ichron Limited as a sedimentologist and petrographer and conducted studies on marine, lacustrine and terrestrial sediments from India, Sri Lanka, Algeria and the UK and Norwegian sectors of the North Sea. He also led a number of field trips for oil companies to Portugal and Yorkshire and core logging courses in India.

Rob recently joined the Geological Survey of Northern Ireland as a petroleum and energy geologist to provide scientific support to the Department of Enterprise, Trade and Investment on petroleum licenses and to conduct research to promote the petroleum and geothermal exploration potential of Northern Ireland. His main research interests are peritidal carbonates and evaporites in mixed carbonate siliciclastic settings, peritidal and lacustrine microbialites, reservoir quality and diagenesis of fluvial and eolian sediments, Permian and Triassic rocks and geochronology.