

UNESCO WORLD HERITAGE

**Spain**

# A Roman lighthouse possibly originating 110CE: The Tower of Hercules.

- An idea of its size can be obtained by comparison with tourists.



It is on the coast of Spain near La Coruna.

- Location:



# The tower and Breogán.

- The Tower of Hercules was restored in the 18th century in a manner which has protected the central core of the original Roman monument while restoring its technical functions.



# Mythical character.

- Breogán is a character in the medieval Christian pseudo-history of Ireland and the Irish (or Gaels).



# Lebor Gabála Érenn: a medieval Christian pseudo-history of Ireland.

Breogán was the Gaelic king who founded the city of Brigantia, Galicia ( in northern Spain) and built a great tower.

The Gaels descended from Adam through the sons of Noah who spent 440 years wandering the Earth until they sailed to Iberia (Spain) and conquered it.



# The Gaelic Brigantia likely refers to La Coruña which was then known as Brigantium.

- From the top of the tower, Breogán's son Íth glimpses Ireland.
- The Gaels—including some of Breogán's sons—sailed to Ireland from Brigantia and took it from the Tuatha Dé Danann, the Irish pagan gods.
- Three Celtic goddesses, depicted at Coventina's well.



CARRAWBROUGH : COVENTINA'S WELL.

# Symbol of pagan gods of Ireland?

- A bronze disc from the pre-Christian era, found near Derry – the triple spiral symbol is often associated with Gaelic pagan holy sites



# Back to the lighthouse.

- The tower was built, or perhaps rebuilt under Trajan, possibly on foundations following a design that was Phoenician in origin.
- Historians are uncertain about the purpose of the lighthouse i.e. from which direction ships using it would come.

Trajan's Column, Rome.



# Some measurements.

- The Tower of Hercules went electric in 1926, increasing its light output to 32 nautical miles of visibility.
- The lighthouse stands 55 metres high, and is Spain's second tallest lighthouse.
- The structure was built atop a rock that is 57 metres high.
- The lighthouse is considered to be the oldest existing one in the world.



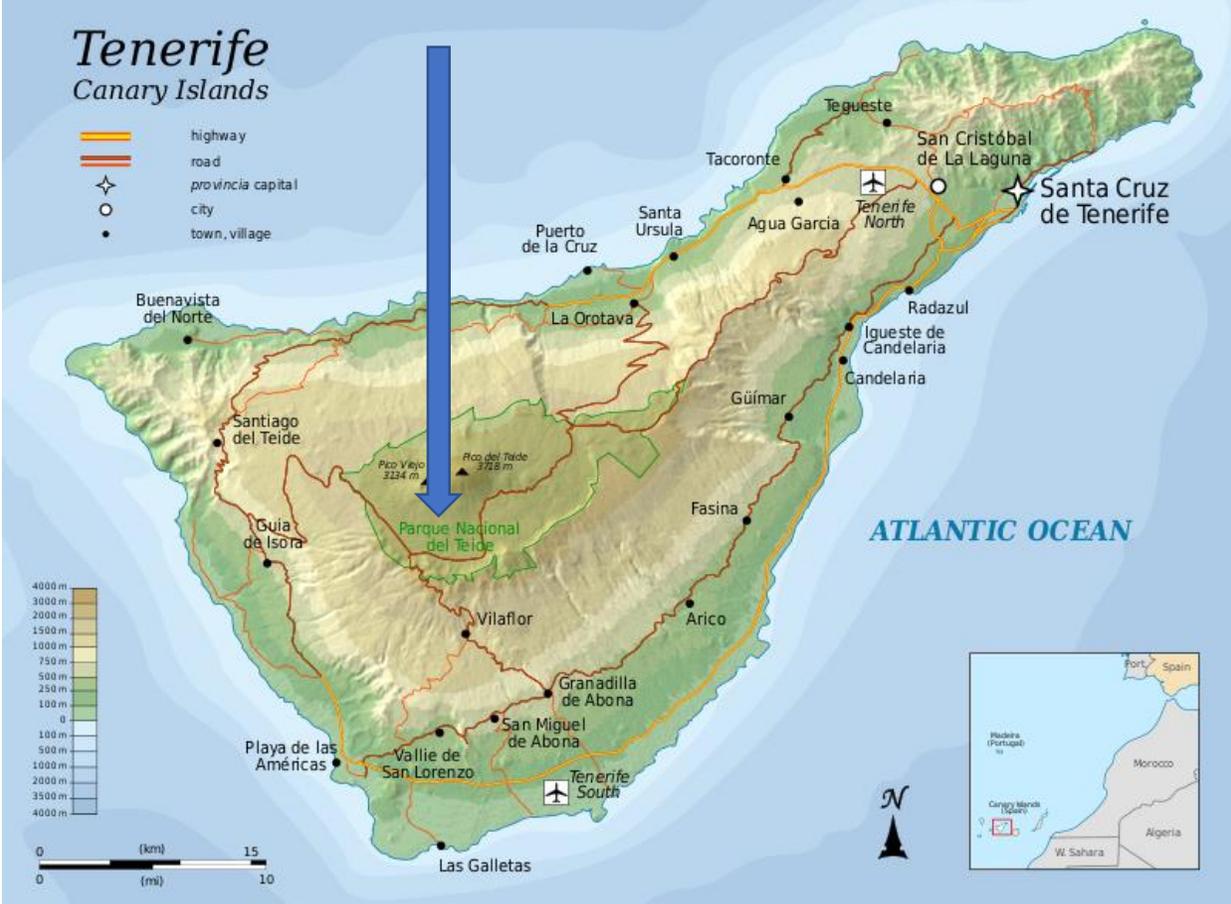
# Tower of Hercules?

