

FACT SHEET: Multilateral underwater archaeological mission under the auspices of UNESCO on the Skerki Bank and in the Sicilian Channel

Two independent projects within a mission:

- "The Skerki Bank, Tunisian continental shelf"
- "In the footsteps of Ballard-McCann, Italian continental shelf".

Location: Italian continental shelf, Tunisian continental shelf, Strait of Sicily / Canal Cap-Bon, Mediterranean Sea

- This mission, conducted under the auspices of UNESCO in the framework of the 2001 Convention on the Protection of Underwater Cultural Heritage brings together Algeria, Croatia, Egypt, France, Italy, Morocco, Spain and Tunisia to explore and document their shared underwater cultural heritage.
- Due to the particular geological features of the Skerki Bank, hundreds of ships have been wrecked there over the last 3000 years (estimation to be considered with care).
- Underwater heritage is vulnerable to exploitation, trawling and fishing, trafficking and the impacts of climate change, therefore this mission aimed to demarcate the precise zone in which many shipwrecks lie, and to document all the artefacts.

Key messages

1. It is the largest and most ambitious international mission ever conducted under the aegis of UNESCO to protect underwater cultural heritage.
2. This mission was made possible in the framework of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage.
3. The mission aims to study and protect underwater cultural heritage in Mediterranean waters.
4. It also aims to foster a sense of shared heritage amongst the Mediterranean people.
5. The UNESCO mission consisted of two stand-alone projects:
 - a. "The Skerki Bank, Tunisian continental shelf"
 - b. "In the footsteps of Ballard-McCann, Italian continental shelf".

Geography and History of the area

The Skerki Bank is located on the Sicilian Channel, in the Strait of Sicily in the Mediterranean Sea. Over the centuries, this area has played an essential role in the military, commercial, cultural and religious dialogue of the Mediterranean basin.

As it is located between the western and eastern basins of the Mediterranean and the south and the north of this sea, it is a point of contact between many cultures of the Mediterranean. It is located on a very busy maritime trade route from the Antiquity to today; it has also been at the center of several wars.

- It is bordered by Sicily in the north and the Tunisian coast to the south-west, and extends approximately 200 nautical miles in length.

- At points it is 1000 meters deep (for example, off the island of Pantelleria).
- It is 145 kilometers wide at its narrowest point - between Cape Feto, near the Sicilian town of Marsala, and Cape Bon in the Tunisian governorate of Nabeul.
- It creates a natural bottleneck for seagoing vessels in the Mediterranean.
- It is a shipping route, and an area of major strategic importance, which every conqueror aspired to control in ancient times, or at least to keep open to ensure the free movement of people and goods.
- The area is littered with underwater volcanoes, six of which have only recently been discovered. They lie less than twenty-five kilometers from the shores of Sicily in the north-western area of the channel.
- The area is strategically important from an environmental point of view, as it is the ideal border between the eastern and western basins of the Mediterranean. It is also a major breeding ground for several fish species.

One of the busiest maritime routes in the Mediterranean

- This shipping channel has, at times, been one of the busiest in the world. In ancient times, it was a direct maritime route between Carthage and Rome.
- In the early medieval period, it was a hub for trade between the Fatimids in Sicily and the North of Africa.
- In more recent times, it was the scene of several battles, especially during the Second World War.
- It hosts a dense fish population that has always attracted fishermen from Tunisia and Sicily, Italy.

A perilous historic route (Tunisian continental shelf)

- Rocky features bar the western entrance to the channel on the Tunisian side.
- The ridge is composed of sandstone and limestone, and runs from the north-east to the southwest, marking the meeting point between the Sardinia Channel, to the west, and the entrance to the Sicilian Channel.
- Swept relentlessly by opposing currents, flowing west to east at the surface but east to west in the depths, it extends over almost fifty kilometers.
- In addition to the heavy breakers and swells generally associated with a dramatic rise in the seabed, several rocky elevations under the surface accentuate the natural hazards of this marine area.
- There are several rocky elevations, from west to east:
 - in the south-west, **Hecate Patch** which extends almost three nautical miles in a succession of ridges, valleys and canyons;
 - in the centre, **Keith Reef** which extends two nautical miles and is the most treacherous part of the Skerki Bank, because one of its elevations, invisible under the water, almost reaches the surface;
 - to the north-west of Keith Reef, **Biddlecombe Plateau** features rises in the seabed and dizzying sheer drops;
 - to the north-east and closer to Sicily, **Silvia Knoll** is an extensive plateau comprising long ridges and peaks which rise up to heights of twenty metres below the surface.
- Ships were lost during the two world wars, notably during the Battle of Skerki Bank on 2 December 1942 when some ships were sunk by acts of war.

