H. Roice Nelson, Jr. - Finder - Expanded Resume

(Digital Version: https://www.walden3d.com/resumes/HRN Papers/230902 HRN Expanded Resume.pdf)

Qualification Summary



Howard Roice Nelson, Jr. (Roice) has over 53 years of experience as an explorer and a principal in both entrepreneurial and technical roles in the oil and gas and mineral exploration industries. Roice is an experienced interpretation geoscientist who has spent most of his career working in the international petroleum industry. The last few years he has done several exploration projects with mining, geothermal, and aquifer geologists. As a seismic interpreter he has worked over 100 interpretation projects worldwide. Roice has proven success in using, creating, and building new tools and processes for the geological exploration industry. This started with summer internships with Pan American Petroleum (1970), and Amoco (1973), then employment with Mobil Oil in Dallas Texas (1974-1980). Roice was recruited to run a research laboratory at the University of Houston (The Seismic Acoustics Lab), which he grew from 33 sponsors (3 sponsors had just left) to 43 industry sponsors. In his three years at The University of Houston (1980-1982), Roice created or organized 5 research laboratories, including the controlling Allied Geophysical Laboratories (AGL), which is an ongoing industry sponsored research consortium at the U of H. While at the University, Roice wrote the article, "Introduction to Interactive 3D Interpretation," Oil &

Gas Journal, V. 79, No. 40, pp. 106-125, 1981; and the book <u>New Technologies in Exploration Geophysics</u>: Gulf Publishing Company, 281 pages, 1983 (Chinese); which forecast the impact of interactive interpretation technologies.

Roice left the AGL in November of 1982 to become the initial founder of Landmark Graphics Corporation. Roice designed Landmark's first interactive interpretation user interface and functionality, specifying software enhancements, new product requirements, and setting strategic direction. He procured sales and joint marketing agreements and created markets for Landmark in Australia, Canada, China, Europe (including Hungary when it was still behind the iron curtain), India, Latin America (Mexico, Venezuela, and Brazil), and the domestic United States. As the only oil company interpretation geophysicist initially on Landmark's staff, Roice had the opportunity to work on all of Landmark's customer's toughest interpretation problems. Roice has assisted and trained clients for his entire career, doing numerous training courses while at Landmark. Courses include: Best Practice methodologies; Interactive Interpretation Techniques; Interactive Sequence Stratigraphy; Information Management for Multi-Disciplinary Teams; Maps, Models, Immersion, and Collaboration; New Technologies in Exploration Geophysics; and Lightning Analysis Basics. Roice created a university program at Landmark Graphics Corporation which placed advanced interactive interpretation and new technologies for Landmark and for IHRDC all over the world. Landmark was <u>sold to Halliburton on 02 July 1996 for \$525 million</u>, 4 years after Roice left Landmark and lost his stock. The interactive seismic interpretation

He also created a consulting company (Walden 3-D, Inc., W3D, 1990). Roice left Landmark in 1993 to form HyperMedia Corporation and to consult on interpretation projects. Through Walden 3-D, Roice worked closely with Roger N. Anderson of Lamont-Doherty Earth Observatory of Columbia University in New York. This work started with studies of temperature-pressure driven dynamic replenishment of Eugene Island 330 through the Global Basin Research Network, and has continued with the Lamont 4-D Seismic Consortium, the Lamont Portfolio Consortium, and the formation of C.E.S., LLC, and vPatch, Inc. In addition, Roice worked for BHP for about a year on their subsalt team. As a result of this team's work, BHP won leases on over 70 Federal Lease Blocks in the Gulf of Mexico. HyperMedia attempted to commercialize a Unix, X-Windows, Motif, Client-Server, hypertext engine initially developed at Landmark in 1988. Although a site license was sold to Saudi Aramco for \$500,000. The company failed because competition was the free Mosaic and later Netscape software (1993), and Roice had guaranteed loans with Landmark stock, which stock went from \$24 per share to \$8 per share. Roice also worked for the Bureau of Economic Geology for over a year. This work involved being the 3-D seismic interpretation geophysicist on collaborative teams with Corpoven and Lagoven (Venezuela oil companies now part of Pedevesa or Petroleos de Venezuela, SA), respectively doing a production drilling study in the Orinoco heavy oil province (providing over 165 drilling locations), and a regional stratigraphic interpretation in the southern half of Lake Maracaibo. In 1998 Roice merged some consulting work being done with the <u>University of Houston's VETL (Virtual Environment Technology Laboratory, page 3</u>) and Energy Innovations to form Continuum Resources International Corporation. Continuum developed human scale visualization environments, and placed facilities at Imperial College in London, England and CURTIN University in Perth, Australia (both part of the Landmark University Program) and built a facility in west Houston. Continuum was doing real-time collaboration in human-scale visualization environments between Perth, London, and Houston in 1999, sending state changes over standard ISDN. Roice left Continuum because of management and because oil companies did not want to let interpretation data out of their control.

In 2000 Roice formed an exploration company (Dynamic Resources Corporation, DRC) to utilize industry and proprietary tools and processes to explore for, develop, and produce natural resources: hydrocarbons, geothermal energy, minerals, etc. This company has built a portfolio of over 200 exploration opportunities. Since geology does not change in human lifetimes, Roice expects to get financing for these projects some time. In 2008 Roice and friends created Dynamic Measurement LLC (DML), with the goal of leading out in a new passive electromagnetics branch in the exploration services industry, designed to explore for oil, gas, minerals, water, kimberlite pipes, etc. DML has 2 issued patent and an exclusive license to the best lightning databases available. DML has done ~50 projects from California to New York and from North Dakota to South Texas. This new exploration technology, mapping geology by datamining lightning strike databases, has demonstrated potential for oil & gas, mining, geothermal, aquifer exploration, and earthquake prediction.

In 2014 Roice and Andrea moved to their home town of Cedar City, Utah primarily to help Andrea's Mom, Maxine Shirts, who had just turned 90. We were able to help her for about five years, before she passed. Roice runs his four companies from his home, and business has been slow. He has given geology lectures at Enoch Elementary, North Elementary and East Elementary in Cedar, and a tour of Parowan Gap to 65 East Elementary 4th Graders. He also went to Bryce Canyon and gave a 2-hour lecture to 7th and 8th Grade students from Gateway Academy in Enoch. He has helped with several STEAM, STEM, Scout Expo, Children's Jubilee, Southern Utah Rock Club, and Mining Festival rock shows and demonstrations, and has sung 1-2 hours 20+ times at the Cedar City Art's Council's "Last Friday Art Walks." Having grown up in Cedar Valley, on the farm Gateway Academy is now located, Roice understands the importance of water to this area. He has given several presentations to The Central Iron County Water Conservancy District and the Iron County Commissioners about water and particularly 2 untapped aquifers within the Cedar Valley Drainage Basin. Field trips with the Iron County Commissioners and others have demonstrated the opportunity for new water sources within the drainage basin (see <u>http://www.walden3d.com/IronCounty/CedarValleyWater/</u>). In 2022, Roice joined with Steve Swann to form InterLeeV, LLC., an information management company, now with an issued Patent.

CONTACT INFORMATION

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Roice Nelson CHRONOLOGY

InterLeeV, LLC

14 January 2022 - Present

ILV established to list, compile, index, sort, retrieve, and display disparate data from multiple sources faster, easier, and more accurately, in a more critical and useful way, using 64-bit words, hashtags, or blocks in a block chain, without a lot of complicated processes or procedures (see 230303 Efficient Integration of Data).

Dynamic Measurement, LLC

October 2008 - Present

DML established to exploit using lightning data as an on-shore and shelf NSEM (Natural Sourced Electromagnetic Method) exploration tool and to create a new branch in the geophysical services industry.

Dynamic Resources Corporation

January 2001 - Present

DRC was established to identify, generate, and drill or mine prospects (good prospects never go away - they just get put on hold), until there is an opportunity to commercialize the prospects or new technologies related to them. *Walden 3-D, Inc. Finder/President*

May 1990 - Present

W3D established as a new company incubator, doing geotechnical consulting and mini-urban design. Primary companies started include DML, DRC, Walden Visualization Systems, vPatch, Advanced Structures Incorporated, HyperMedia Corporation. Completed major seismic interpretation projects on 5 continents, and developed several unique information technologies including The Infinite GridSM, The Knowledge BackboneSM, The Concept MachineSM, and the Abbott Atlas. *Geophysical Development Corporation (GDC) Vice President Interpretation*

April 2004 – September 2007

Opened GDC China market, and helped build an integrated interpretation business. Interpretation for Ji Dong (3700 B/D, largest find in China in 10 years), Tarim (130 BCM, 3rd largest gas field in Xinjiang), Da Qing, Xing Jiang, and Tuha Chinese Oilfields. Created GDC's TilesTM Studies.

Continuum Resources International CorporationCo-FounderSeptember 1997 - August 2000Demonstrating real-time terabyte collaboration in London England, Perth Australia, and Houston.Bureau of Economic Development, University of Texas at AustinConsultant1995 - 19973-D seismic interpretation geophysicist on collaborative teams working with Corpoven and Lagoven in Venezuela.HyperMedia CorporationCo-FounderJanuary 1991 - 2007Laborative teams working with Corposition

Designed, built, and produced a UNIX, X-Windows, Motif, Client-Server hypertext engine (publicity). Landmark Graphics Corporation Co-Founder

November 1982 - September 1992

Co-founder, only exploration geophysicist early on, established Landmark's University Program.University of Houston's Allied Geophysical Laboratory (AGL)Co-FounderUniversity of Houston's Seismic Acoustics Laboratory (SAL)General ManagerJanuary 1980 - November 1982Seismic Acoustics Laboratory (SAL)

Managed the physical modeling facility at the SAL. Helped create and managed four new labs.

Mobil Oil Corporation July 1974 - January 1980

Interpretation and acquisition geophysicist.

Amoco Corporation and Pan American Corporation

Summer 1973 & Summer 1970

Summer Intern and Assistant Geophysicist in Denver.

Co-Founder

Co-Founder/Manager

Finder/President

Co-Founder

Geophysicist

Assistant Geophysicist

- Business Development

EDUCATION

1981, MBA (Masters of Business Administration), Southern Methodist University (SMU).1974, B. S. Geophysics, University of Utah.1968, Cedar High School Redmen Graduate.

PROJECT EXPERIENCE

The map below shows locations of exploration projects Roice has worked on since 1970.



W3D Infinite GridSM Spatial Resume showing Roice's interpretation project locations.

Work as a geoscientist has provided solid experience in seismic data acquisition, processing, and interpretation. Seismic data acquisition training included work on seismic field crews in:

- Rock Springs and Green River, Wyoming (made 8-mm film of field crews for training program);
- The Great Salt Lake;
- Kalamazoo, Michigan;
- offshore Nigeria;
- offshore The Cameroons.

Running 4 seismic crews for 1 1/2 years resulted in extensive field experience in:

- Hugoton, Kansas;
- Mesquite, Nevada;
- Alvar, New Mexico;
- Findley, Ohio;
- on an Opseis land telemetry crew in Sayre, Oklahoma;
- Cedar City, Utah;
- Seminole, Pecos, and Laredo, Texas; as well as
- Gillette and Big Piney, Wyoming.

These crews used a variety of sources, including:

- shear-wave vibrators;
- P-wave vibrators;
- shot hole, Poulter staked explosives, surface explosives; as well as
- high frequency air guns on a barge in the Great Salt Lake;
- regular air guns; and
- various pressure & shear-wave piezoelectric elastic waves propagating through physical models at SAL.

Half a dozen noise studies were conducted and interpreted. Six months of seismic processing experience was supplemented by processing the physical and numerical model data at the SAL.

Regional interpretation projects include:

- The Andaman Sea, Indonesia, Malaysia and Thailand, MEPSI (Mobil E&P Services, Inc., 1975. -
- Offshore Falkland Islands, Argentina, and Uruguay, and Pelotas Basin, Brazil, MEPSI, 1975.*
- Composite Report, 16.5 million acres offshore Brazil Service Contract Blocks, MEPSI, 1976. *
- The Gargano High, Italy, MEPSI, 1976.
- 10x20 mile regional study of the Adua, Asabo, and Enang Area of OML 70, Nigeria, MEPSI, 1977.
- Abu Dhabi Lease Evaluation, MEPSI, 1977.
- First regional 2-D surveys shot with the same parameters connecting Mexico and US deep water fields, NOPEC, 2003.

Farm-In Evaluations:

- Scripps Institute of Oceanography, La Jolla, California, obtained available government seismic and well data, particularly in the Andaman Sea, MEPSI, 1975.
- West Casamance Permit Shell Farmout, Senegal, MEPSI, 1976.
- Approached government ministries in Senegal and Mauritania for possible farm-in opportunities in West Africa and for permission for the Ted Nelson to collect regional seismic data, MEPSI, 1976.
- The Gulf of Kutch Reading and Bates in Tulsa, India, MEPSI, 1976.

Detailed seismic interpretation projects include:

- Greeley Basin, Colorado, Pan American, 1970.
- Brady Unit, Sweetwater County, Wyoming, Pan American, 1970.
- Great Salt Lake, seismic acquisition plan, Amoco, 1973.*
- Senior Thesis (University of Utah): "A Reflection Seismic Study of the Quaternary Sediments of Yellowstone Lake," 1974.
- Block F-7 Dutch North Sea, Mobil, 1975.*
- West Cameroon Blocks 308 and 309 and East Cameron 262 in the Gulf of Mexico, Mobil, 1975.*
- Puerto Rico Reef Play, MEPSI, 1976.*
- Block II, Amazon Delta, Offshore Brazil, MEPSI, 1976.
- Statfjord Field Reapportionment, Norwegian North Sea, MEPSI, 1977.*
- Potential in Peru and Chile, MEPSI, 1977. *
- Bright Spot studies in OML 70, Offshore MEPSI, 1977. *
- Dozens of projects with Landmark Graphics customers, including a year study of the Jiji sub basin for the Bohai Oil Field, People's Republic of China.
- Eugene Island 330 for the GBRN (Global Basin Research Network). Co-founded GBRN with Dr. Roger Anderson and Dr. Larry Cathles. Interpreted 3D seismic from Pennzoil and interpreted the "Red Fault," which is described in "<u>Finding a Field of 'Streams' Fluid Flow Concept Could Boost Reserves</u>," by Louise S. Durham in May of 1994. This work relates to "<u>Development 3 D Yields New Find</u>," by Kathy Shirley.
- Participation with interpretation team High Island A339/A340 and A563 for Pennzoil in Gulf of Mexico.
- Evaluation of 15 open blocks for BHP Petroleum in the Eugene Island area, Offshore Louisiana, for the 10 May 1995 lease sale (BHP won 2 blocks with a combined bid of \$508,470 for one of the prospects, and Chevron / LL and E; won the other key identified prospect with a bid of \$575,000).

- The Boling Salt Dome, Waller County, TX.
- A Wilcox play above the Arbuckle in Oklahoma.

Research, Processing, Velocity, Gravity & Magnetics, & Management at MOBIL/MEPSI*:

- 3-D plastic sheet model of Dutch North Sea Interpretation Project Block F-7 in the Dutch North Sea;
- Proposal paper for a feasibility study of developing hardware and software to do interactive seismic interpretation and simultaneously display the results in 3D.
- Limited BASIC and FORTRAN programming experience.
- Batch Processing seismic offshore Egypt.
- Processed 1 seismic line offshore Louisiana.
- Hale's refraction project offshore California.
- Helped build stacking velocity computer file for Lithovel Study, Gulf of Alaska.
- Interactive modeling, Gargano High, Italy; Gravity model across Andaman Sea.
- Liaison for MEPSI Geophysical Manager for three months; processed job requests, wrote cables, etc.

