



December 2009

Mining History News

Quarterly Newsletter of the Mining History Association

Innovative Colorado Mine Model Educated Audiences Across the Globe



The entrance to the Colorado Gold Mine exhibit at the California Midwinter International Exposition in San Francisco in 1894. (Photo courtesy of the California History Room, California State Library, Sacramento, California)

In 1893, the World's Columbian Exposition was held in Chicago, along the shore of Lake Michigan in Jackson Park. It was the greatest event of its time. Over 27 million people attended the fair to see the "wonders of today and the marvels of tomorrow," including the exhibits in the Mines and Mining Building. This Exposition was the first world's fair at which mining was given a building of its own and placed on an equal footing with agriculture, manufacturing, and other industrial pursuits. In

fact, the Mines and Mining Building occupied one of the best locations on the exposition's grounds, in part because mining ranked third in value of production among the industries of the United States in 1893. Every mining state, including Colorado, as well as foreign countries had exhibits in the Mines and Mining Building. The exhibits included "minerals of every kind, ores, native metals, gems, and crystals; geological specimens; coal, coke petroleum, natural gas,

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"Innovative Mine Model..." (Continued from Page 1)

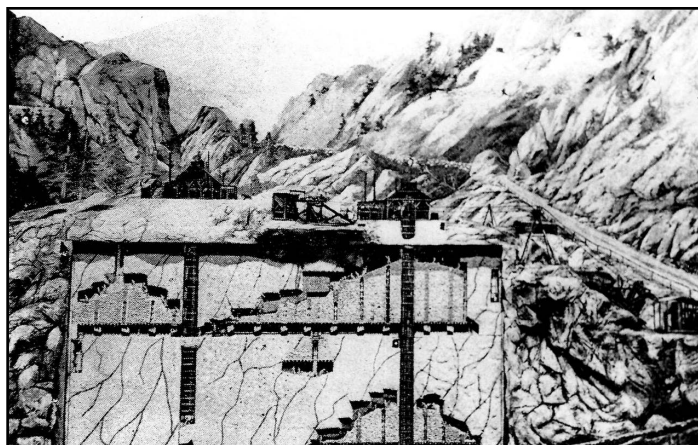
building stones, and quarry products; graphite, limestone, cement, and artificial stone; salts, sulphur, fertilizers, and mineral waters; the long catalogue of iron and steel, and of tin, and the new metal, aluminum; the extraction of gold, silver, and lead by various methods; mining machinery, tools and appliances; literature, models and reproductions."

Colorado was well represented in the Mines and Mining Building, as befit a state which in 1892 produced \$5,500,000 in gold and more than \$30,000,000 in silver, as well as sizable amounts of base metals, coal, and other mineral resources.

However, one of the most interesting Colorado mining exhibits was actually not located in the Mines and Mining Building. It was located on the Midway Plaisance, a 600-foot wide by 1 mile long strip of land that ran perpendicular to Lake Michigan, just south of the brand-new University of Chicago. The Colorado Gold Mine exhibit was a model illustrating the workings of the famous Saratoga mine in Gilpin County. The exhibit was the brainchild of miner William Keast.

William Keast was born in Cornwall, England in the late 1850s. At about the age of 20, he sailed to North America where he spent a short time in Quebec and Pennsylvania. He later made his way to the Rocky Mountains where he settled in Central City, Gilpin County, Colorado. For the next 13 years he worked as a gold miner, spending 6½ years in the Saratoga mine. He came to know every inch of the mine, as one of his jobs was to give tours to visitors and explain the actual working of the mine. He realized that many of the visitors retained very little from the tour, mainly due to the strange surroundings of the mine and the nervousness it caused. This gave him the idea to construct a model of a gold mine to give the average person an idea of how an underground mine works, without having to descend into a real mine.