Dozen of wrecks have already been located in the area of the Skerki Bank, including four which were sunk during the Second World War and two during the Great War of 1914–18.

However the area has also been an easy target for looting

- Since the 1960s, when SCUBA diving equipment became widely available, amateur divers have occasionally explored the waters.
- As soon as the first discoveries became common knowledge (in the 1970s and 1980s) they were followed by raids. Divers searched for valuable historic artefacts that had lain among the wrecks for generations.
- Because the wrecks were outside of territorial waters, they were unprotected, meaning looting was common.

In the footsteps of Ballard-McCann (Italian continental shelf)

Some shipwrecks were rediscovered by American archaeologists Robert Ballard & Anna Marguerite McCann (1988 - 2000). These missions comprised:

- 10 years of research
- 4 expeditions

They located:

- 8 stranded wrecks from Antiquity to the end of the 19th century
- 1 ancient trade route on the high seas between ancient Carthage and Rome

And represented a new step in the history of deep underwater archaeology.

Now, the Skerki Bank and the area of the wrecks discovered during the Ballard-McCann expeditions will be protected within the framework of UNESCO's 2001 Convention

2022: the Skerki Bank Mission under the aegis of UNESCO – an unprecedented joint underwater archaeological survey

Actions included:

- Estimation and mapping of the underwater cultural heritage;
- Definition of potential and delimitation of the main/central protection "zone" for the archaeological heritage of the Skerki Bank;
- Training of experts and professionals in the methods of underwater archaeological surveys;
- Condition report and documentation of the conservation of some wrecks observed by the US scientific mission more than 20 years ago;
- A survey of shallow sites that may have been looted;
- Preparation of a framework for the protection and enhancement of the area's heritage;
- Establishment of a good practice in the implementation of the Convention to demonstrate its operationality, effectiveness and development of a model procedure applicable to other cases of cooperation on underwater cultural heritage elsewhere in the world.

Itinerary of the joint mission: 21/08 – 06/09

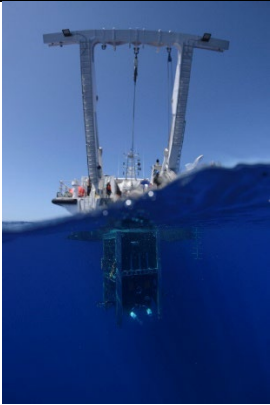
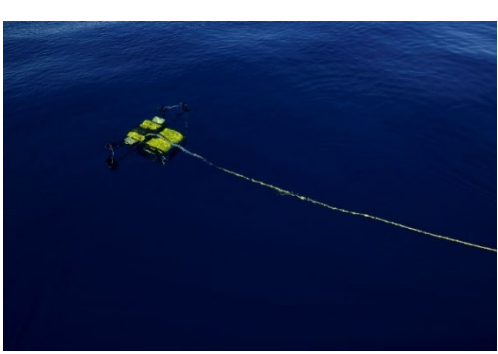
- 21/08 - Departure from La-Seyne-sur-Mer, France (near Toulon)
- 23/08 - Stopover in Trapani, Italy – board the remaining scientific staff
- 24/08 to 27/08 – Underwater survey project on the Italian continental shelf to report and document the conservation of some shipwrecks observed by the American missions led by Robert Ballard & Anna Marguerite McCann (1988 – 1997)
- 28/08 to 3/09 - Underwater survey project on the Skerki Bank area (Tunisian continental shelf) to estimate, map and document the underwater cultural heritage
- 4/09 to 6/09 – Return to La-Seyne-sur-Mer

Technical and financial means for the mission

This project is made possible thanks to the financial and technical support of France who provided its unique state-of-the-art research vessel *Alfred-Merlin* with high-tech equipment, in addition to the knowledge and experience of its technicians and scientific experts on board. Croatia, Italy, Morocco and Spain are also financially contributing to the project and the mission. Italy also provided substantial logistical support with the support of Carabinieri naval units to ensure the rotation of staff in the various work shifts. Tunisia has provided logistical and technical support during operations on its continental shelf.

Methodology of the mission

The interventions were carried out by high-tech instrument, ROVs (Remotely Operated underwater Vehicles). Underwater robots enabled the documentation, assessment, and mapping of the underwater cultural heritage. The methodologies were adapted to the specific goals set for the two areas surveyed.

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<p>On the Italian continental shelf, the robot Arthur, weighing less than 80kg, capable of going up to 2500 meters deep with very powerful lights.</p>		<p>On the Tunisian continental shelf, the robot Hilarion, designed for photography and video up to 500m deep, collected exceptional images of these unexplored wrecks.</p>	

Designed and built in collaboration with Vincent Creuze of Montpellier Laboratory of Computer Science, Robotics and Microelectronics (LIRMM), ROV Arthur was used to document shipwrecks on the Italian continental shelf.

