



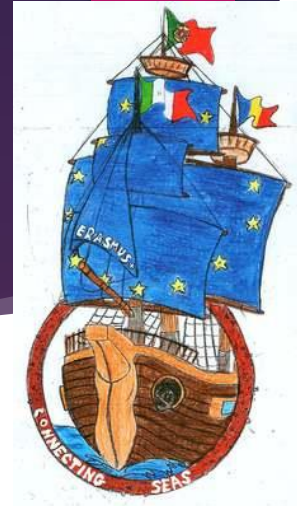
Erasmus KA229 - School Exchange Partnerships  
Nr: 2019-1-RO01-KA229-063231\_1

# Connecting Seas

## Brochure 3 – Conquerors of The Sea



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of the European Union



# Conquerors of Portuguese Sea



Co-funded by the  
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of the European Union

# *A. Discovering the World*



The “*Cantino planisphere*” - the oldest known Portuguese nautical chart (1502)

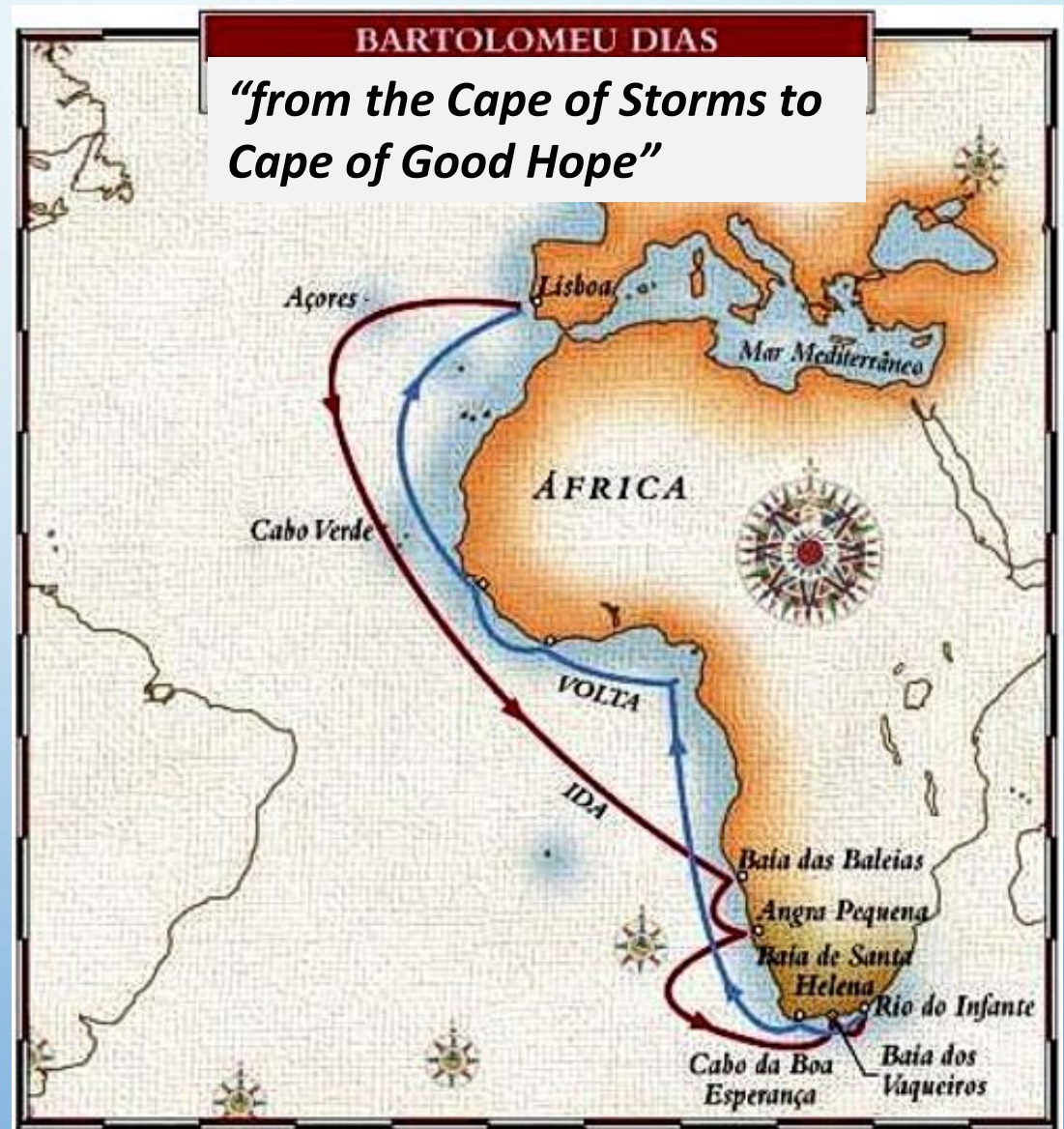
# The conquest of Ceuta (1415)



**Ceuta**, an Islamic city in North Africa, was conquered in 1415 and it is now a Spanish territory

# The passage from the Atlantic to the Indic Ocean:

In 1488, *Bartolomeu Dias*, finally managed to pass the Cape of Good Hope.





