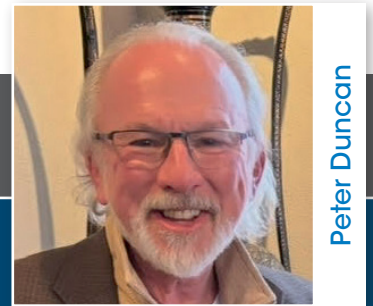


 Personal Record Interview

Life of an intrepid entrepreneur



Peter Duncan

Canadian geoscientist **Peter Duncan** is best known as the founder of MicroSeismic which brought an entirely new technology to market principally for shale oil and gas production. His career has also included many other achievements and innovative entrepreneurial ventures. A former president of SEG, he continues to be active inspiring a new generation of industry professionals, plus regular outings playing guitar at the Annual meeting.

Beginnings

Growing up in New Brunswick, Canada, I had really inspiring teachers and parents who encouraged curiosity and learning. My dad and I did physics experiments in the kitchen and constantly fiddled to keep the household gadgets working. My high school teachers steered me toward public speaking and debating. Those skills played a major role in my career.

University

I registered in geology to get a great paying summer job. That first summer hunting copper in Newfoundland I was introduced to geophysics, induced polarization. Back at University of New Brunswick I switched majors to physics. The department designed a customized course that let me do geology and math for a hybrid geophysics degree. I continued with field summer jobs, including underground geology in Sudbury. Grad school at U of Toronto came next. It was a phenomenal learning opportunity.

Industry

I always imagined that I would be a professor, but my industry experience led me to Shell in Calgary. My first project was a continuation of my doctoral research. After two years of running EM models on Cray #2 I jumped to manage a tin exploration project in Nova Scotia. Shell decided to sell the deposit and retooled me as a seismologist, the one geophysics discipline that I had never touched. I became party chief on Shell's first marine 3D seismic survey, Glenelg, offshore Nova Scotia. I was drinking from a fire hose.

Entrepreneurship

I found Shell oil and gas a bit big compared to the minerals group. I joined Pulsonic Geophysical in Calgary to manage processing the Glenelg 3D. I even kept my Shell office to coordinate with the exploration team. Two years on I headed to Houston with Digicon, Pulsonic's parent. At the time more 3D was being shot in Canada than the US. My role was to reverse that for the benefit of Digicon's business. I told my wife we would be in the US for three years. It's been 39. Rudy Prince, Digicon's founder was a visionary. He asked me to start a new enterprise for Digicon providing multi-disciplinary field studies. ExploitTech was born. We got noticed by Landmark Graphics who acquired us to be their wet lab. An industry slowdown in 1992 allowed us to do a leveraged buyout and hang out our shingle as a non-operating 3D exploration company, 3DX Technologies. Success led to an IPO. I was an oilman now. At least on paper. The crash of '99 forced us to sell out at much less than the IPO price.

MicroSeismic

I moved back into technology, participating in a couple of tech startups and serving a term as president of SEG. My SEG colleagues were worried about my work situation until one day I announced I was starting a new company, MicroSeismic (MSI). When I explained this would be a passive seismic business there was a collective groan. One friend suggested to my wife that she find a job to keep from losing our house. Fortunately, my timing was almost perfect. Riding the shale gale, we rapidly grew to 250 employees.

MicroSeismic evolution

Frac monitoring work slowed as engineers became confident in their completion recipes and the oil business became increasingly cost conscious. Covid struck. Bankruptcy loomed. I furloughed myself and all but five employees. We survived and rebuilt, finding other markets beyond frac'ing: mitigating sinkhole hazards, monitoring CO2 sequestration, and enhanced geothermal field development.

Achievements

I am pleased that my wife did not have to get a job to save our house. I am proud of the resilience of MSI over the last 22 years. I am proud of how the team has pushed microseismic technology forward. I feel that I have realised most of my desire to be a prof by teaching dozens of young graduates who have passed through MSI, presenting hundreds of lectures at schools and hosting the SEG Student Challenge Bowl quiz.

Outlook

Geoscience is about the thrill of discovery. Geophysicists revel in their "toys". Ahead I see bigger and better computers doing ever more complex calculations on larger and denser datasets. Geophysicists will never stop opening windows into the earth while relishing the challenge. I wish I could start all over again.

Leisure time

My work is my leisure but when not living the MSI dream I enjoy playing tennis, one of my guitars or my Yamaha Grand. When I grow up, I want to be a rock star.