On the Tunisian continental shelf, the research was articulated in two phases. A first large-scale survey of the seabed to a depth of about 130 m was carried out with the multibeam radar. 10 km² of surface were thus covered on the bank, including an area of 2 km² surveyed in high definition. Then, the Hilarion robot, capable of underwater exploration to a depth of 500 m, verified and documented a series of targets detected in the newly mapped area.

Results of the mission

Condition report and high resolutions images (Italian continental shelf)

Arthur documented 3 roman shipwrecks discovered by the American expeditions (Ballard-McCann) in the 1990s. Archaeologists found that the state of conservation of these shipwrecks and artefacts is almost the same as it was nearly 30 years ago; they have not been impacted by sedimentation, bioerosion or human activities (fishing nets, etc.).

The new data allows for higher resolution photos and videos that help to characterize and date the ships' cargo. Documenting these sites, has uncovered substantial new evidence.

3 new shipwrecks documented (Tunisian continental shelf)

On the Tunisian continental shelf, the archaeologists used the robot Hilarion to verify and document the targets of the newly mapped area. The seabed was also explored with multibeam sonar to give more information about this area, which was unknown and dangerous for navigation, and on the potential location of other archaeological remains.

Around Keith Reef, a detailed bathymetric map of the seabed was produced for the first time, highlighting traces of underwater cultural heritage.

This allowed the scientific and technical team to document 3 new shipwrecks dating from the Ancient to the Modern period (C19th), as well as several other areas of archaeological interest.

24/08 to 27/08 – Underwater survey mission on the Italian continental shelf - condition report

	Wreck G
Depth	750 m
Localisation	Italian continental shelf
Date	1 st century AD
Identity (hypothesis)	Medium-sized merchant ship
Cargo	Common wares + amphoras (Neo-Punic, Dressel 28, Sicilian flat-bottomed, Dressel 2, etc.)
History	Merchant ship sailing among various ports in the West Mediterranean

	Wreck F
Depth	760 m
Localisation	Italian continental shelf
Date	1 st century AD
Identity (hypothesis)	Modest merchant ship
Cargo	Amphoras (Neo-Punic, Tarraconensis, Dressel 2, Baetican Dressel 9, Sicilian flat-bottomed, North African flat-bottomed) + common wares + heavy cargo of high-quality building stone (granite) + probably supplementary cargo of some organic substance (lost) + household ceramics.
History	Modest merchant ship serving a variety of smaller markets around the West Mediterranean

	Wreck D
Depth	850 m
Localisation	Italian continental shelf
Date	1 st century BC
Identity (hypothesis)	Medium sized Roman cargo ship
Cargo	Amphoras (at least 12 different types of amphoras – originating Italy, N. Africa, Greece, Gaul - Dressel 1 B, Koan-amphoras with double-rolled handles) + jugs + pots + common ceramics + lamps + stone weights Probably disappeared perishable cargo
History	Commerce in the Mediterranean Cabotage along the coast of Italy and West Mediterranean

28/08 to 3/09 - Underwater survey mission on the Skerki Bank area - Tunisian continental shelf – new discoveries)




	SK 1
Depth	80 m – 90 m
Localisation	Tunisian continental shelf – Skerki Bank
Date (estimated)	End of the 19 th century – beginning of the 20 th century
Identity (hypothesis)	Large motorized metal wreck
Size	74 m long
Cargo	No trace of cargo, except for some block of rocks (perhaps a perishable cargo or navigating with no cargo)
History	<p>The first observations made on site do not make it possible to identify the wreck, but a search in the archives could allow its identification.</p> <p>The davits of the lifeboats on each side face outwards, indicating that the crew and possible passengers may have left the ship. There is no trace of any remaining lifeboat around the wreck.</p>




	SK 2
Depth	65 m
Localisation	Tunisian continental shelf – Skerki Bank
Date (estimated)	End of the 19 th century – beginning of the 20 th century
Identity (hypothesis)	wooden wreck (with no motor, at first glance)
Size	15 m long
Cargo	No cargo
History	Perhaps a fishing boat







	SK 3
Depth	65 m
Localisation	Tunisian continental shelf – Skerki Bank
Date (estimated)	End of the 1 st century BC – mid 2 nd century AD
Identity (hypothesis)	Merchant vessel
Size	15 m long – 5 m large
Cargo	Wine (?) amphoras (Dressel 2-4)

