

# Dartmoor's Past Tin Industry

## Dartmoor Factsheet



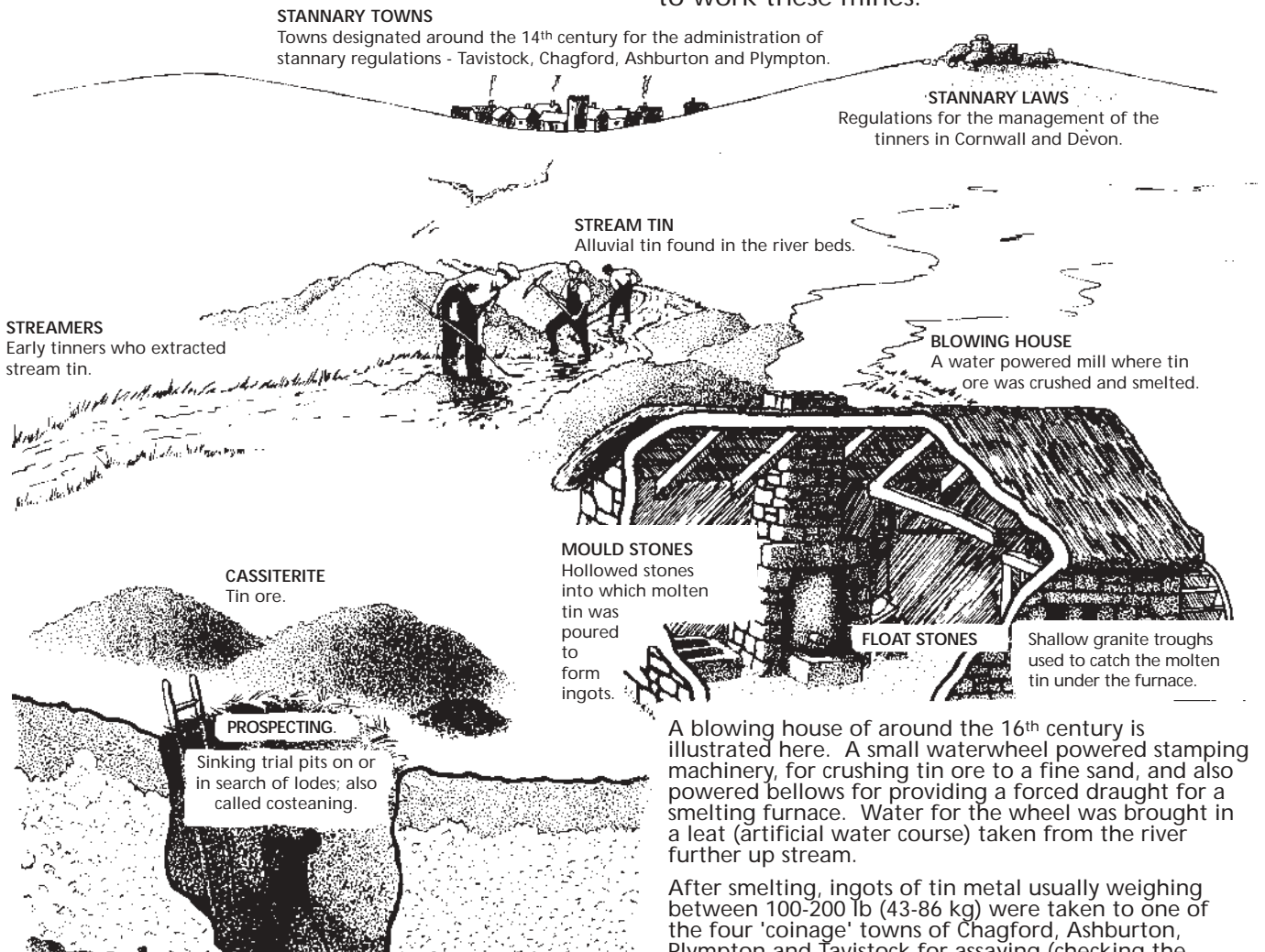
There is a long history of extracting tin from Dartmoor. The earliest form of extraction was by streaming - taking alluvial tin from the stream and river beds. The first written record of tin streaming dates back to the 12<sup>th</sup> century. Evidence of these early workings can be seen in most river valleys as heaps of rubble and waste which, in many cases, have become overgrown by grasses and bilberries.

