

# The PAYSTREAK

Volume 21, No. 1, Summer, 2020

The Newsletter of the Alaska Mining Hall of Fame Foundation

## In this issue:

AMHF New Inductees-----	Page 1
Ceremony Program-----	Page 2
Introduction and Acknowledgements-----	Page 3
Contributions to the Foundation-----	Page 4
Previous AMHF Inductees-----	Page 9
New Inductee Biographies-----	Page 20
Distinguished Alaskans Aid Foundation-----	Page 48
Alaska Mining Hall of Fame Directors and Officers-----	Page 48

## Alaska Mining Hall of Fame Foundation New Inductees

### AMHF Honors Three Pioneers Associated With Interior and Northern Alaska Gold Mining



**Roshier Creecy** was an African American born in Virginia in 1866. He sought to escape a southern culture intent on retaining racial hierarchy, and in 1887, joined the U.S. Army's 9th Calvary, known as the 'Buffalo Soldiers'. Upon his discharge from the U.S Army, he married the beautiful Georgie Arnold in 1893 in Washington D.C. But the restless Creecy rushed to Dawson to participate in the Klondike Gold Rush in 1897, never to return to the States or to Georgie Arnold. In 1906, he mushed to Fairbanks and after a short stay, traveled north and prospected in the Chandalar, Wild Lake, Wiseman, and Koyukuk River regions, always walking in the summer and mushing in the winter. He eventually settled down in the Wiseman area and spent the remainder of his long life in search of gold before his passing in 1948. He contributed greatly to Alaskan history and his life offers a unique perspective of an African-American living in a wilderness Alaskan mining camp setting during the first half of the 20th Century.



**Arnold Nordale** was born in Juneau in 1896, the year of the Klondike Gold Rush. His father, Tony Nordale, rushed into Dawson and would establish a successful restaurant business. The family moved to Fairbanks shortly after the discovery of gold by Felix Pedro. Arnold lived in the mining town of Cleary City during his boyhood years. After earning a mining engineering degree from Stanford University, Arnold returned to Alaska in 1920 first to work for the Alaska Railroad, then the Alaska Road Commission, and finally as a senior engineer for the USSR&M Company, which was constructing a large gold dredging fleet in Fairbanks. He served as Mayor of Fairbanks in the 1930s, and played a pivotal role in getting the new Fairbanks Public School constructed in 1934. He would wind up his mining career with the Yukon Consolidated Gold Corporation (YCGC) operations in Dawson, where he managed a gold dredging fleet equal in size to the USSR&M gold dredge fleet in Alaska. In retirement, he spent much time in Fairbanks, until his passing in 1976.



**Raymond L. Smith** lived a remarkable life filled with economic challenges, adversity, adventure, academic achievement and organizational success. Born in Vanceboro, Maine in 1917, Smith traveled to Alaska in 1939 to initially work in the gold fields and seek adventure, but instead decided to enroll in the School of Mines at the University of Alaska. He found both adventure and educational success in Alaska. After military service and teaching at the UA School of Mines, he established a career as a metallurgist at the Franklin Institute of Research after receiving a Phd from the University of Pennsylvania in 1953. In 1965, Ray became President of Michigan Technological University (MTU) in Houghton, Michigan. Many contemporaries give him wide credit for building MTU into the highly regarded educational institution that it is today. Smith was the only UA graduate to become the president of a major university. Although retiring to Arizona, he never forgot Fairbanks or the rest of Alaska and returned many times for both business and pleasure. Ray Smith died in 2018 at the age of 101.

**And Alaska Mining Hall of Fame Foundation (AMHF)  
Induction Ceremony, Friday, July 17th, 2020  
Fountainhead Antique Auto Museum, Fairbanks, Alaska**

Program

The general public is invited to Alaska Mining Hall of Fame Foundation (AMHF) induction ceremony from 7:30-to-9:30 PM on Friday, July 17th, 2020. The induction ceremony will take place at the Fountainhead Antique Auto Museum at 212 Wedgewood Drive in Fairbanks, Alaska.

Power Point Presentations will be presented of all three inductees. In order to comply with reducing the spread of the Coronavirus as recommended by the State of Alaska, social distancing will be implemented. The wearing of face masks is strongly recommended. There is no charge for admission. Refreshments (coffee and tea and cookies/donuts) will be served.

- Coffee and Donuts----- 7:00-to-7:15 PM
- Introduction by Karl Hanneman AMHF----- 7:15-to-7:30 PM

*Presentation of Inductees*

- Presentation of Roshier Creecy by Margaret Merritt----- 7:30-to-8:00 PM
- Presentation of Arnold Nordale by Tom Bundtzen----- 8:00-to-8:30 PM
- Presentation of Raymond Smith, by Tom Bundtzen----- 8:30-to-9:00 PM
- Coffee Break----- 9:00-to-9:15 PM
- Recollections of Inductees from the General Audience----- 9:15-to-9:30 PM
- Adjournment----- 9:30 PM

## Introduction and Acknowledgements

The July 17th, 2020 induction ceremony of the Alaska Mining Hall of Fame Foundation (AMHF) features three pioneers associated with mining activities in Interior and Northern Alaska. In one way or another, they are all linked to gold. This induction ceremony was originally scheduled to take place on April 1st, 2020. The Coronavirus lockdown resulted in the cancellation of the Spring Alaska Miners Association Spring Conference and the planned AMHF Induction Ceremony. We have chosen this date to accommodate the well known Golden Days Celebration in Fairbanks, which will take place from July 13-19.

Roshier Creecy, born in 1866, stamped to Dawson in 1897. After several years, including running a roadhouse in the Klondike, he ended up in the Wiseman area of northern Alaska, where he spent the remainder of his long life. Creecy joins two other African American mining pioneers inducted previously into the Alaska Mining Hall of Fame: William Ewing, and Eugene Swanson. Both obtained success in Interior Alaska gold districts during the Alaska-Yukon Gold Rush period (see their biographic sketches in AMHF Paystreak Newsletter, Volume 19, no. 1, 2018; pages 20-22, 32-34) or on our website: [www.alaskamininghalloffame.org](http://www.alaskamininghalloffame.org).

Arnold Nordale was a home grown Alaskan, born in Juneau in 1896, the year of the Klondike Gold Rush. He spent his childhood in the Klondike and Fairbanks districts, where his dad, Tony, ran hotels and roadhouses. After obtaining a mining engineering degree at Stanford, Arnold returned to play roles in the construction of the Davidson Ditch and systematic placer exploration in the western part of the Fairbanks district for the USSR&M dredge fleet. After serving as mayor of Fairbanks, he went back to the Klondike in Canada and eventually became General Manager of the Yukon Consolidated Gold Corporation (YCGC), which operated a gold dredging fleet equal in size to that of the USSR&M Company in Alaska.

Ray Smith was born in Maine in 1917 and traveled to Alaska in 1939 to initially work in the gold fields and seek adventure, but decided to enroll in the School of Mines at the University of Alaska. In Fairbanks, he became a gold assayer for both small firms and the USSR&M. After military service and years teaching at the UA School of Mines, Ray became President of Michigan Technological University in northern Michigan in 1965. He was the only UA grad to become the president of a major university. He died in 2018 at the age of 101.

Margaret Merritt wrote the biography of Creecy, which is derived from her book: *Roshier H. Creecy—A Black Man's Search for Freedom and Prosperity in the Koyukuk Gold Fields of Alaska*. Merritt will have this book for sale at the induction ceremony. Fairbanks residents Margaret Cox Rich and Paul A. Metz were invaluable sources for information concerning the career of Ray Smith. Marilyn Nordale Stacy and Mary A. Nordale provided invaluable assistance in the write-up of Arnold Nordale. Tom Bundtzen edited and produced the AMHF Paystreak Newsletter.



### **Contributions to the AMHF**

The Alaska Mining Hall of Fame Foundation is funded through donations of money, time and effort, and through sales of books and other paraphernalia. The Foundation is a tax-exempt organization, so all donations are tax deductible.

#### **Donations to the Foundation should be mailed to:**

Karl Hanneman, Treasurer  
Alaska Mining Hall of Fame Foundation  
P.O. Box 81108  
Fairbanks, Alaska 99708

### **Contributions to the Foundation**

After more than a year without a museum facility, the AMHF has signed a lease to pursue a new museum facility in downtown Fairbanks. At this writing, we are working with an architect and the building owner, Charles and Christine Cole, to help design the new facility. Contributions allow the AMHF Foundation have helped to find the site of the new location. We hoped to have the new museum in 2020. Unfortunately, the Coronavirus shut down has delayed the opening. Please stay tuned for more information on this. Contributions help fund our website and the acquisition of new materials for the museum.

Contributions help the Foundation produce, publish and update the AMHF website. We were able to reproduce all *Paystreak* Newsletters from 1997-to-Present. The thirty-six (36) *Paystreak* newsletters can be downloaded from the website, which is: [www.alaskamininghalloffame.org](http://www.alaskamininghalloffame.org)

We thank all contributors, regardless of the level of their donation, which are: Copper (\$1-\$99), Silver (\$100-\$499), Gold (\$500-\$999); '98er, (\$1,000) and Platinum (>\$1,000). Some of the more recent contributions have been in memory of legislator, and placer gold miner Robert Bettisworth, gold miner Walt Wigger, and mine educator Jim Madonna. The AMHF especially thanks Teck Resources, operator of the Red Dog Zinc-Lead-Silver Mine, the Usibelli Foundation, Margaret Cox Rich, Taiga Mining Company (Taiga), the Bill Stroecker Foundation and Dave and Pat Carnes for their generous donations. Taiga, Margaret Cox Rich, Karen Erickson and Dave and Pat Carnes became our newest 98'ers. Also included below are those that have contributed through the Pick-Click-Give Program.

<b>Name</b>	<b>Contribution Level</b>	<b>Dedication</b>	<b>Year</b>
Lynden Transport	Gold	General	2013
Teck Resources Red Dog Mine	Platinum	General	2013
Doug Colp Family	98er/Gold	General	2013
Jason Brune	Silver	General	2014
Malie Gray	Copper	General	2014
Clark Milne	Copper	General	2014
Peter Montesa	Copper	General	2014
Jules Tileston	Copper	General	2014
Six Anonymous	Silver	General	2014
Usibelli Foundation	Gold	General	2014
Candy Waugaman	Platinum	General	2015
Karen Erickson	Copper	General	2015
Usibelli Foundation	Platinum	General	2015
Alaska Women in Mining	Gold	General	2015
Brian Rogers, Sherry Modrow	Gold	General	2015
Marty K. Rutherford	Gold	General	2015
Karen Purdue	Gold	General	2015
Mr. and Mrs. Jim Thurman	Silver	General	2015
Karen Clautice	Copper	General	2015
Christine and Corbette Upton	Silver	General	2015
Bill Brophy	Copper	In Memory of Bob Bettisworth	2015
Leo and Fredi Brown	Copper	In Memory of Bob Bettisworth	2015
George Horner-Trust	Silver	In Memory of Bob Bettisworth	2015
Laurence Peterson	Silver	In Memory of Bob Bettisworth	2015
Sigwald and Arlene Strandberg	Silver	In Memory of Bob Bettisworth	2015
Laurence Peterson	Gold	In Memory of Jim Madonna	2015
Lisa and Milton Behr	Gold	In Memory of Walt Wigger	2015
David and Aldean Kilborn	Silver	In Memory of Walt Wigger	2015
Nathaniel May	Copper	General	2015
Michael Whelan	Silver	General	2015
Aaron Pfeil	Copper	General	2015
Clark Milne	Silver	General	2015

Name	Contribution Level	Dedication	Year
Karen Lapp	Copper	General	2015
Jeff Lapp	Copper	General	2015
Bill Stroecker Foundation	Platinum	General	2015
Clark Milne	Silver	General	2016
Joel Stratman	Copper	General	2016
Michael Whalen	Silver	General	2016
Richard Hughes	Silver	General	2016
Karen Lapp	Copper	General	2016
Patricia Peirsol	Copper	General	2016
Matthew Hanson	Copper	General	2016
Jason Brune	Silver	General	2016
Jeff Lapp	Copper	General	2016
John Cook	Copper	General	2016
Mark Hottman	Copper	General	2016
Two Anonymous	Silver	General	2016
Sarah Isto	Silver	General	2016
Tom Bundtzen	Silver	General	2016
Chris Olsen	Silver	General	2016
David and Heidi Doudna	Gold	General	2016
Karen Purdue	Gold	General	2016
Karen J. Erickson	Platinum	General	2016
Richard E. Wagner	Copper	General	2016
Harold and Leslie Noyes	Gold	General	2016
Karen Clautice	Copper	General	2016
Winston and Glenda Burbank	Silver	General	2016
Joseph and Victoria LeTarte	Silver	General	2016
Richard and Cherie Solie	Silver	General	2016
Debbie and Jeff Johnson	Silver	In Memory of Walt Wigger	2016
Helen Warner	Copper	General	2016
Laurence and Darlene Peterson	Silver	General	2016
John and Arlene Orbeck	Copper	General	2016
Lyman Family	Silver	General	2016
Ruth Ibbetson	Silver	General	2016
Alaska Women in Mining	Gold	General	2016
Bill Stroecker Foundation	Platinum	General	2016
Usibelli Foundation	Platinum	General	2016
Jason Brune	Silver	General	2017
Patrick Dolphin	Copper	General	2017

<b>Name</b>	<b>Contribution Level</b>	<b>Dedication</b>	<b>Year</b>
Matthew Hanson	Copper	General	2017
Richard Hughes	Silver	General	2017
Sonny Lindner	Copper	General	2017
Clark Milne	Silver	General	2017
Jerry Sadler	Copper	General	2017
Joel Stratman	Copper	General	2017
Terry Taylor	Copper	General	2017
Michael Whelan	Silver	General	2017
3 Anonymous	Silver	General	2017
Bill Stroecker Foundation	Platinum	General	2017
Usibelli Foundation	Platinum	General	2017
Fairbanks Branch, Alaska Miners	Gold	General	2017
Don Gray	Copper	General	2018
Richard Hughes	Silver	General	2018
William Kinne	Copper	General	2018
Clark Milne	Silver	General	2018
Patricia Peirsol	Copper	General	2018
Michael Whalen	Silver	General	2018
Jason Brune	Silver	General	2018
Matthew Hanson	Copper	General	2018
Mark Hottman	Copper	General	2018
Jamison Parry	Copper	General	2018
Jerry Sadler	Copper	General	2018
Usibelli Foundation	Platinum	General	2018
Terry Taylor	Copper	General	2018
Bill Stroecker Foundation	Platinum	General	2019
Larry and Darlene Peterson	Silver	General	2019
Jason Brune	Copper	General	2019
Matthew Hanson	Copper	General	2019
Gay Ellen Heath Griffin	Copper	General	2019
William Kinne	Copper	General	2019
Clark Milne	Silver	General	2019
Jameson Parry	Copper	General	2019
Patricia Peirsol	Copper	General	2019
Jerry Sadler	Copper	General	2019
Michael Whalen	Silver	General	2019

<b>Name</b>	<b>Contribution Level</b>	<b>Dedication</b>	<b>Year</b>
Margaret Cox Rich	Platinum	In Memory of Ray Smith	<b>2020</b>
David and Patricia Carnes	Platinum	General	<b>2020</b>
Larry and Darlene Peterson	Platinum	General	<b>2020</b>
Taiga Mining Company	Platinum	General	<b>2020</b>
Scott Bothwell	Copper	General	<b>2020</b>
Jason Brune	Silver	General	<b>2020</b>
Don Gray	Copper	General	<b>2020</b>
Matthew Hanson	Copper	General	<b>2020</b>
William Kinne	Copper	General	<b>2020</b>
Clark Milne	Silver	General	<b>2020</b>
Heath Nowak	Copper	General	<b>2020</b>
Jameson Parry	Copper	General	<b>2020</b>
Patricia Peirsol	Copper	General	<b>2020</b>
Jerry Sadler	Copper	General	<b>2020</b>
Michael Whelan	Silver	General	<b>2020</b>

Bolded year (2020) are new listings not included in our last Newsletter; current as of 05/15/2020.

