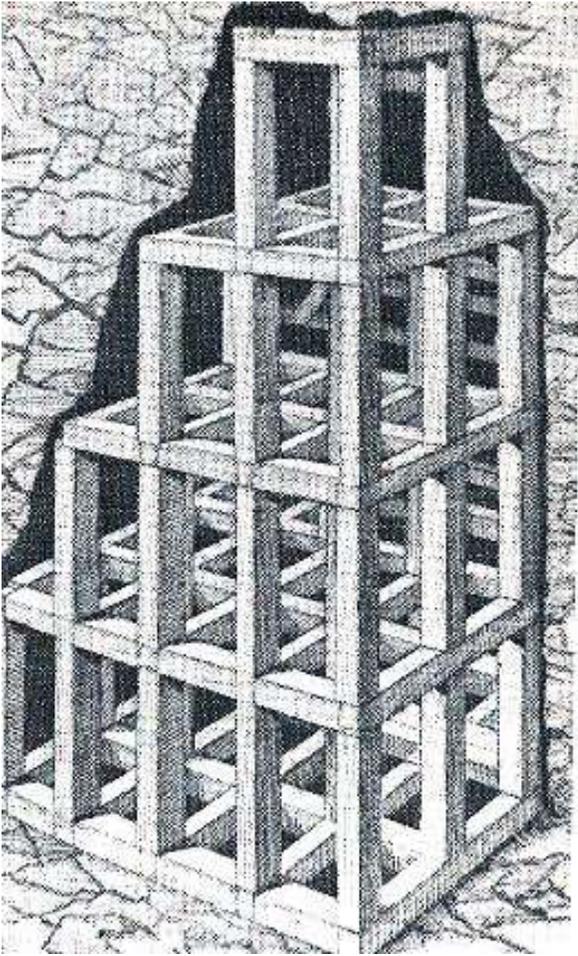


1880's Squaresets

by Ted Bobrink



Every week end for the last month I have been going underground with a group of my friends in Calico. I have been teaching them how to climb rope, and on our last trip I took them into the unbelievable Square Sets of the Waterloo Mine in Calico. I have received some great photos from Gary and John Brewer who attended our trips and would like to share them with you. In the past I have talked about exploring the square sets in the Waterloo Mine and received some email from people that still do not know what mining Square Sets are. This article along with these photos should give them a good idea.

In the 1860s the mines of the Comstock Lode in Virginia City Nevada were uncovering unusually large bodies of ore. When the ore bodies are mined the roof and sides of the stopes have to be supported with timber. When the length of the ore bodies became longer than the available timbers, a mining engineer by the name of Philip Deidesheimer

invented a system to solve the problem. By cutting mine timbers to certain lengths and notching the ends to fit into each other. The timbers can be made into square blocks and extend out and up from one another. By keeping the blocks tight against the walls of the mine in all directions the pressure is equalized in all directions. This allows the miners to work in a safer environment and lessening the chance of a roof collapse.

The Waterloo Mine is located on the West side of the town of Calico. It is by far the largest mine in the Calico mining district and has over 10,000 feet of tunnels and drifts. It has seven levels originally worked from a 70 degree main inclined shaft that is now caved. There are two ways to enter the Waterloo on the West side, and one is through a caved working stope to the surface. You have to make three rope drops down the 70 degree incline stope to enter the first square sets on the 4th level. These square sets are small compared to the others but they give you an exciting example of what's to come.

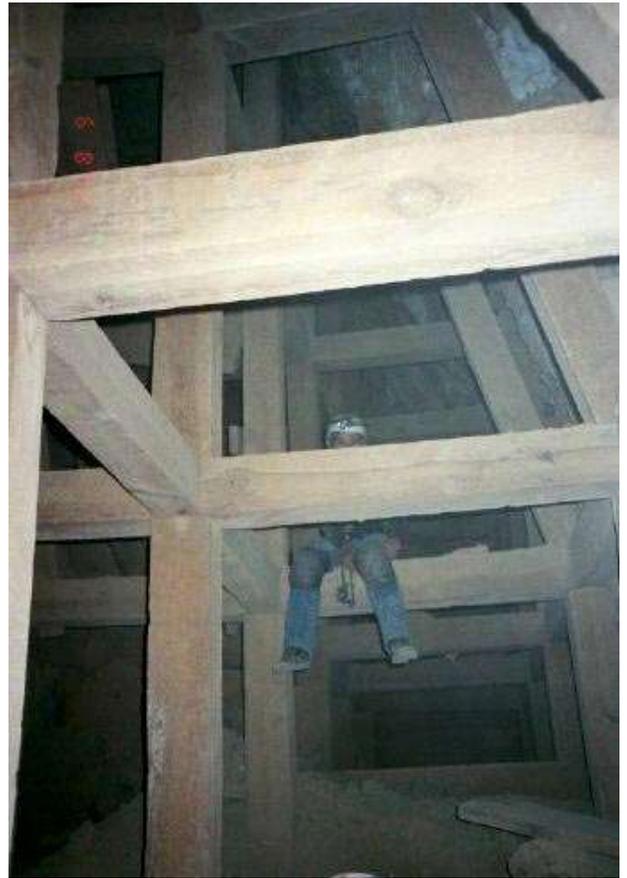
(Right) This is a photo of the top of the first set of square sets on level six of the Waterloo Mine. They are four levels high and about 80' long.



One more rope drop down a 20' vertical ore chute and you enter the large square sets between level 4 and 5. They are seven stores high and over 100" long by about 80' wide and the workmanship is something to see. I have taken over thirty people into these sets on four different trips and we manage to still find cool artifacts every time we go. On this trip we found three hand made tamping bags, two stamped sticks of 1880s Giant Powder, and nine complete dated 1890s newspapers.

To my knowledge the square sets in the Waterloo Mine just may be the only 1880s square sets to survive in pristine condition. They were not used after the late 1890s and have been perfectly preserved in a dry even atmosphere.

(Right) This view shows Bridgett on the second level near the south side. Note the incline of the sets on the right. This is the angle of all of the stopes in the Waterloo Mine and the reason you need to rope it.



This is a view from the bottom of the sets looking from the west. You enter the square sets from the west on the next level up. From the bottom there are six levels above. The ladder you see is loose and could be moved around and the miners laid 2x12 planks down to work on.



This is a view from the middle of the fourth level looking west. Bridgett Dunbar is in the foreground and Jim "High Grader" Malouf is in front of her. I am in the red shirt on the right.



(Above) This is a view showing me reaching up into some lagging and pulling out one of seven 1890 newspapers. Jim Malouf (I think I'm changing his name to lucky) spotted them up in the timbers and is looking on the left.

(Left) This is a photo of all of us while I am opening up Jim new find. We were all very excited as I had just opened up the wrapping with the three round tubes that turned out to be really cool hand made Tamping Bags. From L to R is John Emray, David Bobrink, Ted Bobrink, Bridgett Dunbar, Gary Brewer, Jim Malouf and John Brewer taking the photo.



This is a view showing Gary Brewer shooting video from the fifth level of the square sets.. I am in the background trying to look cool, but I am really kind of nervous standing five stories up on an 8" beam with an inch of dust on it.