



Mining History Virtual Loans Box



Geevor Mining History Virtual Box



Drill Core samples of Killas and Granite

These are the 2 types of rock the miners had to drill into. Core samples were taken at Geevor to build up a picture of what rock types lay beneath the surface and so estimate where the tin might be. Tin was often found where granite and killas rock types met.



Tin Ore (Cassiterite)

This is the rock that the miners in Geevor were looking for. The black crystals are the tin-bearing mineral of Cassiterite, or 'Black Tin'.



Copper Ore (Chalcopyrite)

Chalcopyrite is the main source of copper metal, though copper does sometimes occur naturally as metal, called 'Native Copper'. For a long time, copper mining was more important than tin mining in Cornwall. Chalcopyrite is also known as 'Peacock Ore' because of its many iridescent colours.



Tin

Tin doesn't occur naturally in rock as a metal, but as black crystals. This 'Black Tin' (Cassiterite) had to be smelted (heated up) to turn it into usable metal, or 'White Tin'. Tin is often used for solder in electronic circuit boards, as well as in producing plastics jewellery and biochemistry.



Boryer, or Borer

This chisel-ended steel tool was used with a borying hammer to drill holes into rock. As the hole got deeper, longer boryers were used (2ft, 4ft and 6ft). Into the holes explosives like gunpowder, or later, dynamite and gelignite sticks were wedged in.



Borying Hammer

Hand hammers like these were used by the miners to beat the boryer (chisel) into the rock to make a hole. To make the hole, the boryer would be twisted between each stroke of the hammer.



Replica Dynamite with Safety Fuse

An explosive introduced to Cornwall in the 1870s that was more reliable than gunpowder. Sticks of dynamite were placed in the holes drilled by the miners in order to blast out the tin lode. Safety fuses burnt at a constant rate and so when cut to different lengths, miners could set blasts in sequence.



Detonator Bag

A Geevor miner would have used this to keep detonators for his explosives in. Each miner had his own numbered bag as a safety measure. If a numbered bag was missing at the end of a shift, the mine captains knew which miner was still underground and so send a search and rescue party to his aid.



Plastic Hard Hat and Lamp

A modern miners safety hat with lamp attachment on the front. The strap on back secures the wire to the lamp's battery so that it's not in the way. The battery for the lamp is worn on a belt round the waist and is quite heavy! These lamps are bright, safe and reliable.



Clay Pipe

It was considered a privilege to be able to smoke in the tin mines because miners elsewhere, such as in coal mines, were unable to have naked flames due to the flammable gases rising from the ground. Many pieces of clay pipes have been found around Geevor.



Walking Out Apron

Though women didn't mine underground, they worked on the surface of a mine sorting and crushing the rock brought up. They were called Balmaidens. They wore clean white aprons like this for walking to and from the mine and for special occasions. This apron would be scrubbed regularly and kept as white as possible, as was the fashion then.



Towser (Apron)

At the mine, Balmaidens swapped their white walking-out apron for a rough hessian one like this. This kept off the red mud and dust that their work produced. It also helped to protect their legs from rock shards.



Candle

Candles used to be made of tallow (animal fat) and were the main source of light underground. However when lit they produced a lot of smelly smoke and sparks. The wicks were made into a loop, so they could hang off miners' jackets. Wet clay from the mine was used to stick the candle to a hat or mine walls.



Carbide Lamp

A source of light brighter and more reliable than candles, though it dripped hot liquid onto the miners. Water in the top chamber dripped onto a powdered chemical (Calcium Carbide) at the bottom. This produced a flammable gas from the centre of the reflector which was lit.



Tub of Crushed Tin Ore

Once the blasted out rock is brought to the surface, it is crushed down finer. This work was generally done by Balmaidens, or later, crushing machines. The red colour is iron oxide and covered everything in the mine, including the miners!