## Previous Inductees, Alaska Mining Hall of Fame

Fairbanks, Fall 1997

**Six charter members of the Alaska Mining Hall of Fame Foundation were previously elected into the National Mining Hall of Fame in Leadville, Colorado.**

**Stephen Birch:** Founder and developer of Kennecott Copper Mines.

**Frederick Bradley:** Successful manager of Treadwell and A-J Mines, Juneau.

**John Treadwell:** Founder of Treadwell Mines, Juneau.

**Alfred H. Brooks:** Chief Geologist of U.S. Geological Survey in Alaska during Alaska-Yukon Gold Rush Era.

**Ernest Patty:** University of Alaska renowned teacher and later president, and manager of dredge firms in the Coal Creek-Woodchopper district.

**Clarence Berry:** Prominent Klondike and Interior Alaska miner.

Fairbanks, Spring 1998

**Induction Ceremony Honoring Early Yukon Basin Traders and Prospectors**

**Alfred Mayo:** “Captain Al” well-known Yukon River trader, prospector.

**Jack McQuesten:** Known as the “Father of the Yukon” grubstaked many prospectors.

**Arthur Harper:** Respected trader and prospector and promoter of the Yukon; his son Walter, first stepped foot on the summit of Mount McKinley (Denali).

**Howard Franklin:** Fortymile prospector, discovered first “bedrock” placer gold in Alaska.

**John Minook:** Creole-Athabaskan prospector who discovered the Rampart and Melozitna districts—became an important inspiration for Indigenous rights, including US Citizenship.

**Felix Pedro:** Discoverer of Fairbanks district in 1902.

Nome, Summer 1998

**Induction Ceremony Honoring Pioneers of Nome Gold Rush**

**John Brynteson:** A ‘Lucky Swede’; an experienced hard-rock miner, discoverer of the Cape Nome district.

**Erik Lindblom:** The eldest of the “Lucky Swedes”, a tailor.

**Jafet Lindeberg:** The Norwegian of the ‘Lucky Swedes’, president and manager of the very successful Pioneer Mining Company.

**Charles D. Lane:** Tough, honest, and wealthy miner who helped the Lucky Swedes in their legal battles.

Juneau, Spring, 1999

**Induction Ceremony Honoring Discovery of Juneau District**

**Joe Juneau:** Native of Quebec, a California 49er, co-discoverer of gold in the Juneau district.

**Richard Harris:** Irish immigrant, co-discoverer of gold in Juneau district.

**George Pilz:** German immigrant who sent and financed the Juneau and Harris prospecting ventures in the Juneau area.

**Kawa.ée:** Tlingit leader who brought rich gold samples from Gastineau Channel area to George Pilz

**Livingston Wernecke:** Geologist-engineer for the Bradley companies of Juneau.

**Bartlett Thane:** Promoter-founder of the world's largest gold mine, the Gastineau at Juneau.

Anchorage, Fall 1999

**Induction Ceremony Honoring Mining Pioneers of Southern/Southwest Alaska**

**Andrew Olson:** Swedish immigrant, innovator at Flat; the original organizer of the platinum mining complex in the Goodnews Bay Mining district.

**Evan Jones:** Welsh immigrant; the true father of Alaska coal mining industry.

**Wesley Earl Dunkle:** Kennecott engineer and innovative geologist, co-founder of Star Air Service, predecessor of Alaska Airlines.

Fairbanks, Spring 2000

**Induction Ceremony Honoring Early 20<sup>th</sup> Century Interior Pioneers**

**Emil Usibelli:** Italian immigrant and founder of Usibelli Coal Mine, Inc., Alaska's only and historically largest producer of coal; civic benefactor in Fairbanks.

**John B. Mertie Jr.:** Leading U.S. Geological Survey geologist; outstanding earth scientist, mathematician, and world expert on platinum.

**Fannie Quigley:** Prospector, renowned for her bush skills, legendary Kantishna district character.

Juneau, Spring 2001

**Induction Ceremony Honoring Early Government Role in Mining**

**Benjamin D. Stewart:** State and Federal mining administrator, Alaska constitutional delegate at Alaska Statehood Convention in Fairbanks.

Fairbanks, Summer, 2001

**Induction Ceremony Honoring the Pioneers of the Large Scale Gold Dredging Industry of Nome and Fairbanks Districts**

**Norman C. Stines:** Visionary engineer who planned and supervised original USSR&M activities in Fairbanks district.

**Wendell P. Hammon:** Installed the first three dredges in Cape Nome district; helped design financing for what became USSR&M dredge fleets in Alaska.

**James K. Davidson:** Designed and built Miocene and Davidson ditch systems.

Anchorage, Fall 2001

**Induction Ceremony Honoring Discovery of Flat District**

**John Beaton:** Co-discovered Iditarod district with William Dikeman.

Fairbanks, Spring 2002

**Induction Ceremony Honoring Successful Miners and Engineers of Early 20<sup>th</sup> Century**

**Frank G. Manley:** Highly successful miner in Fairbanks, Hot Springs district, and Flat. Founder of the First National Bank, Fairbanks.

**Herman Tofty:** Norwegian immigrant who worked prospects near Manley Hot Springs.

**Chester Purington:** Acclaimed international mining engineer; wrote treatise on Alaska placer fields.

**Thomas P. Aitken:** Arguably the most successful small scale mine developer during the Alaska-Yukon Gold Rush; worked both lodes and placers in Alaska and Yukon.

Anchorage, Fall 2002

**Induction Ceremony Honoring Immigrant Pioneers**

**Peter Miscovich:** Croatian immigrant who settled in Flat, Alaska 1910. Pioneered the use of hydraulic mining techniques.

**David Strandberg:** Swedish immigrant who joined the Klondike gold rush in 1898 and the Iditarod rush of 1910. Built placer mining dynasty Strandberg & Sons, Inc.

**Lars Ostnes:** Norwegian immigrant who mined in the Iditarod district and developed placer mines in remote western Alaska for over 50 years.

Fairbanks, Summer 2003

**Golden Days Induction Ceremony (also recognized during Fall AMA convention)**

**Kyosuke "Frank" Yasuda and Nevelo Yasuda:** Japanese immigrant and his Eskimo wife, discovered Chandalar gold and founded the community of Beaver.

Anchorage, Fall 2003

**Induction Ceremony Honoring Early and Mid-20<sup>th</sup> Century Placer Miners**

**John Gustavus (Gus) Uotila:** By 1915, Gus Uotila was known as a tough Iditarod teamster. He mentored placer mining operations throughout Alaska and became a respected overland freighter.

**Simon Wible:** He mined gold, built water canals, and became a wealthy man in California. When the time the gold rush came along, he pioneered hydraulic mine technology on the Kenai Peninsula.

Fairbanks, Spring 2004

**Honoring Early Pioneers Associated with USSR&M Dredge Fleet**

**Roy B. Earling:** Built pre-World War II FE Company into one of the most efficient and successful dredge mining firms in the world.

**James D. Crawford:** Well organized manager who acquired new dredge properties and guided FE Company into successful post-World War II period of gold mining.

**Jack C. Boswell:** Engineered the development of the rich Cripple deposit; and helped build giant FE machines used to dig deep placer deposits. Published historian of USSR&M era.

**Genevieve Parker Metcalfe:** Breakthrough woman mining engineer who developed initial plans for FE Fairbanks operations, wrote a landmark thesis on Alaska placer mining, and was a champion athlete and scholar.

**Earl Richard Pilgrim:** First Professor of Mine Engineering at University of Alaska. Independent Kantishna miner and pioneer, and noted FE consultant; “Mr. Antimony” in the US.

Anchorage, Fall 2004

**Honoring Those in the Mining Legal Profession,**

In Cooperation with the History Committee of the Alaska Bar Association

**William Sulzer:** Bill Sulzer became a prominent New York attorney and politician and briefly served as Governor of New York. The ever-optimistic Sulzer mined copper in southeast Alaska and developed gold in the Chandalar district.

**Joseph Rudd:** Shortly after statehood, Rudd drafted the State’s mining law on state lands and was sought for his expertise on natural resource issues throughout his career. He was killed in a plane crash in Anchorage upon his return from Juneau after discussing with other Alaskans challenges to President Carter’s Implementation of the 1978 Antiquities Act.

#### Anchorage, Fall 2005

##### **Honoring the Discoverers and the Developer of Platinum Resources at Goodnews Bay**

**Per Edvard (Ed) Olson:** Born in 1898, Edward Olson was born into a large farm family in Sweden and immigrated to the United States in 1905. In 1934, he assumed the position of general manager of the Goodnews Bay Mining Company (GBMC), the largest supplier of platinum in the U.S. during 1934-1975.

**Walter Smith:** In the summer of 1926, Yupik Eskimo Walter Smith and his young apprentice Henry Wuya found placer platinum in a stream draining a remote, uninhabited coast of southwest Alaska. The GBMC eventually purchase Smith's claims. Smith and Wuya are recognized as discoverers of Goodnews Bay platinum.

**Henry Wuya:** was born to Eskimo parents in Quinhagak on the Yukon-Kuskokwim Delta. Wuya was proficient in English when few Yupiks knew English. He mentored with the older and experienced prospector, Walter Smith.

#### Fairbanks, Spring 2006

##### **Honoring Two Pioneers Important to both Canadian and American Mining Communities**

**Ellen (Nellie) Cashman:** Ellen (Nellie) Cashman was a quintessential gold stamper who participated in many gold-silver rushes of the late 19<sup>th</sup> and early 20<sup>th</sup> Centuries. Nellie's final home was Nolan Creek in the Koyukuk district of northern Alaska. Cashman died of Cancer in 1925 at St. Anne's Hospital, Victoria, British Columbia, a medical facility she helped found several decades earlier.

**Jack Dalton:** One of the premier horse freighters of the Alaska-Yukon gold rush era, Jack Dalton opened up the 'Dalton Trail' for prospectors and trades from Haines to Central Yukon, Canada. In later years he worked as a freight engineer for the Alaska railroad. The Dalton Highway, named after his son, another transportation pioneer, is a tribute to the Dalton family in Alaska.

#### Juneau, Summer 2006

##### **Honoring the Mining Legal Profession, in Cooperation with the History Committee of the Alaska Bar Association**

**Frederick (Fred) Eastaugh:** Nome-born Fred Eastaugh was an Alaskan accountant a ship's officer for the Alaska Steamship Company, and Alaska mining attorney. Eastaugh was appointed to the Alaska Minerals Commission in 1991 by Governor Walter Hickel. Upon Eastaugh's death a year later, Hickel ordered state flags flown at half mast.

#### Anchorage, Fall 2006

##### **Honoring an Outstanding Statesman and an Outstanding Prospector Active in the mid-20<sup>th</sup> Century Alaska Mining Industry**

**Charles F. (Chuck) Herbert:** was one of the premier miners of his generation. Educated at the School of Mines in Fairbanks, he mined placer gold deposits, sought metalliferous lodes, and served with distinction in several public roles. During early years of Statehood, he played a crucial role in the selection of Alaska's North Slope Lands. Later as DNR Commissioner, he revitalized the State land selection process.

**Rheinart M. (Rhiny) Berg:** Berg's strength and stamina were legendary during most of his 86 years of life. He worked as an underground miner in the Wrangell Mountains and Fairbanks districts, as a trapper and prospector, and he found the Bornite copper-cobalt deposit. He later developed the Candle placer district on the Seward Peninsula. He gained great wealth, which he mostly gave away.

Juneau, Spring 2007

### **Honoring an Outstanding Statesman and a Mine Attorney Active in Southeast Alaska's Mineral Industry**

**Phillip R. Holdsworth:** Phil Holdsworth's professional career extended nearly seventy years. He was a practical miner at the age of sixteen. Later he operated mines, assay labs, and mills. In World War II, he defended a Philippine mine as a guerilla warrior. After serving as Alaska's first commissioner of Natural Resources, Holdsworth became Alaska's elder natural resource statesman before his death in 2001.

**Herbert L. Faulkner:** H.L. (Bert) Faulkner's law career extended for almost seventy years. He was a sheriff, U.S. Marshall and attorney. He would represent almost every major mining company operating in Alaska during his lifetime.

Fairbanks, Summer 2007

### **Honoring Two of Alaska's Outstanding Mine Educators**

**Earl H. Beistline:** Earl Beistline had a distinguished career as mining educator at the University of Alaska in Fairbanks. Beistline brought to the classroom a unique blend of theoretical and practical knowledge in the field of mining. During all of his adult life, he was a tireless and outspoken advocate of Alaska mining industry interests.

**Ernest N. Wolff:** Ernie Wolff was a notable personality on Alaska's mining landscape for more than sixty years. During this time he prospected, mined, taught and administered at the University of Alaska, wrote a classic book, *Handbook for the Alaskan Prospector*, and served on public bodies; all of this always in his unique style with a kind of gentle truculence.

Anchorage, Fall 2007

### **Honoring Those Involved in the Southwest Alaska's Quicksilver Mining Industry**

**Robert F. Lyman:** Besides operating small scale mercury lodes, he managed Alaska's largest mercury mine at Red Devil, Alaska, which, during the 1950s, produced nearly 20 percent of U.S. domestic requirements of the strategic metal.

**Wallace M. Cady:** Produced, with other USGS colleagues, 'The Central Kuskokwim Region, Alaska', a geological framework of a large, 5,000 mi<sup>2</sup> area centered on Alaska's premier mercury mining region.

**Russell Schaefer:** One of Alaska's 'tough guy prospectors' that accomplished much in the Kuskokwim Mercury Belt of southwest Alaska.

Fairbanks, Spring 2008

**Honoring Three Attorneys and a Civic Minded Woman Important to the Interior Alaska Mining Industry**

**Luther Hess:** First rate mining lawyer and active mine developer in several interior Alaska gold camps. Helped organize the Alaska Miners Association (in 1939) and served as AMA's first President.

**Harriett Hess:** Worked with husband Luther on a variety of mining education issues and was a pioneer regent of the University of Alaska system. Worked as pro-development, pro-mining Democrats during the Roosevelt Administration.

**Earnest B. Collins:** Pursued a long and successful career in Interior Alaska as a placer miner, lawyer, Alaska Territorial legislator, and delegate to Alaska Constitutional Convention.

