

Revealing Hydrogeological Heritage in Naturtejo UNESCO Global Geopark (Portugal)



Joana Rodrigues

25th September, Sierra Norte de Sevilla UNESCO Global Geopark



In order to respond to the current **challenges facing Earth**, society is forced to deal with several **sustainability issues**, where geosciences are crucial for a wide understanding, for example in **natural resources management**

UNESCO Global Geoparks



United Nations
Educational, Scientific and
Cultural Organization



UNESCO
Global
Geoparks



- incubators for sustainable development
- privileged territories for public engagement



special responsibility, supporting
communities to develop solutions
to these sustainability issues

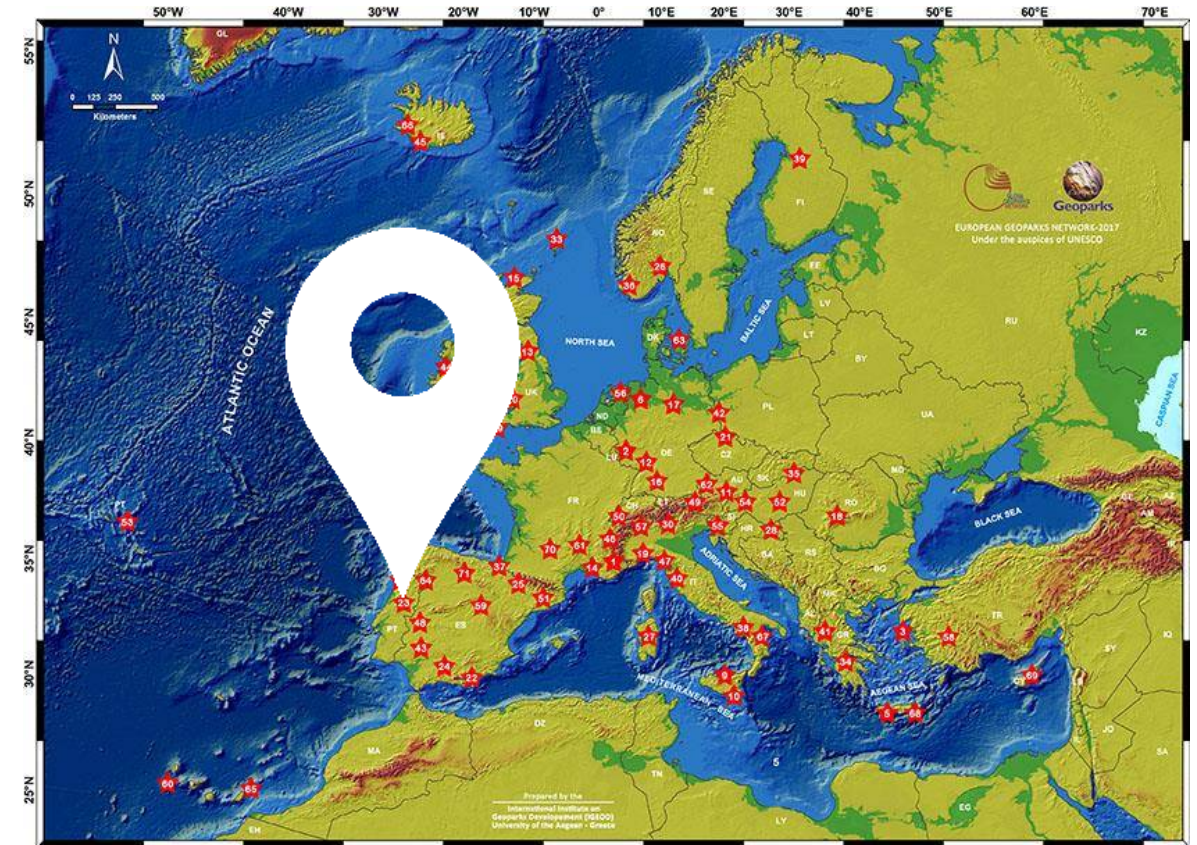
Sustainable future for All



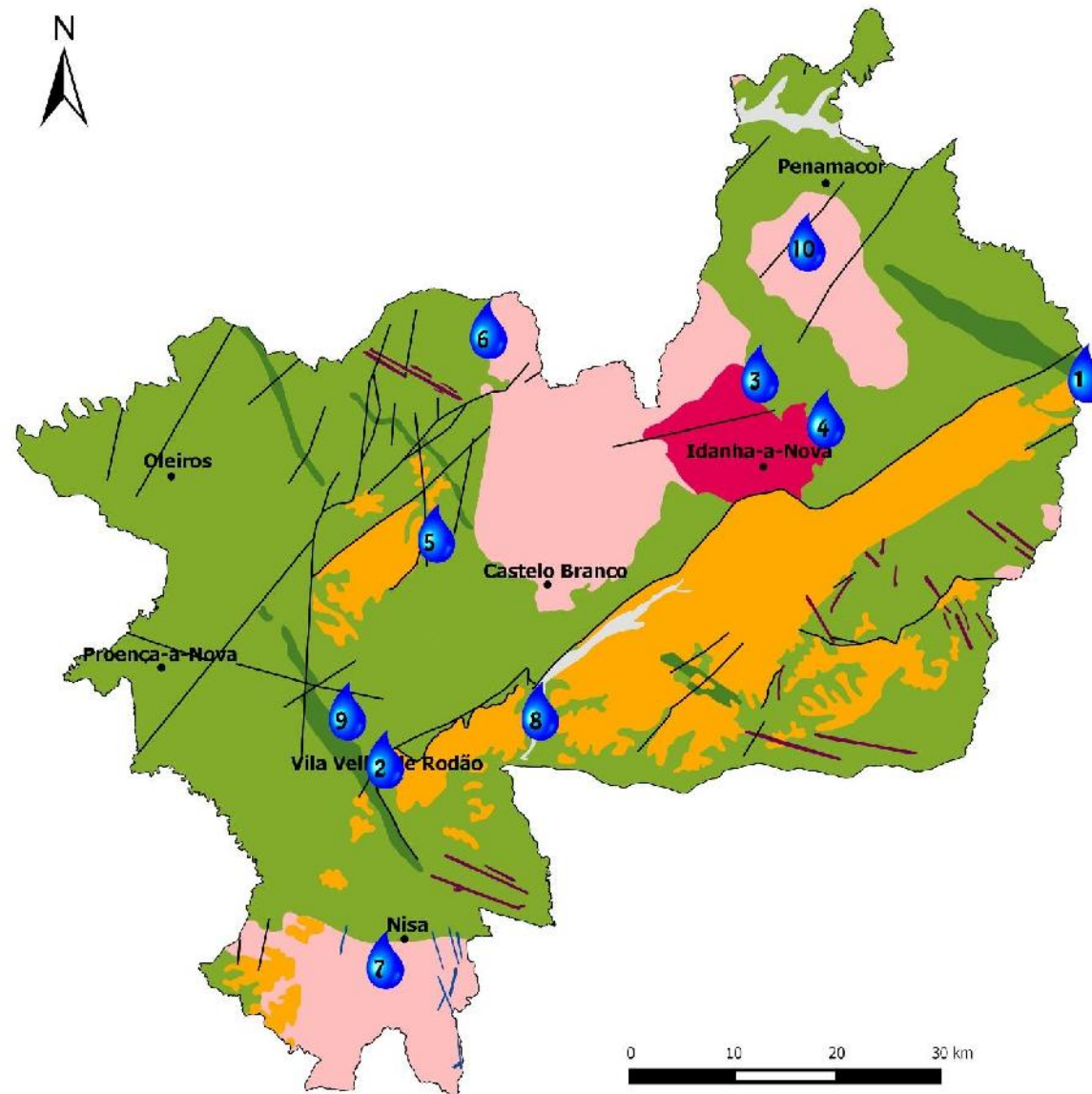
