Cornish immigrants to California brought with them not just mining expertise, but a centuries old heritage from their beloved homeland. Cornwall, (Kernow in Cornish) is a horn-shaped county on the southwestern tip of England. It is bordered to the north and west by the Celtic Sea, to the south by the English Channel, and to the east by the county of Devon. It features misty moors, quaint fishing villages, ancient castles, and a breathtaking, rugged coastline. Cornwall has its own flag and language and is one of the six Celtic Nations, along with Brittany, Wales, Ireland, the Isle of Man and Scotland. Though it occupies merely 0.02% of the earth’s surface, samples of more than 90% of all mineral species ever identified can be found beneath its rocky shores. This geologic treasure-trove of copper, tin, arsenic, lead, zinc, and silver powered the Cornish people’s lives throughout 4,000 years of mining history. Their forefathers picked tin and copper from the ground long before written history, and by the 15th Century they were harvesting ores buried deep within the earth.

Much of the very early mining was ‘stream’ mining for ore found on or near the surface or in creeks. Mining families were somewhat self-sufficient as they also farmed the fields. Gradually, the mines became ‘beam’ or ‘coffin’ openwork mines in which ore close to the surface was dug by hand. Later miners worked the alluvial deposits in the inland valleys and the ore lodes that could be seen in the coastal cliffs. As they dug down into the cliffs, it became obvious that here was the real wealth. The richest veins were down very deep and some even extended out under the sea. Extracting this ore was expensive, but the Industrial Revolution brought with it a growing market for minerals. For the established land owners and gentry, and for the outside investors, there was tremendous wealth to be made in Cornwall.

There was a great divide between the miners and the investors, many of whom had never set foot in a mine. Underground mining was very dangerous work done in extremely difficult conditions. Miners, and their women and children who also worked for the mines, took home very little pay and lived relatively short lives while the “adventurers” became ever richer.
The Sierra County Historical Society is an organization of people interested in preserving and promoting an appreciation of Sierra County’s rich history. The Society operates a museum at the Kentucky Mine in Sierra City, holds an annual meeting, publishes a newsletter and conducts historical research. Members are sent notices of Society activities, receive THE SIERRAN, and are admitted free-of-charge to the museum and stamp mill tour. If you would like to become involved in these activities or would just like to give your support, please join us!

Officers and Executive Board of The Sierra County Historical Society

Mary Nourse, President
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If you have any suggestions or comments, feel free to contact any board member or email at info@sierracountyhistory.org

Become a Member!

Membership in the Sierra County Historical Society is open to any interested person, business or organization. Members need not be residents of Sierra County. Dues are due and payable each January for the calendar year.

Membership categories are as follows:

INDIVIDUAL .......................................... $20.00
FAMILY & INSTITUTION ..................... $25.00
BUSINESS & SUPPORTING .................. $35.00
SUSTAINING .......................................... $50.00
LIFE (per person/couple) ......................... $300.00

In addition, Museum Renovation Project donations are gratefully accepted.

Please send dues and donations to:
S.C.H.S.
c/o Don Yegge, Membership Chair
PO Box 336, Loyalton, CA 96118

Annual Meeting Held in Loyalton

The annual meeting of the Sierra County Historical Society was held at the city park pavilion in Loyalton on Sunday, September 11 at 1 pm. A buffet lunch was served to the approximately 60 members and guests in attendance before the business meeting was held. Reports were given by Mary Nourse, SCHS president and Bill Copren, SCHS treasurer, providing information about the activities of the past year and the financial status of the society. Dianne Brun, curator of the Kentucky Mine Museum, informed members about the many improvements made at the museum during the summer season and the many visitors to the Kentucky Mine and Museum over the summer months from all corners of the world! Chris Stockdale, who scheduled and managed the Music at the Mine concert series during the summer, reported that the concerts were well-attended and a successful venture which he will continue next year.

Elections were held in which Ernie Teague was elected Vice President of the Board of Directors and Mark Lombardi was elected as an alternate board member. After the meeting was adjourned, we were treated to an interesting tour of the Milt Gottardi Museum by the museum curator, Jackie Mitchell. The museum is an incredible collection of Loyalton history including farming machinery and implements, beautiful clothing from bygone years, and a wonderful collection of school year memorabilia featuring many families still living in the Loyalton area.
n A Family Guide to Mining in Cornwall Lucia Crothall tells the stories of a real miner, John Harris, who began working underground at the age of ten. John later became famous in Cornwall for his poems about his experiences as an underground miner. He said, “It is smelly, hot, down here. No toilets, nothing but blackness to see and it’s hard to breathe in the dusty atmosphere.” While John and other boys like him toiled in darkness, the gentry lived the good life above them in the fresh air of the idyllic countryside.