The automatic model, which was run by that new invention, electricity, was a true representation of



William Keast's model of the Saratoga Mine in Gilpin County, Colorado. (Photo courtesy of William Lipsky)

the Saratoga mine. It showed a section of the mountain that was split in half from top to bottom so visitors could look into the mine to about 700 feet. The model only represented the top level and bottom level of the mine; the intervening five levels were not shown. The visitor was supposed to be standing on one side of the ore vein, or reef, which on the model was about 3 inches thick, in the real mine, 6 feet. The scale of the model was ½ inch to the foot. The model took nearly five years to construct, and contained real gold and quartz. The top level of the model showed men at work, stoping and working out the vein. Cars were run out to ore chutes, where they were filled and returned to one of the two shafts in the model. From there the ore was hoisted to the surface. The bottom level of the model showed men drifting, cross-cutting, and drilling, as well as pumps at work. On the surface, there were the shaft houses, the blacksmith shop, the powder magazine, the miner's boarding house, the Hallidie ropeway, the stamp mill, the water flumes, the mine dump, and the ore bins. Everything worked at the push of a button, from the robot miners to the compressed-air drills.

Before the model made its appearance in Chicago, it was placed on view for the first time in 1892 in Central City where it was a great success. It was then displayed at all the mining camps of Colorado. The model was so huge that Keast had to hire six railway trucks to transport it

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Australian Mining History Association Announces 2010 Conference in New Zealand

Brian Hill

The 16th annual conference of the Australian Mining History Association (AMHA), which will be held in Greymouth, New Zealand during July next year, will be the first conference the AMHA has staged out of Australia.

Greymouth was selected as the most appropriate venue for the conference because the West Coast region of the South Island of New Zealand has a rich and varied mining heritage including gold rushes, coal mining, gold dredging, mining industrial history, and mine disasters etc.

Conference attendees will be able to see much of the fascinating mining history of this region. There will be a two-day pre-conference mining history tour on the Monday and Tuesday, 5 and 6 July, 2010, and a one day post-conference tour on Sunday, 11 July. The business sessions of the conference when papers will be presented will be from Wednesday, 7 July to Saturday, 10 July, at the Kingsgate Hotel in Greymouth.

Those MHA members interested can obtain more information from Dr Brian R. Hill, the conference convenor (email brhill@senet.com.au), or from the AMHA website (www.amha.asn.au). Anyone wishing to present a paper at the conference should contact the conference sessions director, Dr Philip Hart (email prhart@waikato.ac.nz).

Conference attendees must make their own travel and accommodation arrangements. Conference attendees who wish to stay at the Kingsgate Hotel should quote the "AMHA conference booking reference number" 24000272306 to the Hotel when booking. (The Kingsgate Hotel phone number is Intl. 64 3 768 5085; email kingsgate.greymouth@milleniumhotels.co.nz). Superior rooms cost \$NZ136 a night and standard rooms \$NZ116. (The American dollar currently buys about \$NZ1.37, but the exchange rate fluctuates.)

There is a wide range of accommodation available in Greymouth. Accommodation advice and costs, and bookings can be obtained from the Greymouth District Council Events and Promotions office (email info@greydc.govt.nz).

Unless they have their own transport, conference attendees should ensure that where they book is in proximity to the conference venue. The Kingsgate Hotel is centrally located in Greymouth at 32 Mawhera Quay.

Christchurch is the closest international airport to Greymouth. Air travel to New Zealand is competitive with several airlines flying direct to Christchurch from several North American airports.

Some might wish to travel from Christchurch to Greymouth on the spectacular TranzAlpine train through the Southern Alps. (email bookings@tranzscenic.co.nz) The train goes daily, but conference attendees wishing to go on the pre-conference tour should book to get to Greymouth by Sunday, 4 July. The Kingsgate Hotel has a courtesy transfer service from the Greymouth train station to the hotel if pre-booked.

Many might wish to see more of the South Island of New Zealand after the conference by touring down the West Coast to see the glaciers, the rain forests, the alpine lakes, the ski fields, and the fiords etc. Queenstown is a good tourist centre to see many of these attractions. At least four airlines have direct flights from Queenstown to several Australian cities, but not every day.

It will be winter time Down Under in July, so conference attendees should dress appropriately. However, they can be assured of a warm welcome.