International cooperation & capacity building

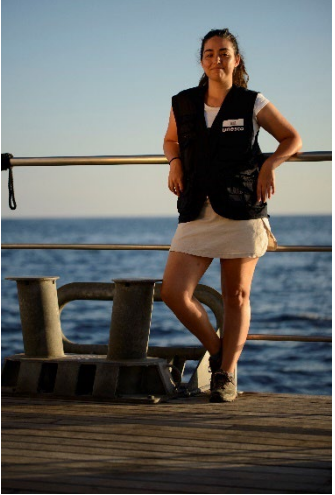
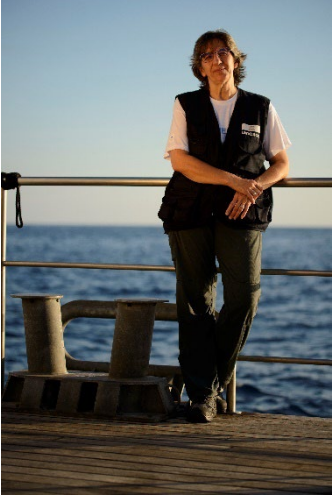


The Coordination Committee – the 8 countries represented			
Name	Institution	Country	Photo
Toufik Hamoun	Centre National de Recherche en Archéologie	Algeria	
Mladen Pešić	International Centre for Underwater Archaeology in Zadar	Croatia	
Emad Khalil	Alexandria University	Egypt	
Arnaud Schaumasse	DRASSM	France	
Alessandro Asta	Ministero della Cultura	Italy	

<p>Azzeddine Karra</p>	<p>Ministère de la Jeunesse de la Culture et de la Communication</p>	<p>Morocco</p>	
<p>Maria Agundez Leria</p>	<p>Ministerio de Cultura y Deportes</p>	<p>Spain</p>	
<p>Ahmed Gadhoun</p>	<p>Institut National du Patrimoine</p>	<p>Tunisia</p>	

The participants to the mission				
Name	Institution	Expertise / Role on board	Country	Photo
Franca Cibecchini	DRASSM	Underwater archaeologist / Head of mission	France	
Barbara Davidde	Director of the <i>Soprintendenza nazionale per il patrimonio culturale subacqueo</i>	Underwater archaeologist / Representative for the State coordinator during the operations on the Italian continental shelf	Italy	
Wafa Ben Slimane	Institut National du Patrimoine	Underwater archaeologist / Representative for the State coordinator during the operations on the Tunisian continental shelf	Tunisia	

Alison Faynot	UNESCO	Underwater archaeologist / coordination	UNESCO	
Bensalah Nazim	Centre National de Recherche en Archéologie	Underwater archaeologist	Algeria	
Mohammed Fawzi MAALLEM	Faculté des Sciences Humaines et sociales - Université 8 mai 1945 Guelma	Underwater archaeologist	Algeria	
Mladen Pešić	International Centre for Underwater Archaeology in Zadar	Underwater archaeologist		
Roko Surić	International Centre for Underwater Archaeology in Zadar	Underwater archaeologist	Croatia	
Vincent Creuze	DRASSM	Robotist	France	

Denis Degez	DRASSM	Underwater archaeologist	France	
Sébastien Legrand	DRASSM	Professional Diver	France	
Michel L'Hour		Underwater archaeologist	France	
Sybil Thiebaud	DRASSM	Underwater archaeologist	France	
Alessandro Asta	Ministero della Cultura	Underwater archaeologist	Italy	
Ferdinando Maurici	Soprintendente del Mare (regione Siciliana)	Archaeologist	Italy	
Azzeddine Karra	Ministère de la Jeunesse de la Culture et de la Communication	Underwater archaeologist	Morocco	

<p>Marta Arcos García</p>	<p>Ministerio de Cultura y Deportes</p>	<p>Underwater archaeologist</p>	<p>Spain</p>	
<p>Rocío Castillo Belinchón</p>	<p>Museo Nacional de Arqueología Subacuática</p>	<p>Underwater archaeologist</p>	<p>Spain</p>	
<p>Chokri Touihri</p>	<p>Institut National du Patrimoine</p>	<p>Underwater archaeologist</p>	<p>Tunisia</p>	
<p>Ahmed Asser Abdallah</p>	<p>Ministère de la Défense</p>	<p>Hydrograph</p>	<p>Tunisia</p>	
<p>Aymen Zammit</p>	<p>Ministère de la Défense</p>	<p>Hydrograph</p>	<p>Tunisia</p>	

the Multimedia team in charge of covering the mission

Mathieu Pradinaud	Gédéon PROGRAMMES	Documentary film crew	France	
Manuel Añò	Gédéon PROGRAMMES	Documentary film crew	France/Canada	
Angel Fitor	http://www.seaframes.com/	Photographer	Spain	

and the Bourbon Offshore Surf crew.