At some of the mines, such as the Levant Mine in Penzance, it was found that the richest lodes were not only deep underground, but they extended far out under the sea. As each lode was mined out, the shaft was dug down further to find the next rich vein of ore to be excavated. Some of the working ‘levels’ that ran off from the shaft extended out over a mile. In time, the Levant Shaft went down to 350 fathoms (2,100 feet). Cornish mines were always measured in fathoms, one fathom equaling 6 feet. So not only did the miners have to climb down a long way, but then they had to walk a great distance through cramped, rough tunnels before they even began their ten to twelve hour-long shifts. Above their heads they could hear the rumble of the sea as it churned the sea bed, particularly in stormy weather. There was a constant threat of flooding.

Working conditions on the surface were not much better. The excavated ore had to be sorted and broken up with hammers before it was fed to the noisy crushers. This was accomplished by small children, men too infirm to work underground, or bal maidens (“mine girls”). It was hard, rough work for very little pay; a few pence at the most. One bal maiden related her story:

“My name is Martha. I am 8 years old. I am one of 10 children. Our father, who was a miner died last year. Now, everyone in the family must go to work including my youngest sister who is only 6. Most of us work on the dressing floors, but 2 of my older brothers work down the mine and we are very proud of them. I am going to tell you about a typical day in my life. I wake up at 4 in the morning and help prepare breakfast and something to take for lunch. If we have a little bit of money to spare it will be a barley pasty, but most days I make a hoggan (flatbread containing pieces of pork) from barley flour with a bit of potato in it. I put this in a little white bag as well as some dried mugwort leaves for tea and tie it around my waist.

The bal maidens have a special way of dressing and are very interested in fashion. Unlike other ladies who wear ankle-length skirts or dresses, bal maidens’ skirts are calf length so it is easier for them to work. I like to wear many petticoats to give myself a full skirt as that
is the fashion. I also wear a blouse and shawl. The most important thing for me is to make sure my bonnet which is called a gook and my walking out apron are as white and clean as possible. I only have one pair of shoes; they are wooden-soled boots.

I leave home at 5.30 in the morning and walk 4 miles along the cliff paths to work. I carry another apron made of rough hessian (woven fabric) called a towser over my arm. When I reach the dressing floors, which are on the cliff side next to the mine entrance where my older brothers work, I take off my white walking out apron and change it for my towser.

My work is very dirty. The tin ore that I work with has a red stain that gets on my clothes and skin and is very difficult to get clean. For this reason, although I like to look as neat and tidy as possible, my work clothes are not my best and most fancy which I save for church on Sunday.

My normal job is griddling (sieving) the crushed ore. Any ore that is too large to pass through the holes in the griddle gets taken back to be re-crushed. The powdered ore that passes through is removed in hand barrows. Very often I work at barrowing as well.

My mother and other brothers and sisters also work here. There are many different jobs on the dressing floors depending on whether tin or copper ore is brought up. The men and large boys break up the large pieces of rock that come up from the mine. This is called spalling and longhandled hammers called spalling hammers are used to do the smashing. Then the rock is broken up even smaller with a small cobbing hammer, some of my sisters do this job. The waste rock is separated from the ore on picking tables, my very youngest brothers and sister work here.

I think the most difficult task on the dressing floors is that which my mother does. It is called bucking. She uses a big flat bucking hammer to crush the picked copper ore down to a powder. Other people work machines called stamps which smash the wet tin ore into a fine mud. One of my brothers is in charge of a buddle where the tin mud is washed and separated. Most of us bal maidens wear protective bands on our hand and legs and often get hurt by rocks and hammers. Most of the jobs use water and we all get wet and muddy.

At lunchtime my family meet up and have a meal together. We heat a kettle of water and make mugwort tea. We eat our hoggans, which are very hard and dry and do not nearly fill us up enough. After lunch I take out my crochet from my pocket and watch my brothers and sisters while they play.

My normal working hours are 7 in the morning till 5:30 at night, with an hour for lunch. For a week in every month we have sampling time. Then we are very busy and I have to work from 6:00 in the morning till 8:00 at night. I cannot tell you how tired I am during these times. Even at the end of a normal day I am tired. If the weather is bad, I get cold and wet and when it is hot I get sunburned and overheated. There is very little shelter for us on the cliff side.