Newsletter Contributions Welcome

Do you have a piece of research that is interesting, but much too short for the *Mining History Journal*? News about an upcoming conference or event related to mining history? A tip about a "hidden gem" of an archive? Consider sending it to the *Mining History News*! We are always looking for information of interest to our fellow members.

Contact Newsletter Editor Eric Nystrom at eric.nystrom@rit.edu for further details.

"Innovative Mine Model..."

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from place to place. In 1892, Professor M. C. Ihlseng took his class from the Colorado School of Mines to view the model. Ihlseng spoke very highly of the skill and ingenuity displayed in the construction of the automatic mine.

The Gold Mine exhibit, which was protected by patent and copyright, was displayed throughout the six-month run of the Columbian Exposition. Admission to the exhibit was 10 cents. In a letter to William Keast, H. N. Higginbotham, President of the Exposition said, "Your idea of illustrating the business of mining was well carried out. The experienced miner, and those wishing to learn how the business of mining is carried on, must have enjoyed viewing your model, for the necessary machinery, as well as the men, were all shown at work; the entire exhibit was very satisfactory." One female visitor to the exhibit was heard to exclaim: "Well, I declare. I owe everything I have in the world to a mine, and this is the first time I really ever understood how they are worked."

The Colorado Gold Mine exhibit was termed "the most wonderful piece of mechanism ever placed on exhibition." A promotional flyer from Arizona that was handed out at the Columbian Exposition encouraged visitors to see the exhibit, saying: "It is a most perfect model, to the finest detail, and is in constant operation, miners at work sinking, drifting, stopping and upraising; hoists and pumps

running, etc." The flyer went on to say that the exhibit "is very instructive and should not be overlooked."

After the Columbian Exposition, the model was taken to San Francisco for the California Midwinter International Exhibition in 1894, and was visited by thousands of people. It was the only exhibit of its class that was awarded a gold medal.

Based on this success, Keast decided to take the model to Europe where it was first exhibited at the Royal Aquarium in London. There it was examined and inspected by the leading mining experts of the day. From London it was taken to the Cardiff Exhibition in Wales, and then to Glasgow, Scotland. Finally, the Colorado Gold Mine was shown in the subterranean mining exhibition in the Trocadero Palace at the Paris Exposition of 1900. Where the model went from Paris is unknown, as is the fate of this fabulous exhibit.

If anyone has any additional information about William Keast and his Colorado Gold Mine Exhibit, I would appreciate hearing from you.

Karen Vendl
La Grange Park, IL
 mkvendl@earthlink.net

Arizona Mining on Display

For anyone traveling through Arizona, the American Mining Hall of Fame can be seen in the Arizona Historical Society's museum in Tucson. The plaques have also been reproduced in poster form and are displayed in the Arizona Mining and Mineral Museum, located at 1502 W. Washington in Phoenix. There is plenty of free parking behind the building, and the museum hosts an outstanding collection of mineral specimens and the "Copper Gallery" which showcases Arizona's copper mines.

Bill Hawes

Future MHA Meetings

Silver City, New Mexico
June 10-13, 2010

Dillon, Montana
June 1-5, 2011

Prescott, Arizona
June 7-10, 2012

MHA Officer Elections

Candidate Biographies

Mark Langenfeld

Candidate: Vice President/President Elect

Mark Langenfeld recently retired after practicing law in the Madison, Wisconsin office of Foley & Lardner LLP for 22 years, more than eight of which were largely devoted to representing Exxon Minerals, Rio Algom, Nicolet Minerals Company and BHP Billiton in connection with the ill-fated Crandon Project. Mark (along with his wife Lynn) is actively researching the well-documented but poorly chronicled history of the Upper-Mississippi Valley Lead-Zinc District. Some of that work was the subject of papers presented at MHA conferences in 1993 at Lead, SD and 2001 at Butte, MT. A paper entitled "The Old Stonebreaker: James Gates Percival and the Lead Mines of Wisconsin" is in preparation. Mark has attended all but one of the annual meetings since 1993. He was a member of the program committee for the 1999 conference in Ouray, CO, was a session chair at that meeting, served two terms on the Nominating Committee and was a MHA Council member from 2006 to 2009.