- It is thought to be modelled after the Lighthouse of Alexandria.
- At its base is preserved the cornerstone with the inscription:  
MARTI AUG.SACR C.SEVIVS LUPUS ARCHTECTUS AEMINIENSIS  
LVSITANVS.EX.VO.
- This states that the original lighthouse tower is ascribed to the architect Gaius Sevius Lupus, from Aeminium (present-day Coimbra, Portugal) in the former province of Lusitania, and was built as an offering dedicated to **Mars**.
- To me this seems to be inconsistent with its name.

Divider slide.

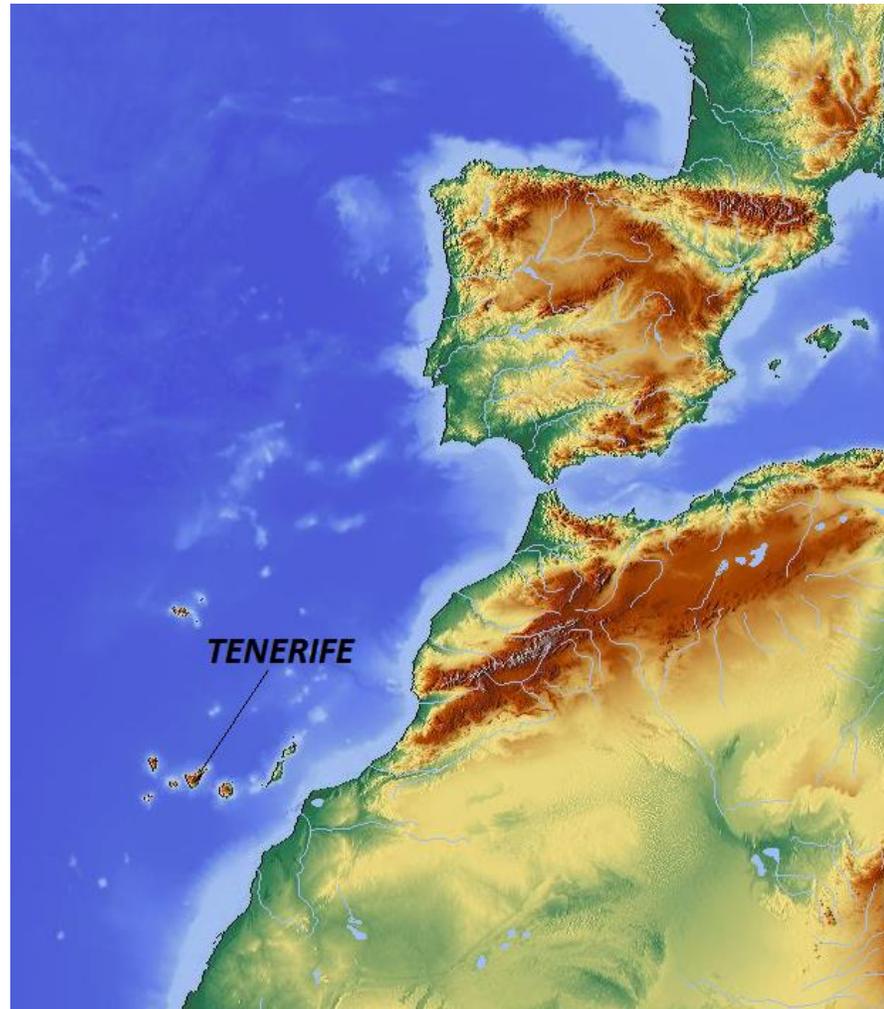


# Teide National Park, Canary Islands, Spain.



Off the coast of Africa.

- Location:



Tenerife is the largest and most populous island of the seven Canary Islands.

- Panorama of national park.



# Tough living things.

- Most of the park is an inhospitable, volcanic landscape that is too barren to support vertebrate life.
- Symbolic of the park are the blue-throated lizard and the Teide broom which produces a great honey.



# Other life in the park.

- Wallflower, violet and Tenerife bugloss.



# A natural laboratory.

- The similarities between the landscape on Mars and parts of Tenerife make the island the ideal place for testing instruments that will travel to Mars.
- In 2010 a research team tested the Raman instrument to be sent in the next expedition to Mars, from 2016-2018.



# Tenerife and Nelson.

- On 25 July 1797, Admiral Horatio Nelson launched an attack at Santa Cruz de Tenerife, now the capital of the island.
- During ferocious fighting Nelson lost his right arm from cannon fire.



# Canary Islands dragon tree.

- Elsewhere on Tenerife.