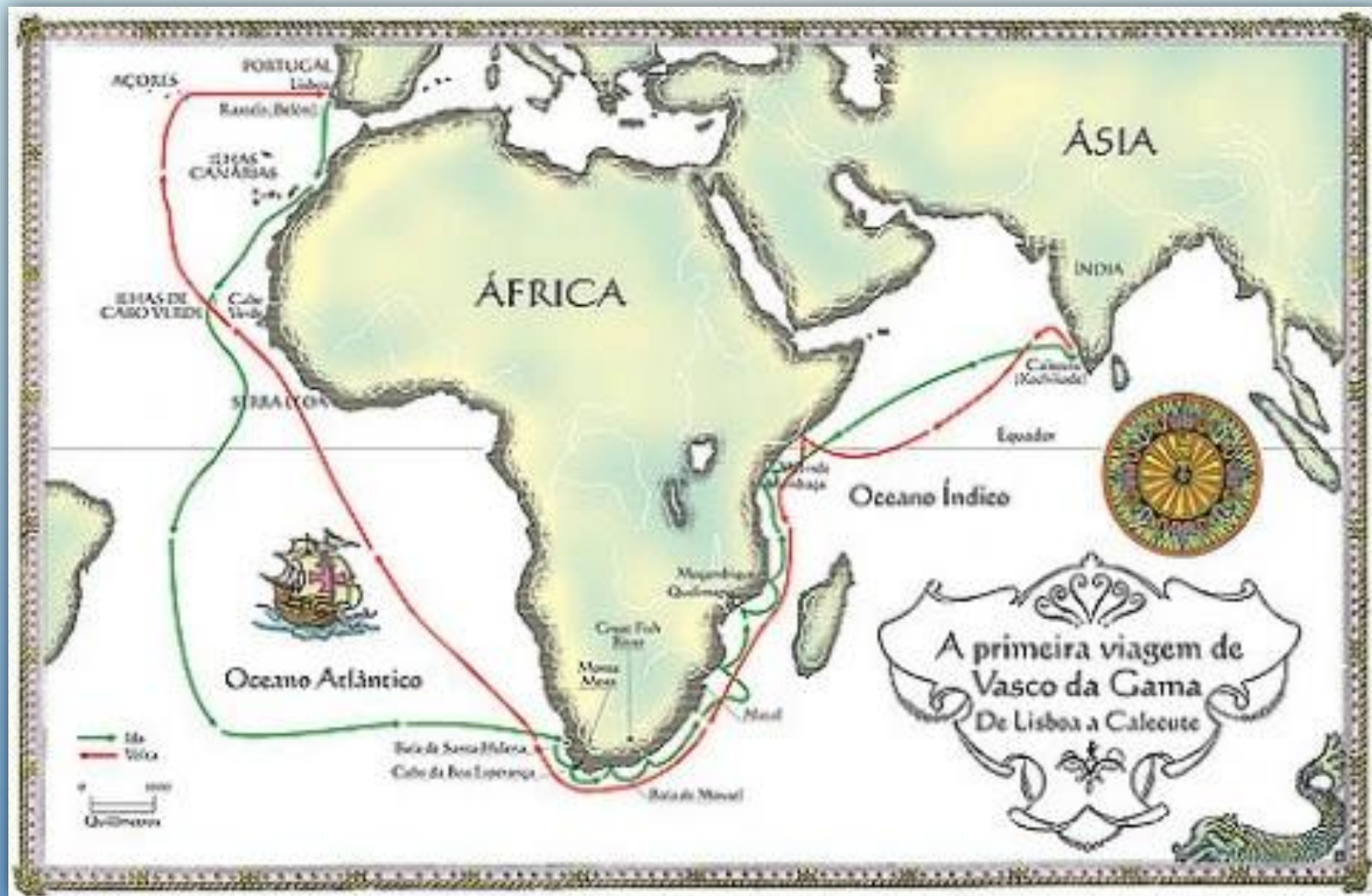
Bartolomeu Dias



CAPE OF GOOD HOPE  
1488



# Ever further: the sea route to India





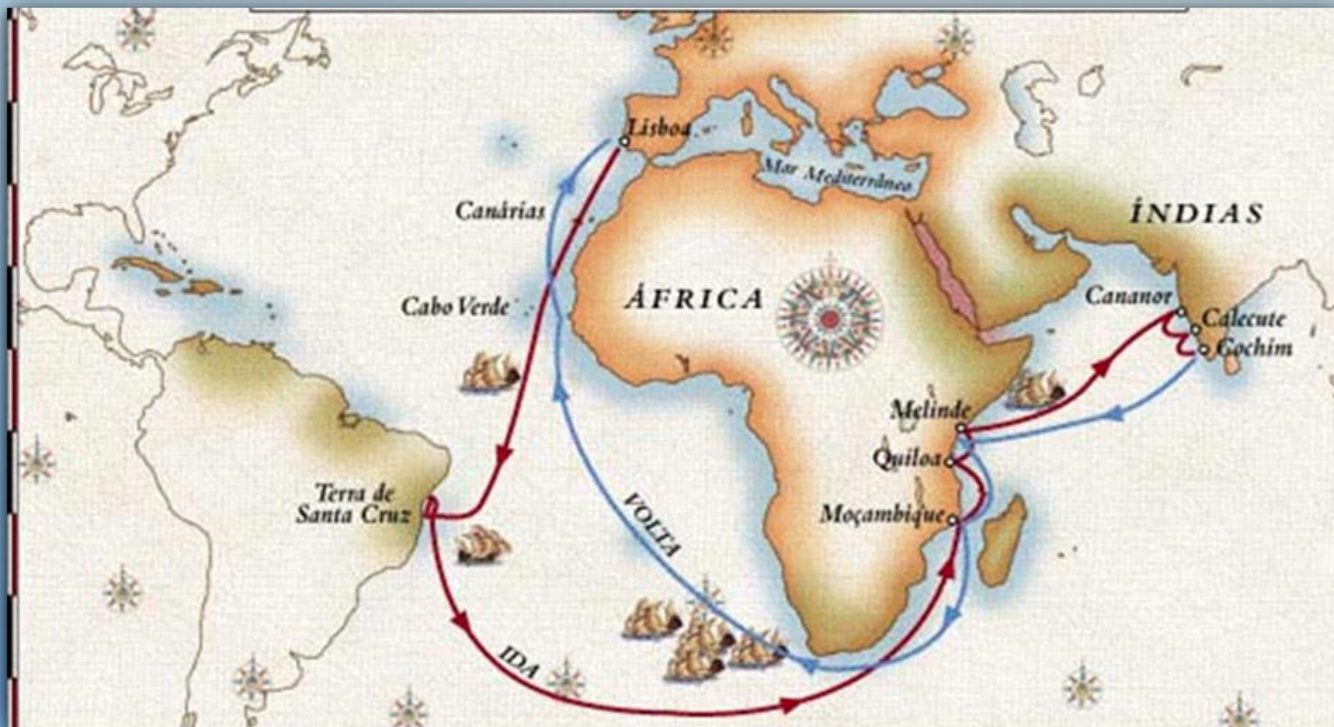
## Vasco da Gama (1469 – 1524)