Ensure availability and sustainable management of water and sanitation for all



Naturtejo UNESCO Global Geopark (PORTUGAL)



Hydrogeological Heritage



176 geosites

10 with hydrogeological interest


- Sand, clay and arkoses (1,8 MY - Present)
- Arkoses, breccias and conglomerates (50 - 1,8 MY)
- Quartzites and schists (488 - 435 MY)
- Schists and greywackes (610 - 542 MY)

- Granites (315 - 300 MY)
- Granodiorites (480 - 472 MY)

- Basic rocks, aplites and pegmatites
- Quartz veins

Faults

MY - Million Years

 Geosites with hydrogeological interest

Water

Temperature

Rock

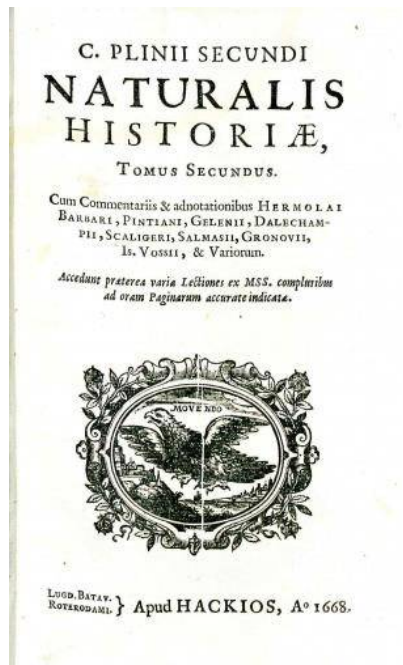
Space

Time

Each water is unique with its own origin and course that tells a unique story

Hydrogeological Heritage: examples

Termas de Monfortinho Thermal Spring



Pliny the Elder
Encyclopedia "Naturalis Historia"
(Book 2 Chap. 103; 77-79 a.C.)