**John (Johnny) McGinn:** A smart mining lawyer who, with James Wickersham, cleaned up corruption in Nome and financed many small gold and silver projects in Interior Alaska and Yukon, Canada.

Anchorage, Fall 2008

**Honoring Two Engineers and a Prospector Who Helped Bring Success to the Kennecott Mines in the Chitina Valley of South-Central Alaska**

**Earl Tappen Stannard:** An innovative engineer at Kennecott's Alaska mines, and later a CEO of Kennecott Copper Corporation.

**William Crawford Douglass:** A gifted mining engineer and exceptional manager at Kennecott's Alaska mines.

**Reuben Frederick McClellan:** Organized the mining partnership that made the initial discoveries and negotiated the sales of the mineral claims that became the Kennecott mines in Alaska.

Anchorage, Fall 2009

**Honoring Four Pioneers Important to the Willow Creek Mining District**

**Robert L. Hatcher:** Began the lode mining boom in the Willow Creek district when he discovered gold-quartz veins on Skyscraper Mountain that later became part of the Independence group of mines.

**Orville G. Hering:** Instrumental in forming the east-coast based exploration group, Klondike and Boston Gold Mining Company and in forming the Willow Creek Mining district.

**Byron S. Bartholf:** Represents a large family group that was instrumental in the development of the gold lodes in the Willow Creek district.

**Walter W. Stoll:** An exceptional mine operator of the Independence gold mine, which became the largest gold producer (in ore tonnage) in the Willow Creek district.

Fairbanks, Spring, 2010

**Honoring two-civic-minded pioneers important to Interior and Western Alaska Development**

**John P. Clum:** Long after his involvement with the capture of Geronimo in Arizona, Clum established reliable postal service throughout Alaska—he became the Postal Inspector for the Alaska Territory.

**Irving McKenny Reed:** Notable Associate Mining Engineer for the Alaska Territory and pioneer of Nome; was chair of the Alaska Game Commission prior to WWII and the Territorial Highway Engineer prior to Statehood.

Anchorage, Fall, 2010

**Honoring Pioneers Important to the Seward Peninsula Gold Dredging Industry**

**Nicholas B. and Evinda S. Tweet:** Partners in marriage and mining, they created a family-owned firm that has mined gold in Alaska for more than 100 years.

**Carl S. and Walter A. Glavinovich:** Brothers who devoted more than 100 years of their collective lives to dredging in the Nome district, one of Alaska’s Premier placer gold districts.

Anchorage, Fall, 2011

**Honoring Two Pioneers Active in South-Central Alaska Mining and Economic Development**

**Martin Radovan:** A Croatian prospector who prospected the Chitina Valley for decades and found the high grade but also high altitude ‘Binocular’ copper prospect. He never made a mine but his dreams live on.

**Arthur Shonbeck:** He joined numerous stampedes during the Alaska-Yukon Goldrush and was an outstanding civic leader of Anchorage. He drowned with AMHF Inductee John Beaton in Ganes Creek west of McGrath.

Fairbanks, Spring 2012

**Honoring Pioneers Important to the Mid-20<sup>th</sup> Interior Placer Mining Industry**

**Oscar Tveiten:** Arrived in Fairbanks during the Great Depression and mined on Cleary Creek in the Fairbanks for more than 50 years.

**Glen D. Franklin:** A gifted athlete who studied business administration at the University of Alaska in the 1930s; mined with others throughout Alaska and Yukon Territory for several decades.

**Donald Cook:** An Oregon-born graduate of the University of Alaska, who pursued a stellar career in Education at the University of Alaska-Fairbanks. He was an expert on USSR&M Gold dredges.

Anchorage, Fall, 2012

**Honoring Pioneers Important to the Iditarod and Innoko Districts of Southwest Alaska**

**Merton Marston:** Indiana newspaper man who became wealthy as a result of grubstaking the discoverers of the Iditarod district—later managed hotels in the Pacific Northwest.

**Mattie ‘Tootsie’ Crosby:** Beloved personality in Flat, the center of the Iditarod district for more than 50 years—the only Afro-American who lived and worked in that district.

**Toivo Rosander:** Finnish immigrant who mined in the Ophir-Innoko area for 70 years with wife Dyna and boys Ron and Ken. Managed to convince many skeptics about the economic and social value of placer mining.

Juneau, Spring, 2013

#### **Honoring Two Pioneers Important to Mineral Development in Southeast Alaska**

**Alexandre Choquette:** French Canadian prospector who began in the 1849 California Gold Rush and ended in the Klondike Gold Rush of 1896. At the time of his death, Choquette was a true north-country legend.

**John F. Malony:** Was important to early mineral development of Southeast Alaska—served as mayor of Juneau and helped form Alaska Electric Light and Power, Alaska’s first modern electric utility.

Fairbanks, Summer 2013

#### **Honoring an outstanding citizen, educator and placer mine expert**

**Doug Colp:** Born and raised in Southeastern Alaska, Colp became a legendary expert on placer mine technologies, a UAF Educator, and, with his wife Marcel, a civic-minded resident of Fairbanks.

Anchorage, Fall, 2013

#### **Honoring Geologists from the U.S. Geological Survey**

**Arthur C. Spencer:** Provided the first geologic descriptions of the Kennecott Mines in the Chitina Valley and authored a classic: USGS Bulletin 287—The Juneau Gold Belt—in 1906.

**Josiah E. Spurr:** Forged a career as a renowned economic geologist—and helped found the Society of Economic Geologists. Best known for his pre-Klondike adventure—*Through the Yukon Gold Diggings*.

**Stephen R. Capps:** An outstanding regional geologist that specialized in the study of Alaskan placer gold deposits in glaciated areas. Was among the first federal geologists to study ‘strategic minerals’.

Fairbanks, Spring 2014

#### **Honoring Three Early Mining Pioneers Important in the Alaskan Mining Industry**

**‘Wise Mike’ Stepovich:** Self-educated Montenegrin immigrant came to Fairbanks shortly after the 1902 discovery and mined gold on Fairbanks Creek for 40 years; his son Mike Stepovich II would be Alaska’s last territorial governor.

**Helen Van Campen:** Had a remarkable career in Alaska that included equestrian sports, journalism and gold mining. Helen Van Campen Memorial Scholarship Fund at the University of Alaska-Fairbanks has provided journalism students with funding to help start their careers.

**Peter Petrovich Doroshin:** A Russian Mining engineer that discovered placer gold on the Kenai Peninsula in 1848; was a pioneer in investigating Alaska's abundant coal resources.

Anchorage, Fall, 2014

#### **Honoring Three Pioneers Associated with the Kennecott Mines in Alaska**

**Alan Mara Bateman:** Important Kennecott consultant at McCarthy; Editor of *Economic Geology* for more than five decades.

**Edward M. MacKevett Jr.** Pioneer geologist of Kennecott deposits near McCarthy and Alaska's premier mercury-antimony and REE-Th-U districts.

**William H. Seagrave** Best known for his management skills in the early Kennecott mines of Alaska.

Anchorage, Fall, 2015

#### **Honoring Pioneers Associated with the Red Dog Zinc-Polymetallic Mine and a Hatcher Pass Pioneer**

**Robert (Bob) Baker:** The Kotzebue-based bush pilot and amateur prospector who is given credit for the discovery of the Red Dog zinc-polymetallic deposit, currently Alaska's most important metal mine.

**Irv Tailleir** A legendary U.S. Geological Survey Brooks Range geologist who followed up on Baker's recommendations and wrote the open-file report documenting the importance of the Red Dog deposit.

**Don S. Rae:** Respected prospector and assayer who worked in Southeast Alaska and Hatcher Pass.

Fairbanks, Spring, 2016

#### **Honoring Pioneers Associated with Alaska's Gold Dredging Fleet**

**Patrick H. O'Neill:** Born into a large Cordova family of Irish descent, O'Neill would graduate from the University of Alaska with several Engineering degrees, become dredge superintendent for the FE Company in Fairbanks, and compete a remarkable career operating fleets of gold-platinum dredges in South America. He was a strong supporter of the University of Alaska for his entire life.

**Walter W. Johnson:** His firm, the Union Construction Company, would construct over half of all the bucketline stacker dredges to operate in Alaska (32). UCC would operate in other international locales.

Anchorage, Fall, 2016

#### **AMHF Honors Three Pioneers Associated Placer Mining, Invention, Mineral Industry Management, Scientific Inquiry, and Public Service**

**John Arthur Miscovich:** Renowned second generation placer gold miner from the Iditarod Mining district; John was perhaps better known for his *Intelligent* and other water technology inventions.

**Cole Edwin McFarland:** combined the hard work of a pioneering Alaskan placer mining family with the responsibilities of being President of Placer Dome U.S. Inc., a successful international mining firm.

**Donald John Grybeck:** had a distinguished career as a scientist, teacher, miner, and earth science manager. His lasting legacy is the USGS Alaska Resource Data Files (ARDF), which he designed.

Fairbanks, Spring, 2018

### **AMHF Honors Three 'Minority' Mining Pioneers**

**William T. Ewing:** was born into slavery in 1854 in Keytestown, Missouri. After working his way across the United States, Ewing joined the Tacoma Police Department. He stampeded to Alaska in 1896, and in 1903, struck it rich in the Fairbanks District with partner James McCarty. After he passed away in 1923, his entire estate went to the Tuskegee Institute in Alabama.

**Kate Kennedy:** lived in the copper mining boomtown of McCarthy, Alaska for nearly three decades. In the early 20th Century, Kate Kennedy, a divorced woman, became the largest property owner in the Chitina Valley and was McCarthy's best known entrepreneur.

**Eugene Swanson:** was reported to be the only consistently successful gold miner in the Rampart District, according to a 1938 article by the Fairbanks Daily News Miner. He served as a Buffalo Soldier during the Alaska Yukon Gold Rush. An honor guard of black soldiers from the U.S. Army attended his 1942 funeral in Fairbanks.

Anchorage, Fall, 2018

### **AMHF Honors Frontier Mining Camp Pioneers**

**Joseph B. Quigley:** Born in Pennsylvania, Joe Quigley would ascend Chikoot Pass in 1891, years before the Klondike Gold Rush. Quigley is best known for his work in the Kantishna District in the shadow of Mount McKinley (now Denali).

**Tekla M. Kanari:** was a Finnish Immigrant who, along with husband John, formed and operated Trinity Mining Company in the remote Kougarak Mining district north of Nome. She made many wire transfers of funds to relatives and friends in war-torn Finland during WWII.

**Alvin H. Agoff:** Son of a Russian immigrant, Alvin Agoff mined gold, trapped, and freighted with sled dogs in the Iditarod Mining district for more than 50 years. His family legacy lives on with Prince Creek Mining Company, the last heritage mining operation in the Iditarod.

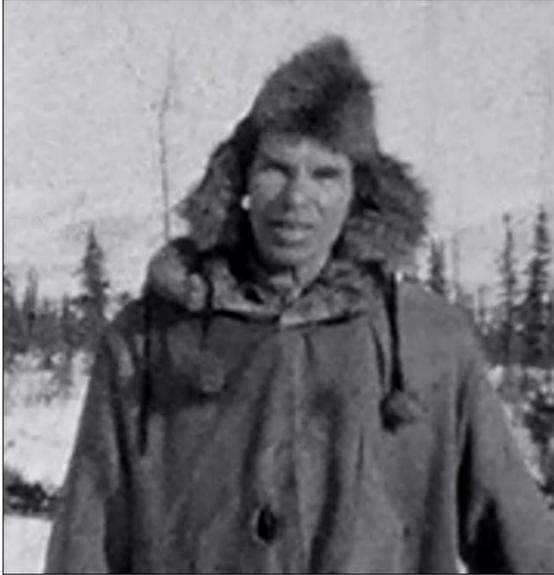
Anchorage, Fall 2019

### **AMHF Honors Pioneers of the U.S. Bureau of Mines (USBM)**

**Thomas L. Pittman:** was a noted metallurgist, and minerals officer for the U.S. Bureau of Mines in Juneau; at the time of his passing, was the longest serving employee of the USBM in Alaska.

**John Joseph Mulligan:** Born in New York, Mulligan arrived in Alaska in 1949 and worked in the Territory on many strategic mineral projects in Alaska. He became Chief of Field Operations for the USBM in Alaska in 1970, a position held until his retirement in 1985.

**Donald Paul Blasko:** came to Alaska as a USBM new petroleum resource officer, and managed USBM studies during D-2 Lands debates; played a role in the Red Dog deposit discovery verification.



Roshier Creecy near Wiseman, Alaska, circa 1930  
Photo Credit: Harry Leonard

### **Roshier Harrison Creecy (1866-1948)**

Born in Virginia in 1866, Roshier was among the first generation of African Americans who were free to migrate. Escaping southern culture intent on retaining a racial hierarchy, Roshier joined the U.S. Army's Ninth Cavalry, known as the "Buffalo Soldiers." Following discharge, and a brief marriage, he joined the Klondike gold rush of 1898 and prospected around Dawson, eventually becoming an owner of a roadhouse at which the North-West Mounted Police billeted. In 1906, he mushed his dog team to Alaska, bound for the Koyukuk gold fields, where he remained the rest of his life. Roshier was the first African American to live and mine in the Koyukuk. His story contributes to the historical accounts of the Koyukuk mining community in the first half of the 1900s because it adds perspective from an African American man and broadens our understanding of that time in the country.

#### Virginia Ancestry

Roshier was one of eight children born to Wyatt Creasy and his wife Selena in Rustburg, Campbell

County, Virginia. Wyatt had been born a slave, a son of his white master, George Creasy and black slave mother, Usley Rosser. George taught his slave son, Wyatt, the trade of carpentry and also how to read and write, which was risky because under Virginia law, it was illegal for a slave to be educated. In turn, Wyatt made sure his children could read and write and encouraged them to be industrious. Following Emancipation, Wyatt leased a farm in Campbell County where the family raised their food as well as tobacco. In an interview, Roshier's great niece said that Roshier Creecy was known to be:

*"outspoken, fearless and aggressive. He did not stand for mistreatment."*

Roshier went to Washington, D.C., where in 1887 he enlisted as a private in the U.S. Army Ninth Cavalry.

#### Buffalo Soldier

By the time Roshier joined the army, many military forts had already been constructed across the Great Plains and a multitude of Indian Wars fought, so his military service occurred during a relatively peaceful time. It was during his time in the army that the spelling of his name changed to "Creecy." Roshier was first assigned to Fort Washakie in Wyoming's Wind River Territory, home of the Shoshone and Bannock tribes. In 1888, his company was transferred to Fort Duchesne in the Uinta Basin of Utah, home of the Ute people. His time in the cavalry consisted of training maneuvers in concert with infantry and artillery; patrols of the reservation and regular garrison duties. The men enjoyed sharpshooting competitions, on an off horseback, as well as contests in running and boxing. Teams were posted to saw mill and lime quarry camps, where they labored to provide building materials for the fort. Roshier was also sent on details to fetch fresh horses for the fort. At the age of twenty-five, he fell victim to "rheumatism and disease of the heart." Rheumatic fever was the third most common cause of troop impairment during and after the Civil War. Following recovery

at the Army and Navy Hospital in Hot Springs, Arkansas, Roshier was discharged with a disability pension of \$12 a month and returned to Washington, D.C.