Bill Hawes

Candidate: MHA Council

Bill Hawes graduated from the New Mexico School of Mines with a degree in Mining Engineering in 1960 and worked throughout the Rocky Mountain states, (with a two year stint at corporate headquarters in the East) Most of his experience has been in underground mining, and he comes close to being the engineering equivalent of a tramp miner, being often caught up in the plague of low metal prices and corporate reorganizations. He has occupied positions from entry level to Manager of Mining and has served as a director of the Utah Mining Association and the White River Shale Oil Corp. He currently is vice president of the Mining Foundation of the Southwest and serves on its Board of Governors. He is of course a member of MHA and also the SME (Legion of Honor).

L. Michael "Mike" Kaas

Candidate: MHA Council

L. Michael Kaas, "Mike," is a retired mining engineer whose career included employment with the U. S. Bureau of Mines, Office of the Secretary of Interior, IBM Corporation, and several mining companies. He received a BS degree in mining engineering from The Pennsylvania State University and a MS degree in mineral engineering from the University of Minnesota. He is the author of numerous technical papers. He is a member and past Director of the Society for Mining, Metallurgy, and

Exploration (SME). He serves as a volunteer docent at the Smithsonian Institution's Natural History Museum. His current mining history research concerns mines and mineral processing plants in the eastern states with a particular focus on those that supported the supply chain of the Confederacy during the Civil War. He received the 2006 John M. Townley Award of the Mining History Association for his paper, "A History of the U.S. Bureau of Mines, with Some Highlights of Its Involvement in Anthracite Mining."

Brian Leech

Candidate: MHA Council

Brian Leech is a PhD Candidate in the history department at the University of Wisconsin-Madison and currently teaches as adjunct faculty for Augustana College in Rock Island, Illinois. Growing up in Montana, he has long explored mining communities and landscapes near his home. His dissertation continues this interest by investigating the social and environmental history of open pit mining in Butte, Montana. It discusses how the Anaconda Company's switch from underground to surface mining affected the town's workforce, city planning, and neighborhoods, many of which were relocated to make way for mine expansion. A recent member of the MHA, he wants to discover ways to encourage more participation in the association's activities by young people and graduate students like himself.

Eric Nystrom

Candidate: Nominating Committee

I'm Eric Nystrom, an assistant professor of history at the Rochester Institute of Technology and your current MHA Newsletter Editor. I received my BA and MA in History at the University of Nevada-Las Vegas, and my PhD in the history of science and technology at Johns Hopkins. My research investigates American mining engineering in the late 19th and early 20th centuries, and I am particularly interested in how underground mine maps and models were created and used. I've been participating with the MHA since graduate school because of the wonderful friendships and interesting historical work that the society cultivates. Our organization is strong because our members and leaders have always gone out of their way to accommodate everyone with an interest in mining history, which makes the MHA a big friendly mix of people with different backgrounds and interests. If elected to the Nominating Committee, I would want to make sure our diversity of backgrounds remains a source of strength in our leadership positions in future years.

2010 Mining History Association Ballot

Nominating Committee: Noel Kirshenbaum (chair), Jeremy Mouat, Bill Wahl

Vice President/President Elect (one-year term beginning June 2010)

Vote for one:

Mark Langenfeld

_____ (write in)

Council (two positions, three-year terms beginning June 2010)

Vote for two:

Bill Hawes

L. Michael "Mike" Kaas

Brian Leech

_____ (write in)

Nominating Committee (one position, three-year term beginning June 2010)

Vote for one:

Eric Nystrom

_____ (write in)

Biographies are on the previous page.

Mail ballot by February 15, 2010 to:

Mining History Association

P.O. Box 552

Sedalia, CO 80135

Volunteer Still Needed for MHA Secretary

Dawn Bunyak, who has served us as Secretary since 2004, is stepping down, and the MHA is still looking for a volunteer to fill Dawn's shoes. The MHA Secretary keeps the official minutes, counts election ballots, and otherwise attends to the good administrative health of our society. (Complete duties are spelled out in the bylaws.)

