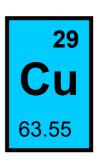




National Waterfront Museum WALES' STORY OF INDUSTRY & INNOVATION





# National Waterfront Museum Gallery Guide to Copper

Copper has been mined and smelted in Wales for thousands of years.

During the Industrial
Revolution of the eighteenth and nineteenth centuries,
Swansea was the world's most important copper smelting town and Wales exported copper all over the world.

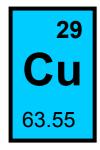
Open 10am-5pm daily

**National Waterfront Museum** 

Oystermouth Road Maritime Quarter Swansea SA1 3RD

Phone: +44 (0)1792 638950 http://www.museumwales.ac.uk/en/swansea/

Use this trail with the Museum Map to learn more about copper from objects on display.



Look for the chemical symbol of copper to help you find them. You can find copper in these galleries:

Landscape People Sea Day's Work Land Transformations Metals



29 Cu 63.55

This display shows the landscape of the Lower Swansea Valley, once the centre of the world copper smelting industry.

Case 2: Copper slag (waste from the smelting process) and plants tolerant of metal pollution.

The soil of the valley was poisoned by years of copper production and it is only recently that some plants have been able to grow here.

Case 3: Bronze Age axes. Bronze is an alloy (mixture) of copper and tin. The Bronze Age was when copper was first mined in Wales, around 3,000 years ago.

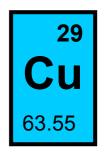
# **People**

This display looks at Swansea in 1851, the heyday of the copper smelting industry.

On the left-hand wall as you enter, look for information about 'Benson & copper wealth' to learn more about people who made money from copper.

Next to that is 'Williams & industrial workers', about the people who worked in the copper works.

## Sea



The sea was used to transport ore to Swansea and to transport copper from the city.

#### Port of Swansea case

A model of SS *Zeta*, a vessel in the Chilean copper ore trade. In a drawer in the case is some Chilean copper ore. Ore is the rock which is smelted to make metals.

#### Ship Paintings

Look for Fleur de Lis, an iron ship in the copper ore trade.

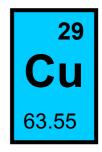
#### Ship Models

Look for models of *Aurelia*, a model based on the wooden sailing vessels built for the copper ore trade, and *La Serena*, an iron barque (sailing ship) built for the copper ore trade.

# Day's Work

Look at 'Hot & Heavy', the first film in this gallery.

In the display case there is a brass trivet cast in a Llanelli brass foundry.



#### Land

#### Look for the 'Metallic Minerals' case.

On one side (ores) you will see some Welsh copper ores from mines in Anglesey and Montgomeryshire.

On the other side (mining) are a plate and a glass celebrating copper mining companies from Anglesey. There also 'company pennies' issued by the Parys Mines Company.

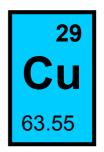
The remainder of the case contains tools typical of those used in Welsh metal mines.

## **Transformations**

#### Look for the case about Copper Smelting.

This case includes some objects made from Welsh copper. The panels and video display tell you how copper ore is turned into copper.

## **Metals**



Go to the gantry of large metal objects by the window.

Look out for five sheets of copper sheathing from HMS *Victory*, Admiral Nelson's famous ship. The copper stopped barnacles from sticking to the ship making it faster in the water.

Also look for the boiler tube plate, a huge slab of copper from a steam locomotive.

Look for the Copper paternoster. (The paternosters are the big machines turning at one end of the gallery. Copper is in the one nearest the door.)

In the display cases there are objects connected with the copper industry.

#### Look out for:

- Eighteenth and nineteenth century brass and copper objects
- Objects used in the transatlantic slave trade
- Copper objects for trade with the West Indies and India
- Copper and brass sheathing for ships and copper for electrical items
- Copper ores from around the world.