Recognized, for the therapeutic properties,
since the Roman period

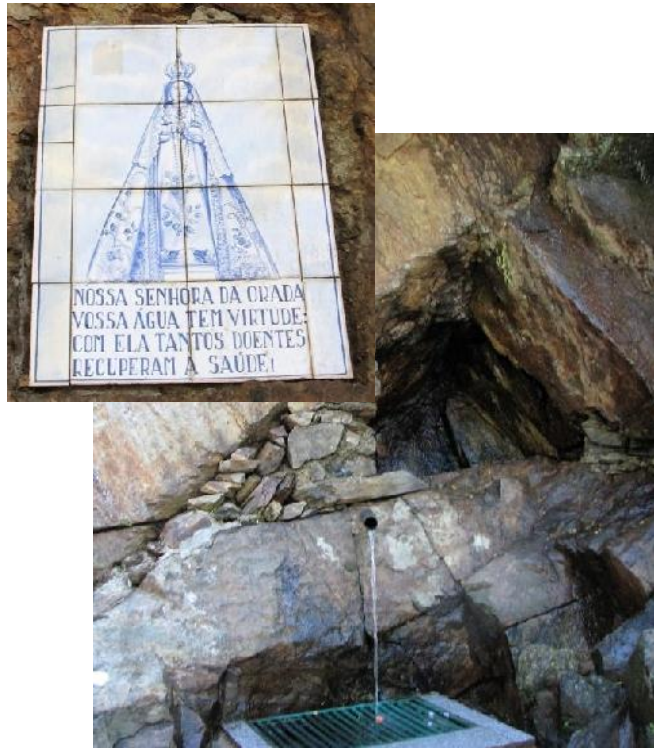
Hydrogeological Heritage: examples

Termas de Monfortinho Thermal Spring



Hydrogeological Heritage: examples

Sra de Orada Spring



Hydrogeological Heritage: examples



Our Lady of Almortão Fountain



Sinos Fountain

Hydrogeological Heritage: examples



Fadagosa Thermal Springs



Águas Thermal Springs

Education



Geotourism



WATER ROUTE

Price from

95 €

per person per package

Includes:

- 2 nights accommodation in 4 facilities
- 1 Wellness treatment at the Thermal Spa of Vila
- 1 Boat trip at the Tagus River
- Visit to the village of Vila
- Local "delectable" food

- Program Profile:**
- For families
 - For groups (free special prices)
 - Children
 - Suitable only
 - Suitable for
 - Nature
- Geomonuments:**
- Palácio Público Nacional Monument
 - Fossil Trees
 - Lagoa de Água D'Alta Natural
- Level of difficulty:**
- 1 Easy
 - 2 Moderate
 - 3 Hard
 - 4 Very Hard
- Don't forget:**
- Comfortable shoes
 - Seamless socks
 - Appropriate clothing
 - Water
 - Your camera

ITINERARY:

1st Day
Arrival to the hotel and accommodation

2nd Day
Breakfast at the hotel. 10:00 am. Meeting with the Geologist. The pair of Vila will take Rafting to enjoy a full day. The boat trip in the Tagus river with the possibility of watching the largest colony of Griffon Vultures in Portugal. 11:30 am. Visit to the House of the House of Arts and Culture of Lagos and to the "delectable" Castle. Free lunch. 03:00 pm. Visit to the Oratory and Clay Museum in Vila and to the historic center of the village. 04:30 pm. Wine taste and an invigorating program at the Vila Thermal Spa. Accommodation.

3rd Day
Breakfast at the hotel. 10:00 am. Meeting with the Geologist in a picnic in a meadow. In perform the "Cavalos de Portugal" football (about 10 km), where it is possible to observe traces of a subtropical forest that existed in the Europe millions of years ago.

NOTES
* For those who do not enjoy walking, this path can be replaced by a visit to the city of Castelo Branco.



Price from

178 €

per person per package

Body in Water

- Includes:**
- 2 nights of 4 accommodation plus breakfast
 - 1 Lunch in restaurant
 - Visit to Castelo Branco (Castello Museum, Contemporary Art Centre and Observatory)
 - Workshop
 - 1 Wellness experience in the Thermal Spa of Mor Sotinho
 - 1 Boat trip in the Tagus River
 - 1 Horse-riding session
 - Guide

- Program Profile**
- For families
 - For groups (special prices)
 - Children
 - Suitable only
 - Suitable for
 - Health
 - Wellbeing
 - Nature
- Difficulty level**
- 1 2 3 4
- Geomonuments**
- Palácio de Brás do Norte Monument
- Don't forget**
- Comfortable shoes
 - Seamless socks
 - Appropriate clothing
 - Water
 - Camera

ITINERARY

1st Day
Thermal experience. 1 Thermal experience plus Tasting of Mineral-medical Waters. Arrival to the accommodation.