Portuguese navigator and explorer, 1st Admiral of the Indian Seas: Seas of Arabia, Persia, India and all the Orient



# *Finally, the discovery of Brazil*

Pedro Álvares Cabral arrived in Brazil,  
on the 22nd April, 1500



## *B. The Maritime Techniques*

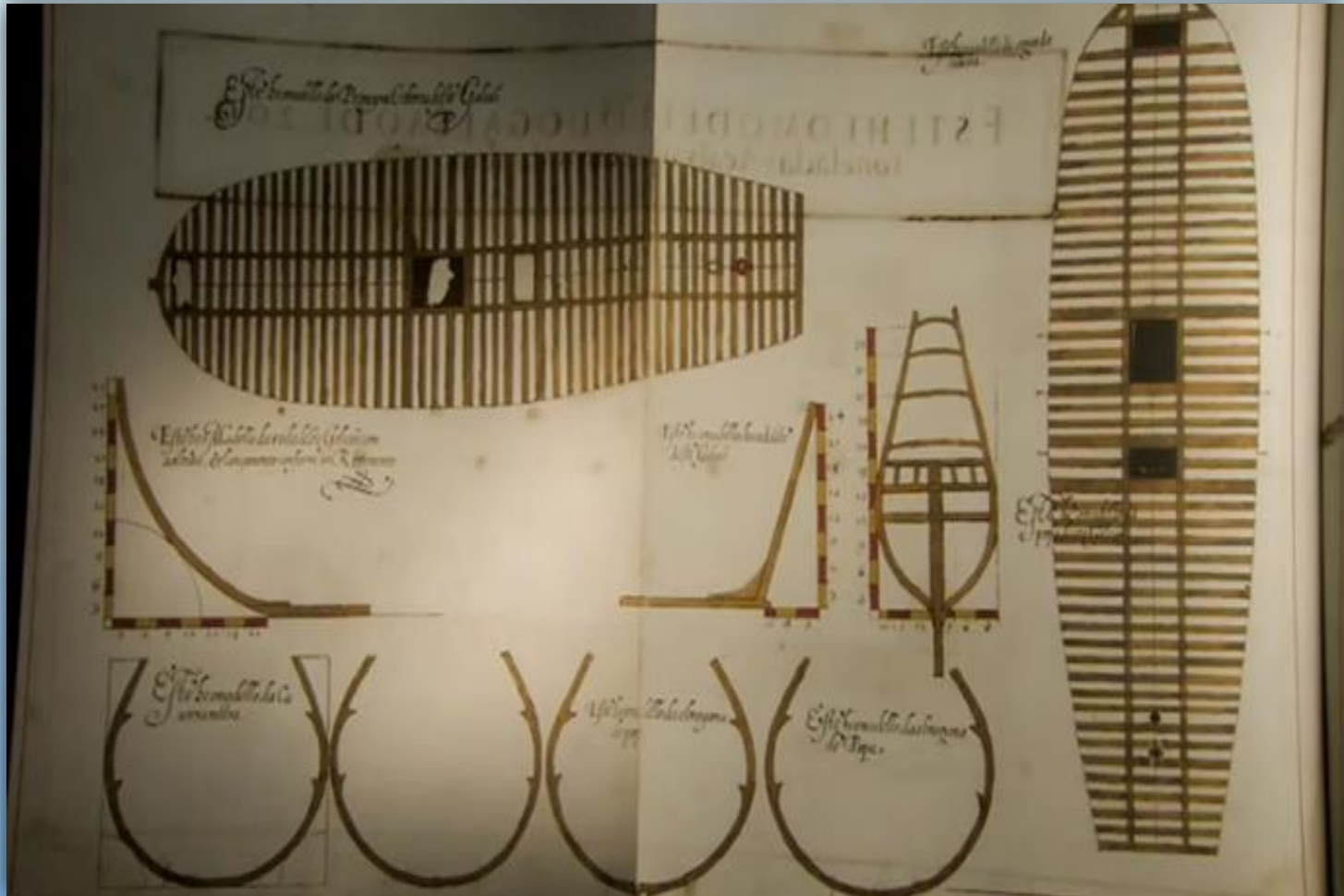


# Caravelas e Naus

Um Choque Tecnológico no Século XVI

*“Caravels and Naus”, a technological shock in the 16th century*

# A new technical and scientific knowledge



Shipbuilding innovation

# *The ships of the Discoveries: the Caravel*



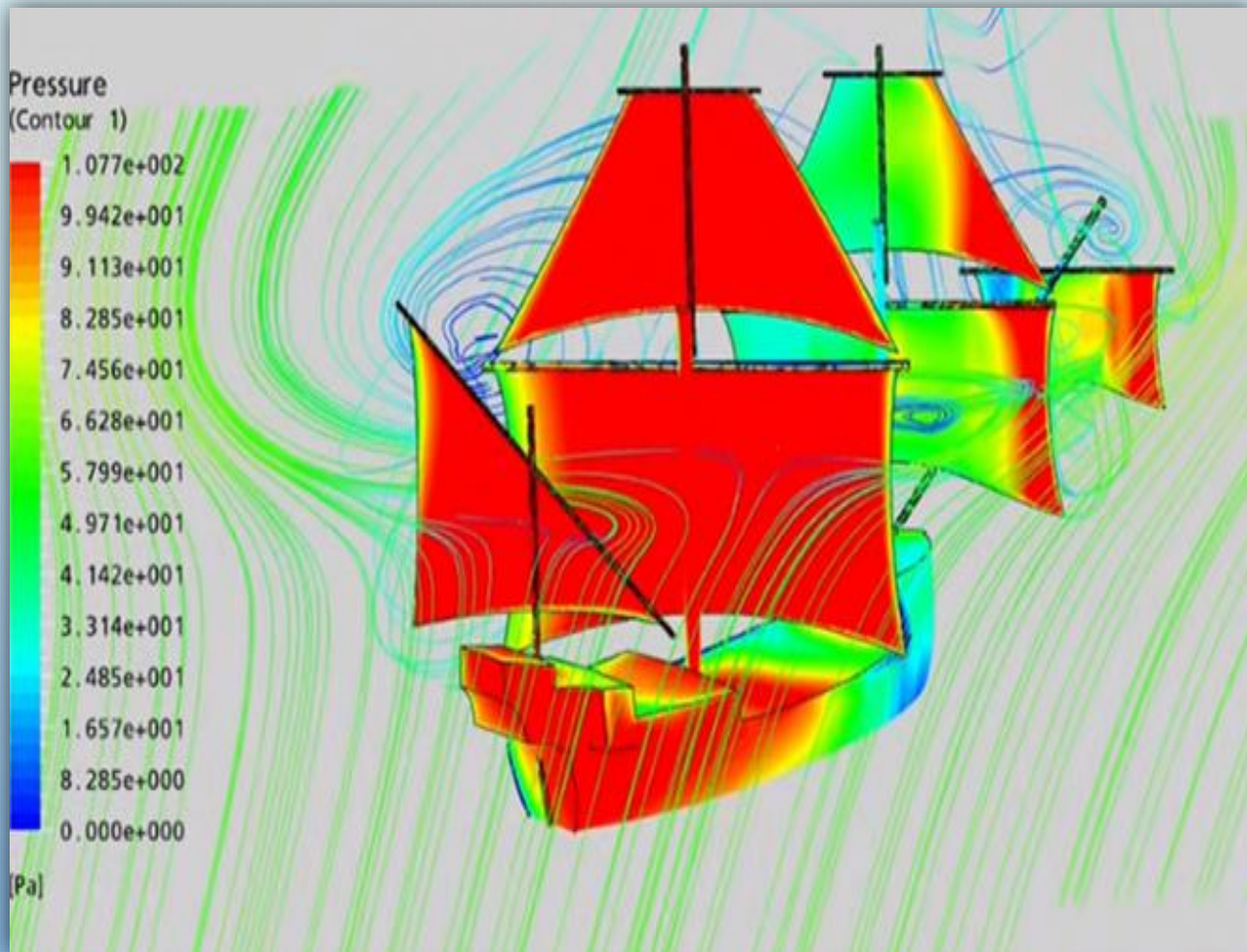
With triangular sails, known as *“Latin Sails”*, allowed it to tack  