When I get home, I help prepare a hot supper and try to dry my clothes by the fire if they are wet. I help get my younger brothers and sisters to bed and then like to listen to the stories of my brothers’ adventures down the mine. I go to bed at 8:00."

For mineworkers and their families, homes were small, cramped and unsanitary. Diseases such as typhoid, typhus, measles, smallpox, and diphtheria were rampant. In the outlying villages the Cornish miners often lived in granite bungalows or in cob cottages on small parcels of acreage. Cob cottages utilized natural building materials: subsoil, water, some kind of fibrous organic material (typically straw), and sometimes lime. Though it was difficult for large families to survive in such overcrowded conditions, miners’ families often took in lodgers to supplement their incomes.

Many of Cornwall’s mining towns and villages were rough places where rioting, fighting and heavy drinking were commonplace. Mine workers often gathered in pubs or “kiddleywinks” (beer shops); carousing after payday sometimes led to “Maze Mondays” where men were too inebriated to show up for work. Prostitution flourished in some towns.

For many Cornish there was, however, an uplifting side of life. Their love of music is legendary. They sang
in church, in saloons, and in the mines. They often formed brass bands and in some larger towns even built opera houses to attract professional performers. Towns and churches held bazaars, feasts, and celebrations featuring games, fireworks, and singing. Societies were formed to raise money for gas lights and for necessities for the neediest. Methodism thrived and its values of pride and thrift meant that a miner’s home was usually clean, his children as well-fed as possible and their clothes, although old, were laundered and neatly patched.

Their was a grim existence, but no matter the conditions, the miners and their families had to work to survive. Despite the horrendous challenges, and maybe because of their ability to overcome hardship, over the years the Cornish became very proud of their skills as miners.

It is said that if you look in any hole in the ground, anywhere in the world, you’ll find a Cornishman looking for metal. Hard-rock mining is thoroughly engrained in their culture. Millions of tons of tin and copper were exported around the world in the 18th and 19th centuries. This phenomenal growth in the mining industry is attributed to the development and utilization of new technologies. In its heyday the area attracted Britain’s top engineers, but it was a local, Richard Trevithick, who made high pressure steam engines to drain water from the depths of the mines.

Another innovation in mining was the man engine. A man engine is a mechanism of reciprocating ladders and stationary platforms installed in mines to assist the miners’ journeys to and from the working levels. It was invented in Germany in the 19th century and was a prominent feature of tin and copper mines in Cornwall until the beginning of the twentieth century.

The man engine replaced a traditional ladder, and the miners took to these devices without hesitation since their pay was not calculated until they had reached their underground workplaces. Contemporary safety studies concluded that, although intrinsically dangerous, the use of a man engine was safer than climbing long ladders: it was less risky to be carried up at the end of a hard shift than to climb a ladder and risk falling because of exhaustion.

On October 20, 1919 an accident occurred on the man engine at the Levant Mine, St Just, Cornwall. More than 100 miners were on the engine being drawn to the surface when a metal bracket at the top of the rod broke. The heavy timbers crashed down the shaft, carrying the side platforms with them, and 31 men died. That man engine was not replaced and the lowest levels of the mine were abandoned.

In July, 2006 the Cornish mining landscape was named a UNESCO World Heritage Site. This recognition put the engine houses, miners’ cottages, gardens, Methodist Chapels, and miles of underground tunnels on par with other international sites like Machu Picchu, the Taj Majal, and the great Wall of China. This past summer marked the tenth anniversary of Cornwall’s world heritage status, and it was celebrated with a unique traveling memorial to the struggles of those whose lives...
and deaths shaped the Cornish Mining story. The Man Engine Project commemorated the “tinth” birthday with a two-week long tour of mining towns in Cornwall and Devon by the largest mechanical puppet ever constructed in the United Kingdom. At each historic site this behemoth (part marionette/ part transformer) rose to the height of three double-decker busses, “activated” by the vocal power of the local citizenry singing beloved traditional anthems.

Copper mining in Cornwall was on the decline at the same time that hard-rock mining for gold was a rising industry in California. By the 1870s a flood of Cornish sought new opportunities in the California gold mines. They were in high demand because of their expertise at blasting, timbering, and ventilation. They utilized their innovative pumps to remove water from deep mine shafts. They brought with them a lexicon of terms that became the standard language of mining, the Miners’ Code of Signals, and even the miners’ candlestick and a unique four-part lunch bucket.