The next process was a form of open-cast mining: working on the backs of the lodes (a naturally occurring band (vein) of ore). This method was frequently assisted by using water directed over the desired area to remove the lighter waste. Tin thus obtained - black or unsmelted tin - was then converted to white tin by smelting.

Early smelting was very crude until the advent of the blowing house, probably first used in the 14<sup>th</sup> century.

Deep mining was probably not practised until the early 18<sup>th</sup> century. Early mines had to be relatively shallow because of flooding. The use of drainage adits was one method of dealing with the flooding problem. Later on, pumping became the accepted method. Waterwheels were frequently used to operate the pumps as were steam engines. Although no waterwheels remain on high Dartmoor, evidence of their use can be seen in the wheelpits that can still be found at various sites.

Tin mining continued at certain sites well into the 20<sup>th</sup> century and there are people still alive who can remember going underground to work these mines.



### STANNARY TOWNS

Towns designated around the 14<sup>th</sup> century for the administration of stannary regulations - Tavistock, Chagford, Ashburton and Plympton.

### STANNARY LAWS

Regulations for the management of the tanners in Cornwall and Devon.

### STREAM TIN

Alluvial tin found in the river beds.

### STREAMERS

Early tanners who extracted stream tin.

### BLOWING HOUSE

A water powered mill where tin ore was crushed and smelted.

### CASSITERITE

Tin ore.

### MOULD STONES

Hollowed stones into which molten tin was poured to form ingots.

### FLOAT STONES

Shallow granite troughs used to catch the molten tin under the furnace.

### PROSPECTING

Sinking trial pits on or in search of lodes; also called costeaning.

A blowing house of around the 16<sup>th</sup> century is illustrated here. A small waterwheel powered stamping machinery, for crushing tin ore to a fine sand, and also powered bellows for providing a forced draught for a smelting furnace. Water for the wheel was brought in a leat (artificial water course) taken from the river further up stream.

After smelting, ingots of tin metal usually weighing between 100-200 lb (43-86 kg) were taken to one of the four 'coinage' towns of Chagford, Ashburton, Plympton and Tavistock for assaying (checking the content) and payment of the royal tax.

**LODE** A naturally occurring band (vein) of ore.

**ENGINE HOUSE**

The structure housing the engine which powered the mine machinery.

**DRY**

A drying room where the miners' underground clothes were dried.

**ADIT**

A horizontal drift or tunnel used for draining the mine.

**KIBBLE**

A bucket, usually of iron, in which the ore was drawn to the surface.

**SHAFT**

A vertical hole that drops down to the workforce.

**LAUNDERS**

Gutters, for the conveyance of water; they were usually of wood and shaped like a long chute.

**WATERWHEEL**

A wheel turned by water-power and used to drive machinery.

**FLAT RODS**

Rods used for communicating power from the waterwheel or engine horizontally to another part of the mine.

**TAILRACE**

The discharge from a waterwheel.

**LEAT** An artificial watercourse.

**DRESSING FLOORS**

The place where tin ore was separated from other impurities. Used in later mines.

**STAMPS**

Machinery used for crushing the ore.

**SLIMES**

Mud containing metallic ore.

**MORTAR STONES**

Granite stones on which the ore was crushed. Can be identified by the bowl-shaped depressions.

**RACK**

An inclined frame on which ore and slimes were washed and separated.

**BUDDLE**

A device whereby the crushed tin is separated, by washing, from its impurities.

**Other publications (not available on-line):**

- The Industrial Archaeology of Dartmoor  
Helen Harris (1992)  
Peninsula Press

For further information, and a list of other Fact Sheets available, contact the:  
Education Service,  
Dartmoor National Park Authority,  
Parke, Bovey Tracey, Newton Abbot,  
Devon TQ13 9JQ  
Tel: (01626) 832093  
E-mail: education@dartmoor-npa.gov.uk  
Website: www.dartmoor-npa.gov.uk

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