

# Studying the Rockies' Geology

By Rick Carpenter  
 ALUMNEWS Editor

Graduate work in the Powder River Basin while working on his doctoral thesis and a camaraderie of dedicated graduate students in the Geology Department helped pave the way for John D. Haun, a 1986 recipient of UW's Distinguished Alumni Award, to become a highly successful geologist.

Haun came to the University of Wyoming after graduating from high school in Tennessee in 1939 and receiving a bachelor's in geology from Berea College in Kentucky in 1948. He also spent four years with the U.S. Coast Guard as a cadet in the Coast Guard Academy and was a commissioned ensign (deck officer) on the USS Racine.

While in the Coast Guard, he was awarded the World War II Victory Medal, the American Theater Ribbon, the Asiatic-Pacific Theater Ribbon and the Philippines Liberation Ribbon.

Haun chose to do his graduate work at UW after visiting with two Berea geology graduates who had completed their master's degrees from UW. He thought it would be interesting to go West for his graduate studies instead of staying in the East, so he and his wife, Lois, packed their bags and headed for Wyoming.

Their first few months were the most trying of their stay as they were living in a run-down trailer with no running water and no toilet facilities, just a community out-house and watergathering location.

Luckily, their first encounter with the University didn't scare them away and eventually they were able to move into a nicer facility. And the education Haun received provided a good basis for his future job opportunities.

"You couldn't classify the UW Geology Department as any better than numerous other graduate programs in the U.S.," he explains. "However, geographically, the geology in Wyoming is uniquely laid out and it's a beautiful area to study geology."

He said the professors taught courses that provided excellent training for going into the oil industry, which was the primary employer of geologists.

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"The courses were, for the most part, rather practical in nature rather than theoretical," he said. "This emphasis may be different from other schools ... I'm not saying it's better, it's just different."

As a student he said he was impressed with the professors. He feels they were extremely knowledgeable in the geology of Wyoming and especially in the field of petroleum geology.

Haun was equally impressed with the graduates in the geology program. "It was an interesting group of people," he said. "I'm not sure it was any different from any other school in post WWII.

"But students were very mature. They were anywhere from three to five years older than the regular student and because they were very purposeful and the competition was so terrific, the people who graduated at that time, I think, were extremely well educated, perhaps in comparison to earlier and later students."

During the first summer as a graduate student working on his master's degree, Haun spent the summer at the old science camp in the Snowy Range traveling to various locations to study different geological formations. The next two summers he spent working on his doctoral thesis in the Powder River Basin as a paid employee of Amoco.

After completing the class load, he didn't finish his thesis for two more years and when he finally received his doctorate, Haun joined James A. Barlow, Jr., who has been a consulting partner with Haun since 1957, to become the first two people to receive Ph.D. degrees in geology from the University of Wyoming in 1953.

Haun continued working as a geologist for Amoco after finishing his course work (1951-52) before becoming vice president of Petroleum Research Corporation. He was also hired as a professor of

geology at Colorado School of Mines in 1955.

It was while working at Petroleum Research Corp. and the Colorado School of Mines that Haun and a co-editor, L.W. LeRoy, edited "Subsurface Geology in Petroleum Exploration."

The book has become a standard reference for people in petroleum geology and is even used as a handbook for people out in the field. Basically, the book is a compilation of all structural maps of all the basins in the Rocky Mountains.

To compile the information, Haun and his partner used representative log readings from every major basin in the Rockies from wells that had already been drilled.

At last count, Haun has published 94 books, articles, maps and reviews as an author, co-author or editor. He is still publishing. A paper he delivered in 1984 at the International Geological Congress meeting in Moscow is supposed to appear in a 1987 revision of the subsurface book he first published in 1958.

Haun quit his position with Petroleum Research Corporation in 1957 to join Barlow in a petroleum consulting business known as Barlow & Haun, Inc. with offices in Casper and Denver.

Although he continues to practice as president of the consulting business, Haun retired from full-time teaching at Colorado School of Mines in 1980 and from part-time teaching in 1985. He is now honored as Professor Emeritus of Geology at the school.

As an active member of several professional organizations, Haun is a past president of four major societies including the Rocky Mountain Association of Geologists, the American Association of Petroleum Geologists (Honorary Member, 1984), the American Institute of

Professional Geologists (where he was awarded the Ben H. Parker Memorial Award in 1983) and the American Geological Institute.

Currently, he is chairman of the U.S. National Committee on Geology and chairman of the Colorado Oil and Gas Commission. He has also served on United Nations committees, the National Petroleum Council, the American Petroleum Institute and the Office of Technology Assessment for the U.S. Congress.