HONORS AND SOCIETIES

- Co-Founded Southwestern Heritage Center Historical Society (<u>swhchs.org</u>) with Alva Leon Matheson and Frank Nichols, 23 November 2021. Determination Letter converting non-profit to a <u>501 (c) 3 Non-Profit</u>, 08 June 2022. Had 351 stories in the <u>Stories Database</u> (wrote 24 of these stories), as of 01 August 2023.
- Utah Geological survey, Survey Notes, Director' Perspective: "<u>The times they are a-changin'</u>," Bill Keach, Volume 53, Number 3, September 2021.
- President-Elect, President, Past-President, Cedar City Chapter of <u>Sons of Utah Pioneers</u>, 2018-2021, Cedar City Chapter Board Member and Monuments and Trek Committee 2021-Present.
- <u>Paul Nelson's comments about growing up with an entrepreneur</u>, Chief Architect of the Northrop Grumman Integrated Digital Enterprise (NGIDE) 2.0, Northrup Grumman, ONE, 1st Q 2021, page 34.
- GSH Journal, <u>A Conversation with Roice Nelson</u>, (Geophysical Society of Houston), 29 Jan 2011, p 18-22.
- CSEG Journal, <u>Think outside the box? He doesn't even know there is a box!</u> (Canadian Society of Exploration Geophysics), Satinder Chopra and Penny Colton Interview July 2007, Jan 2008, pages 12-24.
- TLE, <u>H. Roice Nelson Jr.: Quixotic geophysics</u>, Dolores Proubasta, The Leading Edge of The Society of Exploration Geophysicists (SEG), Jul 2003, pages 622-628.
- HBJ, "<u>A Landmark Trend in oil exploration</u>," L. Brubaker (Houston Business Journal), 12 Jan 1987, p. 12.
- American Association of Petroleum Geologists (Associate Editor, Geobyte, 1985-1992).
- Canadian Society of Exploration Geophysicists, 1984-1992.
- Geophysical Society of Houston (received Honorary Membership for life, 1990).
- Houston Geological Society, 1999-2002.
- <u>Society of Exploration Geophysics (Associate Editor, *Geophysics*, The Journal of the SEG, 1989-90; <u>Enterprise Award, 1999</u>), Life Member.</u>
- Excellence of Poster Presentation: "The Stratigraphy, Sedimentology and Chronostratigraphy of the Mobil Bay Fan, Northeastern Gulf of Mexico, coauthored by D. Bradford Macurda, Jr. and Gary L. Jones, SEPM (Society for Sedimentary Geology), 07 March 1995.
- Resolution passed by unanimous consent of The Board of Directors of Landmark Graphics Corporation: "... recognizing that the success which the Company has attained has been in large measure do to Mr. Nelson's earnest efforts and untiring devotion ...," 12 January 1995.
- World Future Society, 1990-1996.
- Urban Land Institute, 1993-1996.
- European Association of Exploration Geophysicists, 1981-1994.
- Chinese Society of Scientists in 1989-1992.
- Who's Who in the South and Southwest, 1979-1987 editions.
- Dallas Geophysical Society, 1976-1980.
- Society of Exploration Geophysicists Scholarship, 1973-1974
- Sun Oil Scholarship, 1973.

- Missionary, <u>The Church of Jesus Christ of Latter-Day Saints</u>, British Mission turned England East Mission, Canterbury, Ipswich, Norwich, Harlow New Town, Islington, Hyde Park, 1970-1972.
- Phi Eta Sigma (freshman honorary fraternity).
- Pan American Petroleum Scholarship, 1969-1970.
- Phi Sigma Kappa scholarship award, 1969, in Phi Sigma Kappa (social fraternity).
- Honors at Entrance Scholarships, University of Utah (and Utah State university, turned down), 1968-1969.

SCHOOLS ATTENDED

- Basin Analysis and Sedimentary Geology, Houston, TX, 1990.
- Vertical Seismic Profiling, A Short Course and Seminar, Southeastern Geophysical Society, New Orleans, LA, 25 March 1981.
- Three-Dimensional Display Techniques, Institute for Graphics Communications, Andover, MA, May 20-22, 1980.
- 3-D Seismic Technique School, SEG, Houston, TX, 18-19 September 1979.
- Carbonate/Sandstone Short Course, Mobil FRL, North Texas, 21-25 August 1978.
- Introductory Well Logging School, Mobil ESC, Dallas, TX, 16-18 August 1977.
- HCI School, Mobil ESC, Dallas, TX, 18-22, April 1977.
- Basic Well Logging School, Mobil ESC, Dallas, TX, 1-19 November 1976.
- Gravity and Magnetics School, Mobil ESC, Dallas, TX, 1 week, April 1975.
- Seismic Exploration II, Mobil ESC, Dallas, TX, 28 October 8 November 1974.
- Mobil Oil Corporation, 1-year training, Dallas, TX, Lagos, Nigeria, and Kalamazoo, MI, 1974-1975.
- Mission: The Church of Jesus Christ of Latter-Day Saints, Called to British Mission, changed to England East Mission just before reported, Oct 1970 Nov 1972.
- N.S.F. Earth Sciences Program (Meteorology, Oceanography, and Geology), Oregon State University, Corvallis, OR, 7 weeks, summer of 1968.
- J.E.S.S.I. (Junior Engineers and Scientists Summer Institute), New Mexico State University, Las Cruces, New Mexico, two weeks summer of 1967.

ACTIVITIES

- U.S. Patent: "<u>Efficient Integration of Data into Augmented and Virtual Reality Environments</u>," H. Roice Nelson, Jr., Steven C. Swann, United States Patent Office, US Patent 11,494,952 B1, Cedar City, Utah, 08 November 2022; <u>24 August 2023 Publication</u>.
- U.S. Patent: "<u>Method for Determining Geological Surface and Subsurface Resistivity</u>," L.R. Denham, H. Roice Nelson, Jr., & D. James Siebert, United States Patent Office, US Patent 9,523,785 B2, Houston, TX, 20 Dec 2016.
- U.S. Patent: "<u>Method for Locating Sub-Surface Natural Resources</u>," H. Roice Nelson, Jr, Joseph H. Roberts, D. James Siebert, Wulf E. Massell, Samuel D. LeRoy, Leslie R. Denham, Robert Ehrlich, Richard L. Coons, United States Patent Office, US Patent 8,344,721 B2, Houston, TX, 01 Jan 2013.
- 2 Chinese news releases, each tied to a project Roice did the first interpretation on for Chinese clients: <u>First</u>

Date: Oct 12, 2007 3:41 PM Subject: Dabei-3

The gas field, known as Dabei-3, boasts an estimated reserve of as much as 130 billion cubic metres, and will serve as an important backup supply source for the west-east gas pipelines," the unnamed source told the China Daily newspaper. PetroChina's Beijing office declined to comment but the official Xinhua news agency quoted officials in the Xinjiang as confirming the company had discovered 130 bcm of natural gas.

The discovery has the potential to be the third largest gas field in Xinjiang, after Kela-2 and Dina-2 gas fields, said Dai Jinxin, a researcher with the Research Institute of Petroleum Exploration and Development affiliated with PetroChina. "Gas fields with reserves of more than 100 bcm are considered giant gas fields even globally," Dai said. Since more exploration and evaluation are needed at the new field, it is too early to give any specific figures, the source added.

"We will drill more appraisal wells to determine the final reserve at a cost of around 200 million yuan

(\$26.6 million)," the insider said.

Second

20 March 2007 06:03 GMT | last updated: 20 March 2007 07:05 GMT

PetroChina joins Bohai payday By Upstream staff

PetroChina has made a significant oil discovery in the tidal and shallow water areas of Bohai Bay in northern China, the company said at a press conference. The Beijing-based integrated giant said "a series of significant breakthroughs and important developments were accomplished at the Jidong tidal and shallow water areas in Bohai Bay Basin".

With an initial daily output of 500 tonnes (3700 barrels), the Bohai Bay field is "the largest find in China in 10 years," said PetroChina's vice-chairman and president Jiang Jiemin at a press conference in Hong Kong yesterday. No other details on the field were revealed.

The company said it also made breakthroughs at "Baibao, Jiyuan and the surrounding areas of Sulige in the Erdos Basin, the northern part of Songliao Basin, the Sichuan Basin, and the northwestern rim of the Junggar Basin," China Daily reported. PetroChina said it now has six domestic oil and gas fields with annual output "breaking through 10 million tonnes of oil equivalent" including Daqing, Changqing, Tarim, Xinjiang, Liaohe and the Southwest oilfields.

Another large Chinese oil company CNOOC Limited yesterday revealed a large oil and gas discovery in Bohai Bay called Bozhong (BZ) 28-2E.

CNOOC Ltd said it had made four discoveries in the Yellow River Mouth Sag of Bohai Bay and hoped "to develop a large-scale cluster of oil and gas fields in the future".

- Instructor, <u>Lightning Analysis Basics</u>, 421-page manual:
 - 1. Iron Springs Resort, 19-21 January 2021
- Instructor, "Interactive 3-D Seismic Interpretation Emphasizing Carbonates," H. Roice Nelson, Jr., Dubai Princess Hotel, Interadigm Course, 27 September 2011:
 - 1. Introductions and Overview
 - The Brain Exercise
 - 2. <u>Relating Seismic Acquisition, Processing, and Interpretation</u>
 - SketchUp Exercises
 - SALNOR Workshop & Answers
 - 3. <u>Seismic Interpretation Principles and Workflow</u>
 - <u>Contouring Exercise</u>
 - <u>Carbonate Outcrop Workshop</u>
 - <u>Carbonate Patterns Workshop</u>
 - 4. <u>Seismic Attributes</u>
 - 5. Advanced Seismic Interpretation and Reservoir Characterization
 - 6. <u>Seismic Exploration Breakthroughs</u>
- Arranged publication into Chinese of Fred J. Hilterman's book: "Seismic Amplitude Interpretation," <u>Cover</u>, <u>Bio</u>, <u>Preface</u>, 29 Nov 2006.
- <u>GSH 1999 Spring Symposium / 15th Annual SEG Gulf Coast Technical Meeting and Virtual Reality Tour</u>, page 13, H. Roice Nelson, Jr. General Chairman, Continuum Resources Corporation, April 15-16, 1999.
- Co-authored with Dr. Carolyn Sumners and Gary Young, "<u>Astronomy of the Ancient Americas</u>," Houston Museum of Natural Science, Burke Baker Planetarium Show, Houston, TX, 03 January 29 May 1992.
- Instructor, Landmark School: Interactive Sequence Stratigraphy:
 - 1. Sydney, Australia, 25 February 1991
 - 2. Melbourne, Australia, 26 February 1991
 - 3. Perth, Australia, 28 February 1991 & Perth, Australia, 01 March 1991
 - 4. Jakarta, Indonesia, 4 March 1991 & Jakarta, Indonesia, 5 March 1991
- Instructor, Landmark School: <u>New Technologies in Exploration Geophysics</u>: Prior to Congreso Venezolano De Geofisica, Caracaras, Venezuela, one day course for Venezuelan oil company managers, 20 Oct 1990.
- Instructor, Landmark School: Interactive Interpretation Procedures:
 - 1. Public Schools:
 - New Orleans, LA, April, 1987.

- London, England, 26-29 May 1986.
- Washington D. C., October, 1985.
- Denver, CO, 15-26 July 1985
- London, England, 3-13 April 1985
- Houston, TX, 1-12 April 1985
- Calgary, Alberta, Canada, 19-27 February 1985
- New Orleans, December 1984
- Houston, TX, October 1984
- 2. Private Schools:
 - Amoco, New Orleans, LA, August 1986
 - Orion Surveys, Kristiansand S., Norway, 27-28 February 1986
 - Placid, New Orleans, 19-21 November 1985
 - Texaco, New Orleans, 28-30 October 1985
 - Texaco, Los Angeles, CA, 24-26 June 1985
 - Marathon International, Houston, 22-25 April 1985
 - Shell Research, The Hague, 21-25 January 1985
- Instructor, IHRDC school: <u>New Technologies in Exploration Geophysics</u>:
 - 1. Public Schools:
 - Derah Dun, India, 16-20 December 1985.
 - Denver, CO, 5-7 September 1984.
 - London, England 25-27 June 1984.
 - <u>Calgary, Canada May 2-4, 1984</u>.
 - Houston, Texas March 21-23, 1984.
 - Derah Dun, India, 7-11 November 1983.
 - Caracas, Venezuela, 20 October 1983.
 - London, England, 6-8 June 1983.
 - Denver, CO, 18-20 May 1983.
 - 2. Private Schools:
 - Getty Oil, Houston, TX, 4-7 June 1984.
 - IFP, Paris, France, 29 February 2 March 1984.
 - Bass Enterprises, Steamboat Springs, CO, 6 December 1983.
 - Caracas, Venezuela, October 1983.
- Instructor, Landmark Graphics Sales Training, March 25, 1984.
- Guest Speaker, Pacific Coast Section of the SEG:
 - 1. Los Angeles, CA, 02 November 1988
 - 2. Bakersfield, CA, 01 November 1988
 - 3. Ventura, CA, 31 October 1988
- Guest Speaker, Pacific Coast Section of the SEG:
 - 1. Bakersfield, CA, 14 May 1985.
 - 2. Los Angeles, CA, 13 May 1985.
- Guest Speaker, Southeastern SEG, New Orleans, LA, 30 April 1985.
- Guest Speaker, CPS/SEG Joint Meeting, Beijing, People's Republic of China, 12-16 April 1985.
- Guest Speaker, Houston Geophysical Society's Modeling Symposium, Houston, TX, 10 May 1983.
- Co-Authored with Martha Ellyn Nelson, and helped put on a two-hour musical with twelve original songs, "Swedish Roots," Dallas First Ward, Dallas, TX, 1979, Maplewood II Ward, Houston, TX, 15 April 1983.
- Guest Speaker, Tulsa Geophysical Society's Seminar "Computer Assisted Interpretation," Tulsa, OK, 21 March 1983.
- Guest Speaker, Austin Geological Society, Monthly Meeting, Austin, TX, 7 March 1983.
- Guest Speaker, Texaco, Thursday Research Seminar, Houston, TX, 2 December 1982.
- Guest Speaker, Distinguished Lecture Series, Southern Utah State College, Cedar City, UT, 5 August 1982.
- Guest Speaker, CDC Petroleum Executive Seminar, Minneapolis, MN, 12-14 July 1982.
- Lecturer, SAL 3-D Seismic Techniques School, Oxford, England, 15-17 June 1982.

- Lecturer, SAL 3-D Seismic Interpretation Workshop, Norwegian Petroleum Society, Kristiansand S., Norway, 10-12 March 1982.
- Lecturer, SEG 3-D Seismic Techniques School:
 - 1. Houston, TX, 9-10 December 1981
 - 2. Calgary, Alberta, Canada, 8-9 June 1981.
- Guest Speaker, CDC Petroleum Executive Seminar, Minneapolis, MN, 3-5 June 1981.
- Quoted in John Noble Wolford's "<u>The Mapmakers</u>," Alfred a. Knopf, New York, 1981.
- First documented <u>Description of Geophysical Work Experience</u>, <u>December 1979</u>.