### Washington, D.C.

In 1893, Roshier was married to a beautiful woman named Georgie Arnold at the Nineteenth Street Baptist Church by Pastor Walter Brooks, who held a formidable reputation as an advocate for racial equality. In 1896, Roshier's son, Nathan, was born. However, Roshier became restless and in 1897, when news of the Klondike gold rush appeared in the newspapers, he resolved to join the stampede. Roshier left home, never to return.

### The Klondike

During the early winter of 1898, Roshier boarded a steamer in Seattle and arrived in Skagway, where he prepared for the long traverse across the White Pass Trail to Lake Bennett, Yukon Territory. Upon reaching Lake Bennett, he and several companions set about felling timber and building a scow that would float them down the Yukon River to Dawson. On June 6, 1898 a Mountie inspecting scows on the shores of Lake Bennett recorded Roshier's name in his ledger and judged his water craft adequate to launch. When the lake ice melted, throngs of Klondikers set off on their Yukon River journey. Upon landing in Dawson three weeks later, Roshier prospected and gambled. In a 1903 census of Dawson, Roshier Creecy was listed as a resident. By 1904, he had become the proprietor of a roadhouse on Eureka Creek, in the Indian River drainage, at the southern boundary of the Klondike gold fields. Gold had been discovered in the Indian River area in 1894, but with the riches found in Bonanza and Eldorado creeks, little attention was paid to the Indian River area until the rich claims played out. There are several records of billeting expenses at Roshier's roadhouse in Eureka Creek filed by the North-West Mounted Police.

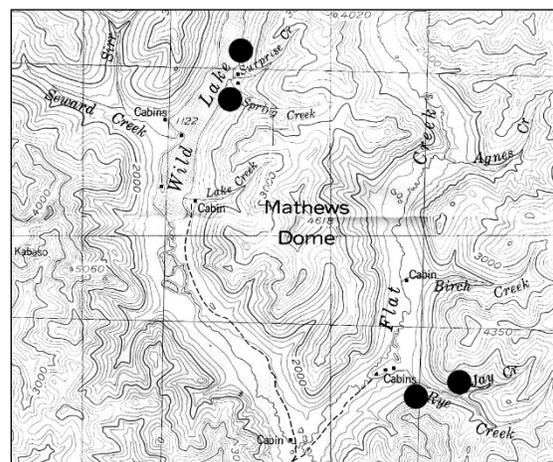
As news of Alaskan gold strikes filtered into the Klondike, prospectors stampeded to the fresh gold fields. In January of 1906, Roshier joined them, mushing his dog team along the Yukon River winter trail to Fairbanks.

### Wild Lake

Roshier didn't linger in Fairbanks because there were reports of large placer gold discoveries in the Chandalar and Koyukuk districts. In the 1910 U.S. census, Roshier was prospecting for gold in the Chandalar. He roamed all over the Chandalar and Koyukuk districts. His friend, Tishu Ulen, said:

*"In his early years, he traveled all over. He goes to Chandalar, next year he was in Wild River. He was always on the go, walking, wandering in summer time. In the days he had dogs, he'd take them with him, hiking up one creek, then another."*

In 1911, Roshier established a base of operations in Wiseman, filing gold mining claims in creeks to the north, including Vermont Creek. By 1916, Roshier had drifted over to Bettles, where he based his operations for prospecting at Jay, Rye, Spring and Surprise creeks in the Wild Lake area. Along with pick and shovel work, Roshier used dynamite and booming in his hunt for gold.



**Creeks where Roshier mined for placer gold in the Wild Lake area, 1917-1933**

In the meantime, Roshier's son, Nathan, left home to search for his long-lost father. Nathan worked his way across the country and into Alaska, where father and son re-united in Alatna during a really cold spell in December of 1916. Nathan suffered from frostbite on that journey. Roshier taught Nathan how to live and prospect in the Alaskan wilderness. Joe Mathews, a successful prospector in the Wild Lake area, hired Roshier and Nathan to help him, and then gave them "half of a claim up Rye Creek to give us a chance." Nathan stayed with Roshier until the spring of 1919 before heading back to civilization in Fairbanks where he worked until leaving for the Lower 48 in 1924. Roshier and Joe partnered and enjoyed each other's company while prospecting the Wild Lake area through the 1920s.

On his claim at Surprise Creek, Roshier found a big piece of float quartz, later estimated to contain \$400 worth of gold, but he never found the quartz pocket where the rock fell from. Joe allowed the Alaska Agricultural College and School of Mines to exhibit the float quartz but died before he could retrieve it, whereupon the college declared ownership of the prized rock. Roshier had to petition the court to retrieve his rightful property from college president, Charles Bunnell.

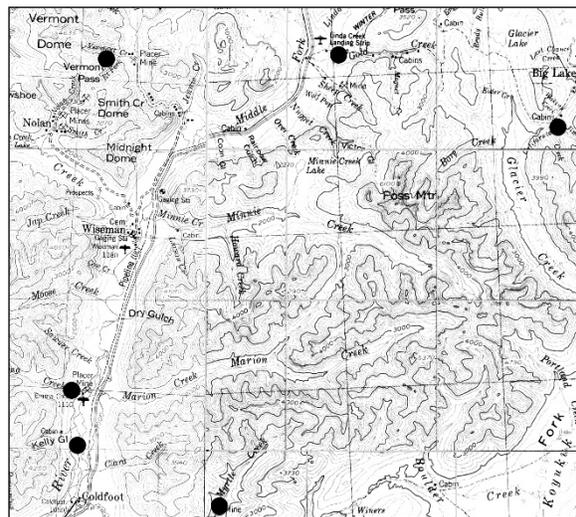
In the winter of 1924, on one of Roshier's cross country forays, he met Mardy and Olaus Murie, renowned naturalists, at Roy King's Fox Farm and Roadhouse. Mardy related meeting Roshier in her book, *Two in the Far North*, writing:

*"Dinner was a gala affair, such a happy reunion, so much news to relate, so many questions to ask and answer. Here were a French Canadian, a mulatto old-time Alaskan, an American Hoosier with a good meal, a bright room, and an admiring audience of two newcomers who had never heard any of the stories before. Such entertainment comes few times in a lifetime."*

## Wiseman

In 1930, a U.S. census taker found Roshier in Wiseman. Also in Wiseman at this time was Bob Marshall, forester, conservationist and observer of people. Bob stayed in Wiseman for a while and published his observations in a book, *Arctic Village*. Among the 77 non-native people living in the Koyukuk studied by Bob was Roshier, who was described as "a mulatto Negro who has been in the Arctic a quarter of a century."

Roshier prospected in several creeks before staking claims and settling for a time on Gold Creek, north of Wiseman. It was on Gold Creek that Roshier met prospector Harry Leonard in 1934, and the two became friends.



**Creeks where Roshier mined for placer gold in the Wiseman area, 1911-1948**

In an interview Harry described Roshier. "He liked to tell stories, but I had to sort the straight from the bull. Creecy was witty all right. He wanted you to analyze them stories. He'd say, 'Analyze that!'"

During the 1930s, Roshier was accepted into the Pioneers of Alaska, Igloo No. 8 in Wiseman. His application was endorsed by his friend and neighbor on Gold Creek, Pat Kelleher, and U.S. District Commissioner, George Huey, who both verified, "He is a man of good moral character."

The initial membership requirements were, "White men who came to Alaska before January 1, 1900". But, the Pioneers in Wiseman who sponsored Roshier didn't care about color; Roshier was one of them.

In addition to placer mining, Roshier did a little hard rock mining, digging trenches 15 to 20 feet deep looking for a rich vein. Harry said:

*"Creecy would be talking about mining and he'd say, 'I likes to dig!'"*

For winter drift mining, Roshier used a wood fire to thaw the ground. Harry said that Roshier got a little gold, but the big strike eluded him, like it did for so many others.



**Roshier panning his small dump brought to the surface from winter drift mining, circa 1930.  
Photo Credit: Harry Leonard**

### Troubling Times

During the winter of 1936, Roshier made a trip from his cabin on Gold Creek to Wiseman for supplies and froze his feet in overflow. Roshier ended up losing most of his toes.

Doctors in Fairbanks sewed the skin back over the bone stumps and he resumed life in his cabin on Gold Creek. Later, he moved to Emma Creek, south of Wiseman, and in the early 1940s filed claims and settled in a cabin on Kelly's Mistake.

With the outbreak of World War II, the War Production Board deemed gold mining nonessential to the war effort and curtailed it, encouraging the mining labor force to focus on iron, copper and nickel. A shortage of food and supplies ensued with rationing. The old-timers were dying off, and the war took many men, so the once-vibrant Wiseman community dwindled. A pacifist, Roshier keenly followed war reports, saving clippings of the conflict and its casualties. In 1943, Roshier wrote on a scrap of paper:

*"My morale is at low ebb. Age has doubtless dimmed my memory somewhat. Prejudice in the Army, Navy and Jim Crow in this so-called democracy. What is going on in Georgia is similar to what is happening in Germany".*

In the winter of 1948, Roshier had not been seen in town for a while, so his friends, Sammy Hope and Benny Ulen, mushed their dogs to his cabin on Kelly's Mistake and found him frozen to death with not a stick of firewood in the stove. At the time of his death Roshier was eighty-two years old. He was buried in Wiseman's cemetery. Tishu said: "Everybody came. Everyone liked Creecy."

In his last official notation as probate judge for the Roshier Creecy estate, U.S. District Commissioner Charles Irish wrote:

*"In memoriam, Roshier H. Creecy was a unique character, given to much laughter, a lonely man, hard-working and given to much roaming around... He died as he lived and alone and may God rest his soul."*

**Written by Margaret F. Merritt Ph.D.**

*(This article is a much shortened version of Merritt's book: Roshier Creecy—a Black Man's Search for Freedom and Prosperity in the Koyukuk Gold Fields of Alaska.)*



**Arnold M. Nordale, undated**  
Photo credit Marilyn Nordale Stacy

### **Arnold M. Nordale (1896-1976)**

Youngsters who lived at Cleary City in the Fairbanks Mining District during the early part of the 20th Century would often walk to the Chatanika River to fish for grayling or whitefish and the occasional Sheefish. They mushed sled dogs during the winter months, and went to school sometimes during the short, sun-filled summers. Arnold M. Nordale was one of those youngsters. As a native-born Alaskan, Arnold first glimpsed the light of day in Juneau in 1896, the year of the Klondike Stampede, and would experience life in many north-country mining camps before his passing in 1976. Arnold Nordale was associated with the Alaskan, USA and Yukon, Canada placer gold mining industries for much of his 79-year-long life.

#### Early Years and Family Roots

The Nordale clan has strong links to Alaskan mining history. Arnold was born in, 1896 in Juneau, the Territorial Capital of Alaska, the same year that George Washington Carmack discovered placer gold on Bonanza Creek, a tributary of the Klondike River. Arnold's father, Anton Johann (Tony) Nordale, a native of Goteborg, Sweden, was prospecting for placer gold on the Stewart River, a major tributary of the Yukon River 65 miles upriver from the Klondike at the time of the discovery. Tony Nordale quickly made his way to the brand new community of Dawson, which was being built at the confluence of the Klondike and Yukon Rivers. But instead of acquiring mining claims in the district, he built a successful restaurant business in the center of Dawson. Tony then moved his family from Juneau to Dawson, staying there until 1901. After a fire consumed the family home in Dawson, Tony Nordale opened up a roadhouse on Dominion Creek in the southern part of the Klondike district, about 40 miles southeast of Dawson.

In 1904, Tony Nordale and his family heeded another call for a new north-country gold rush. Two year's previously, Italian immigrant Felix Pedro had discovered placer gold in the Tanana River basin of Interior Alaska, about 400 miles west of Dawson, and a new town, Fairbanks, was being developed on the Chena River, a tributary of the Tanana, to service the mining district. The Nordale family departed Dawson and came down the Yukon River and then up the Tanana River aboard the sternwheeler *S.S. Monarch*, arriving at Chena town site and onto Fairbanks during mid-summer. The family wintered in Fairbanks during 1904-1905. Then Tony built the *Grand Hotel* in Cleary City, one of the largest log buildings in Interior Alaska, near a center of mining in the Chatanika River basin, about 30 miles northeast of Fairbanks, taking advantage of the newly completed Tanana Valley Railroad to freight in supplies needed for the new hotel. Cleary town-site rapidly gained as many as 4,000 gold seekers drifting in winter and sluicing in summer. The

Cleary Creek basin housed many of the richest drift mines in the district (Pratt, 1989). The Nordale family lived in Cleary City for nearly ten years, where Arnold and his siblings, Alfeld-Hjalmer, Anita and Alton, spent much of their formative years, enjoying the country side and the local community. In 1960, Arnold would relate about his life in Cleary City:

*“There was no real juvenile delinquency although the Cleary Camp ran wide open. Children had to create their own amusements as most adult family members were pretty busy with mining. There was a wonderful family life there (Gregory, 1960)”.*



**The Nordale children at a placer drift shaft near Cleary City, circa 1905, left to right: Arnold, Alfeld-Hjalmer, Anita, and Alton. Photo Credit: Marilyn Nordale Stacy.**

The Grand Hotel flourished for about 15 years in Cleary City, but was eventually closed when the underground drift mines played out. Arnold Nordale’s father, Tony, would eventually build the first Nordale Hotel in Fairbanks, which was rebuilt following a fire in 1923.

After attending both Cleary City and Fairbanks area school districts, Arnold Nordale enrolled in Stanford University in 1913, earning a B.S. Degree in Mining Engineering with a minor in Geological Engineering from that institution in 1917. In 1920, Arnold married Nan Knudson and the couple would have two daughters, Marilyn and Joann, and son Arnold Junior. Arnold Junior was

killed during WWII while serving in the U.S. Army Air Corps.

### Arnold Nordale’s Alaskan Professional Career

In 1908, at the age of 12, Arnold Nordale began his career in the gold mining business, scraping the bottoms of wheel barrows and watching pumps in an underground drift placer gold mine near Cleary City.

After returning to Alaska from Stanford, Arnold joined the staff of Chief Engineer F.H. Bailey, who was designing the final routes to be constructed for the Alaska Railroad, which was finished in 1922. Upon completion of the Alaska Railroad project, Arnold Nordale spent three years as an engineer for the Alaska Road Commission, where he designed surface access roads for the Territory.

In 1925, Arnold was hired by the United States Smelting, Refining, and Mining Company (USSR&M) in Fairbanks, locally known as the FE Company. The East-Coast based firm began an eight year development project, beginning in 1920, to put into production a large fleet of bucketline stacker dredges to mine placer gold in the Fairbanks district left over from the older drift mining activities.