He attributes part of his notoriety among petroleum geologists with name recognition he received while serving as editor of "The Bulletin" and other publications of the American Association of Petroleum Geologists.

But, he attributes his success as a geologist to being interested in his work as evidenced by his six to seven day work weeks and a "spark" of enthusiasm generated by fellow graduate students Barlow and Robert Weimer, a 1982 Distinguished Alum from UW.

Haun encourages Wyoming residents to learn about geology because "geology is one of the most important subjects or areas of knowledge in Wyoming. Without the oil industry, where would you (Wyoming) be? You'd have income taxes and everything else."

"The oil industry finances the state," he said. "Every citizen of Wyoming should know something about geology because it's part of their livelihood."

Haun sees a gloomy future for the oil industry in the United States unless an untapped source can be located in areas yet to be explored. He said with production down, imports will have to increase causing a dependence on foreign countries for oil.

"Production is declining slightly but will decline considerably in the very near future as a result of not drilling and as a result of not conducting some of the enhanced recovery methods that would have been conducted under normal or a more reasonable price structure," he said.

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## John D. Haun, Recipient *UW Distinguished Alumni Award*

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"Our imports are already up to about a third of our use, so by the early '90s, I would think imports would be at least 50 percent of the U.S.

consumption, which puts us back into the position we were in back in 1973 with the Arab Oil Embargo, which hurt us because we were too dependent on the Middle East for our oil."

Since the Arab Oil Embargo, the U.S. has reduced its dependence on imports and has been getting oil from other parts of the world so we will not be as dependent on the Middle East. But, he said in the long run, the Middle East still has a majority of the known oil reserves and there is no way out of our future dependence on that part of the world.

With the recent drop in oil prices, Haun said some of the smaller companies and subsidiary companies which service oil producers are being forced out of business to the point he said many will never be able to get their feet back on the ground.

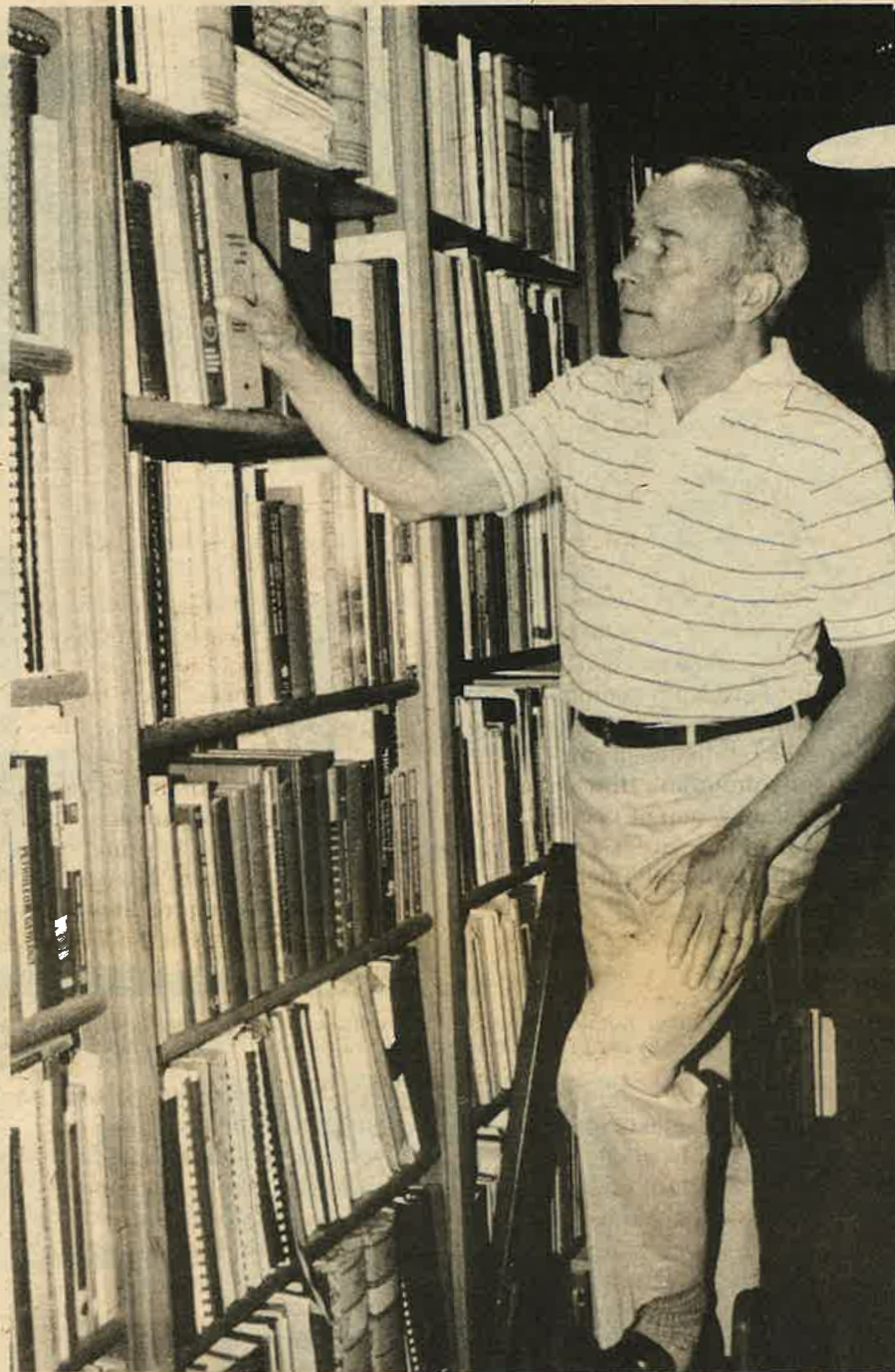
"By causing marginal production companies to go out of production and by preventing further exploration in the rest of the world, they're certainly setting us up for a price increase in the future," he warns.