The MHA depends on volunteers like you! If you are interested in serving as the MHA Secretary, please contact President Karen Vendl, mkvendl@earthlink.net

Clark C. Spence Award Will Honor Best Mining History Book of 2009-2010

The Clark C. Spence Award Committee of the Mining History Association is now accepting nominations for the best book published on Mining History during 2009-2010. The committee considers books that meet the documentation and narrative standards set by the works of Clark Christian Spence, professor emeritus, University of Illinois, Urbana-Champaign.

To be considered, the book must focus on the history of a specific mining region, or a mining-related theme or topic, especially within the American West, or an individual or individuals prominent in the history of American mining. There are no temporal limits on subjects. The book must be published either in the year 2009 or 2010. A \$500 cash prize will be presented to the winning author or authors at the 2011 Mining History Association Annual Meeting.

Authors or publishers should send three copies of the nominated work to the Committee chair:

David Wolff
attn. MHA Spence Award
Black Hills State University
1200 University St, Unit 9059
Spearfish, SD 57799

Congratulations to Thomas G. Andrews for his *Killing for Coal: America's Deadliest Labor War* published by Harvard University Press, winner of the Clark C. Spence Award for best book in mining history published during 2007-2008.

Cripple Creek District Museum Provides New Home For Historic Cabins

After two years, the Cripple Creek District Museum was finally able to realize a dream on September 17, 2009, when two historic cabins from the area were moved to the Museum grounds.

The cabins, formerly owned by the City of Cripple Creek, were moved from their original sites in 2006 when faced with demolition. Former Museum Board member and City Engineer Jeff Miller spearheaded the project to preserve the cabins, but he passed away in 2006 before seeing his dream come to fruition. One of the buildings was relocated from 207 West Masonic Avenue in Cripple Creek; the other was brought from the District ghost town of Midway and was a one-time home to retired prostitute "French Blanche" LeCoq.

In July, the City of Cripple Creek Historic Preservation Commission and the City Council approved moving the cabins and granted them to the Museum. Plans began immediately to prepare the cabins for the move. Museum Board member Milford Ashworth coordinated the undertaking, with the generous assistance of Mayor Dan Baader, city employees Chip Huffman, Steve DiCamillo,

Troy Loftus, and others. Jesse and Jackie Bielz and their employees at Bielz Trucking helped move historic mining equipment in Hardrock Park at the Museum, secure the cabins on steel I-beams and move them to the Museum.

Museum staff will continue to work with volunteers to create rock foundations for each building, apply historically accurate weatherproofing, install period flooring and wall treatments, and furnish the cabins as they would have looked during their period of use as homes. Many furnishings will come from the Museum archives, but also patrons have also generously donated items.

The Museum is deeply indebted to all who have been involved and will work over the winter months to complete the project. When finished, plans are in the works for a grand gala opening of the cabins. Meanwhile, the Museum is seeking donations towards the cost of refurbishing the buildings. Tax-deductible donations may be made on PayPal from the Museum website at www.cripple-creek.org or by writing the Museum at P.O. Box 1210, Cripple Creek, Colorado.

Mining History Association
P.O. Box 552
Sedalia, CO 80135

First Class Mail

Upcoming Events

21st Mining History Association Conference

June 10-13, 2010

Silver City, NM

<http://www.mininghistoryassociation.org>

16th Australian Mining History Association Conference

July 7-10, 2010

Greymouth, New Zealand

<http://www.amha.asn.au>

50th Western History Association Conference

October 13-16, 2010

Incline Village (Lake Tahoe), NV

<http://www.westernhistoryassociation.org>

22nd Mining History Association Conference

June 1-5, 2011

Dillon, MT

The *Mining History News* is published quarterly by the Mining History Association. It is sent to MHA members who also receive the annual *Mining History Journal*. MHA is an organization of individuals interested in the history of mining and metallurgy. Submissions for the newsletter are encouraged and should be sent to Eric Nystrom at the MHA address or by email: eric.nystrom@rit.edu.

Deadlines: March issue: February 15
 June issue: May 15
 September issue: August 15
 December issue: November 15

Change of Address: Please send all address changes to Diane Dudley, Membership Chair, at:

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