eHAND project Romania – Drobeta Turnu Severin 27-31 March 2017

### Natural and induced hazards in Greece



# Earthquakes in Greece





#### Greek mythology

Enceladus, the son of Tartarus and Earth, led the Giants who were causing earthquakes.

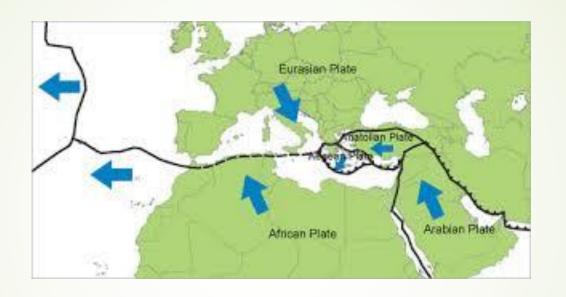


During Titanomachy, goddess Athena, crushed Enceladus by firing Sicily against him.



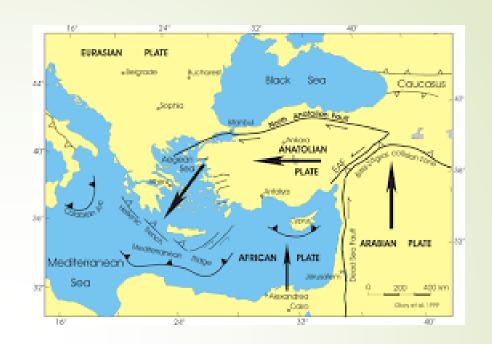
Whenever Enceladus tries to move or sigh, he causes earthquakes or volcanic eruptions.

#### Greece is the most seismic country in Europe



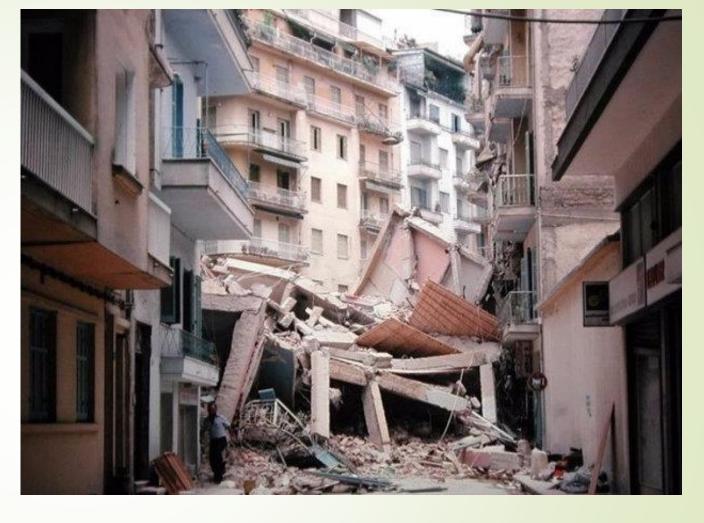
The high seismic activity of the country is due to the fact that it is located at the boundary of the Africa-Eurasia convergence. The Anatolian plate rotates counterclockwise.

From the west, the Adria microplate rotates counterclockwise.



The external Aegean area is subject to a general compressional stress field and the inner Aegean area experiences a general extensional stress field.

Greece often hosts large magnitude earthquakes, whilst a moderate or small magnitude earthquake is felt every 2-3 days on average



Earthquake in Thessaloniki (1978, 6.5 Richter scale)

Only a few cases have been recorded as «devastating» for the human environment or loss of life



Ierissos (1932, 7.0 Richter scale)



Argostoli (1953, 7.2 Richter scale)



Thessalia (1954)

### Volcanoes





#### Greece has 39 volcanoes



The active ones are arranged in an arc
(Greek Volcanic Arc)
and comprise from West to East
the volcanoes of:
Soussaki, Methane, Milos, Santorini, Yali,
Nisyros and Kos.