Cornishmen working in the mines always had a “Cousin Jack” back home who would be more than glad to come over to work. As a result, the Cornish miners were and still are called “Cousin Jacks and Jennies”. Many people of Cornish descent are unaware of their heritage according to Catherine Quayle, president of the California Cornish Cousins, a group of descendants of the hard-rock miners, merchants, fishermen and farmers who came to California during the Gold Rush. “Many old grave markers will say something like ‘Native of England,’ when the surname is obviously Cornish, but many people had never heard of Cornwall, so the immigrants probably found it easier to say they were from England, rather than Cornwall.”

Perhaps their greatest contribution of all was in bringing their families and culture with them. When more miners were needed in California, the

If you are interested in learning more about Cornwall and the Cornish, this is a great time to do so. The technology-loving Cousin Jacks would smile upon your ability to use Google, amazon.com, Youtube, and public television for your enlightenment and entertainment. Here are a few sources to supplement the plethora of articles found on the internet: *The Poldark Collection*, a three book series of historical novels set in 18th Century Cornwall by Winston Graham. *Poldark*, a PBS video series now in its second season. Season One is available on Amazon Prime. *Nasty Pasty*, a tongue-in-cheek novel by Jon Cleave about the preservation of the Cornish pasty. *Cornish Sayings, Superstitions, and Remedies* by Kathleen Hawke. *The Man Engine*, pictures and video of the 33-foot-tall mechanical puppet built to commemorate the anniversary of Cornwall’s mining areas becoming World Heritage Sites. www.facebook.com/TheManEngine/ or search YouTube for a variety of videos.
Editor’s Note

We will be continuing our reprinting of many of the articles from the History of the Schools of Sierra Valley in the next Sierran. The following is an interesting biography of one of the teachers who came to the area in the 1800s.

A Hired Teacher For Sardine Valley

In late 1873 the Nathan Parsons family of Sardine Valley, CA, hired thirty-year-old Electa DeWolf of Burghill, Ohio, to come west and teach their four children. There was only one other family living in Sardine Valley at that time and there were no other children.

Miss DeWolf traveled by train from Chicago passing through Council Bluffs, Salt Lake City, and across Nevada. “Pullman, the man of palace car fame, has made traveling by steam in these latter days almost a luxury. The ride from Chicago to San Francisco can be accomplished now in six days and with very little fatigue,” Miss DeWolf said.

Electa learned to ski (it was called snow-shoeing then) and wrote that people went at lightning speed down the steep hills. Judging from the many tumbles she took, she considered it a “dangerous exercise”.

She wrote about a storm on January 19, 1874, that lasted six days and covered their road to Loyalton (15 miles) with five feet of snow. The horses refused to budge on the trail until three or four men went ahead, followed by several loose horses and then came sleds each drawn by four horses in single file.

Electa DeWolf taught that school year and then married John K. Butler on March 9, 1875, and moved to “Halfway House” between Placerville and Sacramento.
Pasties provided a complete and portable meal for the miners. These meat and potato filled turnovers were shaped like the letter ‘D’ and had a crimped crust that was used as a handle. Some people believe the crimps would be discarded because the miners’ hands were filthy and would have been touching arsenic and other toxic materials. Others think that bits of pasty were scattered in the mines to appease the Tommy Knockers (spirits) in the mines. The one place you wouldn’t find a pasty is on a fishing boat. Cornish fisherman believed it was bad luck to take a pasty on board. Cod catchers from Cadgwith got around this by breaking off both ends allowing the wind to blow through it and carry the devil away. The pasty is over 900 years old and was even alluded to in stories of King Arthur and the Knights of the Round Table.

A rounder is a round pasty, just double the size that was served on special occasions. Legend has it that as miners’ wives threw pasties down mine shafts they chanted, “oggie, oggie, oggie” and the men responded, “oi, oi, oi.” That same chant can be heard on the sidelines of rugby matches today. In pasty making farmers were known for using every bit of the pigs they killed as possible everything but the squeak. The bladders were even inflated to make footballs.

Cornish Sayings
“Flowers fade on flirts.” “She’d skin a flea for a farthing.” “Always ill and sickly, more likely to live than die quickly.” “The devil is good to his own.” “You don’t need that more than a toad needs side pockets.”

Superstitions
If your right ear burns, you are being praised. Wash blankets in May and you wash one of the family away. A branch of an ash tree will keep away snakes. A ginger cat is a charm against fire. A dog fish eaten in the month of May secures a male heir. Marry in Lent, you may live to repent.