(sail in zigzag against the wind)

# *The ships of the Discoveries: the Nau*



A commercial and military vessel with increased speed and cargo capacity

# *The Nau: harness the winds...*



The knowledge of prevailing winds has improved navigation

# *Navigation instruments used...*



The quadrant; the nautical astrolabe  
and the cross-staff

# The compass...



The “*compass*” was probably the most used navigational and orientation instrument during the Discoveries.



# *The quadrant and the nautical astrolabe...*



*the quadrant*

## *The nautical astrolabe*



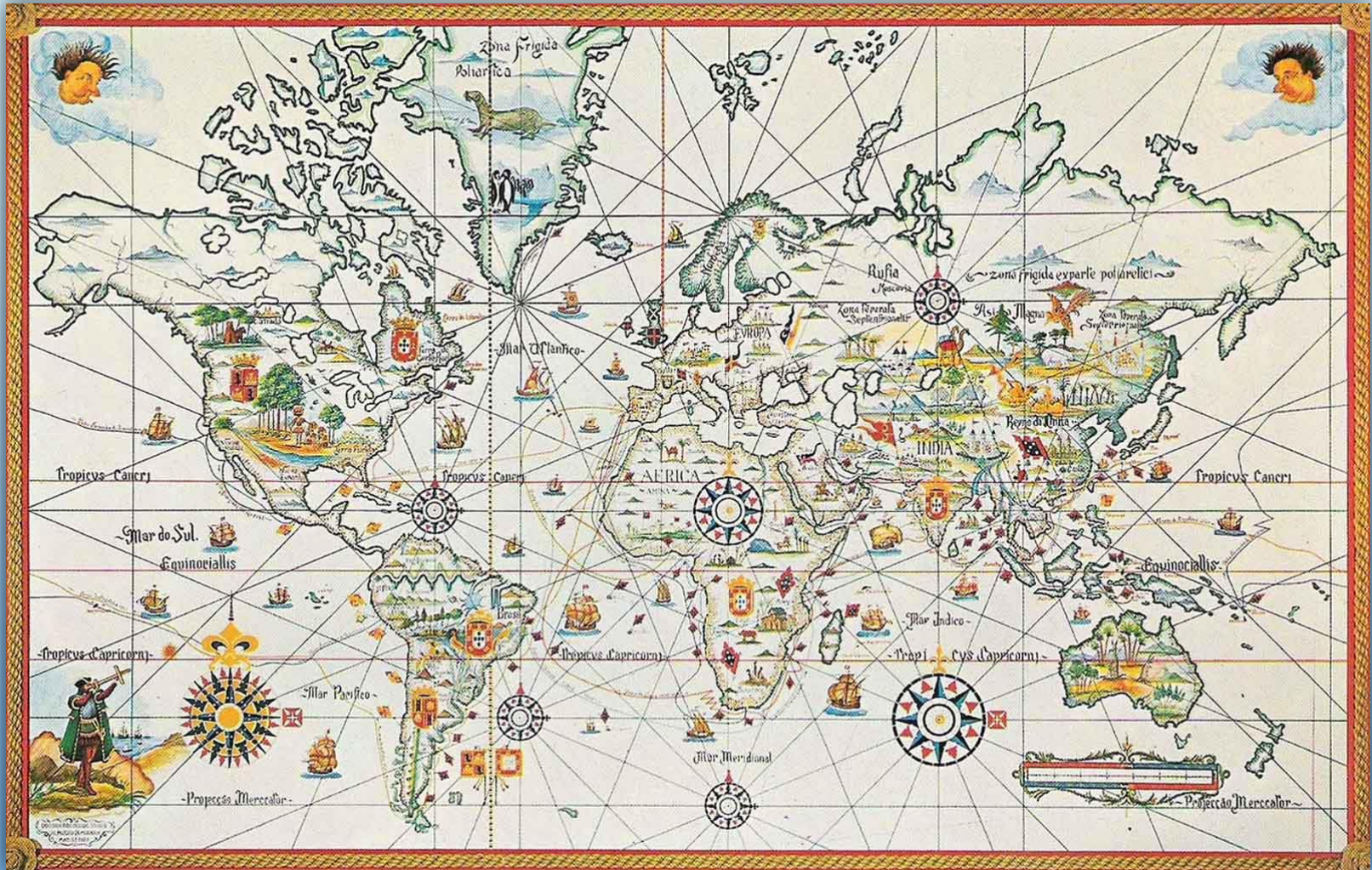
## *C. The contribution of the Portuguese Discoveries to the World*