Arnold joined the technical support team that built the Davidson Ditch, a 92 mile long combined ditch and pipeline system designed to provide water used in stripping operations in the Chatanika River and Goldstream Valley basins. Whereas James Davidson designed the Davidson Ditch, geological engineers like Arnold Nordale actually built the water system and insured its technical success. Without the reliable water source provided by the Davidson Ditch, dredging would not have been possible in most of the Fairbanks district. Nordale’s involvement included: 1) earthwork classification and costs; 2) outlet penstock design; 3) intake and diversion dam design; and 4) various anchor and siphon designs mainly for the pipeline portions of the system. The Davidson Ditch provided water to

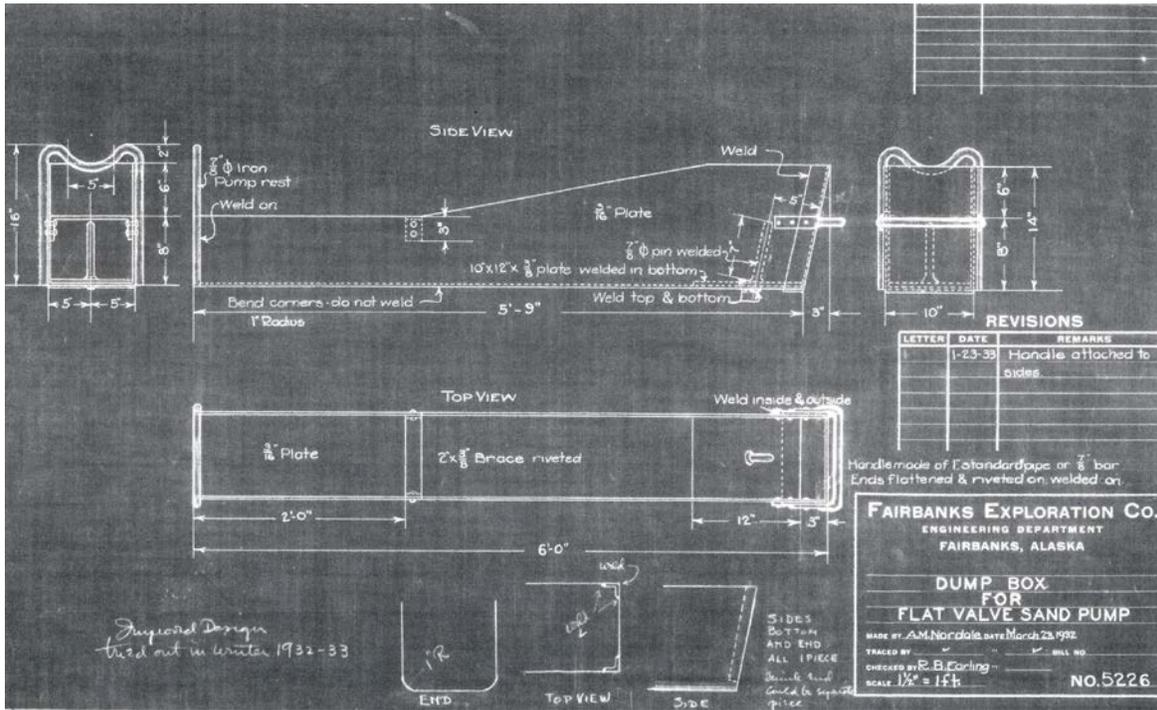
the Chatanika portion of the project beginning in May, 1928 and the Goldstream portion of the project beginning in June, 1929.

After his Davidson ditch assignments were completed, USSR&M General Manager in Alaska Roy Earling directed Arnold to design and implement churn drilling exploration programs in the Ester area, the western most extension of the Fairbanks Mining District. This included both the Ester Paystreak, the Cripple Gravel paystreak, the Gold Hill Paystreak, and the Sheep Creek paystreak. Arnold and his team first drill-tested ground on Ester Creek, and prepared the ground for hydraulic stripping of over burden and thawing of frozen pay gravels. Eventually, in 1936, Gold Dredge #6 would be transported from the Goldstream Valley area to mine the Ester paystreak; then the Gold Hill paystreak (1951-1958); and finally the Sheep Creek paystreak (1959-1962).

During 1933-1935, Arnold and his exploration team began a drill testing program south of Ester Creek, where a deeply buried ancestral placer gold deposit known as the 'Cripple Paystreak' had been discovered by early placer miners during the early gold rush years.

According to Boswell (1979):

*"The Cripple paystreak was discovered in 1933 although....the it's presence had been suspected by early operators in the Ester district. Some efforts were made by earlier prospectors to sink shafts over pay areas but indications are none of the shafts reached bedrock. Arnold Nordale supervised the drilling program in 1933.....After 1934, Harry Owen acted as drill foreman under Nordale....and continued the prospecting".*



A generalized Dump Box and Sand Pump set-up invented and designed by Arnold Nordale in 1932 became a widespread technology used by USSR&M during exploration drilling programs throughout the Fairbanks district. Credit: Files of Marilyn Nordale Stacy.



**Professional staff at USSR&M offices in Fairbanks, circa 1933: Front row--Gus Burnett, John C. Boswell, James D. Crawford, Agnes Mapleton, Gertrude Schlofelt, Hertha Baker; Second Row—Charles Fowler, O.J. Eggleston, Ross Knickerbocker, J.R. Weaver; Third Row—Arnold Nordale (see arrow), C. E. Osborne; Fourth Row—George Butrovich, James Newlin, James Chamberlain, Louis Giddings; Fifth Row—Charles Huston, Arthur Daily, Frank Butterfield, Jack Linck. Photo Credit Boswell, 1979.**

The name 'Arnold M. Nordale' appears on many of the historic drill and development map plats for the Cripple project. Although the Cripple paystreak was not placed into production until 1940 with the deployment of Dredge #10, it became important to USSR&M's district-wide fortunes. For many years, mighty Dredge #10, unofficially designated '*The Queen*', would produce about one third of all the placer gold produced by the seven-to-eight bucketline stacker dredges that comprised the fleet in the Fairbanks district.

In March, 1935, Arnold Nordale authored the 47 page Manuel: *Description of Fairbanks Exploration Company Prospect Drilling Methods*, which became a standard company reference for exploration teams in Fairbanks and in Nome.

**Arnold Nordale--Mayor of Fairbanks—and the Fairbanks Public School**

In 1933, Arnold Nordale was elected Mayor of Fairbanks, Alaska, a position he held for two years. It should be stated here to clarify any confusion that Arnold's father Anton (Tony) and brother Alfeld-Hjalmer also served as mayors of Fairbanks. Nordale Elementary School in Hamilton Acres is named after Alfeld-Hjalmer Nordale. In addition, while Arnold was mayor of Fairbanks during 1933-1935, another brother, Alton, was in the Territorial Legislature. Arnold's father Tony also served in the Territorial legislature from 1919-1921. His brother Alfeld-Hjalmer served in the Territorial Legislature from 1941-1945.

Before Arnold assumed the post of mayor, the original Fairbanks primary-secondary school, 'Old Main', built out of whip-sawed lumber and logs in

1907, burned down to the ground on December 4th, 1932.

The fire left 340 school-aged children without a place to attend classes. All textbooks, musical instruments, and other school equipment were destroyed in the hot fire. What to do about a new permanent school facility became controversial. The outgoing mayor J.F. Bryant thought that the students could be moved temporarily to the Alaska Agricultural College and School of Mines until a new structure was built. Most Fairbanks residents believed that the previous building was a firetrap and supported construction of a more fire-resistant building. But many balked at an estimated \$127,000 price tag for a modern concrete structure and resisted a \$100,000 bond proposal approved by the city council. Territorial Representative Alton Nordale (Arnold's brother) introduced a bill in the legislature on March 1, 1933 requiring all new Alaskan schools with >100 students be built with fire-resistant materials. This action sparked many letters to the editor (pro and con) to be published in the Fairbanks Daily News Miner. On March 13th, although a majority of city residents voted for the \$100,000 bond, it failed to pass the required 65% majority for project implementation.

As Arnold Nordale took over the office of Mayor

of Fairbanks on April, 4th, 1933, he renewed the campaign to build a modern school for Fairbanks, and insisted the new school building budget could be kept below \$150,000—including insurance. Arnold had three young children, and he wanted them and other children to experience a better education in a modern structure that was free from fire dangers.

On April 12th, 1933, a strong earthquake in the Los Angeles basin of southern California destroyed or seriously damaged many old wooden and adobe schools while leaving modern concrete schools relatively intact. This faraway geological event helped turn public opinion toward constructing a sturdier, fire-resistant school in Fairbanks.

On April 15th, a slightly smaller bond proposal of \$98,000 that was put forth by Mayor Nordale and the city council passed with the necessary citizen's votes. The final price tag for the new school project came in at \$117,000. School construction took place quickly and was completed on January 24th, 1934. The new, sturdy, three story concrete school features a classic *art deco* style architecture and was aptly named *Fairbanks Public School*. Since 1995, the Fairbanks Public School building, aka 'Main School', has housed the City of Fairbanks Administrative Center (Allan, 1995).



The city of Fairbanks Administrative Center as it appeared during the coronavirus lock down, circa 04 01 2020. The attractive mid-20th Century building was the former Fairbanks Public School; it's construction in 1933-34 was championed by Mayor Arnold Nordale. Photo by T.K. Bundtzen.

## Arnold Nordale's Mining Career in Yukon, Canada

In late 1935, a new chapter of Arnold Nordale's life would unfold. It involved an almost unique cooperative arrangement between the two large gold dredging firms, the USSR&M Company, based in Fairbanks, Alaska, and the Yukon Consolidated Gold Corporation Limited (YCGC) based in Dawson, Yukon Territory, Canada. Both USSR&M and YCGC had spent years consolidating placer gold-bearing alluvial basins that had been previously worked by smaller scale operations. In the Fairbanks district, USSR&M operated a maximum of eight (8) dredges from 1928-to-1965; at Nome, USSR&M dredges operated a maximum of three (3) dredges from 1922-to-1962 and then from 1974-to-1995. USSR&M also operated dredges in the 40-Mile and at Hogatza.

In the Dawson area, YCGC dredges (as many as 10 of them) operated from 1932-to-1966. For decades, both firms shared knowledge on how to develop the deposits, including drill technologies, frozen ground development, electric power design, and waste removal strategies. Both companies had access to a top-flight mining school at the Alaska Agricultural College and School of Mines—later to become the University of Alaska (in 1935). Competent mining and geological engineers produced at the school in Fairbanks were hired by both the USSR&M and YCGC. The communities of Dawson and Fairbanks enjoyed many close inter-personnel relationships for decades.

Although both YCGC and USSR&M began as the result of amalgamation of older, exhausted placer ground into large, low grade, dredge-developable resources, their histories differed. The process in which USSR&M acquired and developed placer gold resources in the Nome and Fairbanks districts was by the systematic acquisition of 'worn-out' placer ground from small firms; then solving the various engineering problems needed for success. Complex water systems like the 92 mile long Davidson and 45-

mile-long Miocene Ditches, hundreds of miles of electric power lines, thermal power plants in Fairbanks and Nome, and machine, carpentry and vehicle shops and other infrastructure were built for the dredge fleets.

In the Klondike, there were also colossal engineering works built such as seventy miles of ditch and pipeline—bringing water from the Tombstone Range thirty miles northeast of Dawson; two hydroelectric power plants and a coal fired power plant; and hundreds of miles of hand-cleared power lines (Neufeld, 1993). But the dredge mining 'political' agendas in Dawson were more complicated. Almost immediately after the Klondike gold discovery, British-based entrepreneurs raised considerable capital, acquired vast acreages of placer ground, and began to build dredge fleets without sufficient technical planning; in addition, very little prospecting was done. As a result, there were many costly, technical failures with predictable, follow-up litigation. Chief among the Klondike 'Gold Hustlers' was A.N.C. Treadgold, described by geologist Lew Green (1996):

*"An Oxford-educated Englishman was the principal promotor involved in attempts to corner the Klondike gold field for dredging from 1898 until his death in 1951.....Sometimes successful, his schemes were doomed by his insistence on managing the operations personally.....The losers were his English backers, left with little to show for their monetary investments".*

Although YCGC was incorporated in 1923 initially by Treadgold; with so many conflicting interests involved, litigation was inevitable. It was not until 1932 that YCGC actually became an operating dredge firm and even then, litigation continued until 1936, when a final Treadgold lawsuit was terminated by the Privy Council of the United Kingdom—which houses the Supreme Court of Great Britain (Nordale, 1955). Important components of the overall district development existed; such as hydroelectric power and accompanying power lines, and as many as seven available dredges. But, as late as 1934, much

of the YCGC ground had not been systematically drill-tested.

In 1935, USSR&M General Manager Roy Earling sent Arnold Nordale to Dawson to assist in a problem solving exercise. YCGC General manager W.H.S. McFarland requested assistance from USSR&M on several important issues:

*To 1) Ascertain the conditions of seven (7) dredges both operative or inoperative--thought to constitute (in 1935) the YCGC dredge fleet; 2) Assess the conditions of maintenance and repair facilities such as machine, electric, and carpenter shops; and 3) Design and implement a systematic drill program for all potential dredge ground (Nordale, 1956).*

Arnold's emphasis was on completing a systematic drill program for YCGC. The project, which took three years, involved seasonal crews of up to 150 and as many as twenty churn drills. It showed that a number of large blocks of YCGC ground could be successfully dredged, while other areas were shown to be unworthy of further consideration and were excluded from further work, with all rights and land title abandoned. While describing the drill program he carried out, Arnold Nordale (1956) stated:

*"In doing this (the drill program), the entire YCGC project was removed from the realm of hazard and chance to the realm of sound business enterprise. With a precise knowledge of the value of the gold contained in the ground, it became strictly a geological engineering problem to extract it at a profit".*

By 1940, Arnold Nordale was a permanent employee of YCGC. The firm reached the maximum scale of operations, when it had eight stripping plants, which removed 4.3 million cubic yards of muck and nine thawing plants, which thawed 6.2 million cubic yards of gravel and bedrock. Ten bucketline stacker dredges were in operation: two 5.75 cubic feet capacity, five 7 cubic feet capacity, and three 16 cubic feet capacity units. That year, all ten dredges dug and processed 10.5 million cubic yards of gold-

bearing 'pay gravel' (Nordale, 1955; Neufeld, 1993).

By 1942, when Federal Order L-208 has essentially shut down the Alaska dredging fleet, senior managers of the USSR&M Company in Alaska were temporarily transferred to offices in Salt Lake City, Utah or to the East Coast or even furloughed. Arnold managed to find limited work in Dawson for some of his former colleagues in Fairbanks and Nome since Canada did not pass a federal ban on gold mining as was implemented in the United States. Still, operations by YCGC were also reduced due to shortages in specialty steels and rubber—and man power; many young miners had enlisted in the Canadian and US armed forces.

By the end of WWII, Arnold assumed the position of Assistant Resident Manager for YCGC in Dawson. In March, 1945, Nordale informed YCGC General Manager McFarland of a new study carried out by USSR&M in Fairbanks aimed at reducing costs of thawing frozen gravels for dredging by deployment of a new type of mechanical (hammer) point-driving machine. The study analyzed data from testing sites scheduled to be mined by Dredges #3 and #5 in the Fairbanks district (Nordale, 1945). Costs using traditional hand-driven 'point doctor' methods, versus the new mechanized driving and pulling of steel methods, were compared and scrutinized. Nordale had been networking with his colleagues in Fairbanks, who told him that the mechanical point driving machine also removed a lot of wear-and-tear on thaw point field crews. A significant percentage of 'lost time' accidents reported by USSR&M to the U.S. Bureau of Mines safety officers were caused by upper torso injuries related to manual point driving (Bundtzen, 2019). McFarland approved the new point driving technology for use by YCGC in Dawson.