# A familiar friend.

- Ten species of bird nest in the park.
- These include the Blue Chaffinch, Berthelot's Pipit, the Atlantic Canary and a subspecies of kestrel.



Divider slide.



# Las Médulas, Spain.

- Roman destructive mining.



# Approximate location.

- Las Médulas is an historical site near the town of Ponferrada in the region of El Bierzo (province of León, Castile and León, Spain).



# Panoramic view of Las Médulas.

- The spectacular landscape of Las Médulas resulted from the ruina montium, a Roman mining technique described by Pliny the Elder in 77CE.
- The technique employed was a type of hydraulic mining which involved undermining a mountain with large quantities of water.



# Engineering skills put to use.

- At least seven long aqueducts tapped the streams of the La Cabrera district (where the rainfall in the mountains is relatively high) at a range of altitudes.
- The same aqueducts were used to wash the extensive gold deposits.
- Rock-cut aqueduct in La Cabrera.



# The indigenous inhabitants 'panned' for gold prior to Roman occupation.

- The area Hispania Tarraconensis had been invaded in 25 BCE by the emperor Augustus.
- Prior to the Roman conquest the indigenous inhabitants obtained gold from alluvial deposits (found in river beds and other places that water has washed through).
- Large-scale production did not begin until the second half of the 1st century CE.
- Ruins from pre-Roman times.



# Tunnel and road in the Heritage site.

- Pliny also stated that 20,000 Roman pounds (6,600kg) of gold were extracted each year.
- The exploitation, involving 60,000 labourers, brought 5,000,000 Roman pounds (1,650,000 kg) in 250 years.