"About the time we become 50 percent reliant on imports, the price is going to go up again and we're going to be in this game again ... and if you think \$38 a barrel is high, you ain't seen nothin' ...."

Haun said the reason why they are preventing further exploration around the world is by keeping the price of oil low, it prevents other companies from producing oil by making exploration costs prohibitive.

"If it costs \$9 a barrel to deliver oil from Prudhoe Bay (Alaska) to California," he said, "what is the value of the oil at the well head? If the oil is (being purchased) at \$12 a barrel and it costs you \$9 a barrel to get it from Alaska to California, its value at the well head is \$3 a barrel. There's a limit beyond which you cannot go.

"The high priced oil we were dealing with in the late '70s made possible a lot of the frontier developments including deep water and harsh



From his log cabin home near Evergreen, Co., John D. Haun has a complete geological library in his home office where he can reach for whatever information he needs.

environment exploration. We can't do that today."

Haun said there is a question as to how far down the industry can go and still be able to recover. There's going to be a great reluctance to invest in these types of things, he said, referring to oil exploration and subsidiary companies that are fueled by the oil companies' activity.

"I've been through this cycle before and this is by far the worst," he said. "It's a cyclical industry anyway, but this is going too far. It's going to be very difficult for that

infrastructure to come back."

As a dedicated environmentalist who lives in an exquisite log home he bought near Evergreen, Colorado in the late 1950s, Haun is able to see both sides of the controversial question of drilling in environmentally sensitive areas.

Part of his role as Chairman of the Colorado Oil and Gas Conservation Commission is to monitor production activity to keep environmentally sensitive areas safe. He shares the concerns people have about drilling on federal lands near sensitive areas like Yellowstone

and Grand Teton National Parks, but said those groups who want to protect a band of area around each park are "simply adding to the size of the park."

"We've been doing that for years," he said about drilling in sensitive environments. "We need the oil and gas reserves desperately, they're declining.

"People are concerned about off-shore drilling, too," he said. "But we've been doing that for years. Why should the people in Louisiana take the brunt? Why can't the people of California ... what's so different?

"People in New England are concerned about drilling off their shores ... they think oil comes out of a can. When we run out or get short and there are long lines at the service stations, they say it's a conspiracy to run prices up. People react, in general, in a very stupid way about this whole business.

"All I know is that each generation will have to learn its own lessons."

Haun gives an example of some of the dry holes drilled in Wyoming several years ago and said it is very hard to find their locations. He also said there are heavy fines for improper drilling and storage for those who don't follow the rules and get caught.

"If there was ever a group of people who should be in favor of the exploration of oil and gas, it should be the people of Wyoming. Their livelihood depends on it."

Haun said down the road if oil prices were to take a dramatic upswing, then the use of fuel (oil products) made from coal may be cost effective. He gives the example of South Africa, who with so many enemies in the world, produces all of its gasoline from coal. The process is expensive, but it can be done," he said.

Should the process become price effective, Wyoming's coal supply may become highly marketable again and possibly could replace the oil industries' losses to the state.