2nd Day
Breakfast at the hotel. Morning visit to the Historical Centre of Castelo Branco including the Castelo Museum, the Contemporary Art Centre and the Observatory. In the afternoon, a workshop. Afternoon Boat trip through the Portos de Lisboa Natural Monument in the calm waters of the Tagus River, with the observation of some species such as the Griffon vulture, the Kingfisher, the Osprey, heron, the D. roseus, etc. Accommodation.

3rd Day
Breakfast at the hotel. Morning visit to the stud farm in Vila. Horse-riding session in the landscapes of Alentejo.



Capacity building

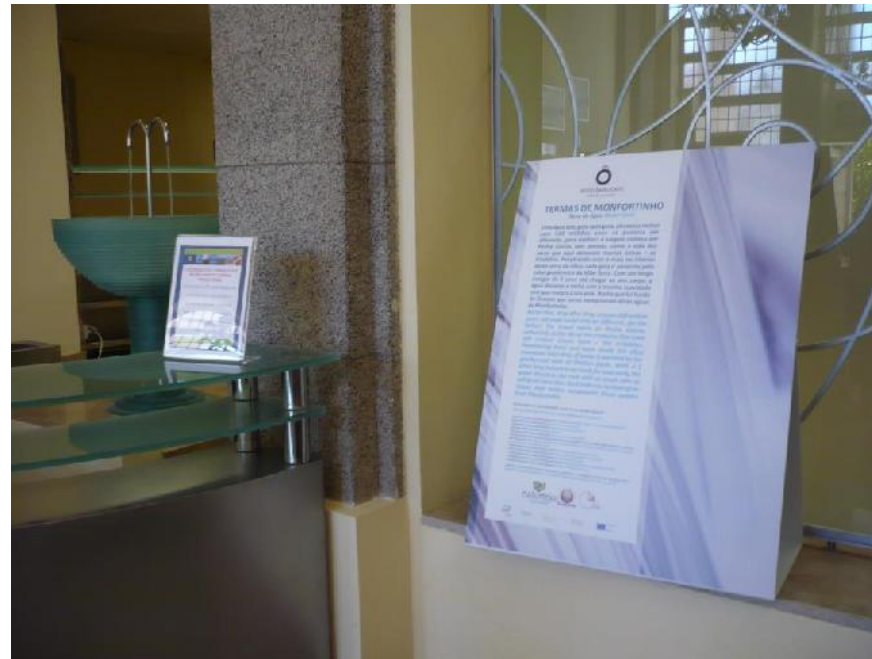
Training for teachers and thermal springs staff



Exhibitions | Events

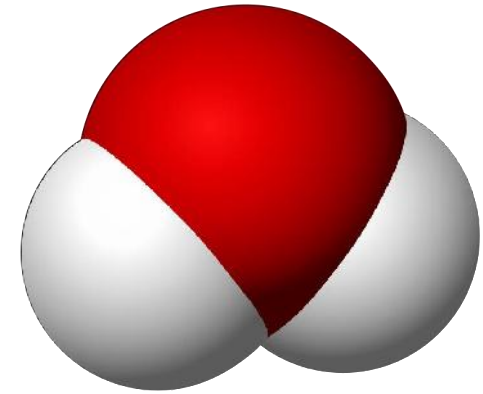


Interpretation



Water

- no color
- no smell
- no taste
- may occur in solid, liquid and gaseous state



Is this really so?

“Acqua Challenge”



Including:

- water samples from the Naturtejo Geopark and Portugal
- bottled, spring and thermal waters
- sparkling waters (natural and introduced)
- some of the most common and consumed brands

With distinctive and recognizable characteristics





“What are the therapeutic properties of this water?”

FAQ

(Frequently Asked Questions)

Less FAQ

“Why do these waters have these properties?”

“Why these waters taste differently?”

“Why does this water smell?”



“How do these waters acquire these properties?”

“How to ensure the quality of this water?”

“How to harmonize needs for water by different actors such as agriculture, industry and social?”

“How can this water be protected?”

Even Less FAQ

Sustainable future for All



The future well-being, **strongly dependent on water resources**, requires innovative approaches that lead to innovative sustainable solutions, engaging visitors and local communities in the UGGs

Ensure access to safe water and sanitation for all.



joana.rodriques@naturtejo.com