CO-ORGANIZED THESE SEG RESEARCH COMMITTEE WORKSHOPS:

- Anderson, R. N., Lamont-Doherty Geological Observatory; Cathles III, L. M.; Nunn, J.; Nelson, Jr., H. R.; Klaveness, A., Klaveness Research; "Active Fluid Flow in Dynamic Sedimentary Basins," Workshop at SEG Sixty-Second Annual International Meeting and Exposition, New Orleans, LA, 25-29 October 1992.
- Bahorich, Mike, Amoco Research; Bowen, Bruce, TGS; Brumbaugh, Conoco; Dorn, Geoff, ARCO; Johnston, Dave, Exxon; Jones, Gary and Nelson, Jr., H. R., Landmark/LGC; "Sequence Stratigraphy," Workshop at SEG Sixty-Second Annual International Meeting and Exposition, New Orleans, LA, 25-29 October 1992.
- Cauldwell, Jack; "Lithology Determination," SEG Research Committee Summer Workshop, St. Louis, MO, 29 July 1 August 1991.
- Kirk, Rob; and Nelson, Jr., H. R.; "Petroleum Exploration Sequence Stratigraphy," Workshop at ASEG 8th Conference and Exhibition, Sydney, Australia; 22-24 February 1991.
- Nelson, Jr., H. R.; Stark, Tracy J.; Wyatt, Kay Dautenhahn; Dorn, Geoffrey A.; Ottolini, Richard A.; Massell, Wulf F.; Sovelius, Paul E.; and Shanks, John L.; "<u>Scientific Visualization</u>;" Society of Exploration Geophysicists Sixtieth Annual International Meeting & Exposition; San Francisco, CA; (<u>Report by John L.</u> <u>Shanks</u>) 28 September 1990.
- Nelson, Jr., H. R.; and Hugg, James W.; "<u>Sequence Stratigraphy</u>," Society of Exploration Geophysicists 58th Annual International Meeting and Exposition; Anaheim, CA; 03 November 1988.
- Wyatt, R. D.; Nelson, Jr., H. R.; Wassen, C. B.; "Interval Velocity Determination;" Society of Exploration Geophysicists Annual International Meeting and Exposition; Houston, TX; 11-15 October 1987.
- Treitel, Sven; Hoover, Gary; Paul, Don; Hilterman, Fred J.; Skerl, Damirl; Hewitt, Marvin R.; Elliott, Sheldon E.; and Nelson, Jr., H. R. who gave a presentation titled: "The Role of Technology Transfer," Research Committee Symposium; Annual SEG Convention; Houston, TX; November 1986.

PROFESSIONAL PRESENTATIONS

299. "230303 Efficient Integration of Data," White Paper by H. Roice Nelson, Jr. & Steven C. Swann

- 298. "<u>Concentrations of placer minerals in Mississippian Antler Basin regressive sequences</u>," Dr. Alan Chamberlain, Larry McMaster, and H. Roice Nelson, Jr., Nevada Geological society Symposium, Reno, NV, 02-04 May 2022.
- 297. "Detecting metal concentrations with surface gamma ray logs," Dr. Alan Chamberlain, Larry McMaster, and H. Roice Nelson, Jr., Nevada Geological society Symposium, Reno, NV, 02-04 May 2022.
- 295. "Great Basin portion of the western North American Cordillera," Dr. Alan Chamberlain, Larry McMaster, and H. Roice Nelson, Jr., Nevada Geological society Symposium, Reno, NV, 02-04 May 2022.
- 294. "<u>Regional Lightning Analysis</u>," <u>Screen Capture & Supporting Animation</u>, Les R. Denham, Dr. Dan Ebrom, and H. Roice Nelson, Jr., Hart Energy, 05 July 2021.
- 293. "<u>Rainbird Village</u>," Colleen Dick, Harrison Quigley, H. Roice Nelson, Jr., Plans for Permaculture Development near Cedar City, 12 May 2021.
- 292. "Bavinger House and Lighting," Friends of Kebyar Journal, v35.2 No. 90, Dec 2020.
- 291. "Lightning Analysis Creating Geo-Frameworks," (PowerPoint animations), Sun City Rock-On Geology Club, 12 Oct 2019.
- 290. "Field to Regional Lightning Analysis Projects Results and Opportunities," Dynamic Measurement White Paper, H. Roice Nelson, Jr., July 31, 2019.

- 289. "<u>Recent advances in remote sensing technologies for hydrocarbon exploration and environmental</u> <u>evaluation</u>," Yongye Li, Roice Nelson, William Jeffery, Douglas Foster, Dominique Dubucq, Michel Verliac, Khalid Soofi, and Ira Leifer, The Leading Edge, pages 554-555, July 2019.
- 288. "The Nature of Members of the Godhead, Angels, and Satan," H. Roice Nelson, Jr., White Paper, June 15, 2019.
- 287. "<u>Untapped Aquifers Cedar Valley Drainage Basin</u>," H. Roice Nelson, Jr., Notes for Iron County Commissioners: Untapped Aquifers Field Trip, 08 Mar 2019
- 286. "Does Lightning Strike Twice?" H. Roice Nelson, Jr., Les R. Denham, Dr. Jim Siebert, & Kathleen S. Haggar, GEO ExPro Volume 15 number 5 pages , London, England, 22 Oct 2018.
- 285. "Lightning Analysis at South Carolina Superfund Site," (PowerPoint) Kathleen S. Haggar & H. Roice Nelson, Jr., SEG 2018 Annual Convention Remote Imaging Workshop, Anaheim, CA, 19 Oct 2018.
- 284. "<u>Harris County, Texas Lightning Analysis Fault Interpretation</u>," L. J. Berent & H. Roice Nelson, Jr., SEG 2018 Annual Convention Remote Imaging Workshop, Anaheim, CA, 19 Oct 2018.
- 283. "<u>Remote Imaging and Lightning Analysis</u>" (<u>Abstract, PowerPoint animation</u>), H. Roice Nelson, Jr., Les R. Denham, and Dr. Jim Siebert, SEG 2018 Annual Convention Remote Imaging Workshop, Anaheim, CA, 19 Oct 2018.
- 282. "Dynamic Measurement Seeking \$600,000 To Build a New Branch in the Geophysical Services Industry," (<u>PowerPoint animation</u>) H. Roice Nelson, Jr., Les R. Denham, Dr. Jim Siebert, Michael F. Reed, Louis J. Berent, & Kathleen S. Haggar, SEG 2018 Annual Convention – JaWS (Juice a Winning Startup – Shark Tank), Anaheim, CA, 16 Oct 2018.
- 281. "Integrated EM technologies map contamination plumes, seeps, geohazards faults and possible migration pathways at Barite Hills / Nevada Gold Fields EPA Superfund Site in South Carolina, USA: <u>Left</u>, <u>Middle</u>, <u>Right</u>," Kathleen S. Haggar, H. Roice Nelson, Jr., & Louis J. Berent, 2018 AAPG Annual Convention, Salt Lake City, Utah, 22 May 2018.
- 280. "Mapping Subsurface Faults with Lightning and Resistivity: <u>Left</u>, <u>Middle</u>, <u>Right</u>," Louis J. Berent & H. Roice Nelson, Jr., 2018 AAPG Annual Convention, Salt Lake City, Utah, 22 May 2018.
- 279. "<u>Mining and Oil & Gas Applications of Lightning Analysis</u>," Dr. D. James Siebert, Kathleen S. Haggar, Louis J. Berent, & H. Roice Nelson, Jr., Vaisala's Bi-Annual ILDC/ILMC Convention, Ft. Lauderdale, FL, 13 Mar 2018.
- 278. "Lightning data analysis provides geologic insights at South Carolina EPA Superfund Site," Kathleen S. Haggar, Dr. D. James Siebert, Louis J. Berent, & H. Roice Nelson, Jr., Vaisala's Bi-Annual ILDC/ILMC Convention, Ft. Lauderdale, FL, 13 Mar 2018.
- 277. "Shocking Path of Least Resistance Shines Light on Subsurface by Revealing the Paths of Water and the Presence of Faults: Stacked EM Case Studies over Barite Hills Superfund Site in South Carolina -or- 3 EM Case Studies over a superfund Site / Former Gold Mine, South Carolina, USA," Kathleen S. Haggar, H. Roice Nelson, Jr., and Louis J. Berent, AGU (American Geophysical Union), New Orleans, LA, 13 Dec 2017.
- 276. "<u>How to Test Fractured Quartz Monzonite Aquifer; How to Test Cretaceous Aquifer</u>," H. Roice Nelson, Jr.,
 5-page answer to Paul Cozzens' question "How do you test these proposed new aquifers?", 17 Aug 2017.
- 275. "Lightning Risk Points," H. Roice Nelson, Jr., The Leavitt Group, Cedar City, Utah, 28 Jun 2017.
- 274. "<u>An Unconventional Tool for Unconventional Exploration AAPG Poster 2614153</u>," Louis J. Berent & H. Roice Nelson, Jr., 2017 AAPG Annual Convention, Houston, Texas, 05 Apr 2017.
- 273. "Calibrating Apparent Resistivity Traces, Lines, and Volumes Derived from Lightning Strike Data in South <u>TX – AAPG Poster 261411</u>," Kathleen S. Haggar, H. Roice Nelson, Jr., Louis J. Berent, & Les R. Denham, 2017 AAPG Annual Convention, Houston, Texas, 05 Apr 2017.
- 272. "<u>Harnessing Lightning in the Hunt for Hydrocarbons AAPG Poster 2614175</u>," Louis J. Berent & H. Roice Nelson, Jr., 2017 AAPG Annual Convention, Houston, Texas, 04 Apr 2017.
- 271. "Memorial, Richard L Coons," The Leading Edge, page 362, April 2017.
- 270. "Geology and Water: The Framework of Southern Utah," H. Roice Nelson, Jr., The Iron County Historical Society Monthly Meeting, Cedar City, Utah, 08 Mar 2017.
- 269. "Lightning Analysis: creating geo-frameworks," H. Roice Nelson, Jr., University of Utah Geoscience Department invited presentation to faculty and students, Salt Lake City, Utah, 03 Mar 2017
- 268. "Lightning Analysis: creating geo-frameworks," H. Roice Nelson, Jr., Southern Utah Rock Club Monthly Meeting, Cedar City, Utah, 02 Mar 2017.
- 267. "Interview on Empire-Broadcasting Radio Network," H. Roice Nelson, Jr. by Michael David, New York, New York from Cedar City, Utah, 05 Jan 2017.

- 266. "Lightning Analysis for Mapping Faults and Identifying Exploration Sweetspots," H. Roice Nelson, Jr., 201 SEG Convention HPC Visualization Theater, Dallas, TX, 17-18 Oct 2016.
- 265. "Using Lightning Databases to derive Rock Property and Lightning Attribute Maps and Volumes," H. Roice Nelson, Jr. & Dr. Jim Siebert, presentation to students and professors tied to joint geothermal grant, application, SMU (Southern Methodist University) University Presentation, Dallas, TX, 14 Oct 2016.
- 264. "Lightning Analysis for Mapping Faults and Identifying Exploration Sweetspots," with notes, H. Roice Nelson, Jr., Rocky Mountain + Pacific Coast AAPG Meeting, Las Vegas, NV, 04 Oct 2016.
- 263. "<u>The History of Seismic Interpretation Workstations</u>," H. Roice Nelson, Jr., DHI (Direct Hydrocarbon Indicator) Consortium Meeting, The Woodlands, TX, 22 Sep 2016.
- 262. "Lightning Sparks Interest in the Unconventional Mapping of Active Subsurface Faults," Louis J. Berent & H. Roice Nelson, Jr., 2016 GCAGS (Gulf Coast Association of Geological Societies) Oral Presentation, Corpus Christi, TX, 19 Sep 2016.
- 261. "<u>New Lightning Attribute Volumes Compared to the BEG's Stratton 3D Seismic Survey</u>," Kathleen S. Haggar, Les R. Denham, and H. Roice Nelson, Jr., 2016 Gulf Coast Association of Geological Societies (GCAGS), Corpus Christi, TX, 19 Sep 2016.
- 260. "<u>The Cedar Valley Aquifer and The Cedar Valley Drainage Basin</u>," Gary Farnsworth Player & H. Roice Nelson, Jr., Cedar City Rotary Club, Cedar City, Utah, 06 Sep 2016.
- 259. "<u>The Cedar Valley Aquifer and The Cedar Valley Drainage Basin</u>," Gary Farnsworth Player & H. Roice Nelson, Jr., Presentation to the Board of Commissioners of the County of Iron, State of Utah, Parowan, Utah, 11 Jul 2016.
- 258. "Lightning Sparks Interest in Unconventional Exploration!" Whiting Petroleum Webinar, Cedar City UT to Midland, TX, Roice Nelson & Louis Berent, 03 Mar 2016.
- 257. "Introduction: Using Lighting Databases to obtain resistivity information for geothermal exploration," H. Roice Nelson, Jr., Dr. Jim Siebert, and Les R. Denham, DOE HADES (Hot And Deep Energy Seminar) Lunch 'N Learn Webinar, Cedar City, UT to Denver, CO and Pittsburg, PA, 19 Jan 2016.
- 256. "Lightning, A Shockingly Unconventional Technology for Exploration," D. James Siebert, Louis J. Berent, & H. Roice Nelson, Jr., West Texas Geological Society Bulletin, Volume 55, Number 3, pages 16-17 & 20-23, Jan 2016.
- 255. "<u>A New E&P Tool Lightning Database</u>," H. Roice Nelson, Jr., DML University Program Webinar for Texas A&M Graduate Students, on-line from Cedar City, Utah to College Station, Texas, 06 Oct 2015.
- 254. "<u>Lightning, A Shockingly Unconventional Way to Conduct Exploration</u>," Louis Berent & Roice Nelson, 2nd Annual Texas Hydro~Geology Workshop, Cave Without A Name, Boerne, TX, 25 Sep 2015.
- 253. "<u>Mapping Faults with Lightning, Natural-Sourced Electomagnetics (NSEM)</u>," Louis J. Berent (with H. Roice Nelson, Jr.), GCAGS, September 22, 2015.
- 252. "<u>Analysis of the Goose Point area near Lacombe, Louisiana, Validates new geophysical Data Type –</u> <u>Natural Sourced Electromagnetism (NSEM) – for Detection of Lineaments Associated with Faults and</u> <u>Sedimentary Features</u>," Kathleen S. Haggar, Les R. Denham, and Louis J. Berent (with H. Roice Nelson, Jr.), GCAGS, September 22, 2015.
- 251. "<u>Rock Properties from Lightning Databases: Transforming Geotechnical Operations and Accelerating the Time-to-Value</u>," H. Roice Nelson, Jr. & Dr. Jim Siebert, Landmark LIFE (Landmark Innovation Forum and Exposition), Houston, TX, 25-26 Aug 2015.
- 250. "Optimizing West Desert Drilling Locations with Maps and Rock Property Volumes Derived from Lightning Databases," H. Roice Nelson, Jr., CICWCD Board Meeting (Central Iron County Water Conservancy District), Cedar City, UT, 18 Jun 2015.
- 249. "<u>Geologic Frameworks derived from Lightning Maps and Resistivity Volumes</u>," Kathleen S. Haggar, Louis J. Berent, & H. Roice Nelson, Jr., 2015 AAPG Annual Convention, Denver, CO, 02 Jun 2015
- 248. "<u>Aquifers, Faults, Subsidence, and Lightning Databases</u>," K. S. Haggar, L. Denham, & H. R. Nelson, Jr., Louisiana Remote Sensing & GIS Conference, Baton Rouge, LA, 12 May 2015.
- 247. "<u>Aquifers, Faults, Subsidence and the Lightning Data Base ... and Lagniappe</u>," K. S. Haggar, L. Denham, & H. R. Nelson, Jr., NOGS Lunch (New Orleans Geological Society), New Orleans, LA, 04 May 2015.
- 246. "Lightning A Shockingly Unconventional Technology for Exploration," Jim Siebert, Louis Berent, & Roice Nelson, 2014 SW-AAPG Convention, Wichita Falls, TX, 14 Apr 2015.
- 245. "Deriving Exploration Maps and Rock Property Volumes from Lightning Databases," H. Roice Nelson, Jr.
 & Dr. D. James Siebert, Introductory Presentation at Brigham Young University, Provo, UT, 22 Jan 2015.
- 244. "Using Lightning for Exploration," Les R. Denham, Dr. Jim Siebert, and H. Roice Nelson, Jr., GSH (Geophysical Society of Houston) Potential Fields SIG (Special Interest Group), Houston, TX, Jan 15, 2015.