# Nisyros has one of the biggest calderas in the world

Height: 650 m

Diameter: 3000 m

Milos

Height: 220 m

Diameter: 1700 m

#### But the most famous volcano in Greece is...



#### The biggest caldera in the world



Height: 300 m

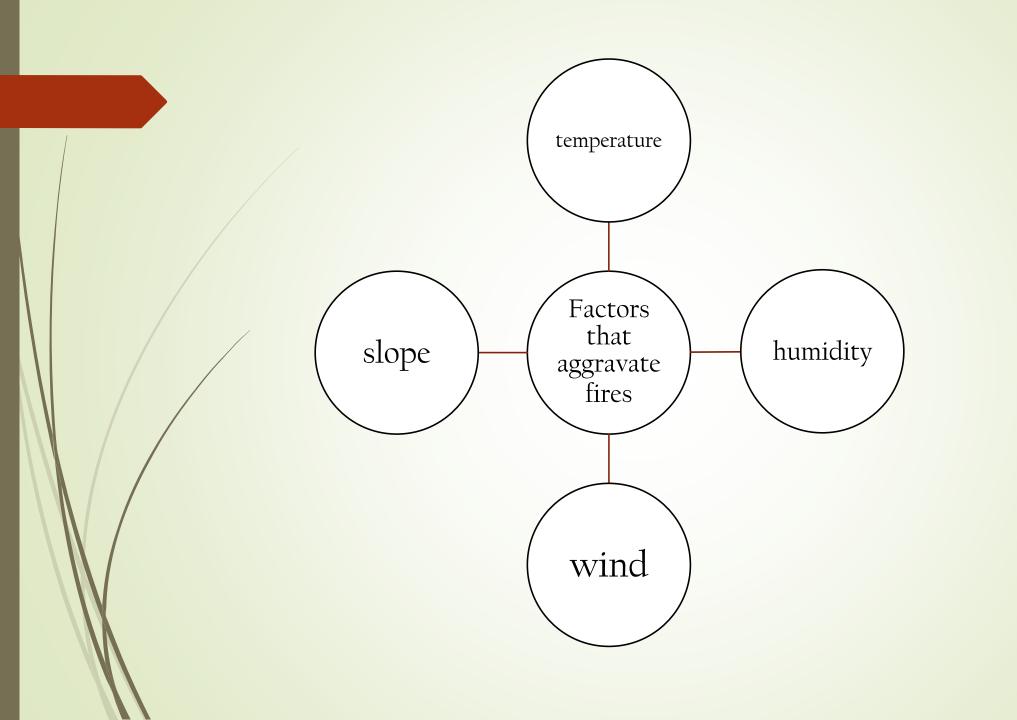
Diameter: more than 11 km!!!

The Minoan eruption happened around 1645 BC and it was one of the largest volcanic events on Earth in recorded history.



It devastated the island of Thera (now called Santorini), including the Minoan settlement at Akrotiri and communities and agricultural areas on nearby islands and the coast of Crete with a related earthquake or tsunami.





### The greatest fire that occurred in Thessaloniki happened in 1917, a century ago

It destroyed two thirds of the city leaving more than 70,000 homeless. The fire burned for 32 hours and destroyed 9,500 houses within an extent of a square kilometer.



#### The 2007 Forest Fires



A series of massive forest fires that broke out in several areas across Greece throughout the summer of 2007



#### The 2007 Forest Fires



The death toll in August alone stood at 67 people





### FLOODS



Greece has mainly suffered from flash floods. A flash flood is a rapid flooding of geomorphic low-lying areas: washes, rivers, dry lakes and basins





It may be caused by heavy rain associated with a severe thunderstorm, hurricane, tropical storm or meltwater from flowing-over ice sheets or snowfields.

Flash floods can occur in unexpected times and are very deadly concerning

Oraiokastro, our school's region, has been struck by floods on numerous occasions during the last years.





The landscape and high altitude of Oreokastro are the reasons why floods are very susceptible to occur, especially during autumn.

## Thank you!!!