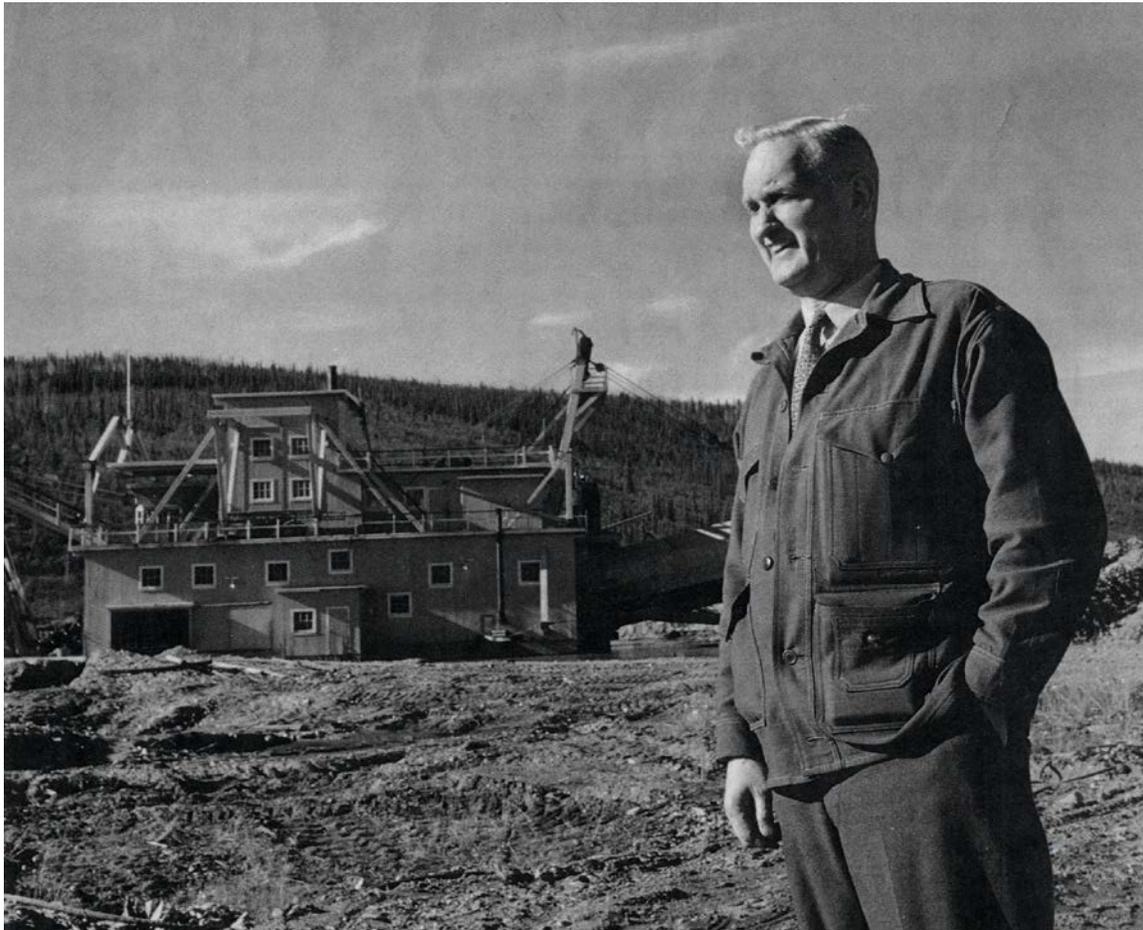
In 1947, Nordale published an article in the Transactions of the Canadian Institute of Mining and Metallurgy (CIM) entitled *Valuation of Dredging Ground in the Subarctic*.

The article became a standard reference for evaluating frozen dredge ground in Alaska, Yukon and in the International arena. AMHF Inductee Earl Beistline used Arnold's CIM article as a standard reference with his teaching curriculum at the University of Alaska School of Mines.

In 1948, with the retirement of McFarland, Arnold Nordale was appointed the overall General Manager of YCGC in Dawson. By then, YCGC operated eight (8) dredges in the Klondike district as compared to seven (7) dredges operated by USSR&M in the Fairbanks district during the same time.

A 1951 travel book authored by the latter day travel celebrity Frank Cline devotes a full chapter of his book *Hands Across the Pacific* to a tour of the Klondike district hosted by Arnold Nordale, who describes all aspects of the operations of the dredging firm as well as a healthy sprinkling of Klondike mining history.

In 1956, Arnold published a full technical article about historic YCGC activities in the Canadian Mining Journal. Combined with Lew Green's synopsis in *The Gold Hustlers*, Nordale's 1947 CIM article, and the *Northern Gold Fleet* by Spence (1996), these publications collectively offer important information sources for the gold dredging industry in the Klondike district.



**General Manager of Yukon Consolidated Gold Corporation (YCGC) operations Arnold Nordale wearing his 'Alaskan Tuxedo' at Dredge #4 in the Klondike Mining District, Yukon, Canada circa 1951. Photo Credit: Marilyn Nordale Stacy.**

## Retirement and Remembrance

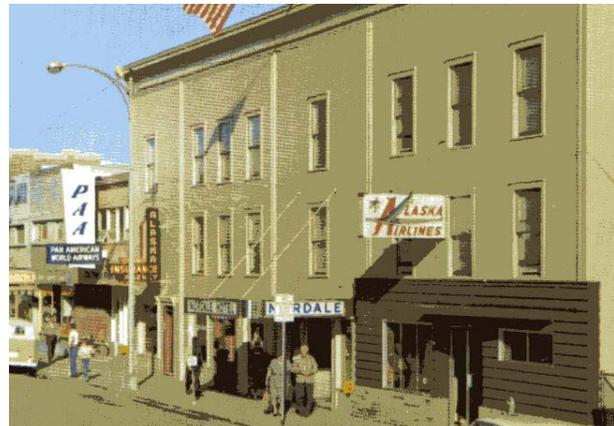
In 1961, Arnold Nordale retired from YCGC and other mining industry responsibilities. He moved to Seattle, Washington, but remained actively engaged in the management of Nordale properties in Alaska and in Yukon Territory. For many years, Arnold's father Tony and then Alfeld-Hjalmer Nordale managed the Nordale Hotel in Fairbanks, but with their passing, this task was ultimately assumed by Arnold Nordale. As a result, Arnold made many trips to Alaska and used the historic Nordale Hotel as a seasonal family office. Tragically, the hotel was destroyed by fire on February 22nd, 1972, killing four people, including the hotel's famous hostess Eva McGowan.

Arnold made many meetings with the Alaska-Yukon Pioneers organization in Seattle, and visited with old time friends like mine investor Sam Applebaum, who was very active in the Fairbanks and Iditarod districts. Arnold Nordale was lifetime member #1126 of the Pioneers of Alaska Igloo #4, headquartered in Fairbanks. In 1976, Arnold M. Nordale passed away in Seattle, Washington of natural causes. He was 79 years old.

Arnold Nordale bridged the gap between the early north-country activities during the Alaska-Yukon Gold Rush and the follow-up dredge field developments, the latter of which help sustain the economies of Fairbanks, Nome and Dawson for decades. He was perhaps symbolic of a unique cooperative link between two north-country corporate dredge entities—USSR&M and YCGC. Arnold was a civic leader in both Fairbanks and Dawson, whose actions substantially improved both communities during the early-to-mid 20th Century.

By honoring Arnold, we also bring attention to the role of the very influential Nordale family in Alaska's history, many of whom were involved in many resource, educational and civic developments.

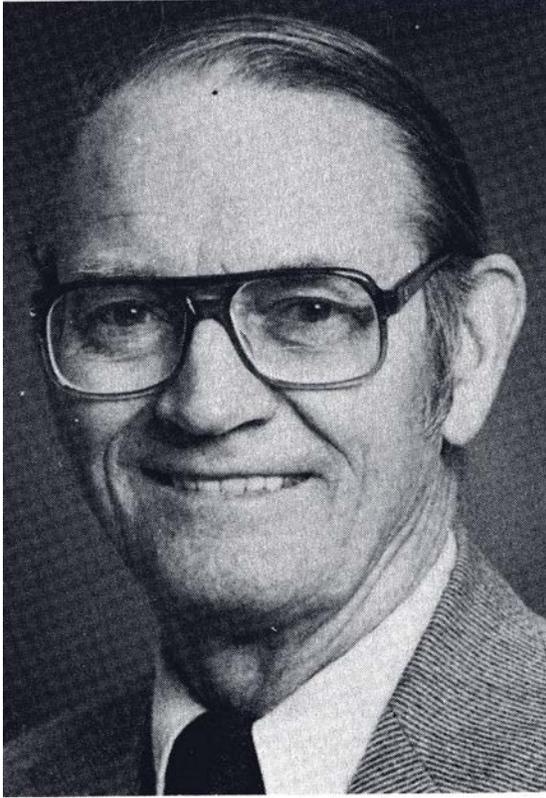
***Written by Thomas Bundtzen. An earlier draft was reviewed by Paul Glavinovich and Travis Hudson. The AMHF appreciates the efforts of Marilyn Nordale Stacy and Mary A. Nordale for providing access to important referenced materials and the Pioneers of Alaska Igloo #4 for assistance in researching Arnold Nordale records at their museum in Fairbanks.***



**LEFT: Arnold Nordale at the Nordale Hotel in Fairbanks, circa 1969; RIGHT: the historic Nordale Hotel in downtown Fairbanks, circa 1960s Photo Sources—TKB files.**

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**Raymond L. Smith, undated**  
photo credit: D.T. Halkola (1985)

**Raymond L. (Ray) Smith**  
(1917-2018)

Introduction

Raymond L. (Ray) Smith lived a remarkable life filled with economic challenges, adversity, adventure, academic achievement, and profound organizational success for all of the 101 years of his life. His compassion for education combined with his love for humanity to produce a truly extraordinary human being. He was the only graduate of the University of Alaska to become a President of another University—Michigan Technological University in Houghton, Michigan.

Early Years in New England

Raymond L. (Ray) Smith was born January 25th, 1917 in Vanceboro, Maine, at the confluence of

the 21-mile- long Spednic Lake and the St. Croix River.

Ray’s mother, Genevieve Gatcomb, was born in New Brunswick, Canada, the daughter of a sea captain. She was a smart, attractive woman who married Ivan Smith when she was only 16 years old. Ivan was an alcoholic, addicted to gambling, and prone to violence. By the time she was 21, when Ivan divorced her, Genevieve had four children, Leslie, Flow, Ralph, and Ray, to feed and take care of. Ray developed an enormous amount of love and respect for his mother. Late in life, he wrote a book of poetry titled, ‘Genevieve’, honoring her (Smith, 2011).

At the age of 14, Ray became a logger, cutting down commercial timber, preparing limbed and debarked logs for transport; all the while enduring clouds of mosquitos and black flies in the woods of Maine. At the time, there was no real effective insect repellent available. Once, a fallen tree crushed his hand. He managed to make it to the Vanceboro hospital, where doctors wanted to amputate the hand. His older sister Flow, who was a nurse at the facility, convinced the hospital staff not to amputate Ray’s hand, which later healed (Margaret Cox Rich, oral commun. to writer, 2020).

In 1932, Ray participated in his first ‘river drive,’ when the Vanceboro logging industry would use Spednic Lake and the St. Croix River to float log rafts to saw mills in both northern USA and in Canada. In 1933, Ray began another business venture sawing cordwood for the pulp industry. As demand for logs and wood products weakened as a result of the seemingly, never-ending Great Depression, Ray moved south out of Maine and into other New England states.

In 1934, he had labored in the potato fields of Aroostook County, Maine but there was almost no other work opportunities in New England afterwards. As Smith remembered in a commencement address at Michigan Tech in 2010 (Smith, 2012b):

*"I rode the railroad box cars, found grub in hobo jungles, ducked the railroad bulls, swamped out flea houses, washed dishes and stood in bread lines—anything to get by on. It was expected that everyone had to contribute to the hobo jungle stew pot. For me it was chickens because I found out that chicken houses were pretty good to sleep in once you made friends with the rooster.....Hobos acquire names like Michigan Slim or Preacher Jones. One wise guy called me Chicken Smith. I didn't like that so got into a fight which I handily lost, but was able to keep my name Smitty."*

In 1936, Ray landed his first permanent job, which paid \$30/month and included board, room, and laundry. It was at the Hartford Retreat, a mental institution in Hartford, Connecticut. The job at the Hartford Retreat, which lasted until 1939, was demanding and required strenuous training (Lawrie-Monro, 2019; Ray Smith obit.,2019).

### Early Years at the University of Alaska

In August of 1939, Ray and a close friend Lloyd Atwood crossed the United States in the old Ford on worn-out tires, adding oil every few miles to the worn-out engine, and managed to make it to Seattle, Washington. His partner, Lloyd, had no money whatsoever so Ray bought steerage tickets for both on the steamship *Aleutian* bound for Alaska.

Ray and Lloyd had originally planned on disembarking from the *Aleutian* at Seward and ride the Alaska Railroad to Fairbanks, but for logistical reasons, decided to disembark at Valdez. They managed to get aboard a commercial truck heading up the Richardson Highway, which, at the time, was a crude pack trail upgraded to a wagon toll road. The road was in poor shape and it took several grueling days to get to Fairbanks. The Golden Heart City was initially a letdown. The FE Company, the large gold dredging firm that operated in the Fairbanks district, was experiencing a labor strike and there

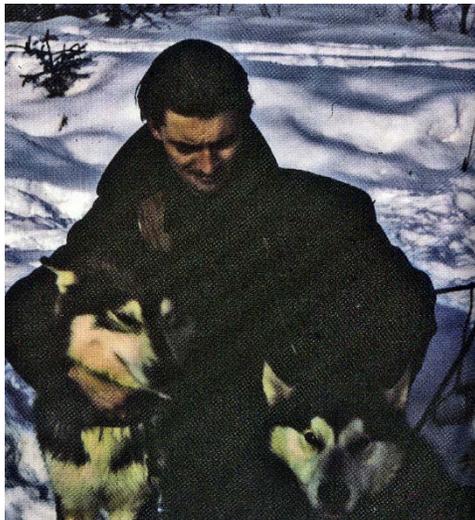
were no jobs available in town. Ray and Lloyd had only limited funds and winter was coming. Ray Smith had never imagined that he would actually enroll at the University of Alaska; that is not why he came north to the Last Frontier. Someone in Fairbanks told Ray and Lloyd that the university was about six miles to the west of town, and that they could walk the Alaska Railroad tracks to get there, which they did. When they climbed the long stairs up the hill to the university, they were greeted by a short, elderly man digging a ditch with a shovel, pick, and wheel barrel--in dirty, worn-out work clothes. Ray told the ditch digger that he could dig ditches for food and pay. The ditch digger said he didn't know of any more work, but directed them to a nearby house and told them to hang around until five o'clock, knock on the door and ask the lady if she had any food to spare. Reluctantly they waited and were greeted by Eunice Collins, President Bunnell's housekeeper. She invited them in, asked them to sit down and indicated that President Bunnell would be there shortly. When the old ditch digger appeared in a suit and tie, they knew they had been duped but stayed for dinner anyway. At dinner, Bunnell talked them into enrolling in the University as tuition free Alaskan residents as they had stopped in Juneau on their way to Fairbanks and thus were residents of the Territory (Noyes, 2001; Cashen, 1972).