- 243. "<u>Plan, Build, and Protect Remotely Mapping Geology with Naturally Sourced Electromagnetic Analysis</u> (<u>NSEM</u>)," Kathleen S. Haggar & H. Roice Nelson, Jr., New Orleans Division - U.S. Army Corps of Engineers, New Orleans, LA, 19 Dec 2014.
- 242. "<u>SLFPA-W Geological Facts-of-Life: Flood Protection in Coastal Louisiana</u>," Kathleen S. Haggar & H. Roice Nelson, Jr., Technical Review SLFPA-W (South Louisiana Flood Protection Agency – West), New Orleans, LA, 17 Dec 2014.
- 241. "Using Resistivity from Lighting Databases in Exploration 5 Resistivity Volume movies: <u>George_Bush_Park.gif; North_Houston.gif; cube_display.gif; log-correlation_movie.gif; and seismic-resisivity_movie.gif</u>, Kathleen S. Haggar & H. Roice Nelson, Jr., Joint Lafayette Geological Society (LGS) & Lafayette SIPES Lunch, Lafayette, LA, 19 Nov 2014.
- 240. "<u>Resistivity Volumes from Lightning Databases</u>," "<u>Seminar on Resistivity Volumes</u>," Dr. Jim Siebert, Les R. Denham, and H. Roice Nelson, Jr., Hilton Garden Inn during 2014 SEG Convention, Denver, CO, 29 Oct 2014.
- 239. "<u>Aquifers, Faults, Subsidence, and Lightning Databases</u>," Kathleen S. Haggar, Les R. Denham, and H. Roice Nelson, Jr., 2014 Gulf Coast Association of Geological Societies (GCAGS), Lafayette, LA, 07 Oct 2014.
- 238. "<u>Using Lightning Data Analysis as a geologic framework for Exploration and Planning</u>," H. Roice Nelson, Jr., Southern Utah University Science Center Room 122, Cedar City, Utah, 22 Sep 2014.
- 237. "Enhancing Reservoir Characterization using Lightning Strike Data," H. Roice Nelson, Jr., Dr. Jim Siebert, and Les R. Denham, LIF: Landmark Innovation Forum, Houston, TX, 04 Sep 2014.
- 236. "<u>Cedar Valley Water Field Trip Notes</u>," Gary F. Player Geologist, H. Roice Nelson, Jr. Geophysicist, Field Trip for Brent Hunter, Paul Monroe, and Spencer Jones, Central Iron County Water Conservancy District (CICWCD), Cedar City, Utah, 18 Jul 2014.
- 235. "Lightning Maps and Resistivity Volumes," First Announcement Resistivity Volumes, Barker, TX, 20 May 2014.
- 234. <u>"Mapping Faults and Natural Resources with Lightning Data Bases</u>," H. Roice Nelson, Jr., Xie Zhishuang (Steven), D. James Siebert, L.R. Denham, CPS-SEG 2014 Conference: Advancing Geophysical Innovation, Beijing, China, 21 Apr 2014.
- 233. "<u>The Technology and Economics of Lightning Analysis</u>," H. Roice Nelson, Jr. & Kathy S. Haggar, Southwest Louisiana Geophysical Society, Lafayette, LA, 15 Apr 2014.
- 232. "<u>Telluric and Earth Currents, Lightning Strike Locations, and Natural Resource Exploration</u>," H. Roice Nelson, Jr., Les R. Denham, and Dr. Jim Siebert, 2014 AAPG Annual Convention, Houston, TX, 09 April 2014.
- 231. "Lightning, A New Key for Pipeline Protection," Jim Siebert (and silent author, Roice Nelson), Pipeline & Gas Journal, Vol. 241 No. 2, 18 Feb 2014.
- 230. "<u>Finding Faults with Mother Nature</u>," Rhonda Duey, Executive Editor's interview with Roice Nelson and Jim Siebert, Hart Energy, Houston, TX, 03 Feb 2014.
- 229. "<u>Analytics, Aquifers, Faults, and Lightning Databases</u>," H. Roice Nelson, Jr. & Kathy S. Haggar, Baton Rouge Geological Society, Baton Rouge, LA, 13 Dec 2013.
- 228. "There is a difference between an education and obtaining a degree, from the perspective of an old car, 3-D seismic, and lightning data analysis," H. Roice Nelson, Jr., SUU Research Symposium, Cedar City Utah, 18 Nov 2013.
- 227. "Lightning Data and Resource Exploration," L.R. Denham, H. Roice Nelson, Jr., D. James Siebert, 2013 Annual SEG Convention, Houston, TX, 18 Sep 2013.
- 226. "Lightning Strikes A New Exploration Tool?," Ken Milam, Explorer Correspondent's interview with H. Roice Nelson, Tulsa, OK, AAPG Explorer, June 2013, pages 26 and 28.
- 225. "Lightning Data: a new geophysical data type," H. Roice Nelson, Jr., D. James Siebert, L.R. Denham, 2013 AAPG Annual Convention, Pittsburg, PA, 20 May 2013.
- 224. "Yes, lightning does strike twice in the same place!," H. Roice Nelson, Jr., Introductory presentation at University of Utah, Salt Lake City, UT, 19 Mar 2013.
- 223. "Lightning data the new EM "seismic" data," H. Roice Nelson, Jr., D. James Siebert, L.R. Denham, 2012 SEG Convention Workshop - invited by Dr. Kurt Strack, Las Vegas, NV, 08 Nov 2012.
- 222. "<u>Lightning Data a new tool for geophysical exploration</u>," H. Roice Nelson, Jr., D. James Siebert, and L.R. Deham, Dynamic Measurement LLC, Abstract prepared for 2012 AAPG, 03 April 2012.
- 221."Clarification of the term 'Aged Peat'", H. Roice Nelson, Jr., Report for Humatech Inc., 05 February 2013.

- 220. "Interactive 3-D Seismic Interpretation Emphasizing Carbonates," H. Roice Nelson, Jr., Dubai Princess Hotel, Interadigm Course, 27 September 2011.
- "<u>Rock Property Data Volumes from Well Logs</u>," L. R. Denham, Interactive Interpretation & Training, and H. Roice Nelson, Jr., Geokinetics Processing & Interpretation, Poster Paper, AAPG Annual Convention, Los Angeles, CA, 2007.
- 218. "<u>AVO and Seismic Processing Implications from a Regional Database of Velocity and Other Acoustic Rock Property Trends</u>," H. R. Nelson, Jr., Geophysical Development Corporation, S.D. LeRoy, Earthview Associates, Inc., L.R. Denham, Interactive Interpretation and Training, Inc., P.J. Desai, M.E. Guthrie, and M.A. Dunn, Geophysical Development Corporation, Poster Paper, EAGE, 07 June 2006.
- 217. "<u>Water and Energy Alternatives 50 Proposed Studies</u>," H. Roice Nelson, Jr., Central Iron County Water Conservancy District (CICWCD), Cedar City, Utah, 06 Jun 2006.
- 216. "Water and Energy Alternatives," H. Roice Nelson, Jr., Central Iron County Water Conservancy District (CICWCD), Cedar City, Utah, 04 May 2006.
- 215. "<u>Rock Property Classification Trends</u>," H. Roice Nelson, Jr., Geophysical Development Corporation, and Samuel Mentemeier, Anadarko Petroleum Corporation, Poster at 2006 Spotfire Energy Forum, Westchase Hilton, Houston, TX, 2006.
- 214. "Cedar Valley Water," H. Roice Nelson, Jr., Central Iron County Water Conservancy District (CICWCD), Cedar City, Utah, 19 Sep 2005.
- 213. Brian Locke, Samuel Mentemeier, and Brian O'Neill, Anadarko Petroleum, and H. Roice Nelson, Jr., Geophysical Development Corporation, "<u>Mining the database</u>," Harts E&P, September 2005, pp. 47-48.
- 212.H. Roice Nelson, Jr., "<u>Classification of Rock Property Trends in the Gulf of Mexico using GDC Data in</u> <u>DecisionSite</u>," Geophysical Development Corporation, Anadarko Lunch and Learn, The Woodlands, TX, 14 Mar 2005.
- 211. Nelson, H. Roice, Jr., "<u>Exploring for Hidden Pay</u>," Geophysical Development Corporation (42 MB PowerPoint) Southwest Louisiana Geophysical Society, Lafayette, LA, 09 Nov 2004.
- 210. "Visualizing Rock Properties from the Gulf of Mexico," Fred J. Hilterman, University of Houston, Lac Nguyen, NASA's Johnson Space Center, Mike Dunn, Carlos Venegas, and H. Roice Nelson, Jr., Geophysical Development Corporation, SEG Visualization Theater, Denver, CO, 2004.
- 209. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at BYU, Provo, UT, 15 March 2002.
- 208. LeRoy, Sam; Benzing, Bill; Nelson, Jr., H. Roice; "<u>Mapping and Imaging of Geopressure Geometry Will Focus Exploration and Development on Remaining Upside Reserves</u>," Presentation given at Corpus Christi SIPES Luncheon, Corpus Christi, TX, 26 February 2002.
- 207. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at Houston Geological Luncheon, Houston, TX, 28 November 2001.
- 206. Nelson, Jr., H. Roice; "Introduction to Immersive Reality," Presentation given at OTC, #13005, 3 May 2001.
- 205. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at SIPES, Corpus Christi, TX, 27 February 2001.
- 204. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at GCAGS, Houston, TX, 26 October 2000.
- 203. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at World Future Society Annual Meeting, Houston, TX, 24 July 2000.
- 202. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at TCDDM III (Tools for Community Design and Decision Making III), Stuart, Florida, 30 November 02 December 2000.
- 201. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at RCSIG I, Houston, TX, 01 February 2000.
- 200. Nelson, Jr., H. Roice; "Advanced Pattern Finding," White Paper, copies available on request, Houston, TX, 02 November 2000.
- 199. Nelson, Jr., H. Roice; "The Walden 3-D Design Process," White Paper, copies available on request, Houston, TX, 29 September 2000.
- 198. Nelson, Jr., H. Roice; "The Impending Obsolescence of Maps," Presentation given at Geophysics 2000 and Beyond, HARC, The Woodlands, TX, 28 October 1999.
- 197. Nelson, Jr., H. Roice; "Potential of the RCSIG," Presentation given at RCSIG II, 14 September 2000.
- 196. Nelson, Jr., H. Roice; Loftin, R. Bowen; Maples, Creve; "Immersive Collaboration," Presentation given at Landmark Worldwide Technology Forum, Houston, TX, August 1999.

- 195. Duncan, Peter M; Nelson, Jr., H. Roice; Uden, Richard; "Practical Exploration Applications of Dynamic Immersive Environments," Presentation given at SEG, Calgary, Canada, 09 August 2000.
- 194. Duran, F. R. Rick; Winston, Jeff; Nelson, Jr., H. Roice; "Tools for Better Planning," Presentation given at Utah Rural Summit, Southern Utah University, Cedar City, Utah, 8-10 September 1999.
- 193. Lin, Ching-Rong (Jim); Loftin, R. Bowen; Nelson, Jr., H. Roice; "Interaction with Geoscience Data in an Immersive Environment," Presentation given at Vis '99, Taipei, Taiwan, July 1999.
- 192. Nelson, Jr., H. Roice; Amason, Johnny M.; Anderson, Roger N.; Hume, Jeffrey M.; Mars, Robert J.; Monk, David J.; Ridyard, David; Uden, Richard C.; "Immersive Environments: A new type of geotechnical map," Presentation given at AAPG, San Antonio, 12 April 1999.
- 191. Amason, Johnny M.; Lin, Chong-Rong (Jim); Mars, Robert J.; Nelson, Jr., H. Roice; Smith, Terrance L.; Wicks, David H., "Developing Oil & Gas Industry Solutions for Human Scale Display, Immersion, Visual Databases, Spatial Integration, and Collaboration," Presentation given at The High Performance of Visualization & Computing Summit, SGI, Moody Gardens, Galveston, TX, 18 January 1999.
- 190. Hume, Jeff; Nelson, Jr., H. Roice; "Data Manipulation Critical to Cure Information Overload," Offshore, pp. 82-83, 110, December 1998.
- 189. Anderson, Roger N.; Boulanger, Albert; Amaefule, Jude; Forrest, Mike; Howell, III, John I.; Nelson, Jr., H. Roice; Rumann, H. A.; "<u>Quantitative Tools Link Portfolio Management with Use of Technology</u>," Oil & Gas Journal, pp. 48-49, 52-54, 30 November 1998.
- 188. Lin, Chong-Rong (Jim); Mars, Robert J.; Amason, Johnny M.; Nelson, Jr., H. Roice; "Human Scale Display, Immersion, and Collaboration," White Paper, copies available on request, October, 1998.
- 187. Lin, Chong-Rong (Jim); Amason, Johnny M.; Nelson, Jr., H. Roice; "Immersion," White Paper, copies available on request, October 1998.
- 186. Nelson, Jr., H. Roice; Monk, David; Uden, Richard; Renner, Linda; "True Spatial Integration," White Paper, copies available on request, October 1998.
- 185. Nelson, Jr., H. Roice; "ROOMS: Reservoir Object Oriented Management Systems," Presentation given at 4-D Seismic 98, International Workshop, Aberdeen, Scotland, 08 June 1998.
- 184. Loftin, R. Bowen; Amason, Johnny M.; Chen, David T.; Lin, Ching-Rong (Jim); Geisler, Erik; Nelson, Jr., H. Roice; "Practical Application of Virtual Environments in Exploration and Production," Presentation given at AAPG Conference, Salt Lake City, UT, 20 May 1998.
- 183. Nelson, Jr., H. Roice; "Immersive Environments: a new media for the 21st century," Presentation given at SGI Visualization Summit, Oslo, Norway, 08 May 1998.
- 182. Nelson, Jr., H. Roice; "Immersive Environments: state-of-the-art geotechnical solutions," Presentation given at SGI Visualization Summit, Oslo, Norway, 06 May 1998.
- 181. Guevara, E. H., Brink, G. J., Zeng, Hongliu, Sparlin, M. A., Barba, R. E., Jr., Holtz, M. H., Etherington, Randall, Nelson, H. R., Jr., Van Wyk, N. J. S., Von Lunen, E., Bullen, G., Fouad, Khaled, Dunlap, D. B., Martinez, C., Remington, L. E., Camposano, C. L., Moya, R. M., and de Salazar, M. S., 1997, Exploration opportunities in Lagoven S.A., Blocks B, C, and D, South Lake Maracaibo, Venezuela: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for PDVSA, Maracaibo, Venezuela, unpaginated.
- 180. Brink, G. J., Guevara, E. H., Nelson, H. R., Jr., Remington, L. E., Myer, L. R., Sparlin, M. A., Martinez, C., Zeng, Hongliu, Von Lunen, E., Dunlap, D. B., Moya, R. M., and Camposano, C. L., 1997, Sequence stratigraphic framework of South Lake Maracaibo, Venezuela, based on 3-D seismic and well data: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for Lagoven S.A., 3 volumes, 120 p.
- 179. Nelson, Jr., H. Roice; "Hypertext Documentation," Presentation given at The Bureau of Economic Geology Technology Forum, Austin, TX, 21 May 1997.
- 178. Loftin, Dr. R.B.; Bavinger, B.A.; LeRoy, S.D.; and Nelson, Jr., H. Roice; "<u>Advanced Visualization</u> <u>Techniques for Exploration and Production</u>," Presentation given at OTC, #8275 pp. 63-66, Houston, TX, May 5, 1997.
- 177. Nelson, Jr., H. Roice; et. al.; "Mindwalks: Visualizing Geology, Process, Status, and Exploration," Presentation given at 2nd Annual VR in Geosciences Conference, Houston, TX, 1-2 May 1997.
- 176. Nelson, Jr., H. Roice; Bavinger, Bill A.; "The Visualization of Production: Above the Surface," Presentation given at 2nd Annual VR in Geosciences Conference, Houston, TX, 1-2 May 1997.
- 175. Nelson, Jr., H. Roice; Bavinger, Bill A.; "Exploring on the Internet," White Paper, copies available on request, April 1997.
- 174. Nelson, Jr., H. Roice; "Virtual Seminars," Computers & Geosciences, Vol. 23, No. 5, pp. 601-606, 1997.

