



Topic summary:

The Mediterranean Sea has been a natural and economic resource. Throughout its history, it has had a significant influence on the creation of a common cultural heritage. In terms of sustainability, the rapid and progressive transformation of the world into globalization has modified geographical spaces, ways of life, economy, environment, etc., which has irreversibly and substantially affected cultural heritage.

Main concepts covered:

- * Mediterranean cultural circle
- * Mass tourism vs. sustainable tourism
- * Air pollution
- * Sea level rise
- * Degradation / destruction of cultural heritage
- * Loss of ancestral trades related to the sea
- * Food
- * Art and Literature

Transversal competencies acquired:

- * Communicating orally / writing in mother/foreign language
- * Managing information
- * Mobilizing reasoning
- * Mobilizing computer / digital skills
- * Respecting a framework and instructions.
- * Knowing how to work in a group.
- * Knowing how to adopt according to the difficulties



Definition of key notions:



Mediterranean Cultural Circle:

A Mediterranean cultural identity emerged in the territory of the geographical region of the Mediterranean, recognizable in its material and spiritual contents.



Mediterranean acculturation:

Changes in values, behaviors and consumption patterns in order to imitate residents of the hosting society: Mercantilization of traditions, cultural clashes, loss of ancestral trades, food, etc.



Degradation / destruction of heritage:

The increase in pollution levels in recent years (due to human activities) is one of the main causes of the deterioration of historical monuments and buildings in the world.



 Introduction of the topic:

The Mediterranean environment, which includes a balance between natural features and human intervention in space, has been rapidly changed and dissolved in recent times. This is due to a changed lifestyle and the development of technology. Changes occur in natural habitats and ecosystems, but also in lifestyles, culture, economy, diet, language, etc.

Accelerated technological advancements have changed people's habits and mindsets. Until recently, people were relying on their strengths and resources. They used resources from their immediate surroundings to survive and acquire goods. The environment was carefully guarded and maintained knowing that a preserved environment is a condition of their survival.

On the one hand, modern technical and technological capabilities have made products from the farthest corners of the globe available to people at reasonable prices. On the other hand, the obligation to preserve an environment was abandoned. The environment ceased to be a condition of survival. The modern society is based on a model of "everything is available", so they have lost their sense of obligation to the nature and the environment.

Throughout history, our ancestors have been forced to conserve and exploit ecosystems with modest technical means. They have created products and developed specific skills, bringing to traditions by which particular areas are recognized.



Is the cultural heritage a material and immaterial reflection of cultures in the context of the Mediterranean, in a continuous flow of economic, social, cultural relations, etc.

Technological advances, rapid population growth, globalization and in general, the rapid and progressive transformation of the world has modified borders, ways of life, economy, natural environments, language, food, culture... directly affecting sustainability and by extension the cultural heritage of the Mediterranean.

1. Mass tourism vs sustainable tourism

In the last 50 years, we have seen how the tourism phenomenon has grown worldwide. The Mediterranean is one of the regions subject to this so-called mass tourism. This is a phenomenon of such magnitude and with such rapid expansion that it could not but generate an impact. This impact can be classified as economic, environmental and socio-cultural.

At a socio-cultural level, the following can be emphasized: the deterioration of historical sites and archaeological monuments; the acculturation: changes in values, behaviours and consumption patterns with the aim of imitating the residents of the host society; the commodification of traditions; the cultural shock.

2. Air pollution

The air pollution can be translated as high levels of pollution, or acid rain (for example city traffic degrading the facades of stone and marble buildings, sculptures...)

The increase in pollution levels in recent years is one of the main causes of the deterioration affecting historical monuments and buildings around the world. The cost of removing the filth is raised to the point of endangering cultural heritage. Air pollutants emitted mainly by industry and transport impact greatly on the deterioration of many materials used in cultural monuments. Polluted air in cities is filled with particles and gasses, gradually destroying the materials historical monuments are made of, acid rain and soot being the main destructive elements. This damage does not only affect their appearance but also their structure, causing swelling and contributing to the breakdown of the stone (for example the Acropolis in Athens, Greece, is made of marble, which is very susceptible to surface degradation even at very low levels of acid rain; the marble frieze panels of the Parthenon have been chemically transformed and numerous pieces have begun to crack and fall).

3. Rising sea levels

Dozens of Mediterranean coastal towns declared as world culture heritages are in danger. A study in Nature Communications¹ shows that these sites, for the most part, are threatened by the sea level rise, one of the consequences of global warming. The investigation evaluates how this factor combined with extreme weather events can lead to increased erosion and flooding along the coastlines. According to the study, the countries with the highest percentage of the world heritage sites threatened by the rising sea levels are Italy, Croatia, Greece and Tunisia. In Spain they have looked at Tarragona and also the Tramuntana mountain range in

¹ Lena Reimann, Nature Communications volume 9, Article number: 4161 (2018). Department of Geography, Kiel University, Kiel, Germany.

Mallorca. In the case of the Tramuntana, research indicates an especially high rate of exposure to erosion.

4. Degradation/destruction of cultural heritage environments

The rapid and progressive transformation of rural, cultural and urban landscapes, ways of life, economic factors and the natural environment can substantially and irreversibly affect the heritage or an area of heritage value (for example construction work or communication routes near sites, monuments and heritage areas).

Managing change in heritage environments, sites and areas does not necessarily mean avoiding or impeding change. Such management must define how such changes should be implemented and actions necessary to assess, measure, avoid or remedy degradation or loss of significance, and propose improvements related to conservation, management and interpretation resources.

5. Loss of ancestral skills related to the sea

Many of the ancestral skills directly related to the sea or the maritime environment are in decline and are destined to disappear. Some of them due to technological progress and others due to the economic crisis, others due to the change in non-sustainable economic models increasingly aimed at the tertiary sector. Undoubtedly, this also plays a fundamental role in the pollution of the seas (mainly caused by plastics and spills, and how this affects marine species).

Among the ancestral skills, some stand out, such as artisanal fishing, net weaving, trades related to the fish processing industry (salted fish, pickled fish) and trades related to the boat building, such as traditional shipbuilders and caulkers.

6. Food

This point deals with the overexploitation of fishery resources, food waste due to discarding of fish and quotas imposed by the EU and climate change that affects traditional Mediterranean crops through droughts, the advance of desertification, the wearing away of soil, etc.

7. Art and literature

It is apparent that the Mediterranean has undergone significant changes throughout history. Examples of these changes are found in various literary works and through their authors, who were inspired by the Mediterranean. Different intellectuals, who either lived in the Mediterranean, or settled in the region, have provided important sources of information, in the form of travel guides and nature guides, novels, poetry, paintings, engravings and so on. Thanks to this information, we can see the transformation of the Mediterranean: demographic pressure, degradation of landscapes (construction along the coastal regions, urban disorder...), sea pollution, overexploitation of marine resources, a loss of ancestral trades and crafts...



Position of the topic in the school program:

	11	12	13	14	15	16	17
Mother / Foreign language / Litterature	X	X	X	X	X	X	X
History	X	X	X	X	X	X	X
Geography	X	X	X	X	X	X	X
Mathematics							
Biology / Geology	X	X	X	X	X	X	X
Physic / Chemistry							
Social Science / Economy / Law							
Art / Musics	X	X	X	X	X	X	X
Technology / Computer science							



Ressources:

- Reimann, L., Vafeidis, A.T., Brown, S. et al. Mediterranean UNESCO World Heritage at risk from coastal flooding and erosion due to sea-level rise. Nat Commun 9, 4161 (2018).

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