Broadening of knowledge:

- new peoples; new ideas; new cultures; new religions;
- new animals (zoology); new plants (botany);
- geography; cartography; linguistics; astronomy (the way is opened for the theories of Copernicus, Kepler and Galileo);
- contributions to art and the Renaissance.

# “Giving the World New Worlds”

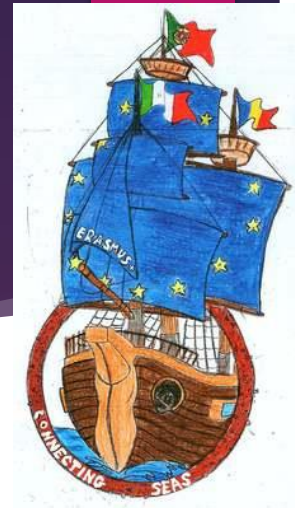
The beginning of Globalisation



# “Giving the World New Worlds”

The beginning of Globalisation





# Romanian Conquerors of The Sea



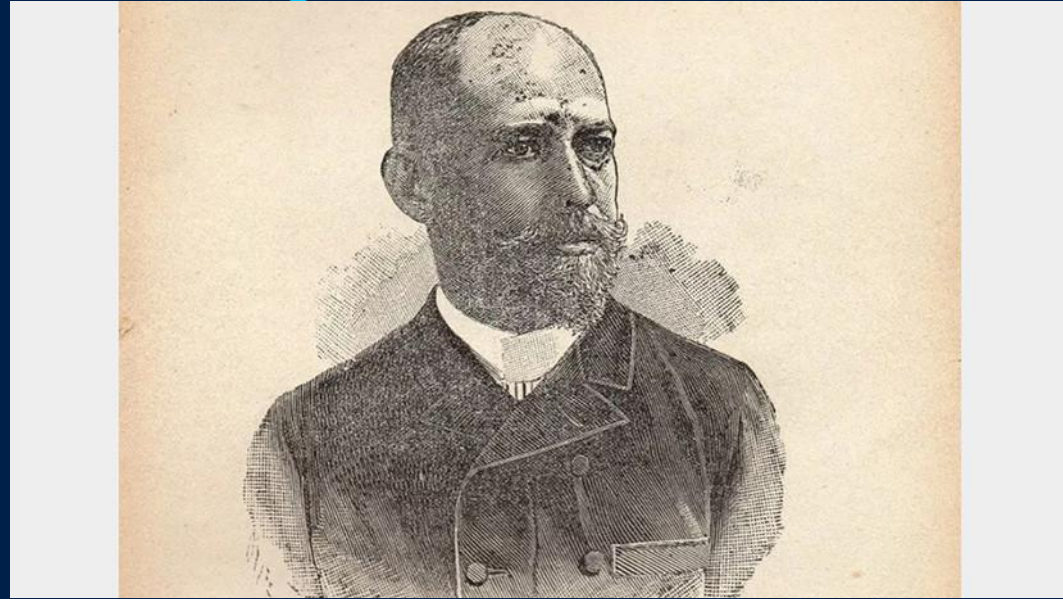
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- Dobrogea
- The Danube Delta
- Constanța
- The Snake Island