- 173. Liu, Yutao; He, Wei; Anderson, Roger N.; Ebrom, Dan; Loftin, R. Bowen; Nelson, Jr., H. Roice; "<u>Virtual Reality in Geosciences</u>," Virtual Seminar presented to Statoil in Stavanger, Norway from Houston, TX, 12 December 1996.
- 172. Resley, Bill; Nelson, Jr., H. Roice; "<u>Subsurface Integration School</u>," Virtual Seminar presented 16 September 1996.
- 171. Turner, Kenneth R.; Nelson, Jr., H. Roice; "<u>The Philosophy of Synergism in Kenneth R. Turner's Art</u>," Virtual Seminar presented 29 August 1996.
- 170. Bavinger, Bill A.; LeRoy, Sam D.; Nelson, Jr., H. Roice; "Visualization of Production," Virtual Seminar presented 21 August 1996.
- Nelson, Jr., H. Roice; "<u>HTML and hypermedia-based Documentation</u>," Virtual Seminar presented 14 August 1996.
- 168. LeRoy, Sam D.; Nelson, Jr., H. Roice; "Petroleum Play Life Cycle Financial & Technical Risk," Virtual Seminar presented 24 July 1996.
- 167. Nelson, Jr., H. Roice; "<u>Preparing and Presenting Virtual SeminarsSM</u>," Virtual Seminar given simultaneously to: GeoQuest in Houston, TX; EarthView in Houston, TX; The University of Oregon in Eugene, OR; and Winona State University, Winona, MN from Houston, TX 09 July 1996.
- 166. Nelson, Jr., H. Roice; "<u>Virtual Reality in Geosciences</u>," Virtual Seminar presented at 1st Annual VR in Geosciences Conference organized by Ostfold Research Foundation, Halden, Norway 15:45-16:45 PM from Houston, TX 8:45-9:45 AM, Tuesday, 25 June 1996.
- 165. Nelson, Jr., H. Roice; "<u>3-D Seismic Evaluation of Proposed Salt Caverns</u>," Virtual Seminar presented at EAG Energy Innovations Booth in Amsterdam, The Netherlands from Houston, TX, 03-06 June, 1996.
- 164. Nelson, Jr., H. Roice; "<u>Phase Displays of 3-D Seismic Data</u>," Virtual Seminar presented at EAG Energy Innovations Booth in Amsterdam, The Netherlands from Houston, TX, 03-06 June, 1996.
- 163. Nelson, Jr., H. Roice; "Integrating Interpretations Multiple 3-D Seismic Surveys," Virtual Seminar presented at EAG Landmark Graphics Booth in Amsterdam, The Netherlands from Houston, TX, 03-06 June, 1996.
- 162. Nelson, Jr., H. Roice, Hume, Jeff; "<u>How to Shoot a Cheaper, Better 3-D Survey</u>," Virtual Seminar presented at EAG Energy Innovations Booth in Amsterdam, The Netherlands from Houston, TX, 03-06 June, 1996.
- 161. Nelson, Jr., H. Roice; "Integrating Multiple Seismic Surveys to Interactively Interpret a Salt Dome Flank," Virtual Seminar presented to students at The University of California at Santa Cruz from Houston, TX, 08 May 1996.
- 160. Nelson, H. Roice, Jr. and Brassow, Carl L., "<u>Integrating Multiple Seismic Surveys to Interactively Interpret</u> <u>a Salt Dome Flank</u>," Geophysical Society of Houston (GSH) Breakfast Meeting, University Club, Houston, TX, April 9, 1996.
- 159. Nelson, Jr., H. Roice (Walden 3-D, Inc.), and Brassow, Carl L.(Secure Environmental Management Inc.), "Integrating Multiple Seismic Surveys to Interactively Interpret a Salt Dome Flank," Texas Natural Resource Conservation Commission Hearing on disposing of petrochemical hazardous waste in salt caverns in the Boling Dome, "Interpretation of Seismic Data in an area of the Boling Salt Dome," Nov 3, 1995.
- 158. Nelson, Jr., H. Roice; "Creating and Implementing a Knowledge Backbonesm for the Learning Organization," Presentation given at Unocal, BP, Fletcher Challenge Petroleum, and others, October 1995.
- 157. Slatt, Roger M.; Thomasson, M. Ray; Romig, Philip; Pasternack, Eric; Boulanger, Albert; Anderson, Roger; Nelson, H. Roice Jr.; "<u>Visualization Technology for the Oil and Gas Industry: Today and Tomorrow</u>," April 1 1996, <u>AAPG Bulletin (1996) 80 (4): 453-485</u>.
- 156. Nelson, H. Roice, Jr., <u>"Building and Maintaining Virtual Teams," or "The Last Information Manager," or</u> <u>"The First Knowledge Manager,"</u> Invited presentation to A Global Contingency of Information Managers from Conoco, Los Alamedas Restaurant, Houston, TX, June 18, 1995.
- 155. Nelson, H. Roice, Jr.; "<u>Visualization a Petroleum Enterprise in the Information Domain</u>," <u>Fifth Archie</u> <u>Conference</u>, May 15-18, 1995.
- 154. Ethetton, Laura Kay; Hume, Jeff; Littlewood, Merril; Nelson, Jr., H. Roice; Pappas, Evan; Rego, Charley; Shaughnessey, Dan; Taylor, Blaine; and Turpening, Walt; "<u>An Interactive Information Infrastructure</u>," HyperEdge Expert Association Breakfast Meeting, Westlake Club, Houston, TX, April, 6, 1995.
- 153.Nelson, Jr., H. Roice; Shaughnessey, Dan; "<u>Building a Reservoir Information Management System (RIMS)</u> with hypermedia Technology," Landmark Graphics Worldwide Technology Forum, Houston Marriott Westside Hotel, Houston, TX, November 29, 1994.

- 152. Macurda, Jr., D. Bradford; Nelson, Jr., H. Roice, Jones, Gary L.; "The Stratigraphy, Sedimentology, and Chronostratigraphy of the Mobile Bay Fan, Northeastern Gulf of Mexico," American Association of Petroleum Geologists Annual Convention, Denver, CO, June 14, 1994.
- 151. Nelson, Jr., H. Roice; "<u>How Best Practices can make members of the HyperEdge Expert Association money</u> <u>now and later</u>," HyperEdge Expert Association Breakfast Meeting, Westlake Club, Houston, TX, April 21, 1994.
- 150. Nelson, Jr., H. Roice; Taylor, Blaine W.; "Best Practices," HyperEdge Expert Association Breakfast Meeting, Westlake Club, Houston, TX, March 17, 1994.
- 149. Nelson, Jr., H. Roice; "History of HyperMedia Corporation," 1st HyperEdge Expert Association Breakfast Meeting, International House of Pancakes, Houston, TX, September 9, 1993.
- 148. Macurda, Jr., D. Bradford; Nelson, Jr., H. Roice; Jones, Gary L.; "The Stratigraphy and Paleoceanography of Cretaceous Carbonate Buildups, Porcupine Basin, Offshore Ireland," interactive poster presentation, Society of Exploration Geophysicists Sixty Third Annual International Meeting & Exposition, New Orleans, LA, October 28, 1993.
- 147. Nelson, H. Roice, Jr., "<u>Replenishing Hydrocarbon Reserves</u>," Annual Meeting of the GBRN, Burke Baker Planetarium, Houston, Texas, January 11, 1993.
- 146. Viswanathan, Venkat; Hayes, Tim; Warner, Craig; Alam, Aftab; and Nelson, H. Roice, Jr., "<u>HDDV: The design of a new interactive seismic interpretation system</u>," European Association of Exploration Geophysics (EAEG), Paris, France, June 1, 1992.
- 145. Macurda, Jr., D. Bradford; Kolla, V.; and Nelson, Jr., H. Roice; "<u>The Systems Tracts of the Zambezi Delta,</u> <u>Mozambique</u>," Canadian Society of Petroleum Geologists, Calgary, Alberta, Canada, May 28, 1992.
- 144. Anderson, Roger N.; Cathles, Lawrence M., III; Flemings, Peter; He, Wei; Hobart, Michael; Huang, Jie; Lytle, Wayne; Manhardt, Paul; Murphy, Brenda; Nelson, H. Roice, Jr.; Wilkinson, Craig; and Jellinek, Roger, "<u>Sedimentary Basins as Thermochemical Reactors</u>," Basins as Thermochemical Reactors Convention, Lamont Doherty Earth Observatory, Palisades, NY, 1992.
- 143. Nelson, H. R., Jr.; Warner, Craig L.; Gary, S. Parker; Anderson, Roger N.; Rollwitz, William T.; "Integrated Exploration," Society of Exploration Geophysicist Sixty First Annual International Meeting & Exposition, Houston, TX, November 15, 1991.
- 142. Anderson, Roger N.; Cathles III, Lawrence M.; Nelson, Jr., H. Roice; "<u>Data cube' depicting fluid flow</u> <u>history in Gulf Coast Sediments</u>," Oil & Gas Journal, November 4, 1991.
- 141. Nelson, H. R., Jr.; 1er. Foro Informaico Para La Industria Petrolera, Pemex, Villahermosa, Mexico, "<u>Entrando al Siglo XXI: Bsqueda de Hidrocarburos</u>" / "Entering the 21st Century Looking for Hydrocarbons," October 1, 1991.
- 140. Nelson, H. R., Jr.; Stark, Tracy J.; Wyatt, Kay Dautenhahn; Dorn, Geoffrey A.; Ottolini, Richard A.; Massell, Wulf F.; Sovelius, Paul E.; and Shanks, John L.; "<u>Scientific Visualization</u>;" Society of Exploration Geophysicists Sixtieth Annual International Meeting & Exposition, San Francisco, CA, September 28, 1990, published in Geophysics: The Leading Edge of Exploration, October 1991.
- Gay, S. Parker and Nelson, H. Roice, Jr., "<u>Integrating Air-Mag and Seismic Interpretation</u>," Joint seg/AAPG Research Workshop: Integration of Different Disciplines in Exploration and Development, 08 August 1991.
- 138. Kolla, V., Macurda, Brad, and Nelson, H. R., Jr., "<u>The Systems Tracts of the Zambezi Delta, Mozambique</u>," 8th Annual SEG Research Workshop on Lithology: Relating Elastic Properties to Lithology at all Scales, St. Louis, Missouri, July 28-August 1, 1991.
- 137. Mastoras, S., Huxohl, C., and Nelson, H.R., Jr., "Visualization of Map and Seismic Attributes," EAEG, Florence, Italy, May, 1991.
- 136. Nelson, H. R., Jr.; "Landmark and the Future of Oil and Gas Exploration," Annual Landmark University Partnership Meeting, Brookhollow Marriott, Houston, TX, April 25, 1991.
- 135. Kolla, V.; Macurda, D. Bradford, Jr.; and Nelson, H. Roice, Jr., "<u>Sequence Stratigraphy and Systems Tract Analysis of the Neogene-Quaternary Continental Margin Off the Zambezi Delta, Mozambique</u>," Scan of Poster: "<u>The Systems Tracts of the Zambezi Delta, Mozambique</u>," AAPG 1991 Convention, Dallas, Texas, 07-10 April 1991.
- 134. Anderson, R. N., He, Wei, Hobart, Michael A., Wilkinson, Craig R., and Nelson, H. R., Jr., "<u>Active Fluid Flow in the Eugene Island Area, Offshore Louisiana</u>," The Leading Edge of Geophysics, Vol. 10, No. 4 April, 1991.
- 133. Mastoras, S. and Nelson, H.R., Jr., "<u>Visualization of Map and Seismic Attributes</u>," Houston Geotech Technical Conference, Houston, Texas, February 18, 1991.