President Bunnell owned a log cabin in need of repair near the junction of Noyes Slough and the Chena River, where they could stay and repair it for rent. Both Lloyd and Ray decided to enroll in the University educational programs—with Ray selecting the School of Mines. That first winter, Ray and Lloyd shared their cabin with another School of Mines student, Ernest Wolff, who had arrived from northern Minnesota the previous year. Wolff had some funds saved and was looking for a place to stay. Ray and Lloyd had already stockpiled fire wood for the winter. For his share, Ernie would buy food stuffs necessary for all three students (Smith and Cox, 2012).

Ray's first Alaskan winter was a magical experience that he never forgot. Ray, Ernie and other students would snare rabbits, pick berries and mushrooms, catch grayling and white fish in area streams, and then go up the Steese Highway and harvest a caribou for winter meat. One colorful account in Ray's book *Echoes* relates how Ernie, Ray and Ben Atkinson had traveled down to Nenana by dog team but were caught in a winter storm after enjoying themselves in Nenana's 'Sled Dog Saloon' (the name may or may not be real). They had to create a siwash camp and wait out the storm on the way home. They all eventually made it back to their Noyes Slough cabins OK.

Ernie Wolff was from a well-educated family in Minnesota. His father was a highly regarded

architect while his mother was a senior Registered Nurse. Ernie's upbringing included appreciation of literature and classical music—things that Ray had never experienced during his adolescent years in Maine. Ernie read novels by Tolstoy, Dostoyevsky, and Chekov, kept track of worldly events (WWII in Europe had just begun), and listened to classical music and opera on his phonograph. One night, the distant howling of a wolf pack competed with the clear soprano tones of a diva in Puccini's *Tosca* at the cabin. Ernie Wolff took great pride in his beer-brewing abilities, which, of course, all of the other students at the School of Mines greatly appreciated (Smith and Cox, 2012). For his numerous academic achievements and mining expertise, Ernest N. Wolff was inducted into the Alaska Mining Hall of Fame in 2007 (Freeman, 2007).



**LEFT: Ray Smith with dog team while a student of the University of Alaska School of Mines, circa 1940; RIGHT AMHF Inductee Ernest Wolff with dog team in 1939 or 1940. UA School of Mines students mushed dog teams for recreational pursuits while pursuing their University studies. Photo Credits: (Smith, 2012b).**

The Ray Smith-Ted Cox North Country Prospecting Adventure

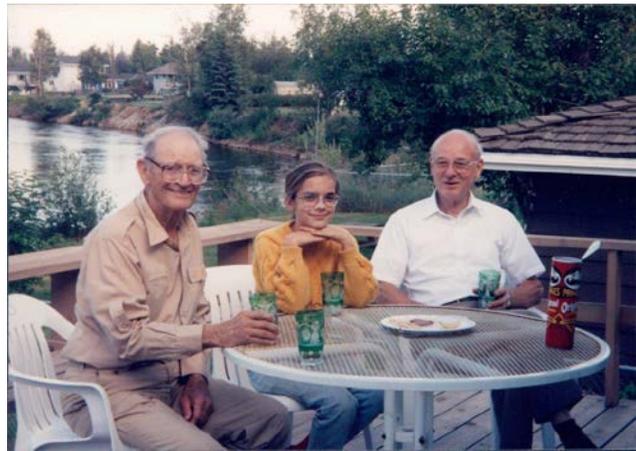
There are colorful accounts of a prospecting adventure undertaken by him and fellow student and close friend Ted Cox in east-central Alaska

near the Canadian border (Smith and Cox, 2012; Sweeney, 2004; Rich, 2018). The inspiration for the trip, fueled by more than a few beers, came from a conversation with an old time prospector, Harold Pierce, at Tommy's Elbow Room Tavern in downtown Fairbanks, owned by Ray's life-long friends, Joyce and Tommy Paskvan.

Pierce had met with an old prospector, Olie Swenson, who quietly disclosed information on a promising placer gold prospect north of Chicken in the historic 40-Mile district. Pierce had acquired about two ounces of fine gold from Swenson's prospect to prove his assertions. Based on Swenson's instructions, Pierce then provided directions to Ray and Ted as to where to go, which included locating the Western Union telegraph line installed there during the mid-19th Century just before the 1867 Alaska Purchase. Downstream from the juncture of the telegraph line and the creek basin was where to explore for placer gold.

Ray and Ted were game to try to find the placer gold paystreak. They took off from Weeks Field in Fairbanks in a Stinson bush plane. Ray held a valid pilots license and served as navigator and backup for the pilot. After arriving in Chicken, the adventurous University of Alaska students, armed

only with hand tools, inadequate sleeping bags, not much grub, and no accurate topographic maps, finally located the area and specifically, the old telegraph line in a location just as Pierce had described. After much diligent prospecting, including systematic panning that delineated the relative extent of a gold placer paystreak and other hard work in the mosquito-ridden country, Ray and Ted staked their claims and returned to Fairbanks. But because of, among other things, Rays and Ted's entry into military service during WWII, the students allowed their claims to lapse. Years later, Ray and Ted found out that the claims they had allowed to lapse were re-staked by a large gold dredging firm, which successfully mined the ground; alas—they lost their fortune. At least that is how they wanted to remember it, although they never checked the land records to see if it was their old abandoned claims that were the ones actually dredged for gold.



**LEFT: Ray Smith and Ted Cox while both attended the University of Alaska in 1940. RIGHT: Ray Smith, granddaughter Amy, and Ted Cox along the bank of the Chena River in Fairbanks, during 2009. Sixty nine (69) years separate the two images, symbolic of a life-long friendship. Photo Credits: Margaret Cox Rich.**

Ray was enrolled in the University of Alaska, where he obtained a bachelor's degree in mining engineering in 1943 from the School of Mines (Bishop, 2017)--with a metallurgy option; he also took several surveying courses. Ray had been taking ROTC courses at the University, in preparation for the obvious—his participation in WWII. On June 1, 1943 Ray Smith received

orders to report for Activity Duty (Cashen, 1972, p. 294) as a Private in the U.S. Army Air Corps, and took his training in Aberdeen, Maryland, where he was assigned to Ordinance training. While visiting his brother Leslie in Hartford, Connecticut, he met his future wife, Beatrice, at a night club. Beatrice and Ray were married in Maryland during the fall of 1943.

Ray was discharged from the Army on September 12th, 1946, but was still in the Army Reserves. He was eager to return to the University of Alaska with his wife Beatrice. Because he did very well in mathematics before WWII as a student, the University offered him a position teaching mathematics through the advanced calculus level. By the time Ray and Beatrice arrived in Fairbanks, it was late fall—going into winter.

Ray's teaching career progressed very well, and he quickly developed a reputation as a top notch University instructor. But with his wife expecting a child (Ben), he sought additional employment. Using the metallurgy part of his education, he also worked as a gold assayer, because banks would not buy a miner's gold without a certified assayer certificate showing gold fineness results. Ray did most of his assaying after conducting his teaching duties. Then, he would transport the gold bullion on behalf of the mining client to the selected banking institution. He then would return with a certified check, hard currency, or bank receipt to give to his client. All the miners in Fairbanks, including the FE Company, trusted Ray Smith. Many years later, Ray remembered lugging 50 pound bags of gold bullion to banks in Fairbanks sometimes during dark, early evening hours and completely without escort. He ran into a few inebriated drunks, but was never robbed.

Ray and Ernie Wolff hired a prospector working on their behalf doing claim assessment work in the Chandalar district of the Brooks Range above the Arctic Circle. They speculated that their gold claims, which contained high grade gold-quartz veins, would have significant future value. Ernie and Ray also researched past-productive copper-gold deposits on Prince of Wales Island in Southeast Alaska, mainly the Jumbo mine, which had been operated as a mid-sized copper producer by Bill and Charles Sulzer prior to the mid-1920s. Bill Sulzer was a member of the U.S. House of Representatives for New York in the early 20th Century before briefly serving as the Governor of New York; his impeachment by the

New York State Legislature in 1913 remains controversial (Hawley, 2004). Bill Sulzer died in 1941. He was inducted into the Alaska Mining Hall of Fame in 2004.

Sulzer's widow lived in Philadelphia, and Ray visited her several times upon returning to active Army duty in Pittsburgh. Ray's charm worked; he was able to purchase the copper claims in the Jumbo Basin of Southeast Alaska from Mrs. Sulzer even though her family was strongly against the sale. Subsequently, several partners were assembled by Ray for the mine partnership, but perceiving future grave dissension within the partnership, Ray later sold his share for \$10,000. The claims were never developed successfully, so many year's later, Ray felt he made the right decision to sell the Jumbo Basin claims.

#### Ray Smith's Academic Career in Pennsylvania

In the late 1940s, Ray Smith was content teaching at the University of Alaska. He pursued mining business opportunities with Ernie Wolff even though the Alaskan mining industry was experiencing a slow but steady, post-WWII decline. His wife Beatrice enjoyed the frontier town of Fairbanks and quickly made many friends, so there was no reason to leave. However, a good friend, Dick Byrnes, persuaded Ray to seek an advanced degree elsewhere, arguing that he would need an MS or PhD degree if he was to teach at the University of Alaska at a higher Professorial level in the future. Ray applied for graduate school at Yale University and was immediately accepted. Ray was using an instruction manual authored by Robert Brick as a base for some of his teaching at the University of Alaska and Brick taught at Yale. But when Brick transferred to the University of Pennsylvania, Ray applied for graduate school there and was accepted (Mroz, 2016; Halkola, 1985).

Ray received a Masters Degree in metallurgical engineering in 1951 and a PhD in metallurgical engineering in 1954—both from the University of Pennsylvania.

Upon graduation, he worked for several years as a technical director of the Solid State Physics program at the Franklin Institute of Research in Philadelphia, Pennsylvania. Ray and Beatrice had bought a small farm near Paoli, Pennsylvania and for a time thought this is where Ray would finish his career in teaching. But in 1958, funding for both research and teaching at the Franklin Institute had taken a turn for the worse and programs were in jeopardy.

### Ray Smith's Career at Michigan Technological University

Ray heard that Michigan Technological University (Michigan Tech) in Houghton, Michigan was searching for new faculty. Bethlehem Steel was wooing Ray to run their metallurgical division, but he felt that his teaching, academic research and growing managerial skills needed at Michigan Tech fit his personnel aspirations better. He joined the faculty of Michigan Tech in 1959. Ray served as the Chair of the Department of Metallurgical Engineering for six years before becoming the university's sixth President in 1965, serving in that role until 1979. Michigan Tech would experience a period of unparalleled growth during Ray's tenor as President. Under Smith's leadership, Michigan Tech grew from 3,422 students in 1965 to 7,690 in 1979. Faculty members doubled during Smith's tenure and nearly 66 percent of the faculty held PhDs in 1979, compared to 27 percent in 1965 (Halkola, 1985).

The physical configuration of Michigan Tech's campus grew in similar fashion. Under Smith's Presidency, a long-range physical plan was developed, a new Administration Building, the Electrical Energy Resources Center, the Noblet Forestry Building and Wood Research complex, the Chemical Sciences and Engineering Building, several residence halls, the Student Development Complex, Ice Arena, Gates Tennis Center, and the Engineering Mechanics Building (now named the Raymond L. Smith Building) were all constructed.

Halkola (1985) noted that, to Smith, the new buildings and academic programs were a means to an end. Smith wrote in 1976:

*"I believe that our outstanding achievements during this period have been our programs to encourage young people – especially women – to consider Michigan Tech as a place that will challenge their educational aspiration. In the summer of 1970, we had a total of 138 pre-college young people on our campus. Through a well-planned and executed series of programs, this has grown to 3,124 by the summer of 1975. One of our most successful ventures has been a program to expose young women to the field of engineering. So far more than 600 have gone through the program and 56 percent of those who are eligible for college have elected to take engineering either here or at some other school. As a result, our female enrollment in engineering has grown from 36 in 1970 to 201 in 1975".*

In an interview for *Michigan Tech Magazine* (Mroz, 2016), Ray said:

*"When I came to Michigan Tech, I was told you can't talk about money. You can talk about hockey, but we don't raise money here".*

After assuming the job as University President, Smith quickly established a foundation to benefit the university, which thrives to this day. Hence Smith's most enduring legacy at Michigan Tech besides the outstanding quality of the student's classroom experience that he and others provided was his creation of a culture of philanthropy at the institution. Today, only 16 percent of the Michigan Tech operating budget comes from the State of Michigan (per. comm., Staff, Office of Advancement, Michigan Technological University).

When Ray became President of Michigan Tech in 1965, only a few of the university's programs were accredited, something he viewed as a fundamental weakness in the institution. Over



**The main campus of Michigan Technological University in Houghton, Michigan, undated. The Ray Smith Building is the tallest on the skyline. Photo Credit: Wikipedia Commons.**

many years, he worked hard with the faculty of all programs, including those in engineering, science, and liberal arts toward accreditation. By the time Ray retired from Michigan Tech in 1979, nearly all of the University's programs were accredited.

While Michigan Tech's President, Ray Smith was always supportive of individuals taking a larger view of the world of mining. Smith strongly encouraged John R. Poss to publish his treatise: *Stones of Destiny, A Story of Man's Quest for Earth's Riches*. This comprehensive and well-illustrated account of man's use of minerals and their effect on changing world history was published by Michigan Tech in 1975 with the assistance of the estate of Scott Turner. Ray wrote the Forward for the volume. The Poss

(1975) work remains one of the best summaries of it's kind.

While Michigan Tech President, Dr. Smith served on numerous state and national committees, including those for Michigan's Governor Milliken, the National Materials Advisory Board, the Office of Technology Assessment, Oak Ridge National Laboratory, Argonne National Laboratory as well as service advisory boards for several engineering universities in the U.S. (Halkola, 1985) including the University of Alaska Fairbanks (Noyes, 2001).

#### After Michigan Tech and 'Retirement'

After retirement from Michigan Tech, Ray's first challenge was reviving a failing newspaper. The *Houghton Daily Mining Gazette* was in financial trouble. The Board of the newspaper persuaded

him to take over the management of the newspaper.

He accepted the position of Chairman of the Board of the newspaper on the condition that he had free rein on making needed management changes. Ray implemented a number of cost-cutting measures, and within a year, the popular newspaper was revived. But there was significant resentment on the Board of the newspaper that Ray didn't always consult them on every management decision he made. With his goals successfully achieved and the newspaper solvent again, Ray left the newspaper.

His next challenge was assuming the Presidency of the American Society of Metals and Materials (ASM). This non-profit organization, one of the largest of its type in the world, supported research in the mining and petroleum fields, and provided scholarships and education to science and engineering curriculum across the U.S. When Ray assumed the Presidency, it was just a figure head position. But this didn't fit Rays' mold. He did not accept any salary, but like the former newspaper project challenge, he insisted that he be given more influence on which was ASM was headed—which he got. Under his leadership, ASM expanded opportunities to mining engineering students worldwide.