The Congress of Berlin of 1878 → Romania's independency

# The Romanian Conqueror of Patagonia



The life of Julius Popper



USA

CANADA

USA

MEXICO

CUBA

BRAZIL

PERU

CHILE

ARGENTINA

GREENLAND

ARTIC OCEAN

RUSSIA

KAZAKHSTAN

MONGOLIA

CHINA

JAPAN

PACIFIC OCEAN

ATLANTIC OCEAN

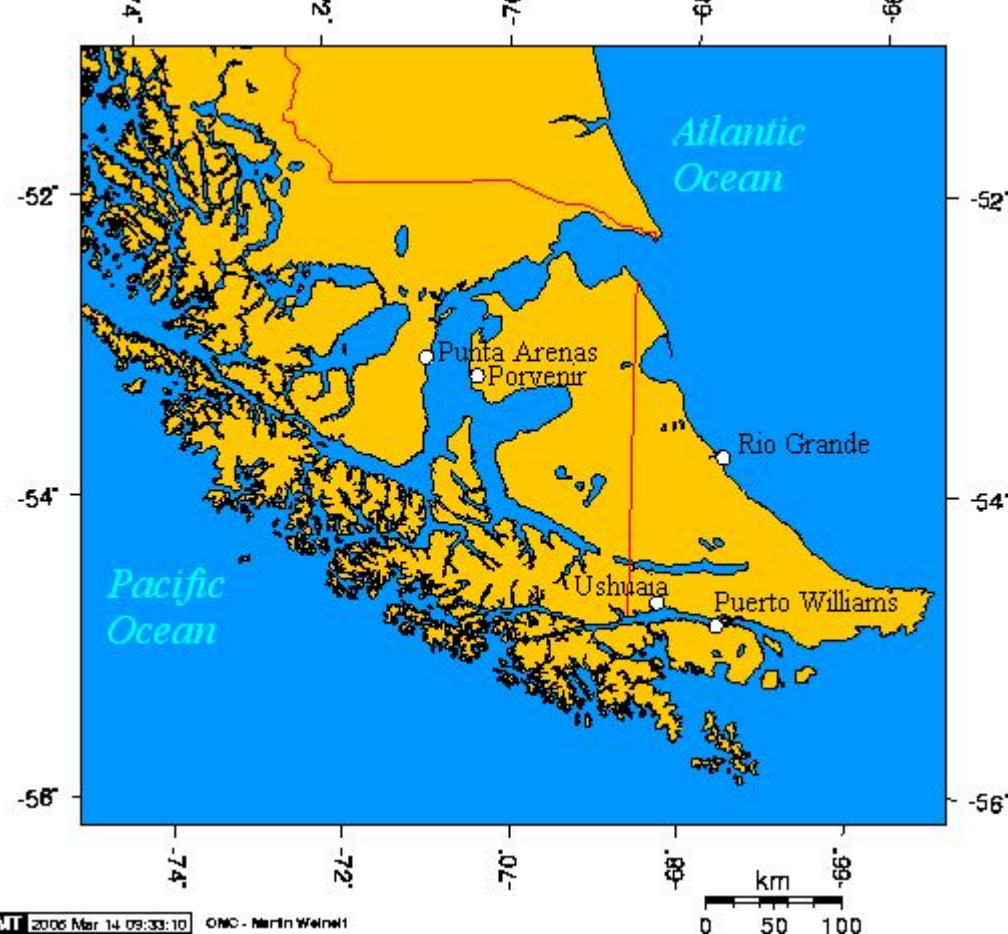
PACIFIC OCEAN

INDIAN OCEAN

AUSTRALIA

ANTARCTICA





the Land of Fire/  
Patagonia

the explorer making some field  
measurements





# The Argonaut of The Sea

The remarkable life of Emil Racovita





the departure of Belgica to the Antarctic  
from Antwerp



Belgica in Antarctic  
waters



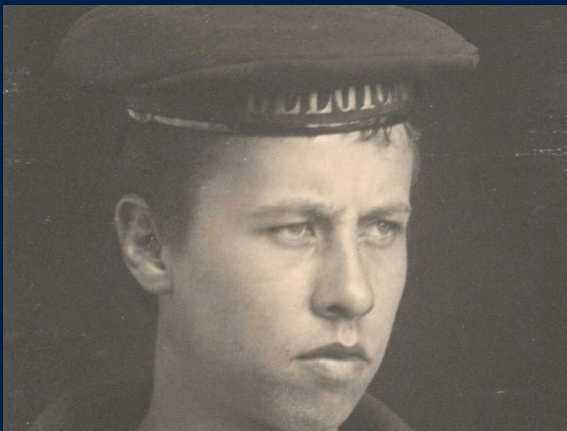
The camera used to take photos  
during the expedition