- 132. Macurda, D. B., and Nelson, H. R., Jr., "<u>The Seismic Stratigraphy and Facies of a Transitional Continental</u> <u>Rise, Porcupine Basin, Offshore Ireland</u>," submitted to Geophysics, February 1991.
- 131. Macurda, D. B., and Nelson, H. R., Jr., "<u>The Stratigraphy of a Mio-Pliocene Contourite Drift, Porcupine</u> <u>Basin, Offshore Ireland</u>," submitted to AAPG Bulletin, February 1991.
- 130. Macurda, D. B., and Nelson, H. R., Jr., "Interactive Estimation of Stratal Continuity in Deep Water Sequences," submitted to Geophysical Prospecting, February 1991.
- 129. Nelson, H. R., Jr., "Interpreting a Ground-Penetrating Radar Survey of a Steep Appalachian Watershed", Houston Geological Society, November 14, 1990.
- 128. Nelson, H. R., Jr., "<u>The New Interpreter</u>," North America Landmark Users Group Annual Meeting, November 1, 1990.
- 127. Nelson, H. R., Jr., "<u>The Advantage of Using Interactive Workstations</u>," Association of Mexicana de Geofisicos de Exploracion, A.C. (AMGE), IV Simposium de Geofisica, Mexico City, Mexico, September 20, 1990.
- 126. Nelson, Mr. Roice, "<u>Comments on the Entire Cooperation</u>," Review of Second Six Months' Cooperation Between The Bureau of Geophysical Prospecting & Landmark Graphics Corporation, Zhou Zhou, Hebei Province, People's Republic of China, 28 May to 02 June 1990.
- Nelson, H. R., Jr., "<u>A Crisis in Geoscience Education</u>," 1990 Annual Landmark University Partnership Research Conference, Houston, TX, February 12, 1990.
- 124. Jones, Gary L.; Zhong, Madam; Feng, Tian; Heng, Yuan Beng; and Nelson, H. Roice, Jr., "<u>Interactive 2D</u> <u>Interpretation Ling Guo Depression, Jiji Area, PRC; A Case History</u>," Zhou Zhou, Hebei Province, People's Republic of China, December 11, 1989.
- 123. Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan, Offshore Ireland: A Case History," Seismic Interpretation Series, Vol. 1, pp. 59-65, 1989.
- 122. Mallon, K. M., Chan, A. W-K., Nelson, H. R., and Jones, G. L., "Interactive Geological Subsurface Interpretation Using Well Logs on a Geophysical Workstation - A Case History," The Eleventh Geophysical Convention of Turkey, Istanbul, September 18-22, 1989.
- 121. Mallon, K. M., Chan, A. W-K, Nelson, H. R., and Jones, G. L., "Interactive Geological Subsurface Interpretation Using Well Logs on a Geophysical Workstation - A Case History," Abstract of the 11th Geophysical Convention of Turkey, Jeofizik, Vol. 3, No. 2, pp. 149-151, September 1989.
- 120. Nelson, H. R., Jr., "Integration of Interactive Geoscience Applications," CSEG/CSPG Symposium, Computer Applications Technology in Oil and Gas Exploration, June 15, 1989.
- 119. Macurda, D. B. and Nelson, H. R., Jr., "<u>Interactive Interpretation of the Morphology of Upper Tertiary</u> <u>Contourites, Porcupine Basin, Offshore Ireland</u>," AAPG Annual Convention, San Antonio, TX, April 23-26, 1989.
- 118. Nelson, H. R., Jr., "<u>Imaging the Subsurface with Geophysical Workstations</u>," Seminar sponsored by Geological Sciences, William and Flora Hewlett Foundation, Snee Hall, Rice University, Houston, TX., April 13, 1989.
- 117. Nelson, Roice and Cathles, Dr. Larry, "<u>Building an Interactive Geological Framework for Basin Research</u>," GBRN Industrial Associates Symposium: Fluid Flow in Sedimentary Basins: A Distributed Network for the Interactive Control of Supercomputer Models," Cornell University, Ithica, New York, April 12, 1989.
- 116. DeBuyl, M., Nelson, H.R., Jr., Skerl, D, "Integrated Reservoir Description with a Multidisciplinary Interactive Workstation," prepared to announce a cooperation agreement, which did not happen, 1989.
- 115. Macurda, D. B., and Nelson, H. Roice, Jr., "Seismic Detection of the Dewatering of Deep Basinal Shales," submitted to the 69th Annual GSA Meeting, Denver, CO, October 31-Nivember 3, 1988.
- 114. Macurda, D. B., and Nelson, H. R., Jr., "<u>The Seismic Stratigraphy and Facies of a Transitional Continental</u> <u>Rise, Porcupine Basin, Offshore Ireland</u>," SEG, Anaheim, CA, October 30 – November 3, 1988.
- 113. Macurda, D. B. and Nelson, H. R., Jr., "<u>Interactive Estimation of Stratal Continuity in Deep Water</u> <u>Sequences</u>," Poster Presentation, Correlation in Hydrocarbon Exploration, Norwegian Petroleum Society, University of Bergen, Bergen, Norway, October 3-5, 1988.
- 112. Macurda, D. B. and Nelson, H. R., Jr., "<u>Interactive Interpretation of a Submarine Fan, Offshore Ireland: A</u> <u>Case History</u>," The Leading Edge of Exploration, pp 28-34, October 1988.
- 111. Nelson, H. R., Jr., "Geophysical Work Station in Production Geology," SPE Formation Evaluation, Beijing, China, June, 1988.
- 110. Nelson, H. R., Jr., (Chairman) Interpretive Processing Case Histories, European Association of Exploration Geophysicists, The Hague, June 10, 1988.

- 109. Vail, Peter R., Bowman, Scott A., Ross, Malcolm I., and Nelson, H. Roice, Jr., "Sequence Stratigraphy and Its Application to Hydrocarbon Exploration," EAEG, The Hague, June 1988.
- 108. O'Brian, B., Mastoras, S., and Nelson, H. R., Jr., "Interactive Overthrust Interpretation," CSEG, Calgary, AL, May 1988.
- 107. Nelson, Jr., H. Roice, Lecture in Rice University Class WILL 206, "<u>Fundamentals of the Petroleum</u> <u>Industry</u>," before 10 March 1988.
- 106. Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan, Offshore Ireland: A Case History," Julich, Germany, February 24-26, 1988.
- 105. Macurda, D. B., and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan, Offshore Ireland: A Case History," Workshop on Quantitative Dynamic Stratigraphy, CSM, Golden, Colorado, February 14-18, 1988.
- 104. Macurda, D. B., and Nelson, H. R., Jr., "<u>Interactive Interpretation of a Submarine Fan, Offshore Ireland: A</u> <u>Case History</u>," San Antonio SEG, San Antonio, January 12, 1988.
- 103. Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan, Offshore Ireland: A Case History," Southeastern Geophysical Society, New Orleans, LA., January 5, 1988.
- 102. Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," Coastal Bend SEG, Corpus Christi, TX., December 15, 1987.
- 101. Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," Houston Geophysical Society, Houston, TX, December 14, 1987.
- 100. Donihoo, K., Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," The Pacific Coast Section of the SEG, Los Angeles, CA, December 10, 1987.
- 99. Donihoo, K., Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," The Pacific Coast Section of the SEG, Ventura, CA, December 9, 1987.
- 98. Donihoo, K., Macurda, D. B. and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," The Pacific Coast Section of the SEG, Bakersfield, CA, December 8, 1987.
- 97. Bayless, Dr. Jon, and Nelson, H. Roice, Jr., "<u>Integrating Seismic and Subsurface Data: An Interactive Interpretation Case History from Sterling County, Texas</u>," SEG's Fifty-Seventh Annual International Meeting & Exposition, Interactive Poster Presentation, New Orleans, LA, October 14, 1987.
- 96. Macurda, D. B., Jr., and Nelson, H. R., Jr., "<u>Interactive Interpretation of a Submarine Fan Offshore Ireland,</u> <u>A Case History</u>," SEG, Fifty-Seventh Annual International Meeting & Exposition, Interactive Poster Presentation, New Orleans, LA, October 11-15, 1987.
- 95. Ennis, C.E., Mouton, J.O., Chiranky, L., MacLean, Colin, Farris, John C., Jones, Gary, and Nelson, H.R., Jr., "<u>CAEX at Work</u>," Oil & Gas Journal advertising supplement, 21 September 1987.
- 94. Nelson, H. R., Jr., Brede, C. E., and Bayless, J., "Integrating Seismic and Subsurface Data: An Interactive Interpretation Case History from Sterling County, Texas," Fourth Annual SEG Summer Research Workshop, The Interpretation of Reflection Seismic Data, Austin, TX, August 9-12, 1987.
- 93. Jones, Gary L. and Nelson, H. Roice, Jr., <u>Final Report Joint Interpretation Project, Ling Guo Depression</u>, <u>Jiji Area</u>, 07 July 1987.
- 92. Macurda, D. B., Jr., and Nelson, H. R., Jr., "Interactive Interpretation of a Submarine Fan Offshore Ireland, A Case History," Technical Program and Abstracts of Papers, 49th Annual Meeting EAEG, Belgrade, Yugoslavia, June 11, 1987.
- Donihoo, Kevin, Nelson, H. R., Jr., and Brede, C. E., "<u>Integrating Seismic and Subsurface Data: An</u> <u>Interactive Interpretation Case History from Sterling County, Texas</u>," <u>slide descriptions</u>, SEG's Third Annual Gulf Coast Exploration and Development Meeting and Exposition, April 14, 1987.
- 90. Nick, C. J. and Nelson, H. R., Jr., "Interactive Fault Interpretation and Seismic Amplitudes," Oil & Gas Journal, pp. 67-71, April 6, 1987.
- 89. Nelson, H. R., Jr., "New Technologies and Exploration," CSEG Technical Luncheon Meeting, Calgary, Alberta, Canada, March 9, 1987.
- 88. Todd, Richard and Nelson, H. R., Jr., "Seismic Amplitudes from Interactive Fault Interpretation," Oil & Gas Journal, Geophysical Issue, November 1986.
- Denham, J. I., and Nelson, H. R., Jr., "<u>Map Displays from an Interactive Interpretation</u>," Geophysics, v. 51, No. 10, pp. 1999-2006, October, 1986.
- 86. Nelson, H. R., Jr. and Hildebrand, H. A., "Interactive Fault Interpretation," Chinese Petroleum Society Conference on Exploration in Complex Areas, Urumqi, China, August 20, 1986.
- Nelson, H. R., Jr., and Hildebrand, H. A., "<u>Interactive Fault Interpretation</u>," EAEG Annual Meeting, Ostend, Belgium, June 3-6, 1986.

- 84. Nelson, H. R., Jr., and Hildebrand, H. A., "<u>Real-Time Contouring and Interactive Interpretation</u>," presented at CSEG, Calgary, Canada, May 15, 1986.
- Nelson, H. R., Jr., Bhattacharya, G., P., Tappmeyer, D. M., and Jurzabek, D. C., "<u>Geophysical Workstations</u> <u>in Production Geology</u>," Sun Exploration and Production, Gulf Coast SEG, New Orleans, LA., April 22, 1986.
- Ennis, C.E., Mouton, J.O., Chiranky, L., and Nelson, H.R., Jr., "Geophysical Workstations in Production Geology", SEG Second Gulf Coast Exploration and Development Meeting & Exposition, New Orleans, Louisiana, April 22, 1986.
- Nelson, H. Roice, Jr. (Walden 3D, Inc.) and Carl L. Brassow (Secured Environmental Management, Inc.), "Integrating Multiple Seismic Surveys to Interactively Interpret a Salt Dome Flank," Geophysical Society of Houston April Technical Breakfast, University Club, Galleria Entrance No. 2, Houston, TX, 09 April 1996.
- Nelson, H. R., Jr., Bhattacharya, Ganges P., Tappmeyer, Daniel M., and Jurzabek, David C., "Geophysical Workstations in Production Geology," SPE International Meeting on Petroleum Engineering, Beijing, China, March 17-20, 1986.
- 79. Ennis, C.E., Mouton, J.O., Chiranky, L., and Nelson, H.R., Jr., "Geophysical Workstations in Production Geology", SPE Seminar, Beijing, China, March 17, 1986.
- Nelson, H. R., Jr., "Modeling and Interactive Interpretation," Norwegian Petroleum Society Bi-Annual Conference on Practical Aspects of Modeling in Exploration and Development, Kristiansand S., Norway, March 3-5, 1986.
- 77. Donihoo, K. and H. R. Nelson, Jr., "New Technologies in Exploration Geophysics," California SEG Local Chapter Presentations, February 1986.
- Ennis, C.E., Mouton, J.O., Chiranky, L., and Nelson, H.R., Jr., "Geophysical Workstations in Production Geology", CDC Seminar on New Developments and Technology in Exploration Interpretation, Houston, Texas, July 17, 1985.
- 75. Nelson, H. Roice, Jr., Interactive Interpretation, European Association of Exploration Geophysicists, 47th Meeting, 04-07 June 1985, <u>Budapest, Hungary</u>.
- 74. Cole, R. A., and Nelson, H. R. Jr., "<u>Interactive Computer Graphics and the Interpretation of Three-Dimensional Seismic Surveys</u>", Society of Petroleum Geologists China SEG Joint Seminar on Seismic Interpretation, Zhou Xian, Peoples Republic of China, May 8 through 13, 1985.
- 73. Nelson, H.R., Jr., and Hildebrand, H.A., "Interactive 2d and 3d Interpretation on a Microcomputer", First Annual Gulf Coast Exploration and Development Meeting, April 16, 1985.
- Nelson, H. R., Jr., and Hildebrand, H. A., "<u>Applications of Landmark Workstations in Interactive</u> <u>Processing and Interpretation</u>," (<u>Chinese Publication</u>) April 15, 1985 CPS/SEG Joint Meeting, April 12-16, 1985.
- Simson, S.F., and Nelson, H.R., Jr., "<u>Seismic Stratigraphy Moves Towards Interactive Analysis, Part III</u>", World Oil, February 1985.
- Simson, S.F., and Nelson, H.R., Jr., "<u>Seismic Stratigraphy Moves Towards Interactive Analysis, Part II</u>", World Oil, January 1985.
- 69. Nelson, H. Roice, Jr., <u>Geophysical Interpretation and the Interpreter's Workstation</u>, UT Austin Milo M. Backus's Class Geo 365M Geophysical Interpretation, February 18, 1985.
- 68. Smith, Terence L. (H. Roice Nelson, Jr.), <u>Exploration Software Development Using the IBM-PC</u>, Landmark Graphics Corporation, Houston, Teas, 1984.
- 67. Simson, S. F. and Nelson, H. R., Jr., "Seismic Stratigraphy Moves Towards Interactive Analysis, Part I," World Oil, December 1984.
- 66. Denham, J.I. & Holmes, J.D. (Nelson, H.R., Jr.), "Interactive Seismic Interpretation," in Proceedings of the Second Australian Petroleum Geophysics Symposium, pp. 338-57; ASEG, Victorian Branch, 1984.
- 65. Nelson, H.R., Jr., "<u>The Use of Microcomputers in Seismic Interpretation</u>", American Oil and Gas Reporter, October 9, 1984.
- 64. Nelson, H.R., Jr., "Seismic Interpretation and Microcomputer Economies-Of-Scale", EAEG London, UK, June 19 22, 1984.
- 63. Nelson, H. R., Jr., "Interactive 3d Interpretation of the SALNOR-7 Physical Model Data Set", SAL Semi-Annual Progress Review, April 26, 1984.
- 62. Nelson, H. R., Jr., "Animation, A Tool for Evaluating Multi-Dimensional Data Sets", SEG/USN Joint Technical Symposium, U.S. Navy Research Facility, March 13-14, 1984.
- 61. Nelson, H. R., Jr., "Interactive Computer Graphics, 3D Seismic Data, and Reservoir Prediction", Norwegian Petroleum Society Seminar 6941, Reservoir Prediction Using Geophysical Methods, February 27-29, 1984.