In 1982, Ray Smith received the Outstanding Alumni Award at the University of Alaska-Fairbanks School of Mines. He also received the Robert Yarnall Award from his other alma mater—the University of Pennsylvania. In quick succession, he would receive honorary doctorates from Michigan Tech, Northern Michigan University, Western Michigan University, and the South Dakota School of Mines. An avid Rotarian, Ray became a Paul Harris Fellow of that organization. He became an honorary member of the Michigan Tech Academy of Metallurgists. Finally, Ray received the Melvin Calvin Award of Distinction from Michigan Tech, the University's highest honor, in 2010 (Goodrich, 2010; Mroz, 2016).

While in Arizona, Ray Smith oversaw a U.S. Forest Service volunteer group, the Hazardous Abandoned Mine Finders (HAMF), consisting of eight people that searched out, located, and posted over 6,000 abandoned mine shafts in southern Arizona. The mine shafts were a recognized hazard for Arizona's growing tourist industry, so finding the old workings was a priority for State and Federal agencies in Arizona (Smith, 2010, 2012a; GV Metallurgist, 2017).

In 1996, Ray returned to Alaska to honor a valued friend—AMHF Inductee Earl Beistline, who had graduated from the University of Alaska in 1939, the year that Ray arrived at the University. Beistline served as the Dean of the University of the Alaska School of Mines and later the Provost of the entire University for many years before his retirement in 1982. At Earl's 80th birthday celebration in 1996, Ray Smith traveled to Fairbanks to deliver the following address:

*"I want to let you (Earl) know how much I hold you in high esteem and how you were always a model on how I wanted to live my life. You (Earl) have made a superb contribution to Alaska mining, your University, and to the Fairbanks community (Bundtzen, 2007)."*

In 1997, Ray again came north to Fairbanks, Alaska to deliver the keynote address at *The International Symposium on Mining—1850-to-2000 and Beyond*. The symposium, which explored the 100th Anniversary of the Klondike Gold Rush, was organized by William R. Wood, a past President of the University of Alaska and Executive Director of Festival Fairbanks, Inc., and Earl Beistline. Ray's address—*The Impact of Mining, Minerals and Metals on Society* (Smith, 1997), followed the general theme advocated in the John Poss (1975) volume *Stones of Destiny*. Ray's 45 page single-spaced paper included more than 90 information citations. Numerous slides were used to illustrate the themes of the paper, which was reviewed and edited by nearly a dozen experts in the mining historical field. Coming north to Fairbanks for the mining symposium

gave Ray and Beatrice the opportunity to reunite with many old friends, including Ted Cox and his family, Earl Beistline and his family, Ernie Wolff and his family and many other acquaintances (Margaret Cox Rich, pers. commun., 2019).

In the 1980s, Ray and Beatrice decided to retire in Green Valley, just a few miles from Tucson, Arizona. The climate there was mild and he and his wife were still quite athletic and took many excursions into Arizona's vast mining districts while living there.

During the 1990s, Ray Smith served as a Board member of the Lake Superior and Ishpeming Railroad based in Marquette, Michigan. He also served on the Community Water Board of Green Valley, Arizona. He also became, for a time, a Vice President of the American Institute of Mining and Metallurgical Engineers (AIME), and like his duties at the ASM, continued mining

educational advocacy work for the organization (Mroz, 2016).

In 1999, his wife of 56 years, Beatrice Smith, tragically and suddenly died from a brain aneurysm while repairing a roof at their home in Arizona. After a grieving period, Ray continued, at the age of 82, to keep himself busy. While participating in a Gold Symposium in Raleigh, North Carolina, after he had presented a long, one hour lecture on an aspect of the gold industry, Ray met Rachel Malcom, a widow. When they were later formally introduced, she laughed and said "My first boyfriend was named Ray Smith". Ray was 85 years old. Rachel was 72 years old. Later they married. Ray and Rachel traveled extensively throughout the world, including China, Chile, and Australia. They would make another trip to Alaska in 2009 to visit friends in Ray's old camper driving up the ALCAN Highway when Ray was 92 years old.



**LEFT** Beatrice and Ray Smith in Fairbanks, circa 1947; **RIGHT** Racheal Malcom and Ray Smith undated. Photos courtesy of Margaret Cox Rich.

## Ray Smith's Passing and Remembrance

Ray Smith passed away peacefully on September 18th, 2018 at his home in Green Valley, Arizona at the age of 101. MTU President Richard Koubek provided this tribute:

*"Just walking through the campus, it's impossible not to see the evidence of President Smith's accomplishments. Michigan Tech is what it is today, in large part, because of Ray Smith."*

Wilcox (2018) added another tribute:

*"Ray Smith was one of Michigan Technological University's most influential leaders and fiercest supporters of all time".*

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## A Personal Remembrance – Dr. Paul A. Metz

I first met Dr. Raymond L. (Ray) Smith shortly after he was appointed Michigan Tech President in January, 1965. I was a member of the Michigan Tech Newman Club, a Catholic Student organization that operated an aging boarding facility across US41 from the University President's residence. I was a new resident member, and had assumed the position of Dining Stewart. We fed the 20 residents and another 10 members that had rooms in private homes nearby. At our first Monday evening meeting after the announcement of the appointment, the Newman club decided to invite Dr. Smith and his wife Beatrice for dinner at their earliest convenience. The suggestion met with serious apprehension. Why would the President of the University want to spend an evening in a 100 year old run-down boarding house with thirty students stuffing themselves with meals that cost less than a dollar? The consensus opinion whether stated or was implied that he had more important people to meet with than our humble lot! I indicated we should not make assumptions and at least give him the opportunity decline an invitation. The call was made the next day, Dr. Smith's Secretary did not say she would have to check his schedule and would get back to me in

Important to this induction ceremony, Ray Smith was the only graduate of the University of Alaska to become the President of another major university. When questioned about his many academic and educational achievements, he often stated that "it all started at the University of Alaska". Ray made many trips to Alaska after he left the Territory and later, the 49th State of the United States. Fairbanks and the University of Alaska always had a very special place in Ray's heart. The Alaska Mining Hall of Fame Foundation is honored to induct this great and memorable man into the organization.

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-due course, she simply said hold on, posed the question to him, I heard him say "yes" and then "when and at what time"? My reply was Saturday, 6:00 PM, the Newman House is at 1301 Ruby. His reply, "we shall be there, Thanks."

Our cook managed to find sufficient resources for a very nice dinner. After dinner, Ray and Beatrice stayed very late, questioned everyone about where they were from, their majors, and aspirations after graduation. The next Monday several members met Dr. Smith on their way to and from classes, he stopped them, called them by their first names and indicated that he and his wife enjoyed their first invitation to dinner after his appointment. With his keen memory, President Smith may very well have reflected on another dinner invitation he had accepted nearly 26 years earlier in the fall of 1939 on the campus of the University of Alaska. The second time we had a formal meeting, was in June 1968, at my graduation from Michigan Tech and my Commissioning as a Second Lieutenant in the U.S. Air Force. My approved request for a deferment of active duty for the completion of a second degree at Michigan Tech had been approved much before graduation, but the Tet Offensive in Vietnam resulted in a change of plans.

In late summer of 1968, I was assigned to the 21st Civil Engineering Squadron at Elmendorf Air Force Base (AFB) in Anchorage, and began travelling to all the 30 plus Air Force installations in Alaska and the DEW Sites in Greenland. After spending five years on active duty, I resigned my Regular Commission in the Air Force in 1973 to attend the University of Alaska Fairbanks for a second graduate degree in Economic Geology.

In spite of their strong academic credentials, none on my graduate committee had research funding to support an examination of intrusion-related gold mineralization. They suggested I approach the Director of the Mineral Industry Research Laboratory (MIRL) at the University of Alaska, Dr. Ernest N. Wolf, for possible funds to support the project. Oddly enough, I had been given a copy of his book, *Handbook for the Alaskan Prospector* in 1973 as a going away gift from fellow officers at Elmendorf. Dr. Wolff agreed to meet early 1974 to discuss financial support. Ernie said there were no funds available in the MIRL budget, but then promptly reached into his pocket and handed me four \$100 bills and said, "Will this help?" The answer was a prompt yes, and then he asked where I had completed my undergraduate studies. I told him Michigan Tech. He smiled and asked if I ever met Ray Smith. Wolff was told about the dinner invitation after Dr. Smith's appointment to the Presidency of the university and the swearing ceremony for my Air Force Commission at graduation. Ernie then talked briefly about the circumstances of his acquaintance with Ray while they were students, and about Ray's teaching career at the University of Alaska. There was no hint of their life-long friendship.

In the fall of 1975, my Graduate Committee Chair, Don Grybeck, informed me that he had received funding from the U.S. Bureau of Mines (USBM) for a review and compilation of published and unpublished data on the mineral resources in part of Interior Alaska and suggested that I write a parallel proposal through MIRL for a similar project.

A few months before graduation, Don announced his intention to resign from the Geology Department, and requested that I assume his role as Principle Investigator for the USBM-funded project, should the university hire me in May. I was asked to meet with Dr. Wolff and complete an application for a new position as an MIRL Instructor of Research and subsequently received notice of the appointment, effective May 1, 1975. On meeting with Dr. Wolff, he stipulated that I meet with President Smith during my next visit to Northern Michigan.

In September, I traveled to Houghton and would be arriving late on Friday of the next week and indicated that I could meet with President Smith at his convenience. Ernie made a call and Ray said to have me come over to his house, upon my arrival in Houghton. I arrived after dinner, and we talked until very late that evening or early the next morning. The discussion was initially about Ernie and Ray's other classmates that were still in Alaska. We eventually moved on to the state of the mining industry and the impact of proposed federal legislation on the availability mineral resources in the State of Alaska. We discussed his work with professional organization with respect to mineral resources, particularly those in Alaska, and his input to Congress on mineral and energy resources in general. Dr. Smith asked if I would be available for a local radio interview on Alaska Land and Mineral Resource Issues. The radio interview took place the next week.

In 1978, through funding from the U.S. Office of Surface Mining, the School of Mineral Industry Advisory Committee was formed. The first committee members included: Dr. Nolan Augenbaugh, University of Missouri-Rolla (formerly Missouri School of Mines); Frank DeLong, President, North Pole Refinery; Eugene Griffin, Union Oil Company; David Heatwole, Anaconda Copper Company; AMHF Inductee Charles Herbert, BP Minerals Alaska

Resources); Roger Markle, President, Valley Camp Coal Company; Hugh Matheson, President, Placer Development Ltd.; AMHF Inductee Patrick O'Neil, President, Rosario Resources Corporation; Ross Schaff, Alaska State Geologist; Vernon Scheid, Dean, Mackay School of Mines; Howard Slack, ARCO Alaska; Dr. Raymond Smith, President, Michigan Technological University; and Joe Usibelli Sr., President, Usibelli Coal Mines, Inc. The Committee was established to advise the Dean of the School of Mineral Industry Earl Beistline and other decision makers at the University of Alaska the school's role in the education of professionals for resource industries and the needs of the State of Alaska for the development and management of the state's natural resources.

Also in 1978, MIRL completed an assessment of the lands in Alaska open to entry under the state and federal mining laws (Metz and others, 1978; updated in 1979). The assessment was funded by the U.S. Bureau of Mines (USBM) at the request of the Federal/State Land Use Planning Commission. MIRL Associate Director Ernest Wolff sent copies of both reports to the U.S. Office of Technology Assessment; for which Ray Smith served as an advisor for U.S. Strategic and Critical Minerals policy (Smith, 1983).

Many have argued that the outcome of the 1980 Alaska National Interest Lands Conservation Act (ANILCA) were not optimal from the perspective of many Alaskans, but it could have been more deleterious to the long term economy of the State and Nation without the professional dialog and influence provided by Dr. Raymond L. Smith.

***In 2017, Dr. Paul A. Metz from the University of Alaska Institute of Northern Engineering nominated Raymond L. (Ray) Smith for Induction into the Alaska Mining Hall of Fame.***

***This Biographic Sketch was compiled by Tom Bundtzen. An earlier version of the manuscript was reviewed by Paul Glavinovich and Jo Antonson. The AMHF especially thanks Margaret Cox Rich and Janie Smith for guidance concerning understanding the life of Ray Smith. In particular, Rich provided important personnel recollections about Ray Smith.***

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**Post-Script: Photos from July 17<sup>th</sup>, 2020 Induction Ceremony, Fountainhead Antique Auto Museum, Fairbanks Alaska**



**LEFT: Felix Pedro, who discovered gold in the Fairbanks district in 1902, dons a mask to help prevent the spread of COVID-19 at a ceremony in his honor during the 2020 Golden Days Festival near Fox, Alaska. Courtesy of Joan Skilbred of the Pioneers of Alaska. RIGHT: Left to right—Author Margaret Merritt, Tom Bundtzen, President of the Alaska Mining Hall of Fame (AMHF), and AMHF Board Member Mary Nordale, at the July 17<sup>th</sup>, 2020 induction ceremony**

**Distinguished Alaskans Aid  
Foundation as '98ers**

The Alaska Mining Hall of Fame Foundation was incorporated as an Alaskan non-profit corporation on April 27, 1997. The Foundation was organized exclusively for educational and charitable purposes, including donations to organizations that are tax exempt under Section 501(c)(3) of the federal tax code. On September 17, 2003, the IRS confirmed the 501(c)(3) status of AMHF, and further categorized the organization under codes 509(a)(1) and 170(b)(6).

The foundation is a non-membership corporation that depends on services provided by its officers and directors, others interested in Alaskan mining, and on donations and grants.

The Foundation is especially indebted to twenty eight (28) who have each contributed at least \$1,000 to become 98ers, in honor of the first stampeders to Alaska in 1898 at Nome.

**The 98ers**

Dr. Earl H. Beistline (d)	Patrick H. O'Neill (d)
Thomas K. Bundtzen	Larry and Darlene Peterson
David and Patricia Carnes	Elmer E. Rasmuson (d)
Glen Chambers (d)	Irving Stoy Reed (d)
Douglas Colp (d)	Margaret Cox Rich
Karen Erickson	William Stroecker (d)
Wendell Hammon Jr.	Taiga Mining Company
Dr. Charles C. Hawley (d)	Teck Resources
Dr. Walter Johnson	Dr. Robert H. Trent (d)
Wallace McGregor	Mitch Usibelli
Neil McKinnon	Joe Usibelli, Sr.
Tom Mein	Candy Waugaman (d)
James Moody (d)	Dr. William Wood (d)
John Mulligan (d)	Dr. Kenneth L. Zonge

(d=deceased)

Most of the 98ers are recognizable as miners of national or international reputation. The late William R. Wood was President, Emeritus, of the University of Alaska. Dr. Wood suggested the organization of the Foundation. The late Elmer E. Rasmuson was an Alaska banker and benefactor, long interested in Alaska natural resource history.

The Foundation is seeking more ninety more 98ers, but it welcomes contributions at every level. For further information contact:

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Treasurer  
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Fairbanks, AK 99701

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