# *Belgica's Route*





● The whale species met by Racovita



Wiencke, the first fallen member of Belgica





Adrien de Gerlache



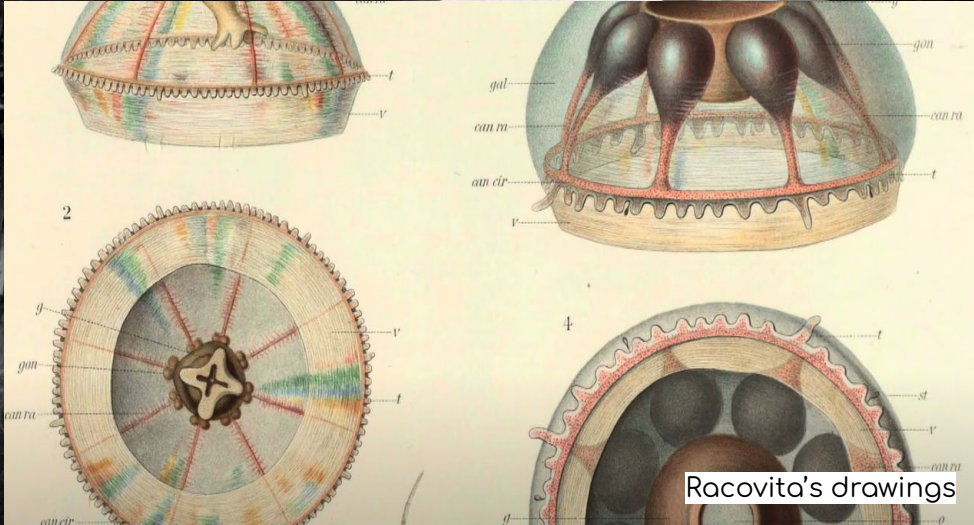
Belgica blocked in between ice floes

March 10, 1898



Surrounding Belgica with snow, to keep the warmth inside





Danco, the second fallen member, dies due poor conditions

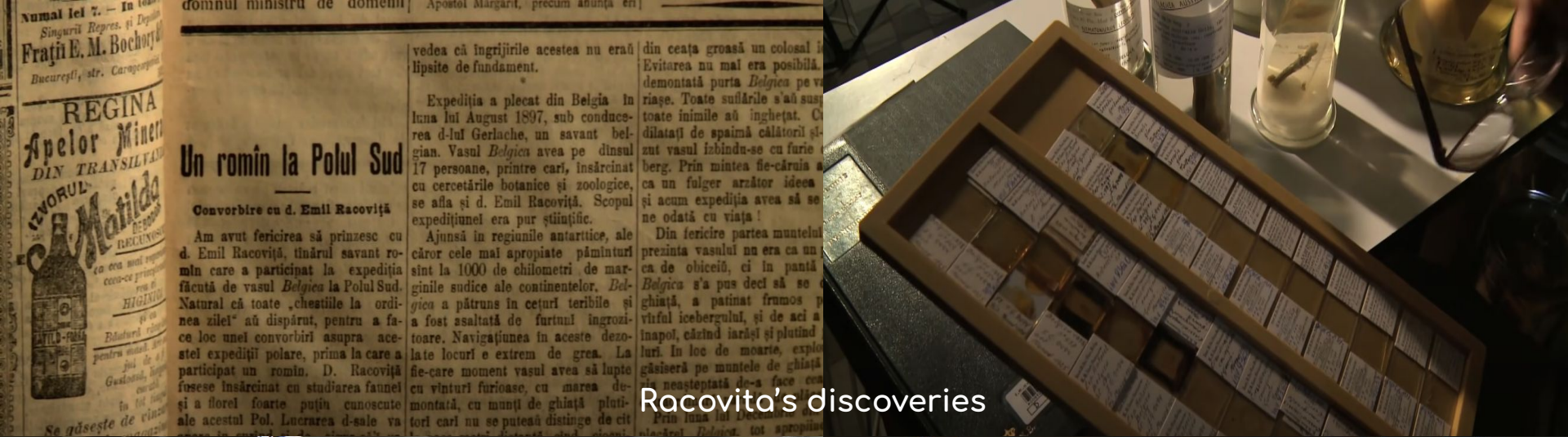


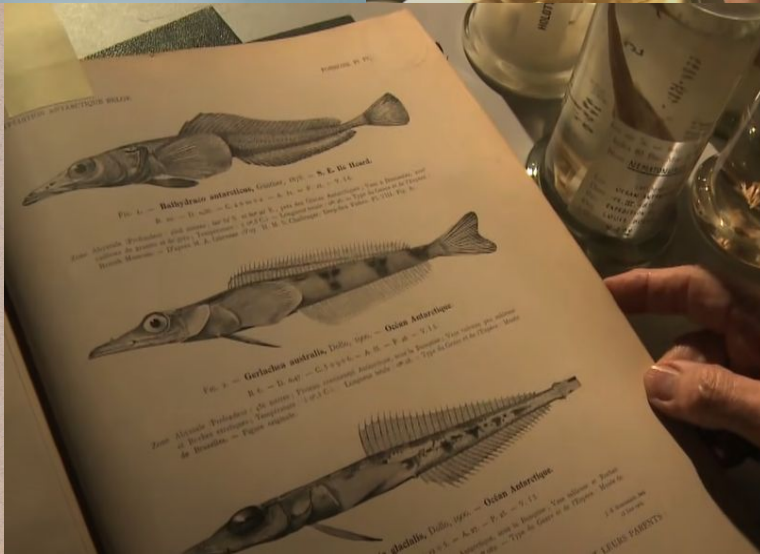
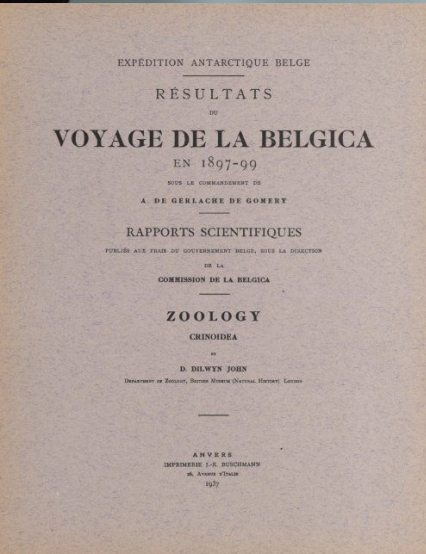
5 June 1898.



March 14, 1899







Racovita scuba diving

He studied animal behavior



Racovita's cave



The first living creature Racovita discovered in a cave



## Racovita's work on biospeology

ARCHIVES DE ZOOLOGIE EXPÉRIMENTALE ET GÉNÉRALE  
IV<sup>e</sup> Série, Tome VI, p. 371 à 488  
15 Mai 1907

### BIOSPÉOLOGICA

#### I ESSAI

### SUR LES PROBLÈMES BIOSPÉOLOGIQUES

PAR

ÉMILE G. RACOVITZA

Sous-Directeur du Laboratoire Arago (Banyuls-sur-Mer).