- 60. Nelson, H. R., Jr., Hildebrand, H. A., and Mouton, J. O., "Color Softcopy, Animation and Interactive User Interface in Interpretation Station Design", Geophysics, (1984) v. 49, p. 664.
- Nelson, H. R., Jr., Hildebrand, H. A., and Mouton, J. O., "Color Softcopy, Animation and Interactive User Interface in Interpretation Station Design", 53rd Annual International SEG Convention, Las Vegas, NV, September 1983.
- 58. Senti, R. J. et al, "<u>Special Report Geophysical Activity in 1982</u>", The Leading Edge, v. 2, No. 8, pp. 41-64, August 1983.
- 57. Tatham, R. H., Goolsbee, D. V., Massell, W. F., and Nelson, H. R., Jr., "Seismic Shear-Wave Observations in a Physical Model Experiment", Geophysics, v. 48, No. 6, pp. 688-701, June, 1983.
- Nelson, H. R., Jr., "<u>North Sea Physical Model Construction, Data Acquisition, and Interpretation</u>", OTC Proceedings, paper no. 4511, index p. 18, pp. 555-562, May 3, 1983.
- 55. Wade, C. J., Sekharan, K. K., and Nelson, H. R., Jr., "Building and Using a Physical Model of Gulf Coast Growth Faults", SAL Semi-Annual Progress Review, V. 11, p. 55, April 1983.
- 54. Gardner, T. N., and Nelson, H. R., Jr., "Interactive Graphics Developments in Energy Exploration", IEEE Computer Graphics and Applications, v. 3, No. 2, pp. 33-44, March/April 1983.
- 53. Nelson, H. R., Jr., "<u>Interactive Workstation</u>," Computer Assisted Interpretation 1983, Geophysical Society of Tulsa, March 21, 1983.
- Fisher, D. A., Gardner, G. H. F., Nelson, H. R., Jr., Verm, R. W., "Interactive 3D Display and Interpretation of a Complex Physical Model", 36th Annual Midwest SEG Meeting and Exposition, Denver, CO, March 6-9, 1983.
- 51. Nelson, H. R., Jr., "<u>A Workstation Approach to Interactive Interpretation</u>," Austin Geological Society, March 7, 1983.
- 50. Nelson, H. R., Jr., "<u>A Workstation Approach to Interactive Interpretation</u>," Image Processing Laboratories (IPL) 1st Annual Meeting, University of Houston, Houston, TX, January 28, 1983.
- 49. Nelson, Roice, "<u>Sequence of Using Interpretation Tools to Interpret a 3D Seismic Survey</u>," Seismic Acoustic Laboratory (SAL), Annual Meeting(University of Houston, Houston, TX, January 21, 1983.
- Nelson, H. R., Jr., <u>New Technologies in Exploration Geophysics</u>, Gulf Publishing Company, 281 pp., 1983 <u>Advertisement</u> (on about 07 October 1987 the book was published in <u>Chinese</u>).
- Fisher, D. A., Gardner, G. H. F., Nelson, H. R., Jr., and Verm, R. W., "Interactive 3d Display and Interpretation of a Complex Physical Model", SEG Technical Program Abstracts and Biographies, Dallas, TX, paper S8.4, pp. 105-107, October 1982.
- 46. Agbo, S. A., Gardner, G. H. F., and Nelson, H. R., Jr., "Modeling of Velocity Distribution Using Liquid Models", SAL Annual Progress Review, V. 10, pp. 44-67, October 1982.
- 45. Vajapey, S., and Nelson, H. R., Jr., "Vertical Seismic Profiles of Simple Physical Models", SAL Annual Progress Review, V. 10, pp. 68-86, October 1982.
- 44. McDonald, J. A., and Nelson, H. R., Jr., "An Investigation of a Thinning Wedge Using Physical Models", SAL Annual Progress Review, V. 10, pp. 87-99, October 1982.
- 43. Sekharan, K. K., Ladzekpo, D., Kamal, S., and Nelson, H. R., Jr., "Using a 3-D Milling Machine to Build Physical Models", SAL Annual Progress Review, V. 10, pp. 100-105, October 1982.
- 42. Shah, K. K., and Nelson, H. R., Jr., "The AGL Genisco SpaceGraph Driver", SAL Annual Progress Review, V. 10, pp. 229-236, October 1982.
- 41. Wade, C. J., et al, "Comprehensive Physical Model Catalog", SAL Annual Progress Review, V. 10, pp. 424-432, October 1982.
- 40. Wade, C. J., et al, Comprehensive Physical Model Catalog, First Edition, 862 pp., 1982.
- 39. Nelson, H. R., Jr., "Industry/University Relations Effect Exploration", World Oil, pp. 93-105, August, 1982.
- 38. Nelson, H. R., Jr., "Improved Exploration Efficiency with Managed Data Bases", World Oil, pp. 149-161, July, 1982.
- 37. Gardner, T. N. and Nelson, H. R., Jr., "Interactive Graphics Developments in Energy Exploration", NCGA Convention, Anaheim, CA, June 13-17, 1982.
- 36. Nelson, H. R., Jr., Gardner, T. N., and Verm, R. W., "Interactively Displaying a Disc Full of Seismic Traces", EAEG Convention, Cannes, France, June 7-11, 1982.
- Nelson, H. R., Jr., Wade, C. and Karim, A., "Technical Service Review and Facility Improvements", SAL Semi-Annual Progress Review, May 1982.
- 34. Nelson, H. R., Jr., and Shah, S., "SALSAD Evaluating the Saddle Problem with a Physical Model", SAL Semi-Annual Progress Review, May 1982.

- 33. Nelson, H. R., Jr. and other project contributors, "<u>SALNOR North Sea Model: Building, Data Acquisition</u> and Interpretation", SAL Semi-Annual Progress Review, May, 1982.
- 32. Verm, Richard W. and Nelson, H. R., Jr., "<u>Interactively Mixing the Display of Horizontal and Vertical Seismic Sections</u>", SAL Semi-Annual Progress Review, May, 1982.
- Nelson, H. R., Jr., Fisher, D. A. and Verm, R., "Interactive Display and Interpretation of a Complex Physical Model after 3d Migration", SAL Semi-Annual Progress Review, May, 1982.
- 30. Nelson, H. R., Jr., "Interactive Interpretations Comes of Age", World Oil, pp. 197-216, May, 1982.
- 29. Nelson, H. R., Jr., and G. H. F. Gardner, "Description and Evaluation of SALNOR Interpretation Workshop", SAL Semi-Annual Progress Review, May, 1982.
- Nelson, H. R., Jr., "<u>Will True 3d Display Devices Aid Geologic Interpretation</u>", World Oil, pp. 129-136, April 1982.
- 27. Nelson, H. R., Jr., "<u>Interactive Graphics Enhances Seismic Data Display</u>", World Oil, pp. 76-82, March, 1982.
- Nelson, H. R., Jr., "Activities at the University of Houston's Allied Geophysical Laboratories with a Summary of New Developments in 3-D Display Devices", SEG/USN Joint Technical Symposium, U.S. Navy Mississippi Research Facility, March 22-16, 1982.
- 25. Nelson, H. R., Jr., "<u>Modeling Resolves Complex Seismic Events</u>," <u>Draft</u>, World Oil, pp. 61-70, February, 1982.
- 24. Nelson, H. R., Jr., "<u>New Vector Super Computers Promote Seismic Advancements</u>", World Oil, pp. 155-160, January, 1982.
- 23. Nelson, H. R., Jr., "<u>3d Seismic Techniques Aid Exploration, Development</u>", World Oil, pp. 115-120, December, 1981.
- 22. Nelson, H. R., Jr., "<u>Trends in Multichannel Seismic Recording Systems</u>", World Oil, pp. 135-142, November, 1981.
- 21. Agbo, S., Nelson, H. R., Jr., "Calibration of Old Materials and New Liquid Model Materials", SAL Annual Progress Review, November 1981.
- 20. Fisher, D. A., Nelson, H. R., Jr., and Verm, R. W., "Using Data from Complex Physical Models to Teach Interactive Interpretation Methods", SAL Annual Progress Review, November 1981.
- 19. Khosla, D., Nelson, H. R., Jr., "Tank and System Modifications and Technical Service Review", SAL Annual Progress Review, November 1981.
- 18. Nelson, H. R., Jr., Gardner, T. N., Verm, R. W., and Steiner, C. T., "Interactively Displaying Data from a Disc Full of Seismic Traces", SAL Annual Progress Review, November 1981.
- 17. Tatham, R. H., Goolsbee, D. V., Massell, W. F., and Nelson, H. R., Jr., "Seismic Shear-Wave Observations in a Physical Model Experiment", SAL Annual Progress Review, November 1981.
- Nelson, H. R., Jr., "<u>New Technologies Will Meet Exploration Needs</u>", World Oil, pp. 179-200, October, 1981.
- 15. Nelson, H. R., Jr., Hilterman, F. J., and Gardner, G. H. F., "<u>Introduction to Interactive 3-D Interpretation</u>", Oil & Gas Journal, V. 79, No. 40, pp. 106-125, 1981.
- 14. Harris, L. D. and Nelson, H. R., Jr., "Three-Dimensional Display and Analysis of Seismic Volume Images", SEG Technical Papers, Los Angeles, CA, paper S7.3, V.4, pp. 2037-2045, October 1981.
- 13. Massell, W. F., Winningham, D. J., and Nelson, H. R., Jr., "Interactive Geophysical Analysis with 3D Color Graphics", at 51st Annual SEG Convention, Los Angeles, CA, paper S7.4, October 1981.
- Nelson, H. R., Jr., Gardner, T. N., and Hilterman, F. J., "<u>Interpretation of Physical Model Tank Data with</u> the Raster Segment Generator", SEG Technical Papers, Los Angeles, CA, paper S18.7, V. 6, pp. 3619-3634, October, 1981.
- Tatham, R. H., Massell, W. F., Goolsbee, D., Nelson, H. R., Jr., "<u>Seismic Shear-Wave Observations in a</u> <u>Physical Model Experiment</u>", SEG Technical Papers, Los Angeles, CA, paper S3.1, V. 3, pp. 1695-1733, October, 1981.
- Nelson, H. R., Jr., Technical Service and 3-D School for Consortium Members, SAL Semi-Annual Progress Review, May 1981.
- Hilterman, F. J., Nelson, H. R., Jr., and Gardner, G. H. F., "<u>Physical Modeling: An Aid for Production</u> <u>Geophysicists</u>", OTC Proceedings, paper No. 4022, pp. 139-147, May, 1981.
- Nelson, H. R., Jr., Hilterman, F. J., and Gardner, G. H. F., "Introduction to Interactive 3d Interpretation", SEG Technical Papers, V. 1, pp. 415-458, November 1980 (see also abstract, Geophysics, V. 46, No. 4, pp. 409).

- 7. Gardner, T. N., Hilterman, F. J., and Nelson, H. R., Jr., "<u>Interpretation of Physical Model Tank Data with</u> <u>the Raster Segment Generator</u>", SAL Annual Progress Review, v. 6, pp. G1-G12, November, 1980.
- Harris, L. D. and Nelson, H. R., Jr., "<u>Three-Dimensional Display and Analysis of Seismic Volume Images</u>", SAL Annual Progress Review, v. 6, pp. F1-F11, November, 1980.
- 5. Nelson, H. R., Jr., "Technical Service", SAL Annual Progress Review, v. 6, pp. R1-R4, November 1980.
- 4. Nelson, H. R., Jr. and Hilterman, F. J., "Improvements in the Physical Modeling System Hardware and Software", SAL Annual Progress Review, v. 6, pp. B1-B13, November 1980.
- 3. Nelson, H. R., Jr., "Technical Services", SAL Annual Progress Review, v. 5, pp. 1-4, May 1980.
- Nelson, H. R., Jr., Hilterman, F. J., and Gardner, G. H. F., "<u>Introduction to Interactive 3d Interpretation</u>", SAL Semi-Annual Progress Review, v. 5, pp. 149-192, May, 1980.
- 1. Nelson, H. R., Jr., "A Reflection Seismic Study of the Quaternary Sediments of Yellowstone Lake", Senior Thesis, GGSC 397, University of Utah, May 1974.

INTERESTS

- A. Family (10 children, 17 grandchildren, send out a weekly <u>Grandkidlet</u> since 07 January 2018, and have held <u>The Annual Nelson Grandkids Summer Science Camp</u> each summer from 2010-2023):
 - 1 2010 July 7-10: Geography & Condensation; 43 page book.
 - 2 2011 August 8-10: Mining & Infinite Gridsm; 60 page book.
 - 3 2012 June 27-29: <u>Geocaching & GPS; 61 page book</u>.
 - 4 2013 July 22-24: Volcanoes and Surveying; 59 page book.
 - 5 2014 July 03-05: Patterns, Computers, & Programming; 41 page book.
 - 6 2015 June 05-11: Archaeology, Petroglyphs, Petrified Forest; 46 page book.
 - 7 2016 July 06-08: <u>html programming</u>; <u>61 page book</u>.
 - 8 2017 August 02-03: <u>8-G: Geography, Genetics, Genealogy, Grandma, Grandpa, Geology,</u> <u>Geophysics, & Guitar; 47 page book</u> taken from <u>174 page book</u>.
 - 9 2018 July 01-05: <u>Hot Springs & Continental Divide</u>; <u>17 page book</u>.
 - 10 2019 June 18-20: Science and Engineering of iFLY; 41 page book.
 - 11 2020 July 20-24: Engines; <u>34 page book</u>.
 - 12 2021 June 27-30: Gravity; <u>36 page book</u>.
 - 13 2022 June 27-30: Light; <u>41 page book</u>.
 - 14 2023 June 10-12: <u>Water; 45 page book</u>.
- B. Church (Houston Temple Worker, 17 February 2009-20 January 2014; Cedar City Temple Worker, 14 December 2015 to Present, except for COVID shutdown; and Cedar City Family History Center Consultant, 3-hours weekly since fall of 2014, except for COVID shutdown, Science Camps, and trips); History (President-Elect, President, Past-President, Board of Directors, Chairman Monuments & Trek Committee <u>Cedar City Chapter of Sons of Utah Pioneers</u>, also member of Iron County Historical Society); Interested in Religious Traditions (see <u>Table 3a-4 The Gods of Mankind</u>, in <u>An Open Mind</u>); & <u>swhchs.org</u> (currently planning the <u>headquarters</u>, <u>museum</u>, <u>stories database</u>, <u>historical trails</u> & associated entities: [Movie Studio, to leverage stories]; [350 <u>pre-1900 wagons</u> to be moved to Cedar City]; and [West World Heritage City, a 2,000 acre western cowboy entertainment venue – think Cowboy Country Disney Land]).
- C. Work (Continue Making a Difference); Lightning Analysis; Seismic Acquisition and Interpretation (2-D and 3-D); Geotechnical Integration (built a digital model of all of the wells in Cedar Valley in September of 2005); Cosmology; Creativity; Entrepreneurship; Pattern Finding; People; Presentations; World-Wide-Web (Hypermedia; designed and built a UNIX, MOTIF, client-server, class-menu driven, hypertext engine with hyperlinked overlays for geological interpretations 1988-1994), prototyped a database driven with spatially indexed web pages for Iron County, emphasizing water issues in the Cedar Valley Drainage Basin); Experiences in England in 1970 led to starting a project with Raymond Gardner, now Walden 3-D, Inc. The initial vision statement was "Building 3-D Intelligent Cities," evolving to "Designing Responsive Environments" (for urban and rural planning activities). Strength is spatial relationships. Vocation, geophysics and geology, is spatial problems. Avocation, urban planning, is spatial problems. Urban Planning interests resulted in <u>The Urban Machinesm</u>, urban planning projects described at www.walden3d.com, Rainbird Village (2021. see our-people), and World Wide Holdings (2022).
- D. Music (Choirs: sing in our Ward Choir; have sung in Cedar City Messiah, except COVID year, since moving home in 2014, and brought <u>Ken Turner's Christian Painting Collection to the Cedar City Messiah</u> <u>in 2015</u>; typically sing in 4 concerts per year with the <u>Cedar City Master Singers</u>); writing songs with guitar

(see <u>psalmscountdown.net</u> for 439 recorded songs, including putting <u>156 Psalms</u>, and <u>other scriptures</u> to the music of my songs, including <u>the Book of Job</u> [twice: <u>Job; & Roice</u>], the entire <u>Book of Mormon</u> with each chapter as a four line stanza, including with unique <u>people</u>, <u>creation date</u>, & <u>image</u> indices [below, where a



thumbnail image links to the Song or Psalm the image is posted with] replicated with 8 layers of transparency); Reading (Literature, History, Science Fiction, Anthropology, etc.); and Writing (<u>Prime</u> <u>Words</u> [Stanzas], An Open Mind, Stand Back Up);

E. Outdoors: <u>Rock Collecting</u>; gardening; slow jogging/fast walking:

Start	End	Miles
07 Nov 2022	02 Sep 2023	381.77
01 Dec 2021	07 Nov 2022	511.25
08 Nov 2020	30 Nov 2021	769.20
06 Nov 2019	09 Nov 2020	1,028.75
06 Nov 2018	05 Nov 2019	635.25
15 Feb 2018	06 Nov 2018	369.85
15 Nov 2017	15 Feb 2018	133.25
07 Nov 2016	14 Nov 2017	667.10
09 May 2016	06 Nov 2016	284.70
TOTAL		4.781.12 miles

F. Art (designed 9 & commissioned 13 original paintings by <u>Kenneth R. Turner</u> to go with poetry efforts, named <u>Prime Words</u> - click on images below for larger view).