Bal Maidens at work

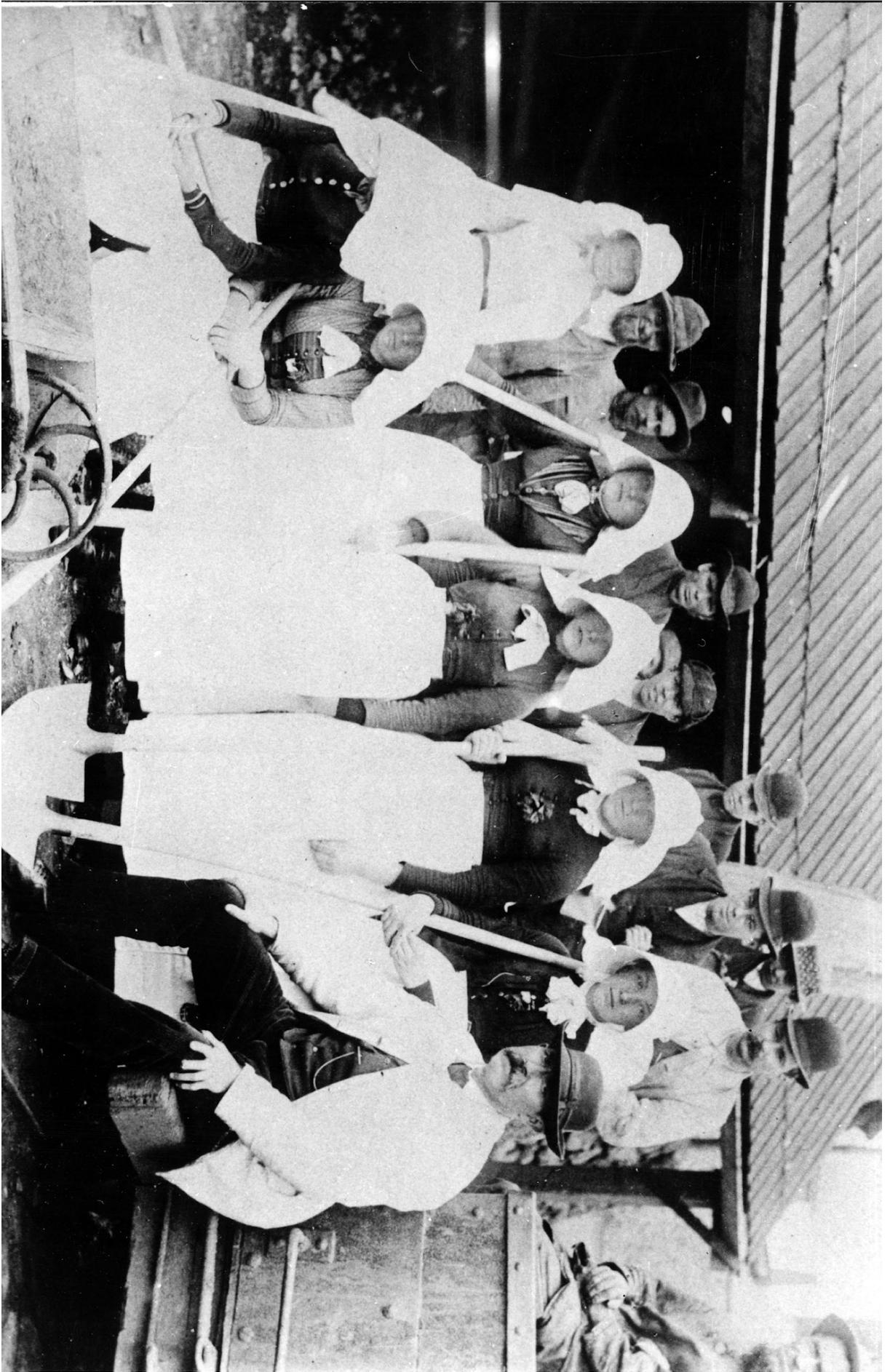


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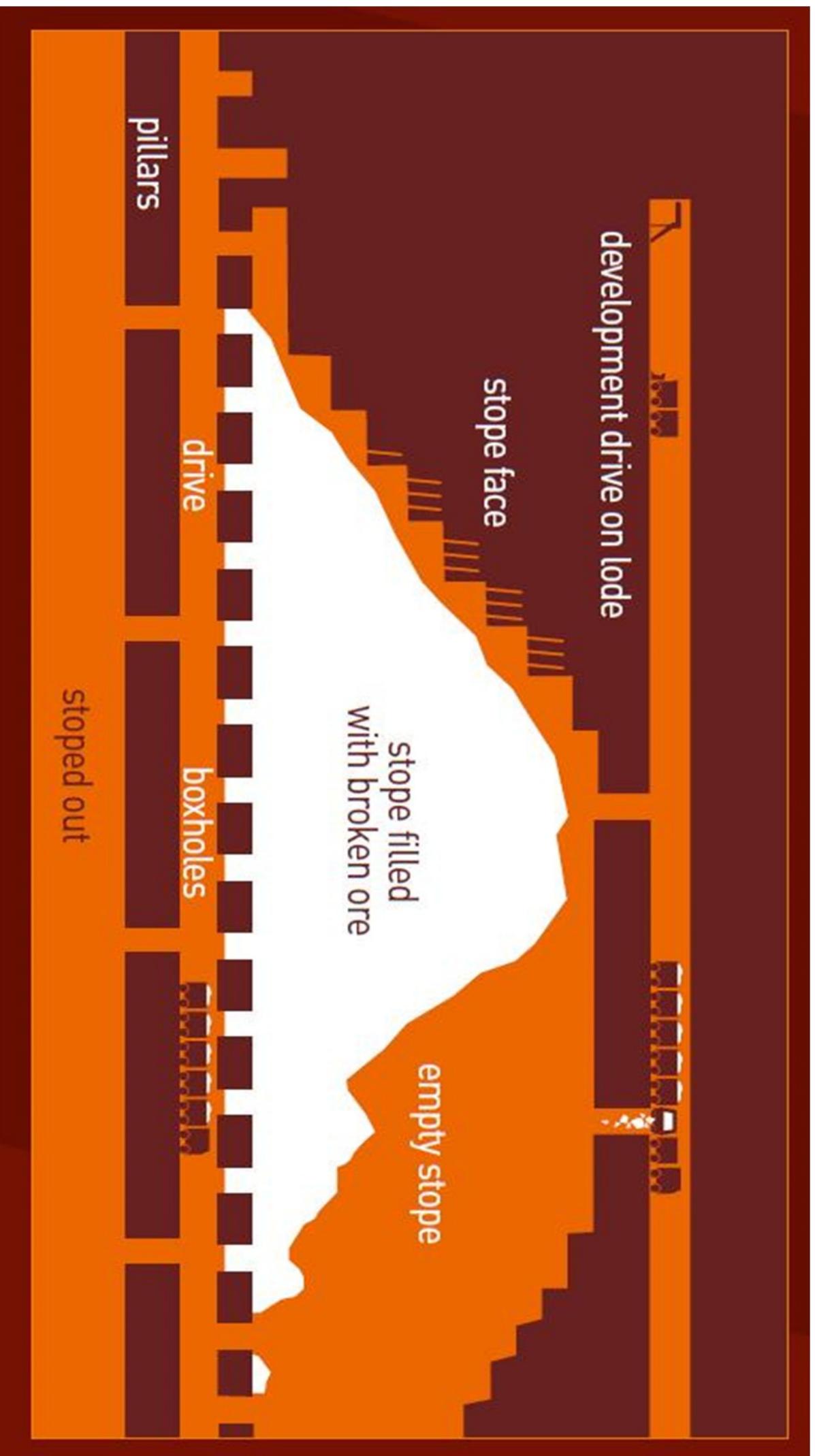
Fig. 3.



SPALLING.







development drive on lode

stope face

stope filled
with broken ore

empty stope

pillars

drive

boxholes

stopped out



















Contact Us

Learning Team Manager: Clint Hosking
Learning Development Officer: Marc Cragg

Geevor Tin Mine Heritage Centre

Pendeen

Penzance

Cornwall

TR19 7EW

Tel: 01736 788662

Fax: 01736 786059

Email: learning@geevor.com