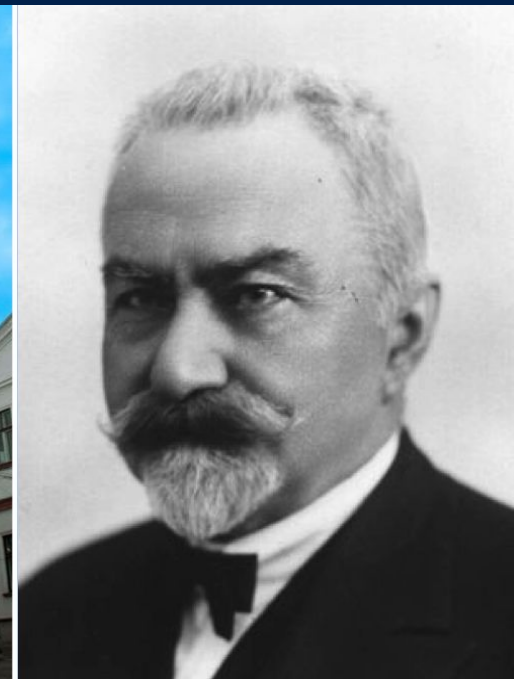
#### TABLE DES MATIÈRES

	Pages
AVANT-PROPOS .....	372
QUELQUES CONSIDÉRATIONS SUR LES PROBLÈMES BIOSPÉOLOGIQUES .....	383
I. Étendue du domaine souterrain .....	383
II. Conditions d'existence que présente le domaine souterrain .....	390
III. Influence exercée par ces conditions d'existence sur les Cavernicoles .....	400
IV. Caractères des Cavernicoles .....	426
V. Rapports de la faune cavernicole avec les autres faunes .....	427
VI. Classification des Cavernicoles .....	435
VII. Composition de la faune et de la flore cavernicole .....	438
VIII. Modalités de l'évolution des Cavernicoles .....	450
X. Distribution géographique des Cavernicoles .....	458
X. Origine des Cavernicoles .....	460
XI. Mode de peuplement du domaine souterrain .....	461
XII. Époque de peuplement du domaine souterrain et ancienneté des Cavernicoles .....	464
XIII. Modification et destruction du domaine souterrain et sort des Cavernicoles .....	476
AUTRES CITÉS .....	484

ARCH. DE ZOOLOG. EXP. ET GÉN. — 4<sup>e</sup> SÉRIE. — T. VI. — (VII).

27

## The speleology institute



# Discoveries in the Black Sea





Map of the Black Sea, the cave highlighted

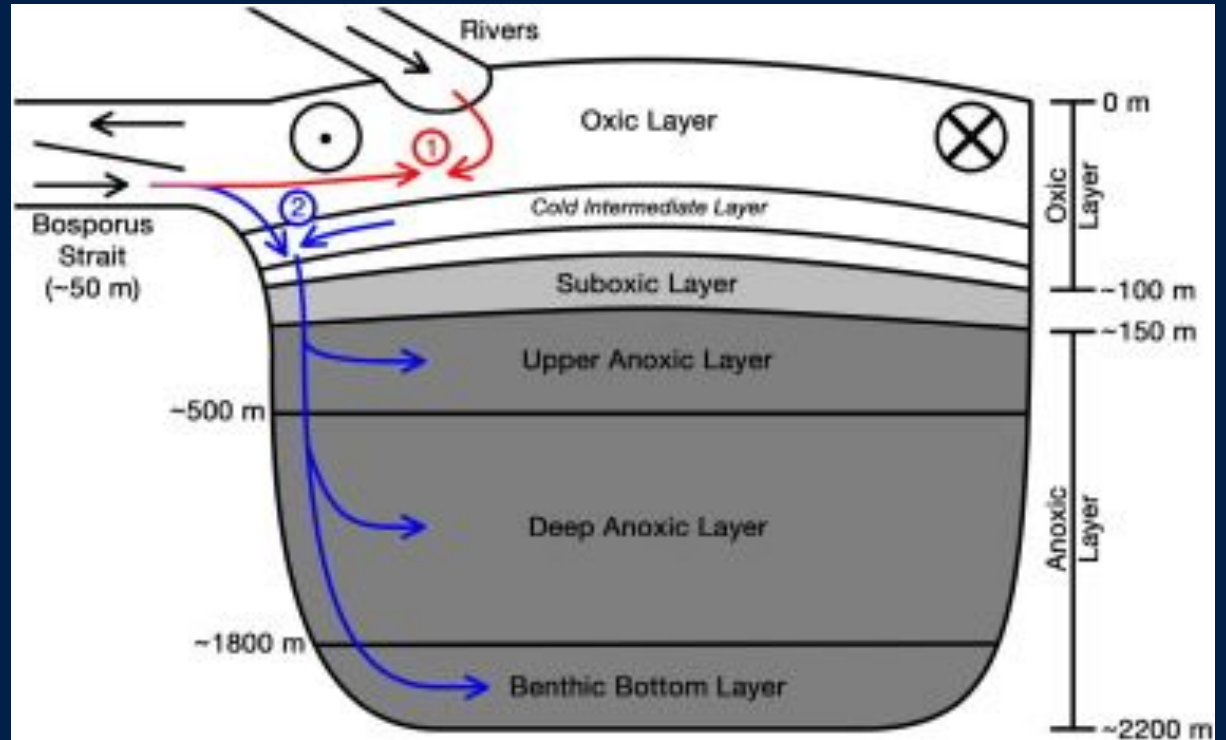
Colourless, blind isopod  
inside the cave



A water scorpion eating the isopod in  
the Movile Cave



# Layers of the Black Sea





Phytoplankton blooms,  
NASA



Adapted angler fish

# Let's see what you remembered!

- Who was the one that spoke Romanian, German, English, Yiddish, Spanish, Portuguese and French?
- What unique characteristics do the creatures in Movile cave have?
- Who extracted 1kg of gold daily?
- Who explored Antarctica for the first time?
- Where can you find Movile cave?
- Who first interacted with penguins?



Erasmus+

Connecting Seas

### **Acknowledgements:**

This study was carried out within the  
Erasmus+ Connecting Seas KA229

- School Exchange Partnerships

No.: 2019-1-RO01-KA229-063231\_1

“The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the National Agency and Commission cannot be held responsible for any use which may be made of the information contained therein.”