		A Personal Note To The Reader PRIME WORDS – a poem built around 797 concepts			
	PRIME WORDS	Organized in seven chapters, the poem describes ways in which words and their source, thoughts, effect our individual lives, mankind, and the universe. The reader will hopefully find something that expands			
Prime Words	H. Roice Nelson, Jr.	understandings, as I did in compiling others thoughts (along with my own thoughts) into stanzas. I especially hope our children will refer to and gain strength from this effort. This printing is a work in progress, and is eventually intended to be published as an ELDO (Electronic Document) that users can			
	21 June 2014	use to build and polish their own set of Prime Words. There are dozens of stamas that will be thrown out and dozens that will be reordered, including the four duplicated words in the next printing / distribution. In addition, there are several stanzas that have been named but have not been written yet, and the name is			
a noom	Thoughts about 979 entities (nouns), And their place as a foundation of language.	acting as a place holder (please write out your version and sendit to me). In proofreading this first complete edition I realized how much I have to learn from the words collected herein.			
a poem	And their place as a roundation of language.	Few, if any of the ideas in the poem are original. The descriptions of the power of thoughts and words are influenced by a variety of cultures; including but not limited to Mormonism (Judaic-Christianity), Americanism (capitalistic-democracy), and the geoscience branch of the international of and gas			
Ken Turner Painting Packet	A set of 791 (7*113) four line stanzas, Amateur poetry written for my children.	exploration and production community. The '77 prime word entities of the poem are divided into 3 divisions', Chapters, and theminto 3 sections in each of the 5 chapters in the body. Eight original oil paintings by Kenneth R. Turner were commissioned to introduce the chaldren and summarize the 7 chapters. There are 41 original is ongo written out in the various chapters and included on the enclosed CD.			
(footnotes not included)	Shared to demonstrate a portable electronic replacement for books:	chapters. Inere are 41 original songs written out in the vanous chapters and included on the enclosed CD. In addition, a separate video tape of a melodrama. Marti and I made with some friends the weekend we got engaged is available to round out the multi-media nature of this project.			
	ELDO (Electronic Document) a solar-powered electronic hyperjournal.	This effort is dedicated to my parents, Howard, R. Nelson, Sr. and Pauline Hafen Nelson. It does not seem enough to say the prime word THANKS. But Mom, thanks for teaching me about the powers contained in books and how to think. And Dad, thanks for showing me the meaning of patience, integrity, and how to			
H. Roice Nelson, Jr.	First Published 1991	overka and not we time. Another initiality investigation of the second s			
II. Rolee Iverson, Jr.	Copyright © 1991-2014 Walden 3-D. Inc.	journal of my thoughts and philosophical musings from December 1985 through publication. With love and best regards.			
21 June 2014	Walden 3-D, Inc. 211 Baker Road #382 Barker, Texas 77413	H. Roice Nelson, Jr.			
Walden 3–D, Inc.	All rights reserved.	"Poetry is not a moment to the poet. Nor is it a slice of his windom, dished our to a hungry world. (A poet rawly says anything the rest of the world doem't already know. He simply stimulates our awareness of it. He helps us identify universal feelings."			
Continuing to make a positive difference!	Except for financial gain this poem, or parts thereof, may be reproduced in any form without permission of the author. Please pass on how the material was used. Any	"Why does he do it? Because poetry is just as therapeutic for the writer as it is for the reader."			
	printing, copying, duplication, or reproduction of this material or any portion of this	If a poem makes you appreciate, or empathize, or resolve, or relive, or simply think; then the poet has served his purpose and renewed himself in the process."			

				Chapter: Dedication Location Inside Family: Châlten's Portrait Concept Continuation 90° View 1 Perspective 1 Scale 1 Minute Pose <u>Portraits of</u> (Howard) Reice Nelson, III Benjamin Bengt Nelson Paul Frederick Nelson Sara Ellyn Nelson Robert Llewellyn Nelson				ick Nelson Painted in December of 1990
	ation Location: Trailing Clouds Family: Chi h, Benjamin Bengt, Robert Llewillyn, (Howard) Roice, I			spirits, and pure light or e follow him. In the words It seems appropriate to st	nergy (E of Willian O TI H N B Fr art this bo nlosophic:	-mc ²). The exception is a Wordsworth (1/70-18 tr birth is but a sleep an he soul that rises with us ath had elsewhere its set ath trailing clouds of glor om God, who is our hor Ode (nimisation of Immo olde (minisation of Immo olde with our children's p al musings, and thought	the shooting star, which is Lucifer 50): a forgetting: , our life's star, ting. And commeth from afar , and not in utter nakedness, y do we come	falling to earth to tempt us to od) [1803-1806] Stanza 5 aken as an attempt to pass on a nerations to their descendants.
Division 1. PROLOGUE	[3 stanzas]	Chapter 1. THOUGHTS	[31stanzas]					
1. God:	He is the one God and the Father of all spirits Speaking so we may gain all He has and become one His body of flesh and bones is intelligent above all Listen for his voice saying, "This is my beloved Son"	1. Mindwalk:	Have you ever gone alone For a walk in your mind Searching high and low For whatever you may find		8.	Accomplishment:	Oh the power of our thinking And the strength of all our thou Look at all that follows concep Our words, works, and all we's	nts
2. Jesus Christ:	Firstborn of the father, the word in the beginning Creator of earth, Jehovah said, "Before Abraham was, I am." Born of the virgin Mary, the Lamb of God was slain In triumph and in glory, our Redeemer brought resurrection	2. Motive:	Thoughts in our most private mome When we choose that fork in the ro Not sure of outcomes from the hint Of what will grow from choices so	ad s	9.	Others:	Associates may have acquired Stronger thoughts than we yet Driving our lives along their p If we let them, by not being bo	ath
3. The Holy Ghost:	A personage of Spirit, sent down from heaven To dwell in our hearts, teaching gospel righteousness The power of the Holy Ghost fills us with peace and joy Freely revealing mysteries, to natural men foolishness	3. Observation:	Vicariously learning as we watch Others, in the present and the past Nature, in all her wonder and her av Learning opportunities are vast	we	10.	History:	A record of trials and problems Seldom of great accomplishme Life's many hard to find gems Seem hidden, found from hints	nts
		4. Meditation:	Good thoughts mend up our soul Taking us past the earth, or time To a glimpse of heaven, or eternity Insights helping the universe to rhy	me	11.	Choice:	We alone control our mind Naming the players on the stag With hymns or prayers we find The way, eternal life our wage	
		5. Sponge:	Thoughts take up little room Since intelligence is light and truth Our hearts and minds consume Input of all facts of reasonable proc	f	12.	Analysis:	When we make a phase spectrr Of our thoughts, words, and w Some build and others tear dov Our essence across the apex ha	orks vn
	"For we labor differenty to write, to persuade our children, and also our brethren, to believe in Christ,	6. Dream:	Images created in our minds eye Emotions, and abstractions new A release from reality, true reverie Beauty, honor, an ideal too		13.	Opportunity:	Watching for mutually benefic Remembering rain helps the flo Keeping our intent and vision's Helping progress, reaping wha	owers grow end in sight
	And to be reconciled to God; For we know that it is by grace That we are saved, after all we can do." 2 Nephi 25:23 The Book of Momon	7. Goal:	We meet our intentions and objecti By thinking a project through in de Duplicating numerous hours of pra Accomplishments for all the world	tail ctice	14.	Imagination:	There is power hidden in our m If we let go, so we can see Ideas waiting for us to find And to remember what might b	
15. Right:	An intuitive mind discerns the patterns Conceiving music to play in the Astoria Creating for those to come art Latterns Compositions dedicated "Solo Deo Gioria"	22. Thinks:	It may take a decade or more To grow an idea into a think Forming intentions or a plan Lifting mankind to a paradise link		29.	Chronicle:	Numerous histories are written Ofmankind, our thoughts, and d And societies learn to build upo These, the earlier planted seeds	deeds n
16. Left:	The analytical hemisphere of our brain Discretely simplifying, like blocks of Lego Do building, life to language in the main Temporal mathematical sequences of ego	23. Integrity:	No activity or project on this earth Is worth reputation compromise Though temptation follows birth An honest code is the true prize	1	30.	Compose:	Thoughts become credible when Down in black and white to sha Appraised by impression's quiet Impact on the reader and their y	re
17. Ideas:	Ideas are simply daydreams Umil put into useful works And work is useless motion Without doing thought-out words	24. Glasnost:	As more gates open in the curtain Of iron, bamboo, and superstition Seeing beyond the veil for certain Unashamed of thoughts or mission		31.	Imagery:	A poet's mind may wander Past the world and yesterday To tap thoughts starting life And truths he needs to say	
18. Small:	Take from life's ocean a single drop And build something truly great Starting something that will not stop Guided by the spirit is more than fate	25. Philosophy:	Some thoughts touch the universe As does "I think, therefore I am" And some thoughts change for go The course and all the plans of ma	od or bad n				
19. Positive:	We must take care in our requests For we might get just what we ask Whether foretelling doom and gloom Or heavenly light in which to bask	26. Theory:	The gedunken are the thoughts Scientists find as they diligently so For knowledge past experiments, Beyond known processes they per	as				
20. Plan:	Thinking through a master plan A trusting and thoughtful man proposes Implementing the best he can It seems that haceven soon disposes	27. Memory:	Recall of holographic images from Dictionary of unspeakable feeling Grow with more glucocorticoid re Regulating stress through the hipp	a our 5 must ceptors				
21. Kosher:	By choosing right and living the law We discover a duty no one can avoid Influencing others by what they saw Light in a cognitive disconance's void	28. Journal:	Written memories for us and futur Mi Yung Lee reminded us why an To write out our thoughts for deta It comes down to starting or contin	d how illed reflections				









2 of 3 Paintings paid for anonymously, now at Roice & Andrea Nelson's house in Cedar City, Utah.

Ken brought 10 of his paintings of Christ to the <u>Cedar City Messiah Performance</u>, 13 Dec2013, and hung them with this painting with the following note:

Artists Statement:

I have been painting professionally 45 years for private, corporate, and royal patrons around the world. The subject matter has been wide and varied, often requiring a great deal of research on my part. I enjoy the synergism that comes from working with my clients. The paintings of Christ in this exhibit originated from my own desires to illustrate some of my favorite passages in the scriptures and from a series of discussions I had with Roice Nelson years ago about a proposed series of paintings of Christ. I was recently asked what I would paint for myself. These are those paintings. They are not commercially oriented but my personal expression of faith. They do not exist, however, without the interest and support of many other people, including my wife, Nell.

Ken Turner

3 of 3 paintings paid for anonymously, now at Roice & Andrea Nelson's house in Cedar City, Utah.



RELIGIOUS BACKGROUND: The Church of Jesus Christ of Latter-Day Saints

This section is included for completeness, specifically because church assignments have trained me and enhanced my natural interest in working with and teaching youth, leading field camps, and opening minds. Church volunteer work has expanded to community service, including: representing The Southern Utah Rock Club with rocks from my collection at the Children's Jubilee at the Heritage Center on the 9th of February 2019; a geology STEM lecture to all 4th Grade Students at Enoch Elementary the 22nd of March 2019; a lecture at Ruby's Inn at Bryce Canyon to 65 7th and 8th Grader students from Gateway Academy on the 23rd of March 2019; lecture on geology, petroglyphs, and dinosaur footprints to 85 4th Grader students from East Elementary at Parowan Gap on the 2nd of April 2019; etc.

- Hillcrest Ward, Cedar City, Utah, 2014-present: Minister/Home Teacher; Cedar City Temple Worker since 14 Dec 2018; Temple and Family History Consultant 28 Dec 2014 to 22 November 2022, Family History Leader at the Family History Center since 14 Jul 2019; Stake Blood Drive Coordinator for Hillcrest Ward 2014-2020.
- Nottingham Country Ward, Katy, Texas, 1984-2014: Home Teacher; Houston Temple Worker (17 Feb 2009- 20 Jun 2014); Ward Employment Specialist; Sunday School Teacher; Primary Teacher; Cub Scout Pack Committee Chairman; Teachers Quorum Advisor; Priest Quorum Advisor and Young Men's President; 2nd and 1st Councilor in Bishopric; Stake Missionary; Assistant High Priest Quorum Advisor; Venturing Crew Advisor (16-18-year-old scout leader); Ward Activities Committee Chairman.

- Maplewood 2nd Ward, Houston, Texas, 1980-1984: Home Teacher; Priest's Quorum Advisor (16-18-yearold young men) and Young Men's President; Elder's Quorum President.
- Dallas 1st Ward, Dallas, Texas, 1974-1979: Home Teacher; Teacher's Quorum Advisor (14-16-year-old young men); Elders Quorum President; Ward Clerk; Ward Executive Secretary.
- Voluntary Missionary Service in the British Mission (renamed England East Mission), 1970-1972: Canterbury, Ipswich, Norwich, Harlow New Town; Islington, and Earls Court Districts.
- University of Utah Student Wards, Salt Lake City, Utah, 1968-1970, 1973-1974: Home Teacher; Institute Choir at General Conference in April 1969; Elders Quorum Instructor.
- 5th generation member, but converted in 1968 at age 18, after growing up in a family with little interest in religion.

As a geoscientist, I love to study data and to go to the field and look at rocks and derive new insights. I love to create new opportunities (businesses) and watch how they impact friends and family. I have had a wonderful life: reading, writing, learning, teaching, camping, traveling, presentations, guitar, singing, Science Camps, hiking, running, dinners, discussions, moving rocks, going to movies, watching television, etc. However, the emotionally satisfying and fulfilling parts of my life have not been found at school or at work or even with friends, but have been found with grandkids, my wife, my children (birth and step-children), with my prayers, my faith, my knowledge of our Savior and of His prophets, and of the truths the